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Exploring and Modelling Resilience in Mothers of
Adolescents with Intellectual Disabilities in Thailand:
Multi-Method Approach

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Submitted in fulfilment of the requirements for the
Degree of Doctor of Philosophy

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Abstract

This thesis investigates the concept and experience of resilience among mothers of adolescents with intellectual disabilities (ID) in Thailand. This topic remains underexplored despite growing international attention to caregiver well-being. The caregiving journey for mothers of adolescents with ID is complex, particularly during adolescence, a developmental stage associated with increased behavioural challenges, emotional demands and growing concerns about the future. In Thailand, the cultural expectations of maternal caregiving, combined with limited disability support, intensify these challenges. This is the first known study to test McCubbin's model of resilience in this population and context, contributing original insights into the factors that shape and sustain resilience among Thai mothers of adolescents with ID.

This study aims to understand how resilience is developed and sustained in this population, identify key factors that influence it, and provide evidence-based recommendations to strengthen support mechanisms in the Thai context. Using McCubbin and McCubbin's Resiliency Model as a guiding theoretical framework, this study employs a multi-method approach that combines a systematic review, a quantitative survey, and qualitative interviews. The framework informs both the study's design and analysis, enabling a comprehensive exploration of resilience processes within this specific cultural and caregiving context.

This study comprises three methodologically distinct but conceptually related studies. The first component was a systematic review of peer-reviewed literature examining the factors associated with resilience in parents of children with ID. This review synthesised 27 studies, revealing that resilience is a multifaceted process influenced by both internal and external protective factors. Key factors include problem-solving, social support, self-efficacy, hope, parental health, educational socioeconomic stability, cultural beliefs, and religious faith. The findings emphasise that while adversity is a shared experience among parents of children with ID, Individuals' adaptation and thriving are shaped by personal and environmental resources.

The second component of this thesis was a quantitative study that examined McCubbin's model of resilience in Thai mothers of adolescents with ID. Using a cross-sectional survey design, data were collected from a sample of mothers at the Rajanukul Institute in Thailand. Standardised instruments were used to assess resilience through adaptation, perception of illness, perceived social support, coping, and caregiving burden. Statistical analyses, including Structural Equation Modelling (SEM), were used to examine the relationships among several key variables influencing maternal resilience. The results indicate that coping was associated with maternal resilience, suggesting that resilient mothers were more likely to adopt effective coping strategies. Social support was associated with maternal stress and resilience. Resilience was also associated with maternal stress. Debt and having a child with severe or profound ID significantly increased stress, highlighting socioeconomic and caregiving burdens as key sources of psychological strain. Furthermore, stress was positively associated with negative perceptions of ID, which also had a direct impact on coping and was influenced by the severity of the child's disability. The model in this study provides a valuable framework for informing interventions to support maternal resilience.

The third and final component was a qualitative study involving semi-structured interviews with 12 Thai mothers of adolescents with ID. Thematic analysis of the interviews revealed six overarching themes: (1) Becoming a mother of a child with ID, (2) Finding my way, (3) Navigating through the challenges, (4) Support system, (5) Holding on to faith, and (6) Forward-thinking strategies. Many participants acknowledged the emotional hardship and stigma associated with raising a child with ID, but also shared stories of personal growth, increased patience, and strengthened family bonds. Importantly, the qualitative findings highlighted how resilience is not a trait but a process continually influenced by shifting circumstances, relationships, and external support.

The findings from the three studies highlight that a complex interplay of personal and contextual factors shapes maternal resilience in caring for adolescents with ID. While some mothers demonstrate or develop strong internal coping strategies, others remain vulnerable due to limited social support, financial difficulties, and insufficient access to services. In Thailand, where formal caregiving support is limited and caregiving roles are heavily gendered,

mothers often shoulder the primary caregiving burden with limited external assistance.

This study makes several key contributions to the existing literature. First, it provides an integrated understanding of resilience among mothers of adolescents with ID, combining evidence from the global literature with data grounded in the Thai cultural context. Second, it offers a model of resilience that can inform early screening and the development of tailored support programs for mothers. Third, it provides rich qualitative insights that capture the lived experiences of mothers, offering a voice to a group that is often overlooked in research and policy discussions.

This study has important implications for nursing practice, mental health services, and policy development. In the future, interventions aimed at enhancing resilience in mothers of adolescents with ID must consider not only psychological strategies but also broader social and cultural determinants of resilience. Community-based support programs, caregiver education, and policies that promote inclusive health and education services can play a critical role in improving maternal well-being. Furthermore, acknowledging mothers' strengths and agency, rather than viewing them solely as vulnerable, can help build more respectful and effective support systems.

In conclusion, this thesis deepens the understanding of maternal resilience within Thailand's unique cultural and socioeconomic context, underscoring the importance of holistic, culturally tailored interventions. It lays the foundation for future research and practical initiatives to support caregivers in low- and middle-income countries, where such knowledge is urgently needed.

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List of Publications

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Author's Declaration

“I hereby declare that this thesis is entirely my own work, except for any contributions or support that have been properly acknowledged. This work has not been submitted previously, in whole or in part, for the fulfilment of any other degree or professional qualification at the University of Glasgow or any other academic institution.”

Wattana Tejakum

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Abbreviation

ADHD	Attention Deficit Hyperactivity Disorder
AGFI	Adjusted Goodness-of-Fit Index
ANOVA	Analysis of Variance
APA	American Psychiatric Association
ASD	Autism Spectrum Disorder
AVE	Average Variance Extracted
CFI	Comparative Fit Index
CI	Confidence Interval
CFA	Confirmatory Factor Analysis
CR	Composite Reliability
CVI	Content Validity Index
CVR	Content Validity Ratio
DD	Developmental Disabilities
DSM-5	Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition
EFA	Exploratory Factor Analysis
FDR	False Discovery Rate
FQOL	Family Quality of Life
GFI	Goodness-of-Fit Index
GLM	General Linear Model
ICF	International Classification of Functioning, Disability and Health
ID	Intellectual Disability
IDD	Intellectual and developmental disabilities
IQ	Intelligence Quotient
IRB	Institutional Review Board
KMUTT	King Mongkut's University of Technology Thonburi
MOE	Ministry of Education
MOI	Ministry of Interior
MOPH	Ministry of Public Health
NHSO	National Health Security Office
OR	Odds Ratio

PCA	Principal Component Analysis
QOL	Quality of Life
RMSEA	Root Mean Square Error of Approximation
SD	Standard Deviation
SEM	Structural Equation Modeling
SCT	Social Cognitive Theory
SFL	Standardized Factor Loading
SPSS	Statistical Package for the Social Sciences
SRMR	Standardized Root Mean Square Residual
TD	Typical Development
TLI	Tucker-Lewis Index
UN	United Nations
UNICEF	United Nations Children's Fund
WHO	World Health Organization

Chapter 1 Introduction

This chapter provides an overview of the researcher's background and rationale, clarifying the significance of studying resilience in mothers of adolescents with ID. This chapter critically reviews the literature on resilience, caregiving and ID, and outlines the research objectives, questions, and overall structure of this thesis.

1.1 My Background and Motivation

This research was motivated by my personal and professional experiences as a mental health nurse working in child and adolescent psychiatric care in Thailand. After completing my bachelor's degree in nursing, I began my career at the Rajanukul Institute in Bangkok, a leading national centre for children and adolescents with developmental and intellectual disabilities. For over seven years, I worked in an inpatient psychiatric unit. I provided therapeutic care to young people with a wide range of mental health and behavioural challenges, including those with ID. My responsibilities included implementing structured programmes to support social, communication, and cognitive development, often delivered in close collaboration with families through individual and family-based interventions.

It was during this period that I became aware of the central role played by families, particularly mothers, in the long-term care and development of children with ID. Mothers were frequently the primary caregivers, managing not only the daily care but also the emotional and psychological strain associated with raising a child with lifelong needs. Through my clinical practice, I observed a variation in how mothers responded to these challenges. Some demonstrated extraordinary resilience, maintaining emotional stability, advocating strongly for their children, and adapting positively over time. Others, facing similar caregiving demands, experienced high levels of stress, emotional fatigue, and isolation. These differences prompted a deep interest in understanding the factors that contribute to maternal resilience in the context of ID.

My transition from clinical nursing to academia was driven by a desire to deepen my understanding and improve care practices through research and education. I was awarded a Thai government scholarship to pursue advanced studies abroad. My MSc in Clinical Nursing at King's College London provided a solid foundation in research methodology and specialised knowledge of Child and Adolescent Mental Health (CAMH), further enriching my understanding of assessment and treatment in this field. This course not only strengthened my understanding of the complexities of mental health care but also affirmed my commitment to addressing the needs of families affected by developmental disabilities through research and evidence-informed practice.

In Thailand, there is a strong cultural expectation that families, particularly mothers, should take full responsibility for the care of children with disabilities, coupled with limited access to formal support services, which places a disproportionate burden on mothers. The adolescent stage presents additional developmental, behavioural, and social challenges that increase caregiving demands and uncertainty about the future. Despite this, research exploring resilience in Thai mothers caring for adolescents with ID remains limited.

These personal and professional experiences motivated me to pursue a PhD exploring resilience in mothers of adolescents with ID. I was particularly drawn to the use of McCubbin's Resiliency Model to understand how mothers cope, adapt, and find strength amid ongoing adversity. This research is not only an academic endeavour for me but also a deeply meaningful opportunity to give voice to the lived experiences of Thai mothers, whose strength and dedication often go unrecognised.

By identifying factors that promote or hinder maternal resilience, I hope my work will contribute to the development of culturally responsive interventions in nursing practice and policy, ultimately improving support for families of adolescents with ID in Thailand. My long-term goal is to return to Thailand as a nursing academic, where I can continue to research, teach, and advocate for mental health support that empowers families and improves child outcomes.

1.2 Intellectual Disability

1.2.1 Definition

Intellectual disability (ID) is a neurodevelopmental condition characterised by significant limitations in intellectual functioning and adaptive behaviour, with onset during the developmental period (Patel et al., 2020; WHO, 2022). While this core concept is widely accepted, the terminology and definitions have evolved across diagnostic systems. Historically, terms such as “mental retardation” were used in clinical settings, such as the World Health Organization’s ICD-10 (WHO, 2016).

However, owing to changing attitudes and the pejorative connotations of older terms, contemporary classifications have adopted updated terminology. The ICD-11 (released 2018) replaced “mental retardation” with the term “disorders of intellectual development”, defined as a group of developmental conditions characterised by significantly below-average intellectual functioning and adaptive behaviour (approximately two or more standard deviations below the mean) with onset in the developmental period (WHO, 2022). Likewise, the DSM-5 (2013) uses the term “intellectual disability (intellectual developmental disorder)”, explicitly aligning with modern usage by the WHO, the American Association on Intellectual and Developmental Disabilities (AAIDD), Intellectual developmental disorder (IDD), and the American Psychiatric Association (APA) (APA, 2013; Schalock et al., 2021). The DSM-5 definition emphasises deficits in general mental abilities and adaptive functioning across conceptual, social, and practical domains, with onset during childhood or adolescence (APA, 2013).

Importantly, the DSM-5 moved away from a strict IQ-based threshold and instead requires that severity be determined by impairments in adaptive functioning in daily life (APA, 2013). The AAIDD, a leading authority in this field, similarly defines ID as “a condition characterised by significant limitations in both intellectual functioning and adaptive behaviour that originates before the age of 22 (Notably, AAIDD historically used an age cutoff of 18, but now extends the developmental period to 22, reflecting evidence of ongoing brain development into early adulthood) (Schalock et al., 2021). Despite minor nuances, these

definitions converge on the key criteria of significantly sub-average intellectual capacity, deficits in adaptive skills for daily living, and onset in childhood.

In addition to formal definitions, it is important to clarify the overlapping terms in the literature. Developmental disability (DD) is a broader concept often used in health and education contexts to denote any long-term disability originating in childhood that can cause physical and/or intellectual impairments (e.g. autism, cerebral palsy, and ID all fall under DD) (Patel et al., 2016; Tassé et al., 2025). ID is one of several conditions known collectively as DD (APA, 2013). In other words, all individuals with ID also have DD.

The term learning disability (LD) has divergent meanings internationally. In the United Kingdom (UK), “learning disability” is used synonymously with ID (implying global cognitive and adaptive impairment) (Horridge, 2020; Nevill & Havercamp, 2013). In contrast, in the United States, “learning disabilities” typically refer to specific learning disorders (such as dyslexia or dyscalculia) that affect particular academic skills but do not necessarily involve global intellectual limitations (Fletcher & Miciak, 2024). This discrepancy can confuse the literature. For clarity in this thesis, ID is the preferred term, reflecting the international consensus towards respectful and precise language.

ID is defined by significant cognitive and adaptive limitations that originate in youth and is recognised by major authorities (WHO, APA, AAIDD) under unified criteria, despite varying terms. Researchers and practitioners must be aware of terminological variations (ID vs. DD vs. LD) to correctly interpret the literature and communicate effectively across different contexts (Tassé et al., 2025).

1.2.2 Prevalence

ID affects a significant minority of people worldwide. It is estimated that approximately 1% of the global population has ID (Maulik et al., 2022; Maulik et al., 2011; McKenzie et al., 2016). Large-scale studies have supported this estimate over recent decades. For instance, a comprehensive meta-analysis of 52 population-based studies (from 1980-2009) found a prevalence of approximately 10.37 per 1,000 people, or roughly 1%, with approximately 85%

classified as mild, 10% moderate, 4% severe, and 2% profound (Maulik et al., 2011).

More recent estimates suggest that in 2019, 107.6 million individuals globally, around 1.39% of the population, had ID, with a slightly higher prevalence in males (1.42%) compared to females (1.37%) (Nair et al., 2022). However, prevalence rates vary depending on the definition of ID (McConkey et al., 2019; Rosencrans et al., 2021), methodological differences, and demographic factors (Maulik et al., 2011; Morinaga et al., 2024). In Sweden, the prevalence among 10-year-olds increased from 0.64% in 2011 to 1.00% in 2021, with most cases being mild or moderate (Morinaga et al., 2024). In Scotland, the 2011 census found a prevalence of 0.5% (Hughes-McCormack et al., 2018).

Notably, ID prevalence tends to be higher in low-and middle-income countries, almost double that of high-income countries, likely reflecting greater exposure to risk factors such as perinatal complications, malnutrition, and infections, as well as differences in reporting and diagnosis (Maulik et al., 2022; McKenzie et al., 2016). Prevalence also varies by age group; studies focusing on children and adolescents report rates between 0.22 - 1.55 (Houtrow et al., 2014; Van Naarden Braun et al., 2015), whereas adult-focused studies show lower rates of 0.05 - 0.08% (Haider et al., 2013; Lin et al., 2013). The discrepancy may result from milder cases achieving greater independence going unrecognised in adulthood, and from higher mortality among severe cases, reducing the prevalence among older adults. In addition, advances in medical care have increased survival into adulthood among children with ID, which may explain observed differences in prevalence across age groups (Maulik et al., 2022).

In Asia, a wide range of prevalence of people with ID (0.05 - 1.3%) has been reported, with China as an outlier at 6.68% (Jeevanandam, 2009). In Thailand, the prevalence data on ID are less precise and vary by source (Jeevanandam, 2009; Udom, 2002). Estimates tend to fall on the lower end of the global range, potentially due to under-identification (Udom, 2002). A rural community survey from the early 1090s found a childhood disability prevalence of 1.2%, with ID (then termed “mental retardation”) among the more common categories after motor and communication impairments (Pongprapai et al., 1996). The Foundation for the Welfare of the Mentally Retarded of Thailand (2007) reported

ID prevalence at about 1% (Havananda, 2007). Meanwhile, the Rajanukul Institute, a centre specialising in ID, has reported prevalence estimates ranging from 0.4% to 4.7%. The variation in the reported prevalence of ID was influenced by how the data were collected and analysed (different research methods or criteria can yield different results) (Rajanukul Institute, 2024; Udom, 2002).

The National Statistical Office's 2017 Disability Survey, which used standardised measures for child functioning, identified approximately 140,000 children aged 2-17 in Thailand with some form of disability (Unicef, 2021). Given the total child population, this implies that around 1% of children have a disability, including intellectual and developmental disabilities (IDD).

Official government data from the Department of Empowerment of Persons with Disabilities reported 147,137 people with ID in Thailand, about 0.22% of the population of 66.09 million (Department of Empowerment of Persons with Disabilities, 2023). This wide range suggests that smaller localised studies tend to report higher prevalence, whereas official registration figures are lower. One possible explanation is that not all people with ID are officially registered, as registration is typically limited to those who identify as persons with a disability.

Prevalence estimates of ID in Thailand vary by data source and data collection method. Official registration figures are derived from national disability registration systems and typically report lower prevalence rates because registration is voluntary and contingent on families' access to services or their formal identification as having a disability (Department of Empowerment of Persons with Disabilities, 2023). As a result, these figures likely underestimate the true prevalence due to under-registration, particularly among families in rural areas, those with limited access to services, or those who do not perceive registration as beneficial.

In contrast, population-based surveys tend to report higher prevalence estimates because they employ broader screening criteria and include individuals who may not be formally registered or engaged with disability services (Havananda, 2007). These methodological differences help explain discrepancies between official registration data and survey-based prevalence estimates and highlight the challenges of accurately estimating the prevalence of ID in Thailand.

Most high-income countries report mental health outcomes more consistently than low- and middle-income countries due to stronger surveillance systems, wider access to diagnostic services, and more systematic data collection, whereas under-reporting in LMICs is common because of limited resources, inconsistent registration, and stigma.

1.2.3 Causes of Intellectual Disability (ID)

The causes of ID are diverse and encompass genetic and environmental factors (Ilyas et al., 2020). In many mild cases, no specific cause can be identified. Globally, it is estimated that genetic and chromosomal conditions account for approximately 25-50% of identified cases of ID, while environmental factors contribute to a further 10-30%, with the remaining cases having no clearly identifiable cause.

1.2.3.1 Genetic Causes

A significant proportion of ID cases have a genetic basis. Well-known chromosomal disorders, such as Down syndrome (trisomy 21), are among the most common causes of ID (Lee et al., 2023). Down syndrome typically results in mild to moderate ID along with characteristic physical features.

Another prominent genetic cause is Fragile X syndrome, an X-linked disorder and the most common inherited form of ID (Patel et al., 2020). Males with Fragile X syndrome often present with moderate ID and distinctive behavioural features, while females are usually less severely affected (Jacquemont et al., 2014).

Other syndromes associated with ID include Rett syndrome, Angelman syndrome, Prader-Willi syndrome, Lesch-Nyhan syndrome, and numerous rare metabolic and neurogenetic disorders (Harris, 2018; Jinnah, 2009; Segawa, 2005). Advances in genomics have identified numerous single-gene mutations that lead to ID, particularly in severe cases. For example, inborn errors of metabolism, such as phenylketonuria (PKU), an autosomal recessive disorder that, if untreated, causes toxic phenylalanine buildup, can result in ID (Bayat et al., 2015).

Although many of these genetic conditions are rare individually, collectively they account for a significant proportion of ID cases, especially moderate-to-profound ID or cases with physical anomalies. The likelihood of identifying a specific genetic cause increases with severity: in mild cases, they often lack a definitive genetic diagnosis and may result from polygenic and environmental factors, whereas severe/profound ID cases frequently have identifiable biological or genetic causes (Patel et al., 2020).

1.2.3.2 Environmental Causes

A range of non-genetic factors that impact brain development can cause ID. Among prenatal causes, teratogens and maternal health conditions are critical. For example, maternal alcohol consumption during pregnancy can cause Fetal Alcohol Spectrum Disorders (FASD), with Fetal Alcohol Syndrome (FAS) being the most severe form, characterised by growth problems, facial dysmorphisms, and ID (Denny et al., 2017; Little et al., 2021).

Exposure to environmental toxins, including opioids, cocaine, certain medications (Little et al., 2021), mercury, arsenic, pesticides, and air pollution (Bellinger, 2019), can also disrupt neurodevelopment during pregnancy.

Maternal infections such as rubella, HIV, cytomegalovirus (CMV), toxoplasmosis, or Zika virus can cause ID, especially when infection occurs in early pregnancy and affects fetal brain development. For example, rubella infection in the first trimester of pregnancy leads to ID in 10%-15% of cases, increasing to 50% if the infection occurs during the first month (Biellik & Orenstein, 2018). Mother to child HIV transmission in infancy can cause encephalopathy, seizures, and ID through multiple mechanisms including microcephaly, immunosuppression, and *Pneumocystis jiroveci* pneumonitis infection (Mitchell, 2006). Other infections such as cytomegalic inclusion disease, syphilis, and toxoplasmosis are also known prenatal causes of ID (Gordon-Lipkin et al., 2021).

Perinatal factors, occurring around birth also contribute significantly to ID risk. These include maternal conditions like uncontrolled diabetes, malnutrition, and obstetrical complications (e.g. placenta previa, placenta abruption, and umbilical cord prolapse) and medical issues such as hypertension, asthma,

urinary tract infection, pre-pregnancy obesity, and pre-gestational diabetes (Huang et al., 2016; Li et al., 2016). Such complications can cause neonatal brain injury from anoxia or other insults, increasing the likelihood of ID. Postnatal factors during early childhood, such as severe brain infections (meningitis or encephalitis), traumatic brain injury, malnutrition, and exposure to harmful chemicals, can impair reduce cognitive development and contribute to ID (Camfield et al., 2014).

1.2.4 Degrees of ID Severity

ID is commonly classified by severity as mild, moderate, severe, or profound, which reflects the degree of intellectual impairment and the level of support required for daily life (WHO, 2022). While these categories simplify a complex continuum, they are useful for conveying the range of functioning among individuals with ID. Historically, severity was determined primarily by IQ score ranges (e.g. approximately 50-70 for mild, 35-50 for moderate, 20-35 for severe, and below 20-25 for profound) (Schalock & Luckasson, 2015). However, modern systems, such as the DSM-5, now prioritise adaptive functioning over IQ alone, recognising that ID does not fully capture an individual's practical, social, or conceptual skills (APA, 2013; Patel et al., 2020).

1.2.4.1 Mild ID

Mild ID represents over 75% of all ID cases and is frequently undiagnosed. Children with mild ID may learn to five or six years of age, after which developmental delays often become more apparent (Patel et al., 2020). It involves intellectual and adaptive functioning two to three standard deviations below the mean (WHO, 2022). Those with mild ID typically struggle with complex language and academic tasks but can develop skills equivalent to fourth-fifth grade level (age 9-11 years) with appropriate supports. They may to read, write, and do basic mathematics, enabling them to complete simple tasks such as writing notes or handling money (Patel et al., 2020; WHO, 2022). Despite acquiring many daily living skills, challenges remain in executive functioning (e.g. planning, abstract reasoning or prioritising tasks). Social understanding can be limited, leading to difficulties in interpreting social norms and behaviours (APA, 2013; Sarmiento & Lau, 2020).

Most people with mild ID can live independently with periodic support in areas such as money management, self-care, shopping and medical or legal decision making (APA, 2013; WHO, 2022).

1.2.4.2 Moderate ID

Around 10% of people with ID fall into the moderate range, often diagnosed between the ages of three and five years (Patel et al., 2020). Intellectual and adaptive functioning typically fall three to four standard deviations below the mean (WHO, 2022). Compared to children with mild ID, those with moderate ID exhibit a delayed pace of learning fundamental language abilities (WHO, 2022).

People with moderate ID face pronounced challenges in language acquisition, development, and the capacity to acquire and master academic skills. Significant difficulties arise in reading, writing, mathematics, and other skills that require an understanding of fundamental concepts. However, they can develop basic skills, such as reading sight words, copying information, and matching numbers to items, reaching academic skills equivalent to those found in early elementary school (6-8 years old) (APA, 2013; WHO, 2022). Socially, individuals with moderate ID struggle with communication, interaction, and understanding age-appropriate behavioural norms. Challenges in social decision-making and judgement contribute to the development of maladaptive behaviours (e.g. aggression, self-injury, social withdrawal), impacting their ability to navigate social interactions and relationships (APA, 2013).

Adults with moderate ID require significant ongoing support to maintain independence in daily life tasks and stay employed (Snell et al., 2009). Continued help and instruction may enable individuals with moderate ID to gain basic daily living and work-related skills. Ongoing supervision and direction are essential for both daily activities and job-related duties. Despite these challenges, a person with a moderate degree of ID may achieve relative independence in self-care and daily living tasks, including eating, dressing, eliminating, and maintaining personal hygiene (APA, 2013; WHO, 2022).

1.2.4.3 Severe ID

Severe ID affects roughly 4% of people with ID and is usually diagnosed before the age of three (Patel et al., 2020). Functioning is about four or more standard deviations below the mean (WHO, 2022). Severe ID is often accompanied by motor impairments and other co-occurring conditions. Adults typically function at a developmental level similar to that of a three and five year old and require continuous lifelong support (APA, 2013; WHO, 2022).

Language and communication abilities are very limited. Augmentative and alternative communication tools can support basic expression (APA, 2013; WHO, 2022). Understanding the abstract concepts such as time, money management, and problem-solving is minimal (APA, 2013; WHO, 2022). Social interaction is typically limited to family members and caregivers. Individuals with severe ID require intensive help with all daily activities and are highly dependent on caregivers. Maladaptive behaviours, including self-injury, may occur and require close management (APA, 2013; WHO, 2022).

1.2.4.4 Profound ID

Profound ID affects about 1% of and is usually recognised by the age of two (Patel et al., 2020). It is identified by intellectual and adaptive functioning that is approximately four standard deviations or more below the mean (WHO, 2022). Individuals with profound ID typically function at a mental age of approximately three years and necessitate intensive, pervasive support across all environments. They face significant limitations in terms of self-care, continence, communication, and mobility. Some may require complete custodial or nursing care, relying entirely on others for their care needs (APA, 2013).

Profound ID is often associated with other impairments, including motor and sensory abnormalities, which impact the learning and utilisation of motor, adaptive, and social skills in individuals with ID. Variations in adaptive behavioural restrictions largely distinguish individuals with profound ID (WHO, 2022). Individuals with profound ID encounter significant academic and conceptual difficulties. Those without accompanying motor or sensory impairments may, with extensive and consistent teaching and assistance,

develop some capacity for self-care (APA, 2013). Augmentative communication methods may also be used to facilitate nonverbal communication in some individuals. Communication with known individuals or caregivers may occur through gestures and facial cues (APA, 2013). Regular supervision is essential for individuals with profound ID, as they are entirely reliant on others for all aspects of their daily lives.

Severity classifications are not standardised across systems. Some studies have used IQ scores (Einfeld et al., 2006; Van Naarden Braun et al., 2015; Wallander et al., 2006), while others have used educational placement as a proxy (Wallander et al., 2006). This methodological variation complicates cross study comparisons of prevalence and functional impact.

1.3 Carers

1.3.1 Definition and Importance of Caregiving Roles

In the context of disability, a caregiver (or “carer”) is typically defined as an individual who provides consistent care and support to someone who, owing to age, illness, or disability, cannot fully care for themselves (Oldridge & Larkin, 2021). This study focuses specifically on family caregivers of individuals with ID, particularly mothers. Family caregivers are usually unpaid relatives (often parents, spouses, or siblings) who assume responsibility for meeting the daily needs of a dependent family member (Oldridge & Larkin, 2021).

Caregiving involves a broad range of tasks. These include supervising the individual’s safety, assisting with activities of daily living (such as feeding, dressing, and toileting for those who need help), managing healthcare (medications, appointments, and therapy exercises), providing emotional support, and advocating for services (Gutowska, 2022). It is important to emphasise that caregiving is not limited to medical tasks but includes all personal and support functions required to enable the person to live their life with dignity and support.

1.4 Carers for People with ID

1.4.1 Caring Over a Prolonged Period

Caregiving is both a role and a relationship. The caregiver relationship implies a degree of dependency of the care recipient on the caregiver. In the case of ID, this dependency may persist throughout the lifespan. Unlike typical parenting (where children progressively become independent), parenting a child with moderate to severe ID often means that the parent remains a caregiver into the child's adulthood, continuing to assist with decision-making (Gutowska, 2022), daily needs (Chadwick et al., 2018), making healthy lifestyle choices, managing stress, and addressing unique needs (Melville et al., 2009).

Studies focusing on caregivers of children with ID reveal distinct and often long-term responsibilities that differ from those of caregivers for individuals with physical disabilities or age-related conditions, such as dementia (Riffin et al., 2017). Unlike caregivers who assume their role later in life, often in response to a relative's declining health, parents of children with ID typically engage in a prolonged caregiving role that begins early and evolves throughout their lives. Commonly reported tasks for caregivers of children with ID include facilitating communication, providing emotional support, and assisting with daily living skills (Enoch et al., 2017), including their children's education (Forslund et al., 2022; Opoku et al., 2020).

For clarity, throughout this thesis, the term caregiver refers to family caregivers of people with ID. When discussing mothers and fathers of children with ID, they are inherently referred to in their caregiver role. The caregiving role here is largely unpaid and driven by familial bonds and responsibilities (rather than an occupation). This aligns with the general definition that "a family caregiver is someone who takes care of a family member or friend, without monetary compensation for their services" (Oldridge & Larkin, 2021).

In summary, a caregiver is a person who looks after the health, well-being, and daily functioning of an individual with ID. Their responsibilities may include direct physical care, ensuring supervision and safety, facilitating education and rehabilitation efforts, managing behavioural issues, and offering emotional and

social support. This role is often demanding and complex, yet crucial for the quality of life of those with ID. Understanding the scope and demands of caregiving is essential for examining its psychological and social impacts, particularly on mothers, who frequently serve as the primary caregivers, and for identifying factors that may buffer stress and promote resilience.

1.4.2 Transitions and Caregiving Challenges

Caregiving responsibilities change significantly as children grow older. The nature of support shifts across early childhood, adolescence, and adulthood, requiring caregivers to continuously adapt.

Early Childhood (0-5 years)

During infancy and early childhood, caregiving is highly intensive and physically demanding. Parents must manage feeding, often complicated by oral-motor difficulties, hygiene needs such as changing nappies, that may persist beyond typical developmental milestones, and frequent medical appointments for diagnosis and early treatment. This stage often includes early intervention services, such as physiotherapy, speech therapy, or special education sessions. Mothers, especially those breastfeeding or on parental leave, are often deeply involved during this period. For children with more severe forms of ID, long-term dependence can begin to manifest at this stage, adding to the emotional and physical toll on caregivers (Tri et al., 2017).

Middle Childhood (6-10 years)

Middle childhood is characterised by increasing academic and social demands. During this period, children with ID may experience difficulties with learning (Boat & Wu, 2015), peer relationships (Nanda, 2024), and behavioural regulation (Hastings, 2002), which can become more visible as expectations for independence and performance increase. For many children, particularly those with mild ID, their condition may not even be recognised until early school age, when the escalating demands for academic learning and cognitive performance make their difficulties apparent (Boat & Wu, 2015). During the primary school years, the educational focus shifts toward standardised academic achievement,

which frequently highlights a child's cognitive impairments and learning difficulties (Boat & Wu, 2015). As academic expectations increase, children with ID often struggle to keep pace with their typically developing peers, necessitating specialised instructional approaches, accommodations, and tailored educational plans (Nanda, 2024).

Adolescence (10-18 years)

This thesis focuses on adolescence, a life stage marked by increasing complexity in caregiving. During this period, family conflicts often arise as adolescents seek greater emotional autonomy (Barr & Gates, 2018). Puberty adds to these challenges by introducing new responsibilities, including managing sexual development, forming new relationships (friends, sexual partners), and teaching appropriate sexual behaviour (Barr & Gates, 2018). For mothers of daughters with ID, this may involve menstruation management and decisions related to fertility and contraception (Goli et al., 2020). Parents may also face challenges in providing age-appropriate sexual education despite widespread gaps in resources and their discomfort with the sexuality of their adolescents with ID (Colarossi et al., 2023; Isler et al., 2009).

Adolescence can also bring heightened behavioural challenges, such as mood swings, frustration, or boundary-testing, which can be particularly difficult to manage in the context of ID (Chauke et al., 2021; PYP, 2023). Adolescents with ID are at increased risk for psychiatric comorbidities, including anxiety and depression (Costello et al., 2006; Wallander et al., 2006), requiring further emotional labour from caregivers.

Adulthood (18+ years)

Caregiving does not typically end when an individual with ID reaches adulthood, especially in moderate to profound cases (Rajan & John, 2017; Schulz et al., 2020). In adulthood, parents frequently report ongoing concerns related to long-term care, independence, and future support arrangements for adults with ID. Many adults with ID continue to live at home and require support with daily living, employment, finances and medical care (O'Leary et al., 2018; Patel et al., 2020). Parents often accompany their adult children to day programs, assist with

transportation and appointments, and continue to manage routines and behaviours (Cuskelly, 2006; Taggart et al., 2012).

As parents age, caregiving can become more physically demanding. Older caregivers may begin to face their own health issues, which complicates their ability to provide consistent support. Many parents also express concern about the future, specifically who will care for their child after they are unable to do so (Saretta et al., 2025). Planning for the future can involve setting up trusts, seeking residential services, or ensuring that siblings or relatives will assume care (Cuskelly, 2006; Walker & Hutchinson, 2019). However, research suggests that despite growing awareness of the need for long-term planning, many families lack concrete plans (Brennan et al., 2020; Dunn et al., 2021; Ryan et al., 2014) creating a cycle of interdependence that is difficult to navigate without adequate support systems.

1.4.3 Impact of Prolonged Caregiving on Carers

Research consistently highlights elevated stress, anxiety, and depression in these mothers, underscoring the emotional burden associated with long-term caregiving (Lee, 2013; McConkey et al., 2008; Rydzewska et al., 2021; Shin & Crittenden, 2003). A systematic review and meta-analysis encompassing 32 studies from diverse economic backgrounds revealed a higher prevalence of mental illness among mothers of children with ID than among mothers of typically developing (TD) children (Rydzewska et al., 2021). This is consistent with findings by Lee (2013), who reported elevated levels of depression and anxiety among mothers of children with ID. In contrast, a review by Dunn et al. (2019) highlighted that fathers are generally at a lower risk of depression, anxiety, stress, and poor general mental health than mothers. However, these studies are largely based in Western contexts, where cultural norms may shape caregiving roles and influence mental health outcomes. Cultural expectations and access to resources vary widely between regions; for instance, in countries with more traditional gender roles, fathers may engage in less caregiving than in societies where responsibilities are more equally shared (Van De Vijver, 2007).

The primary caregiving role of a child with ID has evolved over the years with regard to mothers and fathers approach to childcare provision (Johansson &

Andreasson, 2017), and research indicates an increase in male participation in care (Altintas, 2016). However, women continue to fulfil the role of primary caregivers in most cases. Mothers typically work part-time or stop working to become their child's primary caregiver, but fathers who remain in the family unit are more frequently the primary breadwinners (Powell, 2018). This often leads mothers to assume the majority of the caring and advocacy responsibilities for their children. Being the primary caregiver can be stressful due to caregiving tasks and the duration of caregiving (Rowbotham et al., 2011). This is due to the increased responsibility their role entails for their child's well-being. Therefore, it can be deduced from the aforementioned studies that the increased caregiving responsibilities of mothers compared to fathers could be a contributing factor to poorer mental health outcomes for mothers of children with ID.

Moreover, mothers in Taiwan, Jordan, and Northern Ireland reported poor mental health, heightened stress levels, and impaired family functioning, primarily attributed to challenges related to their children's behaviour (McConkey et al., 2008). Shin and Crittenden (2003) conducted a study employing the Double ABCX model of stress. In this model, A refers to the initial stressor event, B to existing and newly acquired family resources, and C to the family's perception or appraisal of the stressor, which together influence X, the level of crisis experienced. The "double" component of the model incorporates additional stressors (aA), evolving resources (bB), and changing perceptions (cC) that accumulate over time and shape longer-term adaptation outcomes (xX). Shin and Crittenden (2003) compared the psychological well-being of mothers with children aged 4-14 years diagnosed with ID in two national groups: Chicago, USA, and Pusan, Korea. A total of 38 American and 40 Korean mothers participated in the home-visit interviews. The findings revealed diverse sources of stress for American mothers, with their children's maladaptive behaviour significantly influencing maternal stress. In contrast, Korean mothers experienced stress that was significantly linked to socially influential cultural values shaping their perceptions of their children. The results indicate that individuals in collectivist cultures may grapple with a heightened sense of guilt concerning their children's mental impairment. Cultural norms have been found to significantly influence the stress experienced by mothers (McConkey et al., 2008; Oti-Boadi, 2017; Shin & Crittenden, 2003).

In the Thai cultural context, children are often expected to demonstrate obedience, emotional restraint, respect for elders, and age-appropriate social behaviour. Academic progress and appropriate social conduct are also closely linked to family reputation and parental responsibility. When a child has an ID, these expectations may be difficult to meet, particularly in relation to communication and behavioural regulation.

As a result, parents may experience heightened stress not only due to the practical demands of caregiving, but also because their child's behaviour may be perceived as deviating from cultural norms of appropriate child development. This mismatch between cultural expectations and the realities of ID can intensify feelings of worry, guilt, and responsibility, and may contribute to social pressure or stigma experienced by families.

1.5 Factors Mediating the Impact of Caring

1.5.1 Child Characteristics

The characteristics of children with ID can heavily influence the degree of stress or adaptation experienced by caregivers. Two key child-related factors frequently examined in the literature are the child's behaviour and the severity of ID. Generally, more intense behavioural challenges or more severe of ID are associated with higher caregiver stress. Understanding these child factors is essential, as they often interact with caregiver and environmental factors to shape the overall outcomes.

1.5.1.1 Challenging Behaviours

Children with ID frequently display a broad spectrum of challenging behaviours, including aggression, property destruction, self-injury, repetitive behaviours, consumption of non-food items (pica), refusal to comply, yelling, inappropriate sexual conduct, and excessive activity (Barr & Gates, 2018). These behaviours are common, often persistent, and can co-occur, with repetitive and restricted behaviours and overactivity/impulsivity acting as significant risk markers (Davies & Oliver, 2016). It is important to recognise that challenging behaviour is socially constructed (Mahmoud et al., 2022). This is because the standards of

appropriate behaviour determine challenging behaviour within a particular social context. Factors such as the individual's ability to articulate their behaviour, the perceptions of others in the setting towards individuals exhibiting challenging behaviour, and the setting's capability to address social disruptions caused by such behaviour all play a role in determining the classification of behaviour as challenging (Emerson & Einfeld, 2011; Mahmoud et al., 2022). This characterises challenging behaviour as a social construct, mirroring the social model of disability's depiction of disabilities as social constructs (Anastasiou & Kauffman, 2013).

Aggressive behaviour is common in adult children with ID, with a 12-month prevalence of 51.8%. This includes property damage (24%), verbal aggression (37.6%), self-oriented aggression (24.4%), physical aggression (24.4%), and sexually aggressive behaviour (9.8%) (Crocker et al., 2006). Adolescents with ID may engage more regularly in high-risk activities, including aggressive behaviour and mood swings, which can result from hormonal changes during puberty as adolescents test boundaries (Barr & Gates, 2018).

More than 20% of the population exhibited kicking, pinching, and scratching, whereas less than 10% engaged in head-butting, choking, or wielding weapons (Harris, 1993). In 2001, Emerson and colleagues conducted a similar study involving 211 individuals with ID. Their findings indicated that 75% of the participants were observed hitting others with their hands, while 60% were engaged in verbal aggression (Emerson et al., 2001b). These studies demonstrate that the diverse forms of behaviour exhibited by individuals with challenging behaviour are categorised under the umbrella term of aggression. While acknowledging the ambiguity of aggression as a broad category, these studies sought to dissect and provide precise operational definitions for different manifestations of aggression, thereby acknowledging the range of behaviours encompassed by this category.

Self-injurious behaviour is also a challenging behaviour that manifests in various ways among individuals with ID. It is broadly defined as any self-poisoning or self-injury, regardless of motivation (Barr & Gates, 2018). Reasons for self-injury can include low self-esteem, isolation, stress, past or current abuse, bullying,

bereavement, sexuality issues, social rejection, suicidal ideation, or severe mental illness (Barr & Gates, 2018). Common manifestations include self-biting, punching or slapping, hitting the head against objects, scratching or picking at the skin, striking body parts, and inserting non-edible objects into the mouth (Barr & Gates, 2018; Emerson et al., 2001a). These behaviours have clear physical implications for individuals with ID, which may result in lasting and damaging effects.

A meta-synthesis of 17 studies on the experiences of family caregivers dealing with children with ID revealed that dealing with challenging behaviour was the most demanding aspect of caregivers' roles (Griffith & Hastings, 2014). Challenging behaviour exhibited by children with ID has consistently been linked to poor parental mental health and well-being (Blacher & Baker, 2007; Griffith et al., 2011; Staunton et al., 2023). One study involving 932 mothers of children with ID displaying aggressive behaviour found a stronger association between stress and depressive symptoms (Pruchno & Meeks, 2004). Some parents have found it "difficult to get respite care because of the challenges that their child presented" to the respite facility (Wilkie & Barr, 2008). The need for respite services to train staff to care for children with a wider range of abilities, including "challenging behaviours", is highlighted (Wilkie & Barr, 2008). This suggests that the presence of challenging behaviours, such as aggression, creates additional practical and emotional burdens for parents.

1.5.1.2 Severity of Child's Intellectual Disability

The severity of the child's ID is a factor, with greater impairment leading to increased care demands and burden on caregivers (Hassall et al., 2005; Lee & Chang, 2021). The level of a child's disability and associated care requirements can affect maternal stress. Children with severe or profound ID often need support with all daily activities (eating, dressing, bathing, and constant supervision), which imposes a heavy physical and temporal burden on caregivers (Dürr & Greeff, 2020). Parents must invest significantly more time in care and continuously worry about their child's well-being (Scheibner et al., 2024). Scheibner et al. (2024) noted that when a child's condition includes serious medical needs or chronic health issues requiring ongoing care, the strain on the

family is particularly high. Essentially, the more intense the child's daily care needs, the greater the potential stress experienced by the mother.

Child age and developmental stage are considered demographic aspects that may affect parents and their parenting, with parents potentially facing greater obligations as their child grows older, including concerns about career adjustment, stigma, future worries, and financial demands (Widyawati et al., 2023). For younger children, the severity of ID can be assessed by motor, cognitive/communicative, and social functions, comparing their development to chronological age (Boat & Wu, 2015). For example, if a child's motor development is generally acquired by children no more than one-half of their chronological age, it indicates severity (Boat & Wu, 2015). More severe ID is typically identified earlier in life (Boat & Wu, 2015).

The specific type of ID or syndrome can also influence maternal experiences and stress levels (Elizabeth. et al., 2018). For example, mothers of children with ASD may experience higher stress levels than those caring for children with Down syndrome, Cerebral Palsy, or Global Developmental Delay (Elizabeth. et al., 2018). Research suggests that examining the full range of ID (mild, moderate, severe, and profound) and other complex psychiatric conditions is important for a comprehensive understanding (Ginevra et al., 2018).

Mak and Ho (2007) examined 212 Chinese mothers in Hong Kong with children averaging 12.7 years in age and found that a more severe degree of ID was associated with mothers holding unfavourable attitudes. Rajan and John (2017) found that parents who care for children with severe ID may encounter higher levels of stress than parents of children with mild ID. In essence, the severity of ID appears to correlate with the stress levels experienced by parents, suggesting that the challenges and demands associated with caring for a child with severe cognitive limitations contribute to an elevated sense of stress among parents. People with severe ID consistently have higher and more complex health needs than the general population (Barr & Gates, 2018; Walsh et al., 2022). Their health profiles often differ, with a higher incidence of co-occurring conditions (comorbidities), and many of their health needs may go unrecognised and untreated (Barr & Gates, 2018; Walsh et al., 2022). In contrast, people with mild

ID tend to have health profiles similar to the general population, although they may still face difficulties accessing health promotion and services (Barr & Gates, 2018).

Co-occurring conditions can also exacerbate the impact; if an adolescent has an ID plus additional disabilities (e.g. physical impairments, epilepsy) or mental health issues, the complexity of care increases. Such comorbidities often require additional medical appointments, therapies, and vigilance from the mother, adding to the stress (Scheibner et al., 2024). On the other hand, Scheibner et al. (2024) suggest that when a child's disability is less accompanied by challenging behaviour (for example, certain genetic syndromes with a more placid temperament), mothers may experience slightly less stress. This indicates that it is often the behavioural and developmental complexities, rather than the diagnostic label per se, that drive the caregiving burden.

1.5.2 Carer Characteristics

In addition to the child's attributes, the caregiver's characteristics and circumstances play a pivotal role in mediating the impact of caring for a child with ID. These include psychological resources, health, and coping skills, as well as external factors such as financial status, social support, and family structure. Importantly, caregiving is not a universally negative experience; many parents report meaningful personal growth, stronger family bonds, and a sense of purpose in their role. However, long-term caregiving can also take a toll on mental health, physical health, and other aspects of life, especially when compounded by financial strain or inadequate support. This section provides a balanced view of both the positive impacts (e.g. personal growth, resilience, and family bonding) and the challenges (e.g. stress, financial burdens, marital strain, and health issues) associated with the caregiving role.

1.5.2.1 Personal Growth

Despite the many challenges, a substantial body of literature highlights that caregiving can be a catalyst for personal development. Parents often describe transformative changes within themselves as a result of raising children with ID. These positive changes included increased patience, empathy, and resilience, as

well as a reprioritisation of values. For instance, parents frequently report enhanced personal strength, confidence, and emotional resilience as they adapt to the challenges of raising children with ID (Yang, 2025). A systematic review by Beighton and Wills (2019) indicated that many parents report developing greater personal strength and self-confidence through overcoming the daily challenges of caregiving. Over time, they become more adaptable and resourceful, learning to navigate complex healthcare and education systems and advocate effectively for their children's needs. Parents frequently report becoming more tolerant and compassionate, not just toward their own child, but in general, they gain insight into disability and differences that broaden their perspective and empathy (Rajan & John, 2017). Parents often report becoming more tolerant, optimistic, and appreciative of small joys (Rajan & John, 2017). These experiences can foster advocacy skills and a new outlook on life (Rajan et al., 2018). Qualitative studies have also highlighted how caregivers develop coping mechanisms, such as emotion regulation, self-esteem, understanding trauma impact, and attaining positive meaning (Beighton & Wills, 2019).

1.5.2.2 Family Bonding

Another positive impact reported by many caregiving families is the strengthening of family relationships. The intense experience of raising a child with ID can bring parents, siblings, and extended family members closer together, strengthening family relationships and emotional bonds (Gordon & Bila, 2023). Families often report sharing joy in small achievements and have learned to communicate and cooperate more effectively through the caregiving process (Beighton & Wills, 2019; Gordon et al., 2007). For example, siblings of children with ID may develop greater empathy and a protective attitude, and parents may feel a deeper partnership in their joint caregiving roles.

Beighton and Wills (2019) noted that many families find new meaning and purpose in their lives after having a child with ID, which can enhance mutual understanding and solidarity among family members. Instead of pulling the family apart, shared challenges can, in some cases, bind them more tightly together. Griffith et al. (2012) observed that some parents attribute improved family communication and a reordering of priorities to their caregiving journey; for instance, they spend more quality time together and feel close and warm

relationships. In addition, extended family or even close friends sometimes rally around to support the child, creating a broader sense of community and connection that enriches the family's life. Families often report increased cohesion, empathy and purpose (Emerson, 2007). Positive family involvement also improves the quality of life and emotional well-being of children with ID (Chauke et al., 2021; Scherer et al., 2023). However, maintaining a balanced perspective is important. Not all families experience strengthened bonds; some experience strain (Griffith et al., 2012). The difference may be due to factors such as external support, the severity of the child's condition, and pre-existing family relationships.

1.5.2.3 Mental Health

Parents often face mental health issues at key stages, such as diagnosis, transition to adult services, and their own aging (Marsack & Samuel, 2017; Thomson et al., 2017). Chronic stress is common throughout these stages. Over time, high stress can lead to caregiver burnout, anxiety disorders, or depression if adequate support and coping strategies are not provided. Numerous studies have documented that mothers, in particular, report very high stress levels and associated mental health consequences (Albayrak et al., 2019; Bourke-Taylor et al., 2019; Singh & Sweta, 2020).

The constant emotional vigilance required to monitor a child's health, behaviour, and developmental progress can result in exhaustion and anxiety (Masefield et al., 2020). Nearly half of the mothers of children with ID met the criteria for clinically significant stress or depressive symptoms during their child's early years (Masefield et al., 2020). Mothers, in particular, report high levels of stress and health consequences due to emotional burden, financial strain, and caregiving demands (Albayrak et al., 2019; Bourke-Taylor et al., 2019; Hussain & Raihan, 2022). Concerns regarding long-term care often lead to chronic stress and anxiety (Davenport & Zolnikov, 2022; Walker & Hutchinson, 2019). Caregiving for a child with ID is a long-term commitment. Over time, it can take a toll on caregivers' mental health, especially when compounded by financial strain, employment challenges, and limited support (Hussain & Raihan, 2022; Saunders et al., 2015; Truesdale et al., 2021).

1.5.2.4 Financial Burdens

Parent carers of children with ID often face financial hardship because caregiving responsibilities significantly affect household income (Caldwell & Heller, 2003; Ouyang et al., 2014; Yang, 2025). Financial strain is a concrete and pervasive stressor for families caring for children with ID. Many families experience a loss of income due to reduced work participation and incur additional childcare expenses. This double impact of decreased earnings and increased costs can place families at risk of poverty or economic hardship. Research has consistently found that families with lower socioeconomic status report higher stress levels (Hussain & Raihan, 2022; Mohan & Kulkarni, 2018).

The influence of family income, parental resilience, and mental well-being underscores the significance of economic capital, such as financial security, in shaping resilience outcomes (Bruno et al., 2023). Financial security can offer stability and essential resources for mothers to cope with the stress and challenges of raising children with ID. Parents of young children with ID often face substantial financial burdens due to the costs associated with early intervention services, therapy, and specialised care. Research indicates that families with young children with ID experience higher financial strain than families with typically developing children (Saunders et al., 2015). The financial impact is compounded by the need for parents to potentially reduce their work hours or leave employment altogether to provide necessary care, which can lead to a decrease in household income (Ouyang et al., 2014; Saunders et al., 2015).

As children with ID transition into adolescence, the financial burden on parents often increases because of the rising costs of education, therapy, and social support services. Research indicates a bidirectional relationship between demographic variables, such as financial status and ID, where families with low socioeconomic status are more likely to have a family member with ID, leading to increased poverty due to care costs and decreased income from caregiving responsibilities (Patton et al., 2018). This emphasises the substantial impact of financial resources on the well-being and resilience of mothers caring for adolescents with ID. Additionally, the potential for behavioural issues during adolescence can increase healthcare costs, further impacting the family's financial stability (Bolourian & Blacher, 2016). When children with ID reach

adulthood, financial dynamics change again, as parents often face long-term care costs and concerns about their children's future independence (Walker & Hutchinson, 2019). Parents may need to invest in ongoing support services, housing arrangements, and legal planning, creating significant financial burdens. Thus, financial planning and support are ongoing needs for these families.

1.5.2.5 Marital Status

The presence or absence of supportive partners is another factor that can mediate caregiving outcomes. Being part of a stable two-parent team generally provides practical and emotional advantages in managing the demands of caring for children with ID (Oh & Lee, 2009). Spousal support in the form of sharing caregiving tasks, providing emotional understanding, and joint problem-solving has been identified as a crucial buffer against stress for mothers of children with ID (Oh & Lee, 2009). When both parents are engaged and supportive of each other, they can alternate duties to get respite, encourage each other on difficult days, and pool resources such as income or social connections. Consequently, married or cohabiting caregivers often report better coping and lower stress than those parenting alone (Kim et al., 2023).

In contrast, single parents or those without a partner's support face heightened challenges. Single mothers must juggle all responsibilities, including caregiving, employment, and household management on their own, which can lead to exhaustion and a sense of isolation. Studies have consistently shown that single-parent families of children with ID experience poorer family functioning and higher stress than two-parent families (Gordon et al., 2007; Kim et al., 2023). A recent multi-method study in Korea found that compared to two-parent households, single-parent families of children with developmental disabilities faced greater risks across multiple domains: weaker family relationships, more precarious economic status, and challenges with legal/social support rights (Kim et al., 2023). In qualitative interviews, single parents described sole caregiving responsibilities leading to poorer physical and mental health, social isolation, feelings of alienation, severe stress in juggling work and care, and difficulty accessing services (Kim et al., 2023). These findings highlight how the absence of a co-parent can compound nearly every aspect of the burden.

Even within two-parent families, having an unsupportive or highly stressed spouse can exacerbate the problem. The stress associated with caregiving can lead to increased conflict within marriages, which may exacerbate parents' feelings of isolation and anxiety (Hartley et al., 2012; Islam et al., 2022). As children with ID transition into adolescence, the dynamics of marital status continue to affect parental experiences. Parents may find that the increased behavioural challenges associated with adolescence can strain their relationships, leading to higher levels of marital conflict (Han & Lee, 2020). However, the presence of supportive co-parenting relationships can mitigate some of the stress associated with raising adolescents with ID, highlighting the importance of partnerships in navigating these challenges (Han & Lee, 2020). When children with ID reach adulthood, the implications of their marital status become even more pronounced. Parents who remain married may benefit from shared responsibilities and emotional support as they face the complexities of long-term care planning and the financial implications of supporting an adult child with ID (Islam et al., 2022).

1.5.2.6 Physical Health

The physical health of caregivers is another area impacted by long-term caregiving, and it both mediates and reflects the overall burden of care. Research indicates that parents of children with ID often report worse physical health outcomes than parents of typically developing (TD) children (Borilli et al., 2022; Masefield et al., 2020). For example, mothers of preschool-aged children with DD have been found to experience more health issues, such as fatigue, stress-related ailments, and overall poorer self-rated health, than mothers of TD children (Masefield et al., 2020). The emotional toll of managing a child's disability can manifest physically, resulting in fatigue and other health complications (Arzeen et al., 2020). Parents of young children with ID often experience considerable physical health challenges owing to the intense caregiving responsibilities they face (Ha et al., 2011).

As children with ID transition into adolescence, the physical health of parents continues to be affected, but the nature of the stressors may shift. Adolescents often present new challenges, including behavioural issues and the need for increased supervision, which can exacerbate parental stress (Chauke et al.,

2021). The stress and challenges of caring for adolescents with ID, especially those displaying challenging behaviours, can lead to caregiver burnout, mental health issues, and physical health problems (Deb & Limbu, 2022). The stress associated with managing these challenges can lead to chronic health issues, including cardiovascular problems and weakened immune responses (Gallagher & Whiteley, 2013; Marquis et al., 2019).

In adulthood, research has indicated that midlife parents of adults with ID report significant physical health issues, including chronic pain and fatigue, which are often exacerbated by the cumulative stress of lifelong caregiving (Grey et al., 2018; Seltzer et al., 2011). Particularly, mothers of adult children are at increased risk for physical health conditions such as obesity, cardiovascular disease, autoimmune diseases, and gastrointestinal disorders due to chronic stress (Kumari et al., 2017). The lack of adequate support services for adult children with ID can further strain parents' physical health, as they may feel overwhelmed by the responsibilities of care without sufficient respite (Grey et al., 2018; Pryce et al., 2017).

1.5.3 Cultural Influences on the Impact of Caregiving

The experience of caring for a child with ID is profoundly influenced by cultural norms, societal attitudes, and available support systems (Chen et al., 2022). These cultural variables play a significant role in shaping how caregiving is perceived and managed across different contexts. Parents of children with ID may encounter varying degrees of stigma, social support, and institutional resources depending on the cultural environment in which they live (Chen et al., 2022; Mitter et al., 2019; Shin & Crittenden, 2003). In certain societies, such as Korea and China, ID continues to be highly stigmatised, often resulting in the marginalisation or concealment of individuals with ID (Mitter et al., 2019; Shin & Crittenden, 2003). Cultural beliefs can strongly shape an experience of stigma, with repercussions that extend beyond the individual to affect the entire family. Chiu et al. (2013) assert that while elements of stigma may be universal, their expression is mediated by local cultural settings. Consequently, stigma can significantly impact parental mental health and well-being, reducing the family's ability to create a safe, secure, and supportive environment for their child.

(Northway, 2015). Parents facing negative societal perceptions may also struggle to access social support and acceptance, exacerbating caregiving challenges (Kasımoğlu & Arıkan, 2021).

A seminal study by Shin and Crittenden (2003) employed the Double ABCX model of stress to explore the psychological well-being of mothers of children with ID across two cultural contexts: Chicago, USA and Pusan, Korea. Through home-based interviews with 38 American and 40 Korean mothers of children aged 4-14 years, the study found that sources of maternal stress varied by culture. For American mothers, child-related behavioural difficulties were the most significant stressors. In contrast, Korean mothers experienced stress primarily influenced by deeply rooted cultural beliefs, including the idea that their child's disability was a punishment for past transgressions. This belief led to feelings of shame, guilt, and heightened social stigma, highlighting the powerful role of collectivist values in shaping parental experiences. Similarly, a review of studies across different countries noted that stigma and negative judgement from others often induce additional stress in parents of children with special needs (Cheng & Lai, 2023).

Furthermore, a cross-cultural study by McConkey et al. (2008) explored the psychological well-being of mothers raising children with ID in Taiwan, Ireland, and Jordan. The study included mothers of children aged 5-18 and revealed consistent patterns across countries: high levels of stress, poor mental health, and impaired family functioning. These difficulties were primarily linked to the behavioural challenges associated with their children. The cross-national consistency of these findings underscores the universality of certain caregiving stressors, while also acknowledging that cultural values shape how these stressors are experienced and managed.

Together, these studies highlight the importance of recognising cultural influences when evaluating caregiving outcomes. Cultural norms, values, and societal expectations can act as either risk or protective factors, influencing caregivers' mental health and their capacity to manage caregiving demands. A nuanced understanding of these cultural dimensions is essential for developing supportive interventions that are both contextually appropriate and culturally sensitive.

1.6 Gender Roles of Carers

Within families of people with ID, caregiving responsibilities are often assumed by mothers and fathers in ways that reflect traditional gender roles and practical circumstances. This section outlines the typical caregiving roles and responsibilities in families of individuals with ID, highlighting the differences between mothers and fathers.

Research consistently shows that mothers of children with ID tend to be the primary caregivers of children with ID, assuming a more direct and hands-on role in daily care compared to fathers (Vilaseca et al., 2023). Culturally and historically, caregiving has been closely aligned with maternal responsibilities, a trend that often intensifies when a child has additional support needs. Mothers are typically responsible for personal care routines (feeding, bathing, dressing), therapy exercises at home, attending medical or school appointments, and providing emotional comfort to their children (Sevgi & Ayran, 2024). This can leave mothers carrying most of the responsibility for a child with ID, while fathers may be less involved in the daily care (Cheng & Lai, 2023). Such gendered expectations amplify the impact of caring on mothers.

Research from a cross-cultural perspective confirms that the major caring role tends to be shouldered by the mother, contributing to her stress (Cheng & Lai, 2023). For instance, in a study spanning Ireland, Taiwan, and Jordan, mothers in all three cultures reported performing the bulk of caregiving tasks and felt the strain accordingly (McConkey et al., 2008). Mothers often report experiencing a heavier emotional burden related to their child's condition and care needs (Oti-Boadi, 2017). Their responsibilities often include not only hands-on care but also health maintenance, appointment scheduling, communication with healthcare providers, and advocacy for the needs of children with ID (Swaine et al., 2013).

In contrast, fathers are often more involved in instrumental caregiving roles, such as providing financial support for the family, handling logistical matters, or performing household maintenance, and may spend comparatively less time than mothers in hands-on care of the child with ID (Vilaseca et al., 2023). In many cultural contexts, especially in Asia, caregiving tasks requiring intimacy or constant supervision are frequently delegated to mothers or female relatives,

whereas fathers or males may participate sporadically or serve as financial providers (Hwang et al., 2025; Jampaklay & Vapattanawong, 2013; Xun et al., 2024).

However, when cultural norms allow or encourage fathers and extended family members to participate, mothers experience relief. Studies suggest that actively involving fathers as partners in caregiving (even in cultures where this is not the norm) can harness additional support for mothers and reduce their overall burden (Cheng & Lai, 2023; Samadi et al., 2020). Although some fathers provide significant emotional and practical support, studies suggest that they are less likely than mothers to assume the primary caregiving role (Dunn et al., 2019; Rowbotham et al., 2011; Sevgi & Ayran, 2024). Understanding the gendered dynamics of caregiving is crucial for informing support services and interventions that reflect the distinct experiences of mothers and fathers, particularly in families where mothers carry the greater caregiving load.

1.7 Policy Context for Carers in Thailand

1.7.1 Overview of Thai policies and Services Supporting Carers

Thailand, a country with a rich cultural heritage, exhibits distinct norms and values in childcare and family dynamics. One prevailing cultural expectation is that adult children should care for and support their elderly parents, reflecting a deeply ingrained sense of filial obligation (Knodel et al., 1995). This cultural norm also extends to childcare, with strong parental involvement being a valued aspect of Thai family life (Junla & Yotanyamaneewong, 2024). In many Thai families, fathers are often the primary income earners and mothers predominantly assume caregiving responsibilities (Jampaklay & Vapattanawong, 2013; Junla & Yotanyamaneewong, 2024).

In the context of caring for a child with ID, navigating the complex interplay of cultural norms, familial responsibilities, and available support systems is crucial. In Thai society, there is a strong emphasis on family cohesion and collective responsibility, which can influence the care provided to children with special needs. Community-based models, such as "The Intellectually Developed Model for Community Participatory Management of Child Care Centers During the

COVID-19 Outbreak" 2022), highlight efforts to integrate familial and community support systems for children with ID.

Historically, the provision of health services for individuals with ID in Thailand began with the establishment of Somdet Chao Praya Hospital in 1889. It was initially founded as a psychiatric hospital. The hospital also provides care for individuals with intellectual and developmental conditions. People with ID were often admitted for long-term residential care as community-based support systems were largely unavailable at the time (Udom, 2002).

However, by 1950, it became evident that the special needs of individuals with ID differed from those of individuals with other psychiatric conditions (Udom, 2002). This recognition promoted a re-evaluation of service delivery. To address this, Thailand's Ministry of Public Health has formulated a strategy tailored to the needs of patients with ID. To pursue this objective, Rajanukul Hospital was established in Bangkok in 1960 with the mission of serving ID patients from across Thailand (Udom, 2002).

The service model at Rajanukul Hospital encompasses a range of treatments, including medical care, rehabilitation, educational support, vocational training, and social rehabilitation (Udom, 2002). However, as the sole providers of these services, hospitals struggle to meet the high demand and expectations of patients (Udom, 2002). Consequently, Thailand's Ministry of Public Health took the initiative to address this issue by constructing a second hospital dedicated to children with ID in Chiang Mai Province in 1994 (Udom, 2002).

Additionally, in 1980, Thailand introduced the concept of primary health care, making health care services accessible to the public through community-based initiatives. This shift in approach aimed to minimise the length of hospital stays for patients with ID, as it had become evident that prolonged hospitalisation could be detrimental to their well-being. The inability to discharge ID patients promptly not only hindered the acceptance of new ID patients but also adversely affected the adaptive behaviours of those receiving care. However, with the introduction of the primary healthcare concept, this problem began to improve (Udom, 2002).

Services in Thailand primarily operate within hospitals, resulting in limited access for patients, with a considerable number of patients left without access to the necessary care (Udom, 2002). In response, the Ministry of Public Health initiated the "Health for All by 2000" policy. It introduced a primary health care strategy in 1980, leading to significant reforms in services for children with ID. These reforms included training programs for healthcare professionals, including general practitioners, nurses, psychologists, social workers, and community health officers. The training occurred at general hospitals, community hospitals, and health centres, aimed at educating and preparing staff to diagnose conditions such as ID and delayed development, and to provide early intervention services and basic rehabilitation. This shift aimed to reduce the reliance on a single specialised hospital that previously provided these services.

In 2012, the guidance outlined in the UN Guidelines and the 2012 publication "MOVING FORWARD" was translated into policy and implementation through the "Guidelines for the Alternative Care of Children" (Unicef, 2015). The objective is to assist stakeholders in recognising practical and effective measures to align with the principles of the UN Guidelines, thereby enhancing the well-being of vulnerable children, including children with ID, in alternative care in Thailand. In 2014, the number of children living in different residential care settings reached nearly 50,000 (Unicef, 2015). The majority, constituting 67.4%, reside in the 51 government boarding schools across Thailand, which frequently function as residential care establishments (Unicef, 2015). Following this, there are government residential care facilities (14.7%), registered kinship care (10.0%), private registered residential care (4.7%), non-registered private residential care (1.8%), provincial Shelters for Children and Families (0.9%), and foster care (0.5%) (Unicef, 2015). Government policies and regulations play a crucial role in shaping the landscape of childcare services in Thailand. A perspective on early childhood development in Asia underscores the importance of government intervention to promote quality childcare practices and ensure the well-being of all children, including those with ID (Muangwichian & Congkrarian, 2023).

In summary, the Thai context for caregiving reflects a complex interplay among cultural values, gendered caregiving roles, and evolving health infrastructure.

Understanding these factors is essential for developing culturally appropriate interventions and support systems for families of children with ID in Thailand.

1.8 Research Aims and Objectives

While the literature on caregiver stress is extensive, research specifically examining resilience in mothers of children with ID, especially during adolescence and within the Thai cultural context, remains limited. Most prior studies on families of children with disabilities have emerged from Western countries or have focused on early childhood. Consequently, there is a knowledge gap regarding how resilience operates in non-Western settings and during later developmental stages of life. Cultural factors significantly shape the caregiving experience. Thailand's cultural context is characterised by strong family ties, expectations of filial responsibility, and a tendency to avoid openly discussing personal hardships due to the norms of "saving face". These cultural dimensions may affect how Thai mothers cope with and interpret the stress of caregiving, thereby influencing resilience in ways that differ from those in Western countries. Additionally, support systems in Thailand (such as community organisations, extended family networks, or government services) have their own structures and limitations that can impact caregivers. For example, formal respite care or specialised counselling for parents might not be as widely available or accessible in Thailand, placing more onus on the family unit to adapt. This underscores the need to investigate resilience within the Thai caregiving milieu.

Another important rationale for this study was the focus on mothers of adolescents with ID. Adolescence is often a somewhat overlooked phase in disability research, which tends to concentrate on early intervention in childhood or, separately, on outcomes in adulthood. However, the teenage years present unique challenges, including issues of puberty and sexuality, the transition to secondary schooling or vocational training, increased size and physical strength of the child (which can make caregiving physically harder), and anxieties about the future (such as what will happen when the child ages out of school). These challenges can amplify parental stress at a time when social support may wane (for instance, extended family or friends might be less involved as the child gets older). Thus, mothers of adolescents occupy a critical

junction. They have often been caregiving for many years and must continue to do so as their child approaches adulthood, often with uncertain prospects for independent living. Resilience during this stage can determine not only the current well-being of the family but also how they will manage the upcoming transition into adulthood for children with ID. Despite its importance, research on adolescent caregiving is sparse.

This Thai-focused study aims to address this gap by concentrating on mothers navigating the adolescent caregiving period. This will extend the discourse on resilience to a new cultural setting and critical developmental phase, enriching the global literature with insights that are both culturally specific and broadly informative. The research problem centres on uncovering “What factors are associated with resilience in Thai mothers caring for adolescents with ID?”.

1.8.1 Research Aims

The overarching aim of this thesis is to identify and explore the factors associated with resilience among mothers of adolescents with ID in Thailand. To achieve this aim, the following specific objectives were formulated:

- 1) To investigate the factors associated with resilience in parents of children with ID.
- 2) To examine McCubbin’s model of resilience in mothers of adolescents with ID in Thailand.
- 3) To explore the factors that influence resilience in mothers of adolescents with ID in Thailand.
- 4) To develop a model of resilience.

1.9 Outline of the Thesis

This PhD study was structured around three interrelated studies to investigate the resilience of mothers of adolescents with ID in Thailand. The rationale for this design is rooted in the complexity of resilience, both as a measurable construct and as a contextually embedded process. Combining quantitative and qualitative approaches allows for a comprehensive exploration of the generalisable patterns and meanings of maternal resilience.

The first study is a systematic literature review that synthesises findings from global research on resilience in parents of children with ID and identifies psychosocial correlates and evidence gaps to inform the design and foci of Studies 2 and 3 (variables for the survey; domains and probes for the interviews). These results guided the selection of Thai-validated measures (stress, coping, social support, perception of disability, resilience) and sensitised the qualitative interview guide to adolescent-stage and cultural/contextual issues.

The second study adopted a quantitative, cross-sectional design using standardised instruments that were translated from English to Thai and back-translated by a bilingual translator. It investigates the relationships among stress, coping, social support, perception of disability, and resilience in a sample of mothers of adolescents with ID. A correlational approach and structural equation modelling (SEM) were employed to identify significant predictors of maternal resilience. Participants for this phase were recruited from the Rajanukul Institute, a national tertiary centre for children and adolescents with developmental disabilities in Bangkok, Thailand.

The third study employed a qualitative narrative approach, focusing on the lived experiences of a purposively selected subgroup of mothers who participated in the quantitative phase and consented to a follow-up interview. Twelve mothers were interviewed until data saturation was reached. This phase aims to deepen the understanding of how resilience is constructed, maintained, and experienced within the sociocultural context of Thailand, particularly during the adolescent developmental stage.

All three studies are theoretically informed by McCubbin and McCubbin's Resiliency Model of Family Stress, Adjustment, and Adaptation (1996). This model guided sampling decisions, the development of interview questions, and the interpretation of findings across both quantitative and qualitative components.

Chapter 1: Introduction

This chapter provides an overview of the researcher's background and rationale, clarifying the significance of studying resilience in mothers of adolescents with ID. This chapter critically reviews the literature on resilience, caregiving, and ID, and outlines the research objectives, questions, and overall structure of this thesis.

Chapter 2: Theoretical Underpinnings

This chapter critically reviews key theoretical frameworks related to resilience. Providing an in-depth analysis of resilience constructs, outlining how this theoretical framework informed sampling decisions, the development of instruments and interview questions, and guided the interpretation of findings across all three studies.

Chapter 3: Research Design and Methodology

This chapter details the multi-method research design underpinning this thesis. It explains the rationale for adopting a sequential exploratory strategy, outlines the philosophical assumptions, and describes the overall methodological framework, including the ethical considerations and data integration procedures.

Chapter 4: A Systematic Review (Study 1)

This chapter presents Study 1, a systematic review of the literature examining the factors associated with resilience in parents of children with ID. The review process, including search strategies, inclusion/exclusion criteria, and quality assessment, was described, and the findings were synthesised to identify key protective and risk factors. The gaps in the current knowledge base are discussed to inform the design of subsequent studies.

Chapter 5: Methodology for Study 2 (Quantitative Study)

This chapter outlines the methodology for Study 2, which aimed to examine McCubbin's model of resilience among mothers of adolescents with ID in Thailand. Describing the sampling procedures, instrument selection, data collection, and statistical analysis methods.

Chapter 6: Results of Study 2.

This chapter presents the findings of Study 2, including descriptive statistics and results from inferential analyses. It identifies key predictors of resilience and discusses the relationships among demographic, psychological, and contextual variables based on the McCubbin's resiliency model.

Chapter 7: Methodology for Study 3 (Qualitative Study)

This chapter details the qualitative methodology used in Study 3. This section explains the participant recruitment, interview protocol, and data collection process. The rationale for using thematic analysis to explore mothers' lived experiences is presented, along with a discussion of the strategies used to ensure rigour and trustworthiness.

Chapter 8: Results of Study 3

This chapter reports the findings of Study 3, highlighting the primary themes that emerged from the in-depth interviews with Thai mothers of adolescents with ID. This chapter provides rich narrative accounts and interpretive insights into how these mothers experience, understand, and foster resilience in their daily lives.

Chapter 9: Final Discussion

The final chapter synthesises the findings from all three studies, drawing connections across the quantitative and qualitative components. It discusses the implications of the results for theory, practice, and policy, evaluates the strengths and limitations of the research, and offers recommendations for future studies and interventions to support maternal resilience.

Summary

In summary, this introduction establishes the background and importance of studying resilience in mothers of adolescents with ID in Thailand. It has outlined the prevalence of ID and how profoundly they can affect families, the heavy burdens shouldered by mothers, the toll on their mental health, and the critical role of resilience as a buffer and adaptive mechanism. The study's focus on the Thai context and the adolescent developmental stage addresses a clear gap in the literature. The following chapters will delve into the literature in detail, building on this introduction to advance the understanding of resilience among mothers of adolescents with ID.

Chapter 2 Theoretical Underpinnings

This chapter presents a set of theoretical models relevant to the resilience of parents caring for children with ID. The models were grouped into two sections: individual-level resilience and coping models, and family-level resilience and adaptation models. This chapter also provides a justification for selecting McCubbin's resiliency model for this thesis.

2.1 Individual-Level Resilience and Coping Model

This section explores theoretical models that conceptualise resilience and coping primarily as individual-level processes. These frameworks focus on internal cognitive processes, personal appraisals of stressors, and individual behavioural responses to adversity. While they offer valuable insights into personal psychological mechanisms, their scope is limited in capturing resilience within broader family or systemic contexts, especially for long-term caregiving roles.

2.1.1 Snyder's Hope Theory (Snyder, 2002)

Snyder's Hope Theory conceptualises hope as a cognitive process focused on goal pursuit, positing that hope constitutes "the perceived capability to derive pathways to desired goals, and motivate oneself via agency thinking to use those pathways" (Snyder, 2002, p. 249). This description emphasises two components: pathway thinking, which refers to the ability to find multiple ways to achieve goals, and agency thinking, which denotes the motivation to pursue these paths (Snyder, 2002). The original formulation included the development of a Hope Scale that serves to measure these constructs, with empirical evidence indicating that individuals who score high on hope are likely to employ various strategies to overcome obstacles and remain committed to their goals (Snyder, 2002; Snyder et al., 1991). This approach may treat resilience as an intrapersonal quality, characterised by optimistic goal-directed planning and motivation.

In the context of caregiving, especially among parents of children with ID, Snyder's hope theory can mitigate stress and enhance resilience. For instance, recent intervention work in Asia has shown that strengthening hope (within

resilience programs) reduces stress and improves the well-being of mothers of children with ID (Sharifian et al., 2024). Hope can be a resilience factor; parents with higher hope have lower levels of maternal depression and higher positive well-being in parents of children with ID (Kore & Venkatraman, 2017; Lloyd & Hastings, 2009). Furthermore, Truitt et al. (2012) highlighted the role of hope in shaping adaptive responses to uncertainty, and hope has emerged as a crucial moderating factor in caregivers' appraisal and coping with stress. Their study of parents of children with Down syndrome found that while perceived uncertainty increased psychological distress, hope significantly enhanced parental adaptation and functioning (Truitt et al., 2012). Such findings underline the importance of promoting hope among caregivers and enhancing their capacities to set meaningful goals and believe in their ability to achieve them, which may buffer against some negative psychological outcomes (Sharifian et al., 2024).

Hope aligns with the Thai cultural emphasis on perseverance and future orientation and can be nurtured through culturally resonant practices (e.g. meaning-making and spiritual rituals) (Mamom & Daovisan, 2022; Pokpalagon et al., 2024). Thai evidence suggests that Buddhist communities and temple-based support can bolster meaning and acceptance in caregiving processes that dovetail with hope's agency and pathways (Klangrit et al., 2025). Although most "hope" trials come from Iran (Sharifian et al., 2024), Portugal (Laranjeira & Querido, 2022), and the USA (Cheavens et al., 2019), rather than Thailand. Thai studies document Buddhist-based acceptance, compassion, and community support as coping resources that reinforce hope processes (Klangrit et al., 2025; Mamom & Daovisan, 2022; Pokpalagon et al., 2024). Thus, Snyder's theory offers a useful intrapersonal lens but underrepresents family, religion, and community structures that often scaffold Thai caregivers' goal pursuit (Langgabin et al., 2024; Sethabouppha & Kane, 2005).

Moreover, Snyder's theory is predominantly individualistic, focusing primarily on the intrapersonal dynamics of optimism and personal goal-setting while not thoroughly addressing external support or familial interactions (Cheavens et al., 2019) that might influence resilience. This perspective risks ignoring the collective and contextual factors essential to fostering resilience, particularly in cultures where familial and community networks play a crucial role. Thus, while

Snyder's Hope Theory illuminates aspects of individual resilience, it serves as a reminder of the need for frameworks that integrate social dynamics and communal support systems in understanding resilience among caregivers.

2.1.2 Transactional Model of Stress and Coping (Lazarus and Folkman 1984)

The Transactional Model of Stress and Coping, developed by Lazarus and Folkman (1984), conceptualises stress as a dynamic transaction between an individual and their environment. The model emphasises how a person appraises and responds to potential stressors rather than viewing stress as inherent to the situation. Two key cognitive processes are central to this model: primary and secondary appraisals, followed by the selection of coping strategies (Lazarus & Folkman, 1984). In primary appraisal, an individual evaluates whether a situation is irrelevant, benign-positive, or stressful to their well-being. If the event is deemed a potential threat or challenge, a secondary appraisal follows, wherein the individual assesses their available coping resources and options, evaluating their ability to manage the situation (Lazarus & Folkman, 1984).

Based on these appraisals, the person then engages in coping efforts, which Lazarus and Folkman categorise as problem-focused coping (direct actions to manage the stressor) and emotion-focused coping (efforts to regulate one's emotional response to the stressor) (Lazarus & Folkman, 1984). This variation is supported empirically by Quine and Pahl (1991), who found that among 166 mothers of children with severe ID, stress outcomes were significantly shaped by the mothers' access to coping resources and their cognitive appraisal of stressors. Social support and acceptance of the child's disability are particularly potent buffers for reducing stress symptoms (Quine & Pahl, 1991).

This model has been widely used in Thai caregiving research (especially cancer and chronic illness), indicating a good cultural "fit" for analysing appraisals and coping in Thailand (Meecharoen et al., 2013). Simultaneously, it is often applied to discrete stress episodes; it can underplay cumulative, long-term caregiving strain and the systemic influences of Buddhist beliefs, extended families, and community resources that shape appraisals and coping in Thai contexts (Meecharoen et al., 2013).

Coping is central to the Transactional model. Parents utilise both problem-focused (e.g. planning, seeking services) and emotion-focused (e.g. seeking support, reappraisal) strategies. Peer and Hillman (2012) demonstrated that coping styles mediated the relationship between social support and stress perception in parents of children with ID. Specifically, parents employing problem-focused strategies reported lower stress levels, whereas those relying on emotion-focused coping were more likely to experience elevated stress. This mediating effect was further supported by Asadi Shavaki et al. (2020), who applied the Transactional model to mothers of children with type 1 diabetes. Although in a different clinical context, the findings revealed that problem-focused coping and higher levels of information-seeking were positively associated with health-promoting behaviours. In contrast, emotion-focused coping was negatively associated with psychological functioning.

When applied to parents of children with ID, the transactional model suggests that the experience of stress is not solely a function of caregiving demands but critically depends on how caregivers perceive those demands and the coping actions they take (Sood, 2020). The diagnosis of a child's disability is often initially appraised as personally relevant and "motivationally incongruent" with parental desires, leading to significant stress (Sood, 2020). However, the intensity of stress varies considerably based on individual factors. For example, parents' beliefs, their outlook towards the child's disability, personal values, perceived control over the situation, and overall sense of stability (Sood, 2020). This perception leads them to engage in problem-focused coping by actively seeking new solutions. Conversely, another parent might appraise the same event as a dire threat to their child's progress and feel a profound lack of control, potentially leading to emotion-focused coping, such as seeking emotional support or attempting to reframe the situation in their mind.

In another example, Auriemma et al. (2022) found that the perceived severity of a child's ID significantly predicted parents' stress. Notably, parents who believed they lacked control or were unable to manage the behavioural implications of a disability experienced higher levels of stress (Auriemma et al., 2022). Their subjective beliefs about the child's condition played a central role in shaping

their stress responses, consistent with the transactional model's emphasis on cognitive appraisal processes.

The Transactional model provides a theoretical lens through which to understand this variability in terms of individual cognitive appraisal. Stress is not solely a function of caregiving demands but critically depends on how caregivers perceive those demands. This means that even when objective caregiving demands are similar, the subjective experience of stress can vary widely. This helps explain why some caregivers appear resilient in the face of challenges that overwhelm others (Bonab et al., 2017; Caples et al., 2018).

Despite its broad applicability, the transactional model has limitations in long-term caregiving. Hill and Rose (2010) argued that the model is better suited for analysing acute stressors rather than chronic, evolving stress, as seen in long-term caregiving for individuals with ID. The model emphasises discrete stress-coping transactions, which may overlook the cumulative burden of caregiving and its physiological consequences (e.g. sleep deprivation and chronic exhaustion).

2.1.3 Overview of Individual-Level Models

Across Snyder's Hope Theory and the Transactional Model of Stress and Coping, a common thread is the primary emphasis on internal, individual experiences. These models largely focus on cognitive appraisals, personal goals, emotional responses, and individual coping strategies. In each case, the caregiver, as an individual, is the main unit of analysis rather than the family or community. This individual-centric lens yields important insights. For example, Hope Theory highlights the motivational and future-oriented dimensions of resilience, illustrating how an optimistic outlook and goal-setting can buffer stress (Lloyd & Hastings, 2009). The Transactional Model provides a robust framework for understanding the immediate interplay between a person's perceptions and coping behaviours during stressful situations, underlining that how a parent perceives a caregiving challenge can shape their stress reaction (Lazarus & Folkman, 1984).

However, these individual-level models share significant limitations when applied to complex, long-term phenomena, such as caring for a child with ID. A notable shortcoming is their insufficient attention to the broader familial and socioecological context in which caregiving occurs. Family dynamics, ongoing social support, cultural values, and other external factors are largely outside the scope of these theories. For instance, the Transactional Model captures an immediate stress-and-coping episode but does not describe how a family collectively adjusts over years of caregiving. In summary, while individual-level theories contribute valuable insights, they do not fully capture the prolonged systemic adaptation process that characterises resilience in enduring caregiving situations. This recognition has prompted researchers to turn towards family-level models that can better encompass long-term adjustment and the family as a whole.

The critiques of individual-focused models highlight a crucial point for this research: understanding resilience in the context of lifelong caregiving necessitates frameworks that extend beyond the individual to include family and social systems and consider adaptation as an ongoing process. Consequently, the next section shifts to family-level theories that explicitly address how families collectively respond to and grow from chronic stress.

2.2 Family-Level Resilience and Adaptation Models

This section shifts the focus to theoretical models that conceptualise resilience as an emergent property of family systems. These frameworks examine how families, as units, adjust, adapt, and potentially transform in response to adversity. Family-level models are particularly relevant for chronic stressors like caregiving for a child with ID, as they account for the interplay of multiple factors: demands, resources, meaning-making, and long-term adaptive processes within the family unit over time.

2.2.1 Walsh Family Resilience (Walsh, 1996)

The Family Resilience Framework, developed by Walsh (1996), offers a relational, strengths-based approach to understanding how families respond to and recover from adversities. Rather than focusing on dysfunction or pathology,

this model emphasises families' capacity to adapt and grow through hardship. Resilience is not a fixed trait held by individuals but a dynamic, evolving process embedded within the family system (Walsh, 2015, 2016). Resilience involves not only recovery from adversity but also the development of new strengths and deeper connections among family members, with growth emerging from the challenges they face (Walsh, 2015, 2016).

The framework outlines three core domains that support family resilience: belief systems, organisational patterns, and communication processes (Walsh, 2003). The first domain, family belief systems, influences how families interpret and assign meaning to stressful experiences (Walsh, 2003). Families who view adversity as manageable and potentially transformative tend to demonstrate adaptive functioning. Shared beliefs help sustain optimism, foster hope, and enable families to reframe crises in ways that promote endurance and persistence (Walsh, 2003, 2015, 2016). This meaning-making process strengthens the motivation for active coping and encourages a forward-looking perspective.

The second domain, organisational patterns, encompasses how families structure themselves, maintain cohesion, and access both internal and external resources (Walsh, 2003). Walsh (2003) argued that families with flexible roles, stable yet adaptable routines, and supportive relational bonds are better able to withstand stress than those without these characteristics. Such families balance stability and adaptability, which are crucial in situations that require ongoing caregiving or sudden changes. The capacity to reorganise while preserving core connections enhances the family's ability to respond effectively to both chronic and acute challenges (Walsh, 2016).

The third domain involves communication processes, which are essential for coordinating responses to adversity and sustaining emotional well-being (Walsh, 2003). Clear, consistent, and emotionally open communication allows families to express their feelings, share information, and engage in collaborative decision-making (Walsh, 2003). When communication is characterised by empathy, clarity, and mutual respect, it strengthens problem-solving and helps family members feel more supported. According to Walsh (2016), emotionally attuned dialogue fosters unity and promotes shared meaning, both of which are vital for navigating complex stressors.

Walsh's systemic model (belief systems, organisational patterns, communication) has growing empirical use across Asia, including multiple Chinese studies with families of children with ASD (Chen et al., 2025; Gao et al., 2023) and chronic illness (Qiu et al., 2021), and Thai case work with guardians caring for children with leukaemia (Suparit et al., 2023) all explicitly grounded in Walsh's model. This regional uptake supports its cultural portability to collectivist and spiritually oriented settings (Chen et al., 2025; Gao et al., 2023; Suparit et al., 2023). However, Thai studies have not been found using Walsh's model in the area of caregiving for children with ID.

On the other hand, this framework has been applied to families caring for children with ID, offering insights into the resilience processes activated in long-term caregiving contexts in Western cultures. Research has shown that when parents attribute positive meaning to their caregiving role, they often report enhanced psychological endurance and a sense of empowerment (Peer & Hillman, 2014). Similarly, resilient families in these contexts tend to rely on close relational bonds and shared family values as key coping resources (Leone et al., 2016).

Clinically, Walsh's framework provides a practical structure for designing interventions that bolster family functioning and enhance resilience. It encourages practitioners to focus on strengthening beliefs, enhancing organisational flexibility, and fostering healthy communication. This strengths-based orientation shifts the focus from pathology to relational competence and family empowerment (Walsh, 2003, 2016). Nonetheless, some critiques remain to be addressed. For example, it may underrepresent the impact of structural barriers, such as a lack of access to services, which can constrain resilience even in families with strong relational processes (Leone et al., 2016).

2.2.2 The Contextual Model of Family Stress (Boss, 2016)

A contextual model of family stress expands Hill's classic ABC-X framework (Boss et al., 2016; Boss & Greenberg, 1984). It retains the core components of the ABC-X model, where "A" is a stressor event, "B" the family's resources, "C" the family's perceptions or meaning attached to the event, and "X" is the outcome (stress or crisis) (Boss et al., 2016). However, Boss's model places these

components in a broader context. In other words, a family's stress experience is not viewed in isolation but is understood against the backdrop of both internal and external factors (Boss et al., 2016). This approach offers a guiding framework for conceptualising the experiences of mothers of children with ID by acknowledging that such families are influenced by forces both within and outside their immediate family system.

A central tenet of the contextual model is the distinction between external and internal contexts surrounding a stressor (Boss et al., 2016). The external context encompasses macro-level conditions beyond the family's control, such as cultural norms, historical and economic conditions, the developmental stage of the family life cycle, and even hereditary or genetic factors (Boss et al., 2016). These include societal attitudes toward disability, the availability of services or financial resources, and the social policies of the time, all of which impact the family from the outside. Complementing this is the internal context, which refers to elements that the family can potentially control or change (Boss et al., 2016). Boss et al. (2016) described three key internal dimensions: the family's structural arrangements (its composition, roles, and rules), its psychological makeup (the collective perceptions, emotions, and appraisals the family has about the situation), and its philosophical values and belief systems (Boss et al., 2016). For a mother raising a child with ID, the internal context includes things like the stability of her family routines and roles (structural), the family's outlook or mindset about the child's condition (psychological), and their core values or faith that might influence coping (philosophical).

The contextual model posits that whether a family enters a crisis (or, conversely, adapts resiliently) in response to a stressor depends on the interplay among the stressor, the family's resources, and the family's meaning and context. In the case of mothers of children with ID, the model suggests that the child's condition (A) will contribute to stress. Still, the eventual outcome ("X", e.g. parental well-being or family dysfunction) is moderated by context and by how the family manages "B" and "C". Protective factors in the internal context (for instance, a strong marital relationship, effective coping skills, or an optimistic outlook) and in the external context (for example, supportive extended family, inclusive community services, and positive cultural attitudes

toward disability) can buffer the impact of caregiving demands. However, contextual risk factors (such as high societal stigma, economic hardship, or limited services) may exacerbate stress. Boss et al. (2016) explicitly acknowledged that these contextual elements can moderate the link between stress and outcomes. Empirical findings support this hypothesis. For instance, one study of parents raising children with autism found that when the partner provided high levels of emotional and practical support to the mother, the mother's stress had no significant effect on the couple's relationship stability (Low, 2021). In contrast, when partner support was low, the mother's stress was associated with poorer relationship stability (Low, 2021). This example illustrates the contextual model in action: the outcome (marital stability) was not determined by the child's challenging behaviour alone, but by the combination of that stressor with the resources and context surrounding the family.

Another example by Cless et al. (2018) followed mothers of children with Down syndrome and essentially traced resources to the meaning and adaptation pathways that Boss's model predicts. They treat coping as a family resource (internal coping efforts, turning to faith, and seeking support) and propose hope as a key meaning-making process that mothers use to interpret and navigate the daily demands of their child. In their model, higher internal and religious coping are linked to greater hope, and, in turn, mothers who feel more hopeful report better relationship quality with their partners as an adaptation outcome in ABC-X terms (Cless et al., 2018). The authors explicitly ground this logic in the contextual model, noting that disability is part of the family's external context, while religious practice reflects an internal philosophical context that can sustain hopeful appraisals over time (Cless et al., 2018). The empirical takeaway is that coping largely works through hope to support the couple's bond under stress.

Direct applications of Boss's model to Asian disability caregiving are relatively sparse, but family stress theory derived from Boss's model has been tested in Hong Kong (Choy et al., 2025). Choy et al. (2025) underscores the care burden, which reduced quality of life and wellbeing among caregivers in their cultural

context. This is particularly relevant in Thailand, where family roles and access to services shape caregiving demands and perceived control.

The Boss's contextual model excellently identifies the factors that matter (contextual and internal factors around a stressor), but it is less specific about how these factors dynamically interact over time. In other words, the model is somewhat descriptive of the relevant domains to consider rather than fully process-oriented in explaining the step-by-step evolution of family adaptation. Families of children with ID often experience long-term adaptive journeys. While the contextual model highlights key influences on that journey, it does not delineate stages of adaptation or feedback loops the way some process models, such as the double ABC-X (McCubbin & Patterson, 1983) or FAAR models (Patterson, 1988) do. Another practical limitation is operationalisation, because the model casts such a wide net (spanning everything from cultural context to personal belief systems), and empirical studies rarely capture all its components.

2.2.3 Olsson's Model (Olsson, 2008)

This model was developed specifically for families with children with ID (Olsson & Hwang, 2008; Olsson, 2008). Drawing on and critiquing Wallander and Varni's risk and resistance model, Olsson (2008) identified key risk and protective factors that influence parental well-being through an ecological risk and protective factors approach.

The model categorises relevant factors into three broad domains: (1) Child-related factors characteristics of the child's ID and associated challenges (e.g. severity of intellectual impairment, presence of challenging behaviours, or additional medical needs); (2) Intrapersonal factors attributes of the parent or immediate family, such as parental personality traits, coping style, sense of coherence, mental health, and parenting self-efficacy; (3) Socio-ecological factors refer to stress and support from the family environment, including social support networks, availability of services, financial status, and societal attitudes or stigma (Olsson, 2008).

Olsson's risk and resilience framework posits that the complex interplay of factors across these domains determines parental outcomes (Olsson, 2008). In other words, whether parents experience negative outcomes (such as high stress, anxiety, or depression) or more positive adaptation depends on the balance of risk factors (e.g. high care demands, poor health, low income) and protective factors (e.g. strong social support, effective coping strategies, community resources) present in their lives. One study using this framework mapped a family's specific risk and protective factors to determine which were most strongly associated with resilient outcomes (Olsson & Hwang, 2008). For example, mothers with a strong sense of coherence or optimism reported good well-being, even when faced with high caregiving demands (Olsson & Hwang, 2008). Such findings suggest that interventions could aim to reduce risk factors (e.g., addressing economic hardship) and bolster protective factors (e.g., facilitating access to health support). Intrapersonal processes mediate parents' interpretation and response to demands (Olsson, 2008). Olsson (2008) highlighted personality, appraisal, and coping styles, cautioning that passive, emotion-focused strategies tend to predict poorer outcomes.

Although Olsson's model was developed in Sweden, its domains (child factors, intrapersonal factors, and socio-ecological context) align with Asian findings. Indian studies show that an internal locus of control and problem-focused coping are associated with higher resilience among parents of children with ID, echoing Olsson's intrapersonal domain (Rajan & Romate, 2022; Rajan et al., 2018). Chinese work highlights social support and family resilience pathways consistent with the socio-ecological domain (Qiu et al., 2021). However, the application of Olsson's model in Thailand is limited, but empirical patterns map well onto its structure.

One empirical study extends and operationalises these mechanisms: in a study of 57 parents of children with ID, Rajan et al. (2018) found that an internal locus of control is associated with higher resilience, whereas external orientation is linked to lower resilience. Theoretically, an internal locus of control promotes problem-focused coping, a sense of manageability, and sustained engagement with challenges (Rajan et al., 2018). Building on this, Rajan and Romate (2022) reported that in a sample of 121 parents, problem-focused coping (e.g., seeking

professional guidance, gathering information, joint problem-solving, recreation) correlated positively with resilience, whereas emotion-focused coping (e.g., blaming fate, weeping, venting) correlated negatively. Taken together, these findings instantiate the intrapersonal pathway in the theoretical model: control beliefs shape appraisals, appraisals guide coping, and coping, in turn, influences resilience outcomes.

A notable strength of Olsson's model is its context-specific detail: it was formulated with the realities of disability caregiving in mind, so it explicitly includes child ID characteristics and acknowledges the socio-environmental context of these families (Olsson & Hwang, 2008). It provides a structured way to catalogue the various variables that research has linked to parental outcomes.

However, a key limitation of Olsson's approach is that it is more descriptive than process-oriented. It functions largely as a taxonomy of relevant factors rather than as a detailed explanation of how these factors interact over time to produce resilience. However, it is less explicit about how resilience unfolds or how families change over time. Additionally, because it is a relatively recent framework, it has not been as extensively validated across multiple studies as previous models such as FAAR (Patterson, 1988) or McCubbin's (McCubbin et al., 1996). Olsson's Risk and Resilience Model offers a valuable checklist of risk and protective factors tailored to families with children with ID (Olsson, 2008). However, to capture the dynamic nature of resilience, one must often look to more process-driven theories. This underscores the distinction that some theoretical frameworks excel at describing who is at risk or resilient (based on factors), whereas others excel at describing how resilience develops over time; the ideal is to integrate both perspectives.

2.2.4 McCubbin's Resiliency Model of Family Stress, Adjustment, and Adaptation (McCubbin et al., 1996)

McCubbin's Resiliency Model of Family Stress, Adjustment, and Adaptation is an extension of foundational theories of family stress. It evolved from Hill's classic ABCX model (Hill, 1949) and its later expansion into the Double ABCX model by McCubbin and Patterson (McCubbin & Patterson, 1983). The ABCX model posits that a family's response to a stressor (A) is shaped by the family's resources (B)

and perceptions (C) of the event, which together determine the likelihood of a crisis (X) (Rosino, 2016). The Double ABCX model built on this by addressing post-crisis adaptation, introducing (aA) the pile-up of ongoing or additional stressors, (bB) the development or depletion of resources over time, (cC) evolving appraisals of the situation and resources, and (xX) the family's adaptation outcome (McCubbin & Patterson, 1983). Around the same time, Patterson's Family Adjustment and Adaptation Response (FAAR) model further elaborated on the distinction between short-term adjustment and long-term adaptation (Patterson, 1988). The FAAR model describes families continually striving to balance demands (stressors and strains) and their capabilities (resources and coping skills) (Patterson, 1988). If family capabilities can meet or exceed the accumulated demands, the family achieves an initial adjustment and maintains stability; if demands overpower capabilities, the family enters a state of crisis, prompting more fundamental reorganisation for adaptation (Patterson, 1988).

Together, these theoretical developments set the stage for a more comprehensive framework. Hill's ABCX model introduced core factors in family crisis; the Double ABCX model expanded it into a longitudinal process of adaptation; and Patterson's FAAR model and resilience perspective underscored the dynamic balance and interpretive processes of family engagement. McCubbin's Resiliency Model of Family Stress, Adjustment, and Adaptation emerged from this lineage as an integrative model, drawing on earlier concepts and extending them into a systemic theory of family resilience (McCubbin et al., 1996).

The Resiliency Model outlines two phases in how families respond to stress: an adjustment phase and an adaptation phase (McCubbin et al., 1996). In the adjustment phase, the family attempts minor, short-term changes to cope with a stressor and maintain normal functioning (McCubbin et al., 1996). If the stress is mild or resources are sufficient, these adjustments may prevent a crisis. However, when facing more severe or chronic stressors (e.g. the ongoing care needs of a child with ID), the family often enters an adaptation phase, requiring more fundamental, long-term changes in roles or expectations (McCubbin et al., 1996). The transition from adjustment to adaptation is typically marked by a family crisis when existing routines can no longer accommodate demands.

During the adaptation phase, the Resiliency Model identifies several interacting components that determine outcomes (McCubbin et al., 1996).

Pile-up of Demands (AA): The initial stressor plus accumulative strains form a pile-up of demands that the family must confront (McCubbin et al., 1996). In the context of an adolescent with ID, new stressors might include the approaching transition to adulthood, concerns about the child's future, and societal stigma, which add to the ongoing caregiving demands.

Family Resources (BB): Families bring unique vulnerabilities and strengths into a crisis. McCubbin's model classifies family types based on attributes like hardiness and coherence (shared values and connectedness) (McCubbin et al., 1996). For example, resilient families high in coherence and hardiness tend to pull together and find solutions, whereas vulnerable families with low cohesion may be at greater risk of maladaptation. These enduring family characteristics influence how stress is managed. The model also considers pre-existing resources (e.g. social support networks and community services) (McCubbin et al., 1996).

Situational Appraisal (CC): How the family perceives and makes meaning of both the stressor and their available resources is important in this model. A mother's interpretations (e.g., viewing her child's disability as a manageable challenge or as a tragic) will shape her emotional and behavioural responses. The Resiliency Model highlights positive appraisal processes (such as finding meaning, maintaining hope, or normalising the situation) as facilitators of resilience (McCubbin et al., 1996). Notably, cultural context influences appraisal; for instance, it might lead mothers to frame the disability in more accepting or positive ways, thereby affecting adaptation.

Problem Solving and Coping (PBC): Families' coping strategies and problem-solving communication are mechanisms linking stress, resources, and outcomes (McCubbin et al., 1996). Active, collaborative problem-solving within the family can lead to resilient families. In contrast, maladaptive coping (avoidance, denial) can exacerbate stress.

Family Adaptation (XX): The end result of these interactions is family adaptation. Successful adaptation (bonadaptation) means the family has

achieved a new equilibrium with healthy functioning (McCubbin et al., 1996). Maladaptation implies persistent crisis, dysfunction, or poor mental health in the family (McCubbin et al., 1996). Family resilience in this model is essentially reflected by positive adaptation despite adversity.

McCubbin's Resiliency Model has been widely applied in studies of families with children with ID. It has been used as a guiding framework in diverse cultural contexts, indicating its robustness. For example, Van Riper (2007) employed this model in a study of families of children with Down syndrome, finding that the majority "responded to a 'change of plans' with resilience," and identifying factors that differentiated well-adapted families. (Van Riper, 2007). In Asia, Hsiao and Van Riper (2011) applied the model to Taiwanese families of children with Down syndrome and found that variables consistent with the model, such as family demands (stressors) and family appraisal, significantly predicted family adaptation outcomes (Hsiao & Van Riper, 2011). Specifically, families with fewer demands and more positive perceptions of their situation had better overall functioning (Hsiao & Van Riper, 2011). Similarly, an Irish study using the model reported that families of children with ID can adapt and become resilient, highlighting protective factors like strong family support, effective coping, and optimism in facilitating this process (Caples et al., 2018). These studies (e.g., Van Riper, 2007; Hsiao and Van Riper, 2011; Caples et al., 2018), provide evidence that the Resiliency Model effectively captures the critical processes by which families adjust and thrive in the face of a child's ID.

In Thailand, McCubbin's resiliency model has been used to frame studies of Thai families living with mental illness (Puasiri et al., 2011; Rungreangkulkij et al., 2002), and key measures derived from the model have been validated in Thailand (Rungreangkulkij et al., 2002), strengthening the conceptual and measurement fit for Thai mothers of adolescents with ID. McCubbin's Resiliency Model offers a comprehensive lens through which to examine how these mothers navigate ongoing challenges as their children grow. The model's inclusion of cultural and community context (through resources) is valuable in a Thai setting where extended family, community norms, and religious beliefs play significant roles in coping. In addition, the two-phase (adjustment, adaptation) structure aligns with the trajectory many families experience: initial adjustments around

the time of diagnosis and early childhood, and deeper adaptation challenges during the child's adolescence (e.g. behavioural changes in puberty, transitioning out of school, planning for adult care). The Resiliency Model explicitly acknowledges that new stressors can emerge over time (pile-up) and that resilience is a dynamic process, a viewpoint consistent with the lived reality of these mothers, who must continually adapt to their adolescents' evolving needs. By accounting for stressors, resources, and perceptions simultaneously, the model can explain why some mothers remain resilient and maintain well-being while others struggle, which is the core aim of this study.

2.2.5 Overview of Family-Level Model

Across Walsh's Family Resilience Model (Walsh, 1996), Boss's Contextual Model of Family Stress (Boss et al., 2016), Olsson's Model (Olsson, 2008), and McCubbin's Resiliency Model of Family Stress, Adjustment, and Adaptation (McCubbin et al., 1996), a common thread is the emphasis on resilience as a property emerging from family interactions and collective experiences rather than individual traits. These models primarily focus on family systems, considering resilience a dynamic and adaptive process shaped by family dynamics, shared meanings, external contexts, and ongoing interactions among family members.

Walsh's Family Resilience Model emphasises relational strengths within families, highlighting three core domains: belief systems, organisational patterns, and communication processes (Walsh, 1996). Walsh suggested that families inherently possess the ability to grow positively through adversity by cultivating shared optimism, adaptable organisational structures, and open and empathic communication (Walsh, 2016). This relational focus illustrates how resilience is fostered through family cohesion and collective coping strategies, which are particularly relevant in sustained caregiving roles.

Similarly, Boss's Contextual Model of Family Stress expands Hill's classic ABC-X model by considering external macro-level factors (such as economic conditions and cultural attitudes) and internal family contexts (such as psychological perceptions and philosophical values) (Boss et al., 2016). Boss's model emphasises the interplay between these factors in shaping how families manage

stress (Boss et al., 2016). While valuable for its comprehensive inclusion of external and internal influences, this approach is less explicit about the dynamic interactions among these factors over extended periods.

Olsson's model specifically addresses families raising children with ID, categorising risk and protective factors into child-related characteristics, intrapersonal parental factors, and socioecological influences (Olsson, 2008). While this model offers an extensive checklist of critical variables influencing family outcomes, it primarily functions descriptively, lacking detailed insights into the continuous adaptation processes that families undergo.

Finally, McCubbin's Resiliency Model explicitly tackles both short-term adjustments and longer-term family adaptations, describing a clear trajectory from initial coping strategies to profound adaptations following sustained or severe stressors (McCubbin et al., 1996). Central to McCubbin's framework are the accumulated stressors, family resources, appraisal processes, and problem-solving strategies that determine the family's adaptation outcomes (McCubbin et al., 1996). McCubbin's model is notably comprehensive, capturing both immediate and ongoing adaptation processes, which makes it especially applicable to chronic caregiving situations, such as those experienced by Thai mothers caring for adolescents with ID.

While these family-level models collectively provide a richer understanding of resilience than individual-focused theories, they also highlight the complexity of long-term family adaptation. This complexity underscores the necessity of frameworks that can integrate family dynamics, sociocultural contexts, and ongoing adaptation processes. Recognising these dynamics has led researchers and practitioners to adopt comprehensive, family-centred approaches that fully capture the resilience processes inherent in lifelong caregiving contexts.

2.3 Justification for Selecting McCubbin's Resiliency Model

Cultural relevance is crucial when selecting a framework for studying Thai families. All models originated in Western contexts, but some have been applied cross-culturally. McCubbin's model has been used in Asia (Taiwan) and has been

found to be applicable, suggesting that it has the flexibility to incorporate different cultural definitions of resources and meaning (Hsiao & Van Riper, 2011). Walsh's emphasis on belief systems is relevant in cultures where spiritual beliefs influence coping (Walsh, 1996). However, one must be mindful to include culturally specific resilience factors (Walsh herself encourages cultural tailoring of her framework). Boss's model explicitly includes culture in the external context, which is its strength (Boss et al., 2016). However, it does not explain how a Thai family changes when cultural attitudes shift or when they find new internal strengths. Thus, using Boss's insights within a larger process model is an attractive approach. Olsson's factors would certainly include things such as stigma (Olsson, 2008) (which could be higher or lower in the Thai context) and family support (Thai families often have involved extended kin, which might be a stronger protective factor than in some Western cases).

Therefore, all models have pieces that are relevant to the Thai context. The goal is to choose one that can coherently accommodate all these pieces. Based on the above analysis, McCubbin's model is the most comprehensive and integrative framework for this study. It effectively subsumes many of the other models' strengths: it recognises stressors and supports (as Boss and Olsson highlight), and accounts for meaning-making and coping processes (as Walsh and Lazarus emphasise). Importantly, it provides a temporal structure for understanding adaptation (unique to itself), and key measures derived from the model (for example, family strain inventory, family crisis-oriented personal scales, and social support index) have been developed and validated in Thai family caregivers. This is practical for a thesis that may involve measuring these concepts.

Additionally, the model's concept of family adaptation aligns with the ultimate interest of the research: understanding not just whether an individual parent is "resilient" (e.g., not depressed) but also how the family unit adapts and maintains its functionality and well-being over time. This family-level outcome is more appropriate in a collectivist context, where the mother's well-being is intertwined with that of the family. In this thesis, resilience is conceptualised as a dynamic process of positive adaptation in the context of significant adversity, rather than a fixed individual trait. Drawing on McCubbin's resilience theory

(McCubbin et al., 1996), resilience is understood as emerging through the interaction of individual and contextual factors that enable families to adapt, sustain functioning, and grow despite ongoing challenges. Within the context of families raising a child with ID, resilience may be reflected in outcomes such as maintained psychological well-being, effective family functioning, and adaptive coping over time (Singh & Kumar, 2022).

Another justification is the fit with the research aims. If the aim is to identify what helps Thai mothers of adolescents with ID to be resilient, McCubbin's model provides a clear template: examine their stressor pile-up, see what resources they have and can build, understand how they appraise their situation, look at their coping and communication patterns, and then assess adaptation. It is a blueprint that can guide quantitative measures and qualitative enquiries (e.g. interview questions about each component).

Summary

In this chapter, multiple theoretical frameworks have been explored to understand resilience in parents of children with ID, spanning individual psychological models to whole-family systemic models. Integrating these insights, McCubbin's Resiliency Model has emerged as a comprehensive framework that captures the ongoing and dynamic nature of family adaptation to chronic stress.

Resilience in parents of children with ID can be understood as the adaptive capacity of a family system, not just an individual trait. It involves struggle, adjustment, and growth over time, often requiring changes in family patterns and the utilisation of support at multiple levels. This chapter's review provides a theoretical foundation for examining these processes. With this framework, the next steps of this thesis will delve into an empirical investigation applying McCubbin's Resiliency Model to real-world data and the experiences of Thai mothers.

Chapter 3 Research Design and Methodology

This PhD thesis employed a multi-method design to comprehensively address the study aims and objectives. While the terms "mixed-method" and "multi-method" are sometimes used interchangeably in the literature, methodologists make important distinctions (Anguera et al., 2018). Mixed-method typically refers to the integration of quantitative and qualitative approaches within a single study, where one component is usually supplementary and incomplete on its own (Johnson & Onwuegbuzie, 2004; Morse & Niehaus, 2016). In contrast, a multi-method design is a scientifically rigorous research program comprised of a series of related, complete research projects conducted over time, driven by an overall theoretical thrust (Morse & Niehaus, 2016).

This thesis comprises three interrelated studies: a systematic review, a quantitative study, and a qualitative study. Each study was designed to build on the other, with the findings from a systematic review informing the quantitative study, and then the quantitative study informing the design and focus of the subsequent qualitative study. Detailed methodological approaches for each of these studies are presented in the corresponding chapters.

This chapter outlines the rationale for choosing a multi-method design, discusses the strengths and limitations of both quantitative and qualitative methodologies in the context of this study. This design was chosen to better understand the resilience of Thai mothers of adolescents with ID by combining the breadth of quantitative data with the depth of qualitative insights. The integration of both ensures a more robust exploration of the complex and culturally embedded nature of maternal resilience in this context.

3.1 Rationale for Multi-Method Design

The selection of an appropriate research design is important to effectively address the research aim and objectives. Resilience, the central construct of this study, is complex and multifaceted, influenced by the dynamic interplay of individual characteristics, relational dynamics, community resources, and broader societal and cultural contexts (Masten, 2018; Southwick et al., 2014).

The experience of raising a child with an ID involves stressors and demands that potentially impact maternal mental health, well-being, and capacity for resilience (Rinaldi & Retnowati, 2016; Tomczyszyn, 2019). Understanding the factors that foster or hinder resilience in this specific population within Thailand's cultural landscape requires a methodological approach that can capture this complexity.

Employing a single methodological approach, whether purely quantitative or qualitative, would be insufficient to fully address the research questions. While quantitative surveys are useful for measuring resilience levels and identifying statistical associations between variables across a larger sample (Saraswati & Devi, 2023), they would likely fail to capture the rich subjective experiences, culturally specific meanings, and contextual nuances that shape how Thai mothers understand and enact resilience. It might overlook unique coping mechanisms rooted in Thai cultural or spiritual beliefs or fail to adequately interpret the meaning behind statistical correlations without understanding the lived reality of these mothers. Conversely, a solely qualitative approach, while adept at providing in-depth descriptions of lived experiences and illuminating cultural contexts, would lack the capacity for statistical generalisation and the ability to systematically test the associations between specific demographic, psychosocial, or caregiving factors and resilience levels across the population (Saraswati & Devi, 2023). The findings might be rich in detail but are limited in their applicability to a broader group of mothers.

Given the limitations, a multi-method design is well-suited for this thesis. Caregiver resilience is complex, involving measurable constructs and cultural experiences. Multi-method design combines quantitative breadth with qualitative depth (Creswell, 2017; Hesse-Biber & Johnson, 2015), allowing researchers to statistically identify key factors while also hearing mothers' voices on how these factors play out in real life (Thompson & Ivankova, 2022). Multi-method design provide a more comprehensive, holistic, and nuanced understanding of complex human phenomena and health-related issues (Saraswati & Devi, 2023). By integrating both quantitative and qualitative data, this approach leverages the strengths of each methodology while mitigating their weaknesses.

Employing multi-method increases the chances of obtaining varied and extensive research findings (Kasirye, 2024). The collective strength of different approaches provides a better understanding of the research problem than a single form of data collection could on its own (Anguera et al., 2018; Kasirye, 2024).

Therefore, three distinct but interconnected studies were conducted.

Study 1: Systematic Review: Identifying existing knowledge and gaps regarding resilience factors among parents of children with ID, specifically highlighting the scarcity of studies in the Thai context.

Study 2: Quantitative Survey: Testing McCubbin's resiliency model among Thai mothers and identifying demographic, psychosocial, and caregiving factors statistically associated with resilience.

Study 3: Qualitative Interviews: Exploring in-depth maternal experiences and contextual factors influencing resilience, directly informed by the findings of the quantitative survey.

Understanding the influence of Thai cultural norms, such as strong family ties, community support, and spiritual beliefs, is crucial (Joungtrakul et al., 2024). Thailand's family centred culture and Buddhist traditions interact with the demands of caregiving for adolescents with ID, shaping maternal resilience. For example, Thai caregivers often receive emotional and practical support from their extended families (Chavapattanakul et al., 2020), and cultural values (Joungtrakul et al., 2024) may affect how mothers interpret hardship and coping. Therefore, quantitative results can be explained and deepened by qualitative narratives (Thompson & Ivankova, 2022), making this approach appropriate for understanding resilience in Thai mothers of adolescents with ID.

Thus, integrating qualitative narratives to complement quantitative findings is valuable for deepening the understanding of resilience among Thai mothers of adolescents with ID (Thompson & Ivankova, 2022).

3.2 Multi-Method Design

Multi-method research integrates different methodological and theoretical perspectives to achieve a more comprehensive and nuanced understanding of a phenomenon and support more well-informed decision-making than relying on a single method alone (Edlund & Nichols, 2024). Grounded in pragmatism, knowledge is constructed in context, and researchers use whatever method best address the research question (Allemang et al., 2022). This paradigm is well-suited to a study of resilience (a complex, culturally embedded construct) because it encourages the integration of quantitative and qualitative data to gain a comprehensive picture (Allemang et al., 2022). Accordingly, this thesis adopts a multi-method design to examine resilience among Thai mothers raising a child with ID. The design can be divided into four steps: conceptualised as the deliberate inclusion, exploration, and integration of multiple perspectives to generate a deeper understanding of decision-making in practice (Edlund & Nichols, 2024). The researcher explains below how this can be accomplished.

3.2.1 Inclusion of Multiple Lenses

The systematic review (Study 1) and quantitative phase (Study 2) directly addressed aims 1 (to investigate the factors associated with resilience in parents of children with ID) and 2 (to examine McCubbin's model of resilience in mothers of adolescents with ID in Thailand) by measuring resilience levels and statistically identifying demographic, psychosocial, and caregiving factors associated with resilience across a sufficiently large sample of mothers. This provides a necessary overview of key variables and their relationships. Although the systematic review and quantitative phase identified the factors associated with resilience and their strength, they did not fully illuminate why these associations existed or how mothers experienced these factors within Thailand's specific cultural and social contexts. For example, quantitative data showed a link between a specific coping strategy (e.g. religious coping) and resilience, but qualitative enquiry was needed to understand the meaning and practice of this strategy among Thai mothers.

3.2.2 In-Depth Exploration

The subsequent qualitative phase enabled purposeful sampling informed by the quantitative results. This approach ensured that the qualitative data explained the patterns or complexities observed in the quantitative data, fulfilling Objective 3 (to explore the factors that influence resilience in mothers of adolescents with ID in Thailand). This design facilitated the exploration of contextual factors and cultural nuances that might have influenced the quantitative findings. The qualitative phase provided an opportunity to delve into culturally specific beliefs, values, support systems, and resilience-related barriers that quantitative measures did not fully capture.

3.2.3 Integration

The sequential multi-method design allowed the qualitative findings to be directly elaborated upon, contextualised, and provided deeper meaning to the quantitative results during the final integration discussion (Chapter 9), leading to more robust and insightful conclusions. The sequential multi-method design provided a logical structure: first to identify patterns and associations quantitatively, and then to explore the underlying reasons and lived experiences qualitatively, yielding a more comprehensive and contextual explanation of resilience among mothers of adolescents with ID in Thailand.

The outcome is an integrated resilience framework. SEM proposed an initial model of direct and indirect influences on resilience. Qualitative phrase, then confirm, refine, and extend this model. For instance, interviews revealed that certain coping strategies (e.g. Buddhist mindfulness) underlie the statistical effect of “emotional coping” on resilience. That community stigma mitigates the effects of social support. The researcher synthesises these insights by constructing a final conceptual model that includes both the SEM-identified paths and the emergent qualitative themes. This refined model represents the combined evidence on what enables resilience among these mothers.

Together, these integration activities exemplify the study's pragmatic goal: to produce actionable, context-rich knowledge. Quantitative data give breadth and a general pattern, while qualitative data add depth and contextual validity

(Edlund & Nichols, 2024). By explicitly connecting, building, and merging, the researcher leverages both strands to form a comprehensive understanding of resilience in this Thai context.

Executing a multi-method approach is inherently more complex than a single-method study and requires a high level of methodological expertise to ensure validity (Anguera et al., 2018; Morse & Niehaus, 2016). To maintain rigour, this study adheres to the core assumptions of both quantitative and qualitative paradigms independently during their respective phases (Morse & Niehaus, 2016). By systematically combining these approaches, the final model of resilience will not only be statistically sound but also culturally resonant and deeply reflective of the mothers' lived realities.

3.2.4 Making a Decision in Practice

The integrated understanding generated through the preceding steps informs practical and theoretical implications (Edlund & Nichols, 2024). As an optional final step, the integrated, comprehensive understanding achieved in Step 3 is used to inform practical decisions or interventions (Edlund & Nichols, 2024). The resulting decision is informed by multiple perspectives and a more inclusive understanding, it is assumed to be of higher quality and have a better chance of success in practice than a decision based on only one perspective (Edlund & Nichols, 2024). By integrating statistical breadth with contextual depth, this multi-method design provides actionable knowledge for nursing practice, mental health services, and policy development in Thailand.

3.3 Evaluating Multi-Method Design

Ensuring the quality, rigour, and trustworthiness of multi-method research is essential for the credibility and utility of its findings (Peez, 2024). Evaluating a multi-method study involves more than just assessing the quality of its separate quantitative and qualitative components. It requires specific attention to the rationale for the multi-method approach, the appropriateness of the design, and, crucially, the quality and effectiveness of the integration between the two strands (Brewer & Hunter, 2005). Key criteria for evaluating the rigour of a multi-method study, including the proposed explanatory sequential design, can

be synthesised from established guidelines (Brewer & Hunter, 2005; Collier et al., 2008; Peez, 2024; Schoonenboom, 2024).

(1) Rationale and justification: High-quality multi-method studies provide a clear, compelling case for why both QUAN and QUAL data are needed and that possess complementary strengths and non-overlapping weaknesses (Brewer & Hunter, 2005; Peez, 2024). In this thesis, Section 3.1 details the complexity of resilience in Thai mothers of adolescents with ID, outlines the limitations of mono-method, and justifies the explanatory value of multi-method for this context.

(2) Design appropriateness and fidelity: The chosen design should be explicitly identified, justified as fit-for-purpose, and combined to maximise both internal validity (the ability to prove causal relationships) and external validity (the ability to generalise findings) (Brewer & Hunter, 2005; Wood et al., 1999). A multi-method study is highly emergent; a well-designed study demonstrates adaptability, such as focusing the research question, once initial data begins to reveal unexpected patterns (Schoonenboom, 2024). In this thesis, Section 3.2 identifies and justifies an explanatory sequential (quantitative to qualitative) design based on the research aims, and subsequent sections document the procedures demonstrating fidelity to that design.

(3) Methodological rigour of components: Each strand should meet disciplinary standards for QUAN: appropriate sampling, validated instruments, and suitable analyses; for QUAL: credible sampling, systematic data collection, data analysis, and strategies to ensure the "thick analysis" (rich, dense, context-heavy knowledge of specific cases) (Collier et al., 2008; Peez, 2024). In this thesis, quantitative rigor was demonstrated through the use of standardised scales, multi-stage sampling, power analysis considerations, and analyses including correlation and SEM with psychometric reporting. Qualitative rigor was demonstrated through purposive sampling informed by QUAN results, semi-structured interviews, thematic analysis, and strategies such as audio recording, verbatim transcription, peer debriefing, reflexivity, and cultural positioning.

(4) Integration quality: Strong multi-method studies make integration explicit (when, how, and why) and show that inferences genuinely arise from combining

strands to form a deeper meta-inference (Schoonenboom, 2024). In this thesis, Section 3.2 specifies the plan to connect QUAN results to QUAL sampling, build the interview guide from QUAN findings, and merge during interpretation using narrative weaving and joint displays; these integration steps were enacted and reported accordingly.

(5) Interpretive rigor and inference quality: Final interpretations should be coherent, plausible, and demonstrably grounded in integrated QUAN and QUAL evidence (Brewer & Hunter, 2005; Schoonenboom, 2024). In this thesis, Chapter 9 synthesised statistical findings with thematic explanations and used joint displays to link data sources and conclusions transparently.

(6) Transparency: Clear and sufficiently detailed reporting of design choices, data collection, analyses, and integration strategies enables readers to appraise quality and credibility (Peez, 2024; Stange, 2006). In this thesis, Chapters 5-9 provide detailed methodological accounts, with subsequent chapters reporting findings, integrating (e.g., joint displays) and offering narrative explanations.

In summary, this chapter has outlined a multi-method design to explore resilience in Thai mothers of adolescents with ID. Beginning with a comprehensive survey and SEM analysis of resilience and its predictors, followed by thematic analysis of mothers' lived experiences. The pragmatic paradigm guides this integration, allowing each method to complement the other. The next chapter presents a systematic review of factors associated with resilience to inform the quantitative study to follow.

Chapter 4 A Systematic Review on the Factors that Influence Resilience in Parents of Children with Intellectual Disabilities (Study 1)

4.1 Introduction

Parenting is an intricate journey that takes on a unique and often challenging dimension when a child is diagnosed with ID (Rydzewska et al., 2021).

Resilience in parents of children with ID is crucial for their ability to cope, adapt, and provide optimal support to their children (Elizabeth. et al., 2018). While existing reviews (Iacob et al., 2020; Ilias et al., 2018) have examined resilience in parents of children with autism and developmental disabilities, but they do not focus exclusively on parents of children with ID.

Caring for a child with an ID poses distinct challenges that differ from those associated with other developmental disorders. Unlike autism, which often involves social and communication difficulties. Intellectual disability is defined by substantial limitations in intellectual functioning and adaptive behaviour, which impact the ability to learn, communicate, and perform daily activities (APA, 2013). These profound deficits lead to long-term and often intensive caregiving demands. This systematic review aims to fill this gap by concentrating specifically on this population, offering a more targeted exploration of resilience factors.

Parents are required to assist with basic daily tasks such as hygiene, feeding, and mobility (Marrus & Hall, 2017; Wu & Boat, 2015), while also managing their child's behavioural issues, including aggression, self-injury, and delayed developmental milestones (Baker et al., 2003; Harris, 2010). In addition, they often confront societal prejudice and stigma (Mitter et al., 2019; Tejakum et al., 2022), which further compounds the emotional burden.

Mental health problems such as anxiety, depression, and stress are more prevalent in mothers of children with ID than in those raising typically developing children (Rydzewska et al., 2021). The cumulative stress of long-

term caregiving has been linked to reduced psychological well-being, poorer maternal physical health and increased parenting stress (Keith A. Crnic et al., 2017; Gogoi et al., 2017; Lee, 2013).

Despite these challenges, some parents demonstrate a capacity to adapt, sustain their well-being, and foster positive family functioning. Supportive co-parenting relationships have been found to reduce parenting stress and decrease child behavioural issues (Zhu et al., 2024). Access to social support, including emotional, informational, or practical support, has also been identified as a key factor in enhancing the quality of life for families of children with ID (Hassanein et al., 2021). Parents who successfully navigate these demands often facilitate better developmental outcomes for their children and greater overall family resilience (Widyawati et al., 2023). Moreover, interventions focusing on family support, social skills and emotional socialisation can help parents manage stress and promote positive adaptation (Jacobs et al., 2019).

Understanding what empowers parents to manage heightened mental health challenges is essential, with resilience as a potential explanation. Contemporary understandings of resilience emphasise its nature as a dynamic process of adaptation in the face of adversity rather than a fixed trait (Luthar & Cicchetti, 2000; Masten, 2018). For example, Rutter (1987) conceptualised resilience as an individual's ability to overcome adversity despite exposure to risk factors. Luthar and Cicchetti (2000) further defined it as *"a process wherein individuals display positive adaptation despite experiences of significant adversity"*. Walsh (2015) described resilience as the ability to withstand hardship and emerge stronger, while Masten (2018) framed it as the capacity of a system, individual, family, or community to adapt successfully under stress. These perspectives collectively position resilience as an adaptive, multifaceted, and relational process.

In line with this conceptualisation, the current review treats outcomes such as sustained mental health, effective family functioning, and positive psychological adaptation as valid indicators of resilience. Such outcomes not only reflect successful coping but also signal the presence of resilience

mechanisms. Identifying the factors that support these outcomes is therefore essential for informing the development of effective, evidence-based interventions for families of children with ID.

Given the significant mental health risks faced by these parents, it is critical to understand what enables some of them to thrive despite adversity. The observation that some parents achieve "positive adaptation outcomes" despite these risks raises a vital question: what factors are associated with resilience in this population? To address this question, the present systematic review synthesises evidence on resilience in parents of children with ID, examining both the stressors that challenge resilience and the personal and contextual factors (resources, protective factors) that promote it. Additionally, the review explores gaps in the literature, including differences in resilience between mothers and fathers and variations across different caregiving stages.

4.2 Review Question

To formulate a well-focused research question and efficiently guide the literature search, the PICO framework was used (Schardt et al., 2007) to search for relevant evidence in appropriate resources. PICO is an acronym representing Population, Intervention, Comparison, and Outcome, a widely used approach in evidence-based practice to structure clinical and research questions (Schardt et al., 2007). The PICO framework was used primarily as a search-structuring tool rather than as a strict question-formulation model. As this review did not involve comparative groups, the comparison element was not applicable. This represents a limitation of applying PICO in this context. However, the framework still supported a systematic and transparent search strategy by clearly defining the population, intervention, and outcomes. For this systematic review, P refers to parents of children with ID, I denotes factors influencing resilience, C was not applicable as there was no comparison, and O represents resilience measurement. Using this framework, the review question was formulated as:

(1) What are the factors that challenge and promote resilience in parents of children with ID?

(2) Are there evidence gaps in resilience research regarding the differences between mothers and fathers of children with ID and the variations at different caregiving stages?

4.3 Methods

4.3.1 Search Strategy

This systematic review was registered with the International Prospective Register of Systematic Reviews (PROSPERO) (registration number: CRD42022335724) and followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines, flow diagram, and checklist (**Error! Reference source not found.**) (Shamseer et al., 2015). A systematic search was conducted using five databases: MEDLINE, PsycINFO, EMBASE, CINAHL, and SocINDEX from June 2022 to June 2023. Key search terms included mental retardation, intellectual disabilities, learning disabilities, developmental disabilities, parents, resilience, coping, adaptation, hardiness, combined using Boolean operators (AND, OR) and truncation (*) (Appendix I). The search was limited to English-language studies, with no time restrictions. The researcher excluded the term "stress" to focus on the outcome, resilience, because including stress might introduce variables less relevant to the topic. The inclusion and exclusion criteria were as follows:

Inclusion criteria:

1. Parent who has children with ID
2. Studies focusing on the concept of resilience
3. Empirical study, cross-sectional studies, cohort studies, case-control study and qualitative study
4. Studies from peer reviewed journals
5. Full-text papers written in English

Exclusion criteria:

1. Parents with a diagnosis of ID

2. Information about parents of children with ID were not separately presented and/or were less than 80% of the total sample
3. Parents of children with other disabilities (autism, a specific learning difficulty in reading or writing, physical disability)
4. Review papers, theoretical articles, commentaries, and unpublished papers

4.3.2 Data Extraction

The study selection process involved initial screening 100% of papers by title and abstract by the first reviewer (W.T.). To ensure reliability and minimise selection bias while maintaining feasibility given the large number of records retrieved, a random 10% sample of titles and abstracts was independently screened by the second reviewer (M.T.) and third reviewer (D.C.). W.T. is a doctoral fellow, M.T. a senior lecturer, and D.C. a professor. There were disagreements between the two studies, which were resolved through consensus discussions. These two studies were ultimately excluded because they did not meet the inclusion criteria, which required that the parents of children with ID be the main participants of the study. All three reviewers assessed the full texts for eligibility. Data extraction was performed in a structured format (Table 1). The researchers also reviewed the reference lists of the included studies to ensure a comprehensive coverage.

4.3.3 Quality and Risk of Bias Assessment

Several critical appraisal tools were considered, including the Joanna Briggs Institute (JBI) Critical Appraisal Checklists (Munn et al., 2020), the Mixed Method Appraisal Tool (MMAT) (Hong et al., 2018), and the Newcastle-Ottawa Scale (NOS) (Lo et al., 2014). However, the methodological quality of the included studies was assessed using the Oxford Critical Appraisal Skills Programme Checklist (CASP, 2018). These checklists provide a robust framework for appraising both cohort and qualitative studies in the field. These domains include the clarity of the focused issue, methodology, study design, sample size, measures, data collection, analyses, results, bias, generalisability, confounding factors, and ethical issues. Although the JBI

tools offer detailed, design-specific appraisal criteria, their use would have required multiple separate checklists across study types, potentially reducing consistency in appraisal across a heterogeneous evidence base. Given the narrative synthesis approach, CASP was considered the most appropriate tool to ensure consistency, transparency, and relevance to the aims of the review.

Each study was evaluated against the relevant CASP criteria, and a risk-of-bias rating was assigned based on the extent to which each domain was adequately addressed (Appendix B, C). A double-rating approach was employed: the first reviewer (W.T.) rated all papers, while the second (M.T.) and third (D.C.) reviewers independently rated half of the papers. This cross-checking ensured validation and minimised errors or biases. The risk of bias was classified as low, unclear, or high for each study. Studies with appropriately recruited cohorts were rated as low risk, whereas those with unclear or unsuitable recruitment methods were rated as high or uncertain risk (Mathie et al., 2017).

Rating A = low risk of bias in all domains

Rating Bx = unclear risk of bias in x domains, low risk of bias in all other domains

Rating Cxy = high risk of bias in y domains, unclear risk of bias in x domains, low risk of bias in all other domains

This structured approach to quality assessment ensured consistency, transparency, and rigour in evaluating the reliability and credibility of the included studies.

4.3.4 Strategy for Data Analysis

Owing to the significant heterogeneity in the data, a meta-analysis was deemed unsuitable. Consequently, narrative synthesis was used to incorporate diverse research methodologies and achieve a comprehensive understanding. This approach involved summarising and interpreting study results in descriptive text, adhering to the guidelines of Popay et al. (2006)

for structured data analysis. These guidelines begin with developing a theory about how, why, and for whom the intervention works. A preliminary analysis was then conducted using data tabulation, displayed across various columns in the data extraction table (Table 4.5). Relationships within and between studies were explored to deepen the analysis. Finally, the robustness of the synthesis was assessed and discussed to highlight the methodological and conceptual rigour of the included studies.

4.4 Results

The database search initially retrieved 6,382 records. Following the removal of duplicates and title and abstract screening, 110 articles were retained for abstract review. Of these, 29 full-text articles were assessed for eligibility, and 27 studies met the inclusion criteria and were included in the final synthesis. Of these, 21 had quantitative designs (Azar & Badr, 2006; Bayrakli & Kaner, 2012; Ben-Zur et al., 2005; Caples et al., 2018; Choi & Yoo, 2015; Cless et al., 2018; Costigan et al., 1997; Dukmak, 2009; Ellingsen et al., 2014; Gerstein et al., 2009; Ginevra et al., 2018; Hsiao & Van Riper, 2011; Hsiao, 2014; Lloyd & Hastings, 2009; Lustig & Thomas, 1997; Rajan & John, 2017; Rajan et al., 2016; Rajan et al., 2018; Raspa et al., 2014; Truitt et al., 2012; Van Riper, 2007) and six were qualitative (Gardner & Harmon, 2002; Grant & Whittell, 2000; John & Zapata Roblyer, 2017; Karaca & Konuk, 2021; Mohan & Kulkarni, 2018; Poehlmann et al., 2005). There has been growing interest in resilience among parents of children with ID over the past two decades (2000-2021). This is evident from the publication of 25 studies during this period, in contrast to only two study published in 1997. For the preliminary synthesis, the data were tabulated in various columns of the same extraction table (Table 4.5). The reasons for excluding the articles are provided in the PRISMA flow diagram (Diagram 1). The PRISMA diagram below illustrates the study selection process.

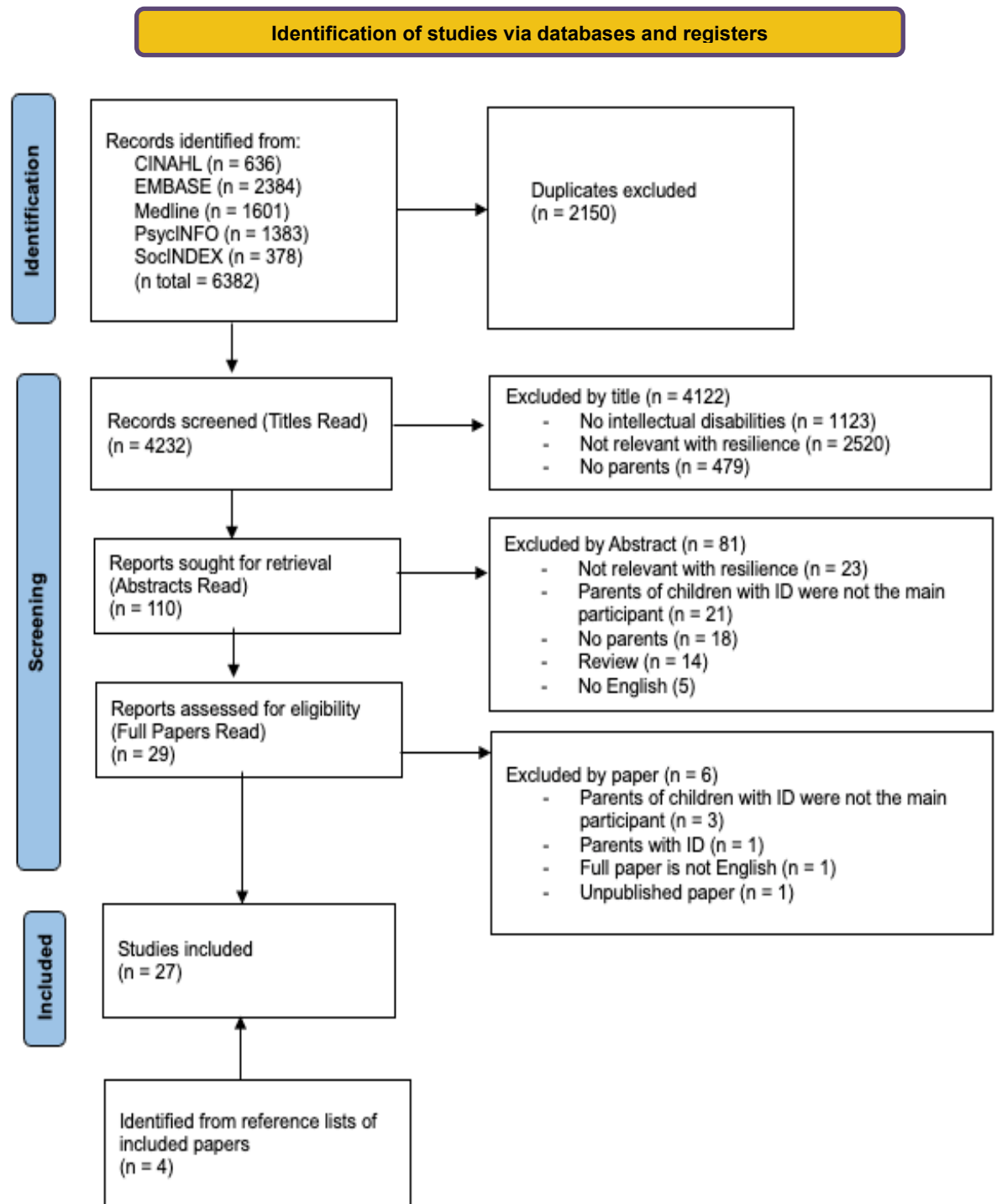


Diagram 1 PRISMA 2020

(Page et al., 2021)

4.4.1 Study Characteristics

4.4.1.1 Country of Study

The resulting search found relevant studies from 12 countries: Lebanon (n = 1) (Azar & Badr, 2006); Turkey (n = 2) (Bayrakli & Kaner, 2012; Karaca & Konuk, 2021); Ireland (n = 1) (Caples et al., 2018); Israel (n = 1) (Ben-Zur et al., 2005); the USA (n = 9) (Cless et al., 2018; Costigan et al., 1997; Ellingsen et al., 2014; Gerstein et al., 2009; Lustig & Thomas, 1997; Poehlmann et al., 2005; Raspa et al., 2014; Truitt et al., 2012; Van Riper, 2007); Korea (n = 1) (Choi & Yoo, 2015); the UAE (n = 1) (Dukmak, 2009); Australia (n = 1) (Gardner & Harmon, 2002); Italy (n = 1) (Ginevra et al., 2018); Taiwan (n = 2) (Hsiao & Van Riper, 2011; Hsiao, 2014); India (n = 5) (John & Zapata Roblyer, 2017; Mohan & Kulkarni, 2018; Rajan & John, 2017; Rajan et al., 2016; Rajan et al., 2018); and the UK (n = 2) (Grant & Whittell, 2000; Lloyd & Hastings, 2009). The studies were conducted predominantly in Western countries (n = 14), followed by Asian (n = 8) and Middle Eastern countries (n = 5) (Table 4-1).

Table 4-1 Countries of study summary

Cultural Grouping	Country of Study	Number of Studies
Western (14 Studies)	USA	9
	Australia	1
	UK	2
	Ireland	1
	Italy	1
Asian (8 Studies)	India	5
	Korea	1
	Taiwan	2
Middle Eastern (5 Studies)	Turkey	2
	Lebanon	1
	UAE	1
	Israel	1
Total		27

4.4.1.2 Study Sample

Parents Characteristics

Of these 27 studies, 14 (51.9%) included parents (mothers and fathers) (Caples et al., 2018; Choi & Yoo, 2015; Costigan et al., 1997; Dukmak, 2009; Gerstein et al., 2009; Ginevra et al., 2018; Hsiao & Van Riper, 2011; Hsiao, 2014; Lloyd & Hastings, 2009; Lustig & Thomas, 1997; Mohan & Kulkarni, 2018; Rajan & John, 2017; Rajan et al., 2016; Rajan et al., 2018); 10 (37.0%) studies included only mothers (Azar & Badr, 2006; Bayrakli & Kaner, 2012; Ben-Zur et al., 2005; Cless et al., 2018; Ellingsen et al., 2014; Gardner & Harmon, 2002; John & Zapata Roblyer, 2017; Karaca & Konuk, 2021; Poehlmann et al., 2005; Van Riper, 2007); and three (11.1%) studies included parents (mothers and fathers) and other family members (e.g. grandparents, sister, sibling) (Grant & Whittell, 2000; Raspa et al., 2014; Truitt et al., 2012). Across the studies, the total sample size was 4,433 participants, the majority of whom were mothers (n = 3,592; 81.0%). Fathers represented a smaller proportion of individuals (n = 699, 15.8%). Two studies (Gerstein et al., 2009; Grant & Whittell, 2000) did not separately report the sample numbers of mothers and fathers in their study (Table 4-2).

Table 4-2 Study samples summary

Study Subject Breakdown		
Study Subject	Number of Studies	Percentage of Studies
Mothers and Fathers	14	51.9%
Mothers only	10	37.0%
Parents >95% and Primary Care Givers<5%	3	11.1%
Total	27	100%
Total Sample Information		
Sample Group	Total Number	Total Percentage
Mothers	3,592	81.0%
Fathers	699	15.8%
Not Recorded	142	3.2%
Total	4,433	100%

Children Characteristics

All studies (n = 27, 100%) reported the age range of children with ID (Table 4.3). The majority of these studies (n = 11, 40.74%) included children and adolescents ranging from 0 to 18 years old (Azar & Badr, 2006; Choi & Yoo, 2015; Cless et al., 2018; Costigan et al., 1997; Dukmak, 2009; Gardner & Harmon, 2002; Hsiao & Van Riper, 2011; Hsiao, 2014; Karaca & Konuk, 2021; Lloyd & Hastings, 2009; Van Riper, 2007). Eight studies (29.63%) included children and younger adults aged 0-30 years (Bayrakli & Kaner, 2012; Caples et al., 2018; Ginevra et al., 2018; Lustig & Thomas, 1997; Mohan & Kulkarni, 2018; Poehlmann et al., 2005; Rajan & John, 2017; Rajan et al., 2018). Five studies (18.52%) focused on children and adults aged 0-65 years (Ben-Zur et al., 2005; Grant & Whittell, 2000; Rajan et al., 2016; Raspa et al., 2014; Truitt et al., 2012); three studies (11.11%) focused only on preschool children aged 3-6 years (Ellingsen et al., 2014; Gerstein et al., 2009; John & Zapata Roblyer, 2017).

This systematic review aimed to explore and compare the resilience of parents caring for their children at different stages of the caregiving trajectory, specifically during childhood, adolescence, and adulthood. However, the studies included in this review often presented aggregated data that spanned a broad range of child ages from birth through adolescence to adulthood.

Table 4-3 Age of children in studies

Age range	Number of Studies
< 6	3 (11.11%)
< 18	11 (40.74%)
< 30	8 (29.63%)
< 65	5 (18.52%)
Total	27 (100.00%)

4.4.2 Guiding Framework or Theory

The presented results reveal a diverse landscape in the utilisation of frameworks among studies. Only 12 studies identified their guiding framework; notably, four

studies used the resiliency model of family stress, adjustment, and adaptation (Caples et al., 2018; Hsiao & Van Riper, 2011; Lustig & Thomas, 1997; Van Riper, 2007). The remaining eight studies each used different frameworks: Patterson's family resilience model (Choi & Yoo, 2015), hope theory (Lloyd & Hastings, 2009), the model of stress and coping (Truitt et al., 2012), Olsson's model of resilience (Rajan et al., 2018), the Family Adjustment and Adaptation Response (FAAR) model (John & Zapata Roblyer, 2017), contextual model of family stress (Boss's model) (Cless et al., 2018), double ABCX model of adjustment and adaptation (Costigan et al., 1997), and ABCX model (Ellingsen et al., 2014) (Table 4-4).

Table 4-4 Guiding framework summary

Guiding Framework	Numbers of Studies Using Framework
Resiliency model of family stress, adjustment and adaptation	4
Patterson's family resilience model	1
Hope theory	1
Model of stress and coping	1
Olsson's model of resilience	1
Family adjustment and adaptation	1
Contextual model of family stress	1
Double ABCX model of adjustment and adaptation	1
ABCX model	1
Unidentified Framework	15
Total	27

4.4.3 Factors Associated with Resilience

It is important to address the concern regarding comparability when different outcome measures of resilience are used across studies. Notably, using diverse outcome indicators does not inherently reduce comparability when resilience is

conceptualised as a dynamic adaptive process. As noted above, resilience is defined as the process of positive adaptation in the context of significant adversity (Luthar & Cicchetti, 2000). This means that various domains of well-being can reflect that adaptation. In this systematic review, the term ‘associated with’ is used to describe factors that demonstrate a statistically significant relationship with resilience related outcomes in quantitative studies (e.g. correlations), or that were thematically identified as relevant to resilience in qualitative studies. For example, one study might assess resilience using parental mental health as an outcome, while another might use family function. Despite the different outcomes, both can signify that parents are successfully adapting to their challenging circumstances. In a resilience framework, these different measures each capture a facet of the same underlying phenomenon (successful adjustment and functioning despite adversity). Thus, outcomes such as strong mental health and high family functioning can be seen as valid indicators of resilience, grounded in the notion that the parent is doing well in the face of hardship. By recognising these outcomes as expressions of the resilience process, the researcher maintained a common conceptual thread across studies (Walsh, 2015). This approach preserves the meaningful comparability of findings, even if the specific outcome measures vary, because all are tied to the core definition of resilience as successful adaptation. In short, the heterogeneity in outcome measures reflects the multifaceted nature of resilience rather than a limitation of the concept itself, enabling the interpretation of diverse findings within a coherent resilience paradigm.

The categorisation of factors into personal or contextual dimensions emerged directly from the analysis of the studies included in this systematic review. The researcher systematically reviewed the literature to identify and synthesise factors empirically linked to resilience across various populations and contexts (Table 4.6). During this process, the researcher observed recurring themes and patterns that enabled the researcher to categorise these factors into two main domains: personal and contextual. The criteria were similar to those employed by Michalos (2014) regarding elements related to the notion of well-being. Personal factors are related to the person and reflect their values, beliefs, and feelings (e.g. perception), health and body functions (e.g. physical health), motor and process skills (e.g. abilities involved in planning, sequencing, and

executing activities effectively), and social interaction skills (e.g. communication skills). Conversely, contextual factors are related to cultural and social circumstances (e.g., education, family, and friend networks) (Michalos, 2014).

4.4.3.1 Personal Factors

Personal factors associated with resilience in parents of children with ID. Twenty-four of the 27 studies presented information on personal factors, including stress, problem-solving, perception, self-efficacy, hope, and parental health.

4.4.3.1.1 Family Stress

Family stress is a strong predictor of overall family functioning, particularly resilience (Hsiao, 2014). Six studies examined the complex relationship between stress and resilience within families (Azar & Badr, 2006; Ben-Zur et al., 2005; Gerstein et al., 2009; Hsiao & Van Riper, 2011; Hsiao, 2014; John & Zapata Roblyer, 2017). In the study by Azar and Badr (2006), parental stress, particularly among mothers, was found to be a significant predictor of maternal psychological well-being and parental perceptions of their ability to cope with the challenges of raising children with ID. Higher levels of parenting stress were strongly associated with poorer mental health outcomes in mothers, including increased symptoms of depression and anxiety. Similarly, Ben-Zur et al. (2005) showed that stress negatively correlates with mental health, social support, and hardiness, highlighting its detrimental effects on resilience-related factors. Gerstein et al. (2009) and Hsiao and Van Riper (2011) extended this understanding by identifying mediating factors, such as family appraisal and positive parent-child relationships, that buffer the impact of stress and promote resilience. Hsiao (2014) highlighted that families with fewer stressors or better stress management exhibited greater resilience, which is crucial for maintaining family cohesion and functionality. In contrast, John and Zapata Roblyer (2017) used qualitative methods to demonstrate the tangible effects of financial and time-related stressors on family life. Their findings illustrate how such pressures can erode resilience, as evidenced by outcomes such as job loss and ongoing financial strain. In this context, job loss and ongoing financial strain are not

operationalisations of resilience but rather indicators of its decline, showing how families struggle to adapt and recover when overwhelmed by stressors.

4.4.3.1.2 Problem-Solving

Problem-solving is a cognitive process that involves identifying, analysing, and implementing solutions to overcome obstacles or achieve goals (Weber, 2005). Problem-solving was reported in 13 studies (Azar & Badr, 2006; Bayrakli & Kaner, 2012; Caples et al., 2018; Choi & Yoo, 2015; Cless et al., 2018; Costigan et al., 1997; Dukmak, 2009; Gardner & Harmon, 2002; Grant & Whittell, 2000; Karaca & Konuk, 2021; Poehlmann et al., 2005; Rajan et al., 2018; Van Riper, 2007). A central theme across multiple studies has been the pivotal role of problem-focused coping in enhancing resilience. Bayrakli and Kaner (2012) and Rajan et al. (2018) found that problem-focused coping strategies significantly bolster resilience. Bayrakli and Kaner demonstrated a strong positive effect of problem-focused coping on resilience, whereas Rajan et al. found that individuals with an internal locus of control who engage in problem-focused coping exhibit greater resilience. These findings are further supported by Van Riper (2007), who linked problem-solving communication to higher levels of family adaptation. Caples et al. (2018) and Choi and Yoo (2015) emphasised the importance of communication skills in family functioning and adaptation. Caples et al. identified affirmative communication as a positive predictor of family functioning, whereas Choi & Yoo found a strong positive relationship between communication skills and family adaptation. This suggests that enhancing family communication skills can improve their ability to adapt to stressors. Regarding gender and life stage, Costigan et al. (1997) found that mothers engage more in supportive problem-solving and active listening than fathers, highlighting gender differences in coping that impact family resilience. Grant and Whittell (2000) noted that problem-solving confidence varies by life stage, with parents of preschool children being less confident than older caregivers who show greater acceptance. These insights suggest that interventions aimed at boosting resilience should consider gender-specific and age-specific strategies to address the unique challenges faced by different demographic groups.

4.4.3.1.3 Perception of ID

Perception of a child's disability is another personal factor associated with resilience in parents. Seven studies investigated parental perceptions (Gardner & Harmon, 2002; Gerstein et al., 2009; Hsiao & Van Riper, 2011; John & Zapata Roblyer, 2017; Karaca & Konuk, 2021; Mohan & Kulkarni, 2018; Poehlmann et al., 2005; Rajan & John, 2017). Gardner and Harmon (2002) from Australia provided insights into how resilient mothers maintain a positive outlook on managing their challenges. Despite acknowledging the significant impact of having a child with a disability, these mothers did not feel that their life opportunities were diminished. Instead, they focused on enjoying life and utilising their abilities while caring for their families. Hsiao and Van Riper (2011) quantified the impact of family appraisal on family functioning, reporting a statistically significant correlation. This study showed that positive appraisal significantly enhances family functioning, potentially fostering resilience. Similarly, John and Zapata Roblyer (2017) highlighted the role of positive appraisals in resilience, as illustrated by a mother's admiration of her child's strength in overcoming early struggles. This aligns with the broader resilience literature, which emphasises the power of positive interpretation of difficult circumstances.

4.4.3.1.4 Self-Efficacy

Self-efficacy is another factor associated with resilience. Six studies investigated self-efficacy using designs ranging from qualitative interviews (Gardner & Harmon, 2002; Mohan & Kulkarni, 2018) to quantitative surveys (Ben-Zur et al., 2005; Ginevra et al., 2018; John & Zapata Roblyer, 2017; Rajan et al., 2018). This diversity reflects the complexity of resilience and self-efficacy, necessitating both subjective narratives and objective measures to capture their dimensions. Across these studies, a consistent finding was the role of self-efficacy in fostering resilience. Ben-Zur et al. (2005) emphasised that hardiness, related to self-efficacy, is vital for assessing one's purpose and value, thereby supporting resilience. Similarly, Ginevra et al. (2018) highlighted how individual resources such as control, curiosity, and confidence, which are components of self-efficacy, contribute to resilience. This was echoed by Rajan et al. (2018), who found that parents with a strong internal locus of control, a concept similar

to self-efficacy, exhibited greater resilience. In qualitative insights, Gardner and Harmon (2002) focused on the influence of a stable childhood environment on developing a healthy sense of self, suggesting that positive early life experiences are foundational to later resilience and self-efficacy. Mohan and Kulkarni (2018) explored how parents' past experiences enhance their self-efficacy and resilience, suggesting that self-efficacy is not only a result of current coping mechanisms but also a cumulative outcome of life experiences.

4.4.3.1.5 Hope

Hope is the belief in a positive outcome, the ability to envision a better future, and the motivation to work towards that future (Snyder, 2002). Four of the 24 included studies presented information on hope (Cless et al., 2018; Karaca & Konuk, 2021; Lloyd & Hastings, 2009; Truitt et al., 2012). Cless et al. (2018) and Truitt et al. (2012) emphasised the positive association between hope and caregiver adaptation. Cless et al. highlighted how hope helps mothers of children with Down syndrome manage stress, while Truitt et al. broadened this by showing that higher levels of hope correlate with better overall adaptation among caregivers. Lloyd and Hastings (2009) built on this understanding by examining how hope, as a psychological factor, influences mental health outcomes. This paper does not measure resilience as an independent outcome but rather investigates hope's influence on mental health. By improving mental health, hope serves as a critical component of resilience rather than a direct measure of it. This study is linked to Cless et al. (2018), who showed that hope is critical in reducing negative mental health outcomes, such as stress, depression, and anxiety, in parents. Karaca and Konuk (2021) complement these studies by qualitatively exploring hope content. While other studies quantify the impact of hope, Karaca and Sener delve into what parents specifically hope for in their children's future, such as independence and self-expression.

4.4.3.1.6 Parental Health

Parental health is closely tied to overall well-being and can significantly impact a person's ability to cope with stress and adversity. Four studies reported that parents in good health were more likely to report better mental health and manage the emotional demands of raising a child with ID (Choi & Yoo, 2015; Ellingsen et al., 2014; Gardner & Harmon, 2002; Van Riper, 2007). Choi and Yoo

(2015) and Van Riper (2007) emphasised the importance of family resources, such as overall health, in promoting resilience. Choi & Yoo highlighted how parental health strengthens family units. Ellingsen et al. (2014) demonstrated the protective role of parental health in child development, particularly at age five. This study aligns with Choi & Yoo's emphasis on parental health but focuses on its direct impact on young children, suggesting that the benefits extend to the next generation. Additionally, Gardner and Harmon (2002) reported that mothers who take care of their own well-being are better equipped to support their children and other family members, linking parental self-care to greater family resilience.

4.4.3.2 Contextual Factors

Contextual factors associated with resilience in parents of children with ID. Twenty out of the 27 studies presented information on contextual factors, including social support, child characteristics, socioeconomic status, education, and cultural and religious beliefs.

4.4.3.2.1 Social Support

Social support is crucial for building resilience. Parents with good support networks, including family, friends, and professionals, are more likely to be resilient. Twelve of the 20 studies discussed social support (Bayrakli & Kaner, 2012; Ben-Zur et al., 2005; Caples et al., 2018; Choi & Yoo, 2015; Gardner & Harmon, 2002; Hsiao, 2014; John & Zapata Roblyer, 2017; Lustig & Thomas, 1997; Mohan & Kulkarni, 2018; Poehlmann et al., 2005; Raspa et al., 2014; Van Riper, 2007). Several studies explored social support's role in coping mechanisms, mental health and family adaptation. Bayrakli and Kaner (2012) indicated that higher levels of social support are positively associated with problem-focused coping and resilience. Similarly, Ben-Zur et al. (2005) found positive correlations between mental health scores and social support, indicating critical role in mental well-being and resilience. Caples et al. (2018) and Lustig and Thomas (1997) examined social support within family systems, focusing on family functioning and adaptation as indicators of resilience. Caples et al. (2018) demonstrate the importance of family communication in supporting resilience by

strengthening family functioning and adaptive capacity. This suggests that family resilience can be bolstered by strong social networks and effective communication. Similarly, Choi and Yoo (2015) found that family adaptation in Korean families is positively associated with family cohesiveness, supportive friends, and available community services, showing that various sources of social support contribute to family resilience. Studies have also highlighted the importance of professional support alongside informal networks (Choi & Yoo, 2015; Gardner & Harmon, 2002; John & Zapata Roblyer, 2017; Mohan & Kulkarni, 2018), providing specialised knowledge, therapeutic interventions, and coping strategies.

4.4.3.2.2 Characteristics of a Child

Child characteristics as a contextual factor refer to external elements that can influence the demands placed on parents, which can be grouped based on key child-related factors: development (Choi & Yoo, 2015; Ellingsen et al., 2014; John & Zapata Roblyer, 2017; Mohan & Kulkarni, 2018; Rajan & John, 2017), age (Choi & Yoo, 2015; Hsiao & Van Riper, 2011; Hsiao, 2014; Mohan & Kulkarni, 2018), and behaviour (John & Zapata Roblyer, 2017; Lloyd & Hastings, 2009; Mohan & Kulkarni, 2018). Rajan and John (2017) found that parents of children with severe ID experienced higher stress than those with mild ID did. Choi and Yoo (2015) reported that a child's developmental delays negatively impact family adaptation, causing stress to parents. Ellingsen et al. (2014) found that a child's developmental difficulties negatively affect positive parenting, which is a critical aspect of parenting resilience. These studies suggest that developmental challenges can strain family relationships and reduce the effectiveness of positive parenting strategies. Regarding age, Hsiao and Van Riper (2011) and Hsiao (2014) identified that older children with Down syndrome are associated with healthier family functioning. This contrasts with findings from Mohan and Kulkarni (2018), who observed that parents of younger children often reported higher stress due to their child's dependency, while parents of older children faced different challenges such as behavioural problems and concerns about the future. These studies highlight how the child's age can shape the challenges a family faces, with younger children's dependency and older children's developmental milestones influencing family resilience. Mohan and Kulkarni (2018) also noted that parents of children with cooperative behaviour and fewer

tantrums had more positive child-rearing experiences. John and Zapata Roblyer (2017) further supported this by showing that a child's behaviour and developmental outcomes directly affect the family's ability to adapt to stressors.

4.4.3.2.3 Socioeconomic Status

Socioeconomic status (SES) was investigated in seven studies (Azar & Badr, 2006; Ben-Zur et al., 2005; Ellingsen et al., 2014; Hsiao, 2014; John & Zapata Roblyer, 2017; Mohan & Kulkarni, 2018; Raspa et al., 2014). The impact of SES on resilience has been explored through diverse populations, outcomes, and study designs, revealing both common themes and differences. Azar and Badr (2006) found that higher-income families with medical insurance experience less strain than low-income families without insurance. This suggests that financial stability and access to healthcare are crucial for reducing stress and enhancing resilience. Hsiao (2014) found that higher family income correlates with healthier family functioning, suggesting that economic stability supports better family dynamics and promotes resilience. Conversely, Ellingsen et al. (2014) reported that lower income negatively affects positive parenting, a crucial component of resilience. This finding aligns with the studies by John and Zapata Roblyer (2017) and Raspa et al. (2014), which further highlight the negative impact of financial strain on families. John and Zapata Roblyer (2017) noted that financial burdens of caring for children with ID often forced parents to leave full-time employment, leading to significant financial stress and impacting the family's overall resilience.

4.4.3.2.4 Parents' Education

Parents' education and resilience-related outcomes have been extensively studied across various contexts. Seven studies investigated education, with findings consistent with the significant role of education (Azar & Badr, 2006; Ben-Zur et al., 2005; Ellingsen et al., 2014; Hsiao, 2014; Mohan & Kulkarni, 2018; Rajan et al., 2016; Raspa et al., 2014). Azar and Badr (2006) reported that mothers with lower educational attainment tend to have fewer coping resources, emphasising that lower educational attainment can limit resilience. Similarly, Ben-Zur et al. (2005) found that mothers' years of education were positively correlated with mental health, social support, and hardiness and

negatively related to stress, suggesting that higher education levels enhance resilience by bolstering mental and social resources. In contrast, Mohan and Kulkarni (2018) found that lower socioeconomic status and higher parental education are associated with greater distress and less acceptance of a child's condition. This pattern varied across socioeconomic strata, indicating that the benefits of education on resilience may be context-dependent and influenced by socioeconomic and cultural factors.

4.4.3.2.5 Cultural and Religious

Cultural and religious beliefs were evident across the five studies (Cless et al., 2018; Gardner & Harmon, 2002; John & Zapata Roblyer, 2017; Karaca & Konuk, 2021; Poehlmann et al., 2005), shaping coping mechanisms and outcomes in difficult situations. Cless et al. (2018) found that greater religious coping was associated with increased levels of hope, supporting caregiver adaptation and indicating a link between religious engagement and positive psychological outcomes. Gardner and Harmon (2002) explored religious beliefs in an Australian context, in which participants' beliefs ranged from reliance on God to secular faith in humanity, demonstrating that resilience can be supported by diverse beliefs depending on cultural context. John and Zapata Roblyer (2017) examined how parents of children with ID framed caregiving within religious beliefs, viewing their child's disability as part of God's plan or influenced by the Hindu Karma, providing purpose and strengthening resilience. Similarly, Karaca and Konuk (2021) studied mothers in Turkey and found many drew comfort from Islamic practices, viewing their children's disabilities as Allah's will and their caregiving role as a spiritual test leading to divine reward. This cultural context highlights how religious beliefs influence resilience by providing meaning and hope. Poehlmann et al. (2005) also reported that faith plays a crucial role in coping, with individuals often interpreting difficult circumstances as part of God's perfect timing, helping them accept and find peace in their situation.

Table 4-5 Included Studies

	Author (year), Country	Participants	ID Level	Objective	Methodology	Measures	Results	Theory	Appraisal (CASP score)
1	Azar & Badr, 2006 Lebanon	127 mothers aged 25 - 56 years Children with ID aged 2-18 years	Mild: 47 Moderate: 61 Severe: 16 Profound: 3	To identify factors that influence the adaptation of mother of children with ID	Quantitative study, a cross- sectional design	1.The Family Inventory of Life Events and Changes (FILE) 2.The Parenting Stress Index (PSI) 3.The Family Crisis Oriented Personal Evaluation Scale (FCOPES) 4.The Centre of Epidemiologic Studies-Depression Scale (CES-D)	1.Families with high income and medical insurance have less strain than low-income families with no insurance ($p=.00$, $p=.01$) 2.Family income related with depressive symptoms 3.Mothers with less education have less coping resources ($p=.04$). 4.Family strain was predictor of depressive symptoms ($p=.00$), maternal stress the second ($p=.00$), followed by family income ($p=.03$)	-	B1
2	Bayrakli & Kaner, 2012	491 mothers	N/A	To investigate the	Quantitative study,	1.Mother Resilience Scale (MRS)	1.The quantity of social support has a positive effect	-	A

	Turkey	aged 23 - 63 years (257 mother of children with ID and 234 mothers of children with typical development) Children with ID aged 4-26 years Children with typical development aged 5-15 years		relationship between resiliency perceptions, perceived quantity and quality of social support and perceived coping strategies of the mothers	a cross-sectional design	2.Revised Parental Social Support Scale (RPSSS) 3.Coping Style Scale (CSS)	on problem-focused coping ($p<.05$) and resiliency ($p<.05$) 2.Problem-focused coping affects resiliency positively ($p<.05$) 3.The quality of social support has a positive effect on problem-focused coping ($p<.05$) and resiliency ($p<.05$).		
3	Ben-Zur et al., 2005 Israel	100 mothers aged 41-85 years Children with ID aged 20-56 years	N/A	To examine the mental health, resources and stress among mothers who keep their adult child at home vs.	Quantitative study, a cross-sectional design.	1.Demographic Questionnaire 2.Mental Health Inventory (MHI) 3.Questionnaire on Resources and Stress (QRS-F)	1.The mental health score correlated positively with both social support and hardiness ($p<.001$) 2.Stress related negatively to mental health, social support and hardiness ($p<.001$)	-	B1

				those who choose placement in a community arrangement.		4. Interpersonal Support Evaluation List (ISEL) 5. Hardiness	3. Mothers' economic situation, years of education and perceived health correlated positively with mental health, social support and hardiness, and related negatively to stress ($p < .001$)		
4	Caples et al., 2018 Ireland	79 mothers and 16 fathers, aged 28-57 years Children with Down syndrome aged 0 -30 years	N/A	To examine links between family demands, family appraisal, family resources, family problem-solving communication and family adaptation	Quantitative study, a cross-sectional design	1. Demographic questionnaire 2. The Family Index of Regenerativity and Adaption General 3. The Family Management 4. The Family Problem Solving Communication 5. The Family Member Well-Being 6. The Brief Family Assessment	1. Family resources (family hardiness, relative and friend support) and family problem -solving (affirmative communication) are the positive predictors of family functioning ($p < .05$)	Resiliency Model of Family Stress, Adjustment and Adaptation (McCubbin et al., 1996)	B1

5	Choi & Yoo, 2015 Korea	126 parents (117 mothers and 8 fathers) aged 25 to >40 years Children with Down syndrome aged 0 to 15 years	N/A	To identify the factors related to resilience of the families of children with Down syndrome	Quantitative study, a cross- sectional design	1.DS-related health 2.Resource&Stress 3.Depression 4.Strain and stress 5.Stigma 6.Emotionality, Activity, Sociability 7.Family Adaptability & Cohesion 8.Family Attachment and Changeability 9.Family Problem Solving and Communication 10.Self-perceived 11.Family Coping 12.Healthcare 13.Community services 14.The Family APGAR	1.Family adaptation was negatively related to child age ($p<.001$), developmental level of child ($p=.023$), parent depression ($p<.001$) and strain and stress ($p<.001$). 2.Family adaptation was positively related to health of parents ($p=.011$), communication skills ($p<.001$), cohesiveness ($p<.001$), flexibility ($p<.001$), supportive friends/relatives ($p<.001$) and available community services ($p=.004$).	Family resilience Patterson's model (Patterson, 2004)	B2
6	Cless et al., 2018	351 mothers aged 16-70 years	N/A	To understand mothers' experiences of	Quantitative study,	1.The Family Crisis Oriented Personal Evaluation Scales	1.Hope was significantly correlated with religious coping ($p<.001$), internal	The Contextual Model of	B1

	USA	Children with Down syndrome mean aged 7.67 years		children with Down syndrome, in understanding relationship among coping, hope, and relationship quality	a cross-sectional design	2.The Herth Hope Index 3.Relationship quality 3.1 The RDAS 3.2 The CSI	coping ($p<.001$), seeking support coping ($p<.001$) 2.Hope was significantly correlated with dyadic adjustment ($p<.001$), relationship satisfaction ($p<.001$) 3.Greater religious coping was significantly associated with more hope ($p<.001$) 4.Greater internal coping was significantly associated with more hope ($p<.001$)	Family Stress (Boss, 2002) which based on the original ABCX model (Hill, 1958)	
7	Costigan et al., 1997 USA	165 families (Father 121, mothers 162) mean aged 36 years Children with mental retardation aged 6-18 years	Mild: 110 Moderate: 55	To evaluate how the presence of children with mental retardation in the family influenced family problem-solving interactions	Quantitative study, a longitudinal study	A series of family the administration of questionnaire	1.The single mothers in the MR group ($M = -.10$, $SD = .67$) displayed less supportive problem solving than the single mothers in the comparison group ($M=.83$, $SD=1.14$) 2.The mothers engaged in relatively more supportive problem solving ($M=.14$, $SD=.76$) than the fathers ($M=-.20$, $SD=.64$)	The double ABCX model of adjustment and adaptation (McCubbin & Patterson, 1983)	C1,4

		A comparison 52 families (Fathers 36, mothers 50) mean age 40 years Children with typical development aged 6-18 years		on family adaptation, which emphasize either family disruption or family resilience			3.The mothers displayed more active listening ($M=.04$, $SD=.67$) than the fathers ($M=-.15$, $SD=.76$)		
8	Dukmak, 2009 United Arab Emirates (UAE)	63 parents (41 mothers and 22 fathers, 47% of parents aged below 40 years) Children with ID, also had a diagnosis of either Down syndrome, Cerebral palsy, or Autism aged 6-10 years	Moderate and Severe (The study not presented of how many children of each level)	To examine the relationship between child with ID and parent characteristics and family adaptation, ways of coping, and parenting satisfaction	Quantitative study, a cross-sectional design	1.Questionnaire on Resources and Stress Scale - Short Form to assess a family's adaptation. 2.Ways of Coping Scale. 3.Parenting Satisfaction Scale.	1.Emotional-focused coping correlated with family adaptation ($p=.0001$) 2.Problem-focused coping correlated with parenting satisfaction ($p<.001$)	-	B2

9	Ellingsen et al., 2014 USA	100 mothers of children with developmental delay 132 mothers of children with typical development mean age 32-34 years Children aged 3-5 years	Borderline or mild or moderate (The study not presented of how many children of each level)	To examined factors that promoted effective parenting (resilient) in the presence of child developmental delay, high child behavior problems, and low family income	Quantitative study, a longitudinal design	1.Bayley Scales of Infant Development 2.Child Behaviour Checklist 3.Family Information Test-Revised 5.Parent-Child Interaction Rating Scale	1.Education and optimism appeared to be protective factors for positive parenting at age 3 and 5 ($p<.05$) 2.Health appeared to be an additional protective at age 5 ($p<.05$) 3.Low income, Child's development negatively effect with positive parenting ($p<.05$)	ABCX model (McCubbin et al 1999)	A
10	Gardner & Harmon, 2002 Australia	6 mothers aged N/A Children with ID aged 1-18 years	N/A	To explore resilience from a parent's perspective	Qualitative study	Interview open-ended questions around the issue of caring for a child with ID from six resilient mothers	Key themes: 1.Developing a sense of self 2.The emotional journey 3.Being a team 4.The power to act 5.Being organised 6.Using supports 7.My cup's half full 8.I also have needs 9.No one misses out 10.Making sense of life	-	B3

11	Gerstein et al., 2009 USA	115 families (The study did not report on a number of mothers or fathers) aged N/A Children with ID aged 3-5 years	Developmental level was determined by using the BSID-II (The study not presented on how many children have each level.)	-To examine the trajectories of daily parenting stress in families of children with ID -To explore risk and factors that lead to more resilient parent	Quantitative study, a longitudinal design	1.Developmental level the BSID-II 2.Parenting daily hassles 3.Well-being Symptom Checklist 4.Dyadic Adjustment 5.Parent Child Interaction	1.Mothers reported significantly higher levels of Growth models of parenting daily hassles (PDH) than fathers at 48 and 60 months ($p<.001$) 2.Decreases in mothers' daily parenting stress trajectory were associated with both mother and father's well-being ($p<0.05$) and perceived marital adjustment, as well as a positive father-child relationship ($p<0.05$)	-	B2
12	Ginevra et al., 2018 Italy	152 parents (62 fathers and 90 mothers) mean aged 51.25 years Children with ID	Mild: 147	To analyse the role of career adaptability and resilience on parents of children with mild ID' life satisfaction	Quantitative study, a cross-sectional design	1. Career Adapt-Abilities Scale 2. The Connor-Davidson Resilience Scale (CD-RISC) 3. The Satisfaction with Life Scale	Career adaptability ($B = .36$, 95% CI [.152, .579]) had a significant indirect link with life satisfaction through the mediating role of resilience	-	B1

		aged 10-22 years							
13	Grant & Whittel, 2000 UK, Wales	27 families (15 fathers, 25 mothers, 1 sister and 1 cousin) aged N/A Children with ID aged 0 to more than 50 years	N/A	To understand the differentiated nature of coping regard to gender, life stage and family composition	Qualitative study	In-depth interviewing	Key themes: 1. Mothers are more effective coping skills than fathers 2. Couples have adopted a 'sharing-caring' strategy 3. Unaccompanied caregivers emphasised cognitive coping 4. Parents with pre-school children have less confidence in knowledge, skill, and capacity to handle difficult situations 5. Caregivers of school-aged and younger adults emphasised problem-solving techniques 6. Elder caregivers were more resigned to their role and shown acceptance of the current situation	Transactional model of coping	B1

14	Hsiao & Riper, 2011 Taiwan	83 families (75 fathers and 80 mothers) mean aged 38.68 years Children with ID aged 4-17 years	N/A	To examine the effects of family demographics, family demands, and family appraisal on adaptation in Taiwanese families of children with Down syndrome.	Quantitative study, a cross-sectional design	1.Family Strains Index 2.Family Stressors Index 3.Family Management Measures 4.Chinese Health Questionnaire 5.Family Assessment Device	1.Gender ($p<.01$), family demands ($p<.001$), and family appraisal ($p<.001$) associated with health 2.Age of the child ($p<.01$), family demands ($p<.001$), and family appraisal ($p=.001$) significantly associated with family functioning 3.Family appraisal partially mediated the relationship between family demands and individual and family adaptation ($p<.001$)	The Resiliency Model of Family Stress, Adjustment, and Adaptation (McCubbin & McCubbin, 1993)	B2
15	Hsiao, 2014 Taiwan	155 parents (80 mothers and 75 fathers) aged N/A Children with Down syndrome aged < 18 years	N/A	To examine how family demographics, family demands and social support related to family functioning	Quantitative study, a cross-sectional, design	1.Family demographic information 2.Family demands: Family Stressors Index, Family Strains Index, Family Management Measure	1.Families with older age of children ($p<.001$), greater parental education ($p<.01$), higher family income ($p<.001$), less family demands ($p<.001$) and greater social support ($p<.001$) experienced healthier family functioning	-	B2

						3.Chinese version of the Perceived Social Support Scale 4.The Chinese version of the General Functioning Scale	2.Family demands significantly predicted social support ($p<.001$) 3.Family demands significantly predicted family functioning ($p<.001$) 4.Social support significantly predicted family functioning ($p<.001$)		
16	John & Roblyer, 2017 India	47 mothers aged N/A Children with ID (n=21), and an associated diagnosis of Down syndrome (n=2), Autism (n=9), Cerebral palsy (n=10), Epilepsy (n=2), and syndrome disorders (n=3) aged 3-6 years	N/A	To examined relevance of the key constructs of the stress and resilience framework in the urban Indian context	Qualitative study	Interview questions: Reaction to Diagnosis Interview	Key themes: Appraisal of the situation 1.Negative appraisals 2.Pragmatic and benefit 3.Evolving appraisals 4.Appraisals of cause of disability Stressors 1.Diagnosis 2.Demands on time and money 3.Marital and family conflicts 4.Child's behaviour, health, and functioning 5.Reproductive choices	The Double ABCX Model (McCubbin & Patterson, 1983)	B1

							Resources 1.Personal resources 2.Family-level resources 3.Societal resources		
17	Karaca & Sener, 2021 Turkey	28 mothers mean age 36.9 years Children with developmental disabilities (also had a diagnosis of either Down syndrome, ID,) aged 8-17 years	The IQ levels 20 - 35 (The study not presented on how many children have each level.)	To explore the spiritual needs of mothers of children with developmental disabilities and analysed the effect of spirituality on their lives.	Qualitative study	Interview questions: a semi-structured form	Key themes: 1.The journey to acceptance 2.The meaning of life 3.Concerns the future 4.Coping strategies	-	B1
18	Lloyd & Hastings, 2009 England	138 mothers and 58 fathers aged 23-57 years Children with ID (n=40), Down syndrome (n=26), Cerebral palsy (n=16),	N/A	To explore hope in parents of children with ID consistent with the main psychological theory of hope	Quantitative study, a cross-sectional design	1.Positive Affect scale of the Positive and Negative Affect Schedule 2.The Parent and Family Problems 3.Hospital Anxiety and Depression Scale	1.Mothers: lower levels of hope (p=.000) and more child behaviour problems (p=.000) predicted maternal depression (p=.000), positive affect was predicted by less problematic child behaviour (p=.019) and by higher levels of hope (p=.000)	Snyder's hope theory	B2

		and Autism (n=56) aged 3-18 years					2.Fathers: Anxiety and depression were predicted by low hope ($p=.037$), ($p=.000$), positive affect was predicted by high hope agency ($p=.000$).		
19	Lustig & Thomas, 1997 USA	117 parents (66 mothers mean age 51.8 and 51 fathers mean age 53.1) Children with mental retardation aged 18-30 years	N/A	To evaluate family adaptation during when an adult child with mental retardation is adjusting to initial entry into supported employment	Quantitative study, a cross-sectional design	1.The Family Coherence 2.Family Hardiness 3.Family Bonding 4.Family Flexibility 5.Supported Employment Family Concerns 6.Family Member Wellbeing	Regression analysis indicated a significant relationship between the score on the four family strength measures and family adaptation ($p<.05$)	Resiliency Model of Family stress, Adjustment and Adaptation	B1
20	Mohan & Kulkarni, 2018 India	32 parents (29 mothers and 3 fathers) aged 21-70 Children with ID aged 6-28 years	N/A	To identify resilient response patterns among parents of children with ID	Qualitative study	Interview the dominant themes with respect to resilience that emerged were acceptance, cognitive	Key themes: 1.Individual factors - Perception - Cognition - Emotion - Behaviour 2.Child-related factors	-	B2

						adaptation, positive affect, social support and self-efficacy.	- Physical appearance - Age of the child 3.Contextual factors - Social support - Socioeconomic status		
21	Poehlmann et al., 2005 USA	10 families of children with Down syndrome 11 families of children with fragile X syndrome Children aged 11 -23 years	N/A	To examine the mothers' experiences surrounding their children's diagnosis, including positive experiences and potential challenges	Qualitative study	Interview with open-ended questions and semi-structured interview	Key themes: 1.Perception of a child's disability 2.Seeking social support from siblings, family members, church, friends were instrumental in their initial and ongoing adaptation 3.Relying on faith or religion 4.Emotional-focused coping strategies	-	B2
22	Rajan et al., 2016 India	60 parents (30 mothers, 30 fathers) aged 26-60 years Children with ID aged 5-22 years	Mild: 30 Moderate: 30	To examine the resilience across the parent and child related demographic factors	Quantitative study, a cross-sectional design	Connor Davidson Resilience Scale (CD-RISC)	1.Parental education made a significant difference in their resilience ($p < .01$) 2.The study did not elicit a statistically significant relationship of resilience with parental age, years lived with child after	-	B2

							diagnosis, child's age, gender and IQ		
23	Rajan & John, 2017 India	121 parents (111 mothers, 6 Fathers, 4 Grandmothers) aged 21-60 Children with ID aged 1-30 years	Mild: (46%) Moderate: (31%) Severe: (18%) Profound: (5%)	To explore the resilience of parents and its relationship with the impact of child's disability	Quantitative study, a cross-sectional design	1. Connor Davidson Resilience Scale (CD-RISC) 2. NIMH Disability Impact Scale (NIMH-DIS)	1. Parents experienced lower resilience when they evaluated the impact of child's disability more negatively ($p < .01$) 2. Parental positive perceptions of the disability associated with the experience of greater resilience ($p < .01$)	-	B1
24	Rajan et al., 2018 India	57 parents (28 mothers 29 fathers) aged 26-61 years Children with ID aged 5-22 years	Mild: 27 Moderate: 30	To examine the variations in parental resilience with their locus of control orientations	Quantitative study, a cross-sectional design	1. Connor-Davidson Resilience Scale (CD-RISC) 2. Internal-External Scale	1. Parents having with internal locus of control ($M = 71.38$, $SD = 12.79$) experienced greater resilience when compared to external locus of control ($M = 51.08$, $SD = 13.41$), ($t = 4.84$, $df = 55$, $p < .001$)	Theoretical model of resilience (Olsson, 2008)	B3
25	Raspa et al., 2014 USA	1,099 families (mothers 89%) mean age 46.8 years	N/A	To examine factors in family adaptation to FXS	Quantitative study, a cross-sectional design	1. Parenting knowledge 2. Social support 3. Respondent well-being	1. Social supports were interrelated ($p < .001$) to parenting knowledge, well-being and quality of life which are the positive	-	B2

		Child with Fragile X syndrome (FXS) aged 1-65 years				4.Family social life 5.Impact and quality of life	adaptation 2.Financial impact negatively related ($p<.001$) with well-being, social life, family impact and quality of life		
26	Truitt et al., 2012 USA	446 caregivers aged 21-84 years Children with Down syndrome aged 0-48 years	N/A	To examine the relationship of uncertainty and hope with adaptation in caregivers of children with Down syndrome	Quantitative study, a cross-sectional, correlational research design	1.The Parental Perceived Uncertainty Scale 2.The Trait Hope Scale 3.The 20 items scale adaptation 4.Goals for child (focus of hope)	1.Hope for self was found to be positively associated with adaptation ($p<.01$) 2.Uncertainty was negatively associated with both hope for self ($p<.01$) and adaptation ($p<.01$)	Uncertainty , hope, and adaptation	B1
27	Van Riper, 2007 USA	76 mothers aged N/A Children with Down syndrome aged 0 - 15 years	N/A	To examine linkages between family demands, family resources, family problem	Quantitative study, a cross-sectional design	1.Demographic information 2.Individual adaptation 3.Family adaptation 4.The Family Inventory of Life Events	1.Family demands were significantly associated with family adaptation ($p<.01$) 2.Family resources (Family strengths, health, family support) were significantly associated with family adaptation ($p<.01$)	Resiliency Model of Family Stress, Adjustment , and Adaption (McCubbin &	B2

				solving and coping, and family adaptation in families of children with Down syndrome		5.The Family Inventory of Resources for Management 6.The Family Problem-Solving Communication 7.The Family-Crisis-Oriented Personal Evaluation Scales	3.Problem-solving communication was significantly associated with family adaptation ($p<.01$)	MaCubbin, 1993)	

12	Ginevra et al., 2018				✓									
13	Grant, 2000		✓											
14	Hsiao & Riper, 2011	✓		✓						✓				
15	Hsiao, 2014	✓						✓		✓		✓	✓	
16	John & Roblyer, 2017	✓		✓	✓			✓	✓		✓	✓		✓
17	Karaca & Sener, 2021		✓	✓		✓								✓
18	Lloyd & Hastings, 2009					✓					✓			
19	Lustig & Thomas, 1997							✓						
20	Mohan & Kulkarni, 2018			✓	✓			✓	✓	✓	✓	✓	✓	
21	Poehlmann et al., 2005		✓	✓				✓						✓
22	Rajan et al., 2016												✓	
23	Rajan & John, 2017			✓					✓					
24	Rajan et al., 2018		✓		✓									
25	Raspa et al., 2014							✓				✓	✓	
26	Truitt et al., 2012					✓								
27	Van Riper, 2007		✓				✓	✓						
	Total	6	13	7	6	4	4	12	5	4	3	7	7	5

4.5 Synthesis of Findings: A Conceptual Model of Resilience for Parents of Children with ID

This study employs the Resiliency Model of Family Stress, Adjustment, and Adaptation (McCubbin et al., 1996) as a guiding framework to synthesise and organise the factors associated with resilience in parents of children with ID. This theoretical model helps explain how families respond to and manage stressors by activating resources and coping strategies, leading to either adaptation or maladaptation. The conceptual model (Figure 2) organises key variables into three primary domains: Stressors, Family Resources (Predictors and Related factors), and Adaptation Outcomes, concluding to the construct of resilience.

4.5.1 Stressors

Stressors represent the initial demands placed on parents due to their child's ID and caregiving responsibilities. Key stressors include family stress, child characteristics and negative perception of child's disability.

Family stress is a central tenet of the Resiliency Model, and the sources consistently highlight that raising a child with ID is a significant stressor for families (Azar & Badr, 2006; Bayrakli & Kaner, 2012; Gerstein et al., 2009). The "double ABCX model" emphasises the stress of having a child with special needs and how families cope with these demands (Azar & Badr, 2006). Research indicates that parents of children with disabilities confront many difficulties caused by the disability, in addition to typical parental stress (Bayrakli & Kaner, 2012). Studies have found higher stress levels in parents of children with ID than in parents of typically developing children (Gerstein et al., 2009). This stress can be related to various factors, including the child's diagnosis and behavioural problems, leading to a pile-up of demands (John & Zapata Roblyer, 2017).

Child characteristics of children with ID can act as stressors. For example, the developmental level of the child (Choi & Yoo, 2015) and mobility/independence issues can contribute to increased parental stress (Mohan & Kulkarni, 2018). Behaviour problems are frequently cited as a significant stressor for parents of

children with ID (Gerstein et al., 2009; Raspa et al., 2014). The initial diagnosis of a disability can be a stressor, challenging parents' expectations (Bayrakli & Kaner, 2012; John & Zapata Roblyer, 2017).

A negative perception of a child's disability has been found to be a strong predictor of parental stress (John & Zapata Roblyer, 2017). Viewing the impact of the child's condition negatively can worsen parental well-being (Caples et al., 2018). Conversely, more positive interpretations of rearing a child with a disability are associated with better adaptation (Hsiao & Van Riper, 2011; Mohan & Kulkarni, 2018).

4.5.2 Resources

Family and related factors are resources for parents of children with ID to overcome and adapt to adversity. Family factors (predictors) consist of critical predictors of resilience that empower parents to manage stress effectively, including problem-solving, social support, self-efficacy, and hope. Related factors may not directly be resources or stressors but can influence the family's access to resources, their appraisal of the situation, and their overall capacity for resilience, including parental health, socioeconomic situation, education, and cultural/religious beliefs.

4.5.2.1 Family Factors

Problem-solving skills are identified as a key component influencing a family's ability to adapt within the Resiliency Model (Caples et al., 2018; Hsiao & Van Riper, 2011). Problem-focused coping strategies are important protective factors for mothers' resilience (Bayrakli & Kaner, 2012). Supporting parents in using problem-focused coping strategies is recommended to promote parental resilience (Bayrakli & Kaner, 2012). Resilience in families caring for a child with ID is associated with the propensity to concentrate on difficult situations and search for possible solutions (problem-focused coping) (Ginevra et al., 2018).

Social support is consistently identified as a vital resource influencing parents' coping strategies and resilience (Bayrakli & Kaner, 2012; Caples et al., 2018; John & Zapata Roblyer, 2017). It affects the cognitive appraisal of adversity and

is a determinant of coping strategies (Bayrakli & Kaner, 2012). Increased social support can enrich coping strategies and increase the hardiness of mothers, making them more resilient (Bayrakli & Kaner, 2012). Research indicates that the availability of quality social support is a strong predictor of family adaptation (Caples et al., 2018). Families with strong informal support networks tend to have more positive outcomes (Raspa et al., 2014).

The term "self-efficacy" is not as explicitly and frequently mentioned across all sources; the concept is related to a parent's perceived competence and ability to manage the demands of raising a child with ID. Lustig (2002) found that families who perceived themselves as competent had better family adjustment (Mohan & Kulkarni, 2018). The "Condition Management Ability Scale" assesses parents' perceptions of their competence in caring for their child's condition (Hsiao & Van Riper, 2011). A sense of coherence, which includes viewing a crisis as manageable, is negatively related to parents' perceived stress (John & Zapata Roblyer, 2017).

Hope is identified as a significant factor in adapting to the uncertainty associated with caring for a child with Down syndrome (Cless et al., 2018; Truitt et al., 2012). Caregivers' level of hope has been found to be a significant predictor of overall adaptation (Truitt et al., 2012). Hope may contribute to mothers' overall functioning and is seen as part of the perception component in the contextual model of family stress (Cless et al., 2018). Resilience in families caring for a child with ID can also be linked to the tendency to look for and expect positive outcomes when confronting problems (optimism, which is closely related to hope) (Ginevra et al., 2018).

4.5.2.2 Related Factors

Parental physical health can significantly affect a parent's ability to cope with the demands of raising a child with ID (Choi & Yoo, 2015; Ellingsen et al., 2014; John & Zapata Roblyer, 2017). For example, parents' health is positively related to family adaptation (Choi & Yoo, 2015).

Socioeconomic situations, including financial resources and socioeconomic backgrounds, can act as moderators of stress and influence the availability of

resources and coping strategies (Ellingsen et al., 2014; John & Zapata Roblyer, 2017; Mohan & Kulkarni, 2018). Financial strain is a reported stressor for these families (John & Zapata Roblyer, 2017).

Education, particularly the mother's education level, has been suggested as a protective factor for positive parenting in the face of risk (Ellingsen et al., 2014; Rajan et al., 2018). Mothers with more education may engage in more positive parenting at higher levels of risk (Ellingsen et al., 2014).

Cultural/religious beliefs can play a role in how parents make sense of their child's disability and the coping mechanisms they employ (John & Zapata Roblyer, 2017; Mohan & Kulkarni, 2018). For instance, religious affiliation has been reported to alleviate stress and enhance coping (Mohan & Kulkarni, 2018).

4.5.3 Adaptation Outcomes

Adaptation outcomes, taken together, frame resilience as an ongoing adaptive process rather than a static attribute. Within this framework, the ultimate proof of resilience lies in attaining positive adaptive outcomes despite adverse conditions. Accordingly, adaptation outcomes such as lower stress, improved mental health, and better family function.

Lower stress is a key indicator of positive adaptation. Resilience processes aim to minimise or decrease parents' stress responses over time (Cless et al., 2018; Gerstein et al., 2009; Rajan et al., 2018).

Improved mental health of parents is a significant outcome associated with resilience (Ben-Zur et al., 2005; Ginevra et al., 2018; John & Zapata Roblyer, 2017). Parents who cope better with stressful demands often experience higher levels of life satisfaction and a more positive mental health status (Ginevra et al., 2018).

Better family function signifies successful adaptation at the family level. This includes maintaining family routines, positive interactions, and the overall well-being of the family unit despite challenges (Caples et al., 2018; Hsiao & Van

Riper, 2011; Hsiao, 2014; Van Riper, 2007). This can manifest as effective problem-solving, communication, and emotional responsiveness within the family (Hsiao & Van Riper, 2011).

By synthesising theoretical frameworks and findings, the model offers a comprehensive lens for understanding resilience in parents of children with ID (Diagram 2).

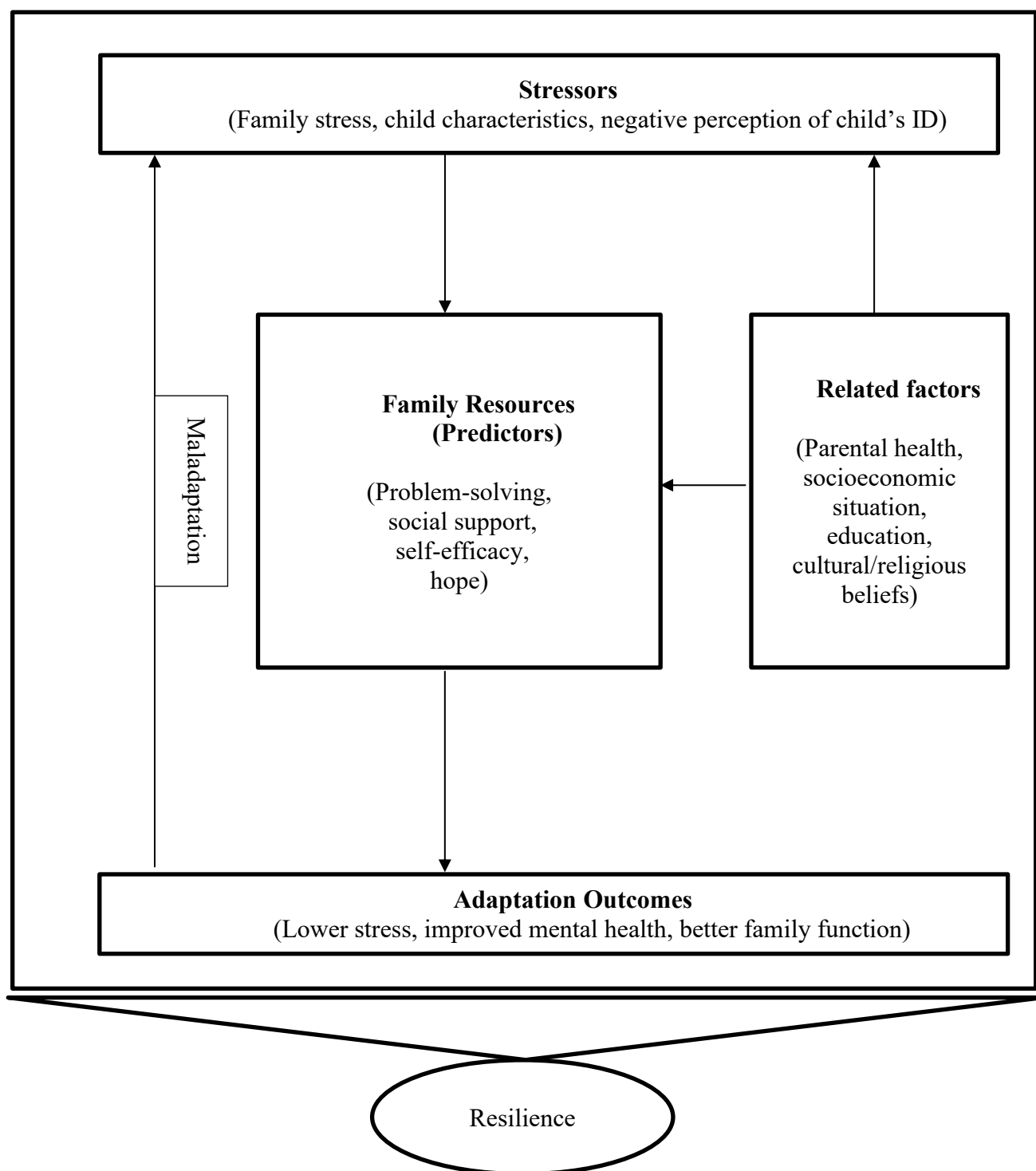


Diagram 2 Conceptual Model of Resilience for Parents of Children with ID

4.6 Discussion

This systematic review investigated the factors associated with resilience in parents of children with ID. Understanding these factors is important, as parenting a child with an ID has been reported to impact the mental health and well-being of family caregivers (Rydzewska et al., 2021). However, there may be a gender bias in the findings provided, since mothers are overrepresented, and fathers are underrepresented in this review. This predominance reflects the existing literature, whereby mothers are more likely to assume primary responsibility for the daily care of children with ID (Barratt et al., 2025; Tomczyszyn, 2019). This role is often shaped by societal expectations and traditional gender roles that designate the mother as the primary caregiver (Tomczyszyn, 2019). Research has indicated that biases in recruitment processes can result in underrepresentation or overrepresentation of specific genders, thereby affecting the generalisability of research findings (Moss-Racusin et al., 2012; Xiao et al., 2018). Consequently, resilience in this review is largely understood through a maternal lens. While this focus strengthens the internal coherence of the synthesis allowing for clearer identification of stressors and protective factors relevant to mothers. It is crucial to provide more consideration to this group of mothers and support them in coping with and adapting to these challenges. This review provides valuable insights into the factors associated with resilience in parents of children with ID and highlights the need for better support and services especially for these mothers. According to Masten and Reed (2002), research on resilience began in the 1960s. However, the first reported studies on resilience in parents of children with ID were only published in 1997 (Costigan et al., 1997; Lustig & Thomas, 1997). This finding is striking since parents of children with ID are at a higher risk of mental health problems, such as anxiety, depression, and stress (Dunn et al., 2019; McConkey et al., 2008; Shin & Crittenden, 2003). However, resilience may buffer adverse impacts. The diversity in the chosen frameworks suggests a complex and multifaceted approach within the field. This may reflect the unique nature of the family dynamics and resilience. The ABCX Model, the Model of Family Stress, the Double ABCX Model of Adjustment and Adaptation, Patterson's Family Resilience Model, and the Family Adjustment and Adaptation Response (FAAR)

Model, have all informed the Resiliency Model of Family Stress, Adjustment, and Adaptation (McCubbin's model of resilience). This model examines how families manage their stress and adapt to challenges. Hope Theory centres on the role of hope in overcoming challenges, positing that hope consists of agency (goal-directed energy) and pathways (planning to meet goals), which are both crucial for coping and resilience. Boss's Model of Stress and Coping addresses ambiguous loss and related uncertainty, exploring how families cope with situations in which a loved one is physically absent but psychologically present, or vice versa, emphasising meaning-making and adaptation to ambiguity. Olsson's Model of Resilience highlights the individual and environmental factors that contribute to resilience, considering the interplay between personal traits and external support.

Overall, the findings of this systematic review support the continued relevance of the McCubbin's model of resilience for understanding resilience in parents of children with ID. The model's emphasis on the interaction between stressors, resources, appraisal, and adaptation was consistently reflected across quantitative and qualitative studies. However, the synthesis suggests potential areas for refinement. In particular, the evolving nature of resilience across the caregiving lifespan, and the role of cultural and religious may enhance the model's applicability to this population. These findings extend and elaborate it in ways that reflect contemporary, diverse caregiving contexts.

Furthermore, research suggests that gender roles and societal expectations may influence how resilience is expressed and perceived in different caregivers. Traditionally, women have often been associated with nurturing and caregiving roles, which may lead to the assumption that mothers are naturally more resilient (Sharma et al., 2016). However, resilience is not solely determined by gender or caregiving roles but also by individual characteristics and circumstances. Studies have explored resilience among various caregivers, including mothers, fathers, and other family members (Caples et al., 2018; Mohan & Kulkarni, 2018; Rajan & John, 2017). These studies have shown that individuals may exhibit resilience in different ways, influenced by factors such as social support, problem-solving, hope, and the specific challenges faced by each caregiver (Arzeen et al., 2020; Cheng et al., 2024; Peer & Hillman, 2014;

Tejakum et al., 2022). It is important to consider the unique experiences and contexts of individual caregivers when examining resilience.

According to previous studies, there is a dynamic link between the personal and contextual factors associated with resilience. Resilience is determined by both personal and contextual factors (Jaffee et al., 2007; Ungar, 2008). Regarding contextual factors, Machalicek et al. (2015) emphasised the importance of education and training programs to improve parents' ability to effectively support children with ID. Factors from this systematic review highlights that professional support is required to help parents acquire realistic interventions that promote resilience. A “realistic intervention” refers to approaches that are feasible, evidence-based, and tailored to the unique needs of the parents and children. Informal support from family, friends, support groups, or community resources can also play a crucial role. Emphasis on formal support may stem from healthcare professionals offering specialised knowledge, resources, and structured guidance not always available through informal channels. Integrating formal and informal support can provide a more comprehensive support system for parents.

Although this review focuses on resilience in parents of children with ID, the findings indicate that vulnerability extends beyond individual parents, to the family system as a whole. Family vulnerability emerged through interconnected stressors including financial strain (Raspa et al., 2014), marital tension (John & Zapata Roblyer, 2017), unequal caregiving roles, and the cumulative demands of long-term caregiving (Gerstein et al., 2009). However, several studies in this review highlight systemic processes such as co-parenting communication, dyadic adjustment, and shared problem-solving, underscoring that vulnerability and resilience are relational rather than solely individual phenomena.

Finally, it is important to note that resilience is a dynamic process that can vary over time and across situations, making parents resilient in one situation but not necessarily in another. Each stage presents unique challenges and stressors for parents, requiring different types of support to navigate effectively (Chiu et al., 2013; Haveman et al., 1997; Heller et al., 1997; Schulz et al., 2020). However, this systematic review lacked a detailed description of caregiving for children

with ID across different phases. This absence of a phase-wise breakdown limits the understanding of the unique challenges and stressors parents face at each stage of caregiving. It is challenging to discern whether certain interventions or factors are more effective at specific points in the caregiving journey. Future research should consider conducting analyses stratified by caregiving phase to enhance the applicability of the findings and offer more targeted recommendations. This approach would contribute to a more nuanced understanding of the experiences of caregivers' experiences at different points in their journey and assist in tailoring support interventions more effectively to parents' specific needs at each stage

4.7 Strengths and Limitations

This study provides a foundational understanding of resilience in parents of children with ID for future research and for parents and professionals. By systematically reviewing key studies, it provides an overview of current knowledge by employing rigorous methods to minimise bias and ensure validity and reliability. Synthesis from multiple studies enhances the robustness of the findings. However, this study had limitations. Despite a comprehensive search strategy, it may not capture all research on intervention factors associated with resilience. Future research should focus more on intervention studies, examining various interventions and their impact on parental resilience. Additionally, most included studies showed an unclear risk of bias in 1-2 domains according to the CASP criteria, with an average score between B1-B2 (CASP, 2018). Quantitative studies often lack precision regarding confidence intervals, while qualitative studies frequently do not clarify the researcher-participant relationship. Finally, due to insufficient data and differing resilience measures, a meta-analysis could not be conducted.

4.8 Conclusion

This systematic review identified several factors associated with resilience in parents of children with ID. These factors may not only contribute to resilience but could also be concomitant with or outcomes of resilience. For instance, parents' ability to find meaning and purpose in raising a child with ID can be

influenced by their resilience. Parental resilience is an ongoing process that is subject to various internal and external factors over time. Further research is needed to understand the complex interactions between these factors and to develop interventions that effectively enhance resilience. Recognising these factors helps us understand the unique challenges that parents face and develop supportive solutions. This can lead to improved health services, better outcomes for emotional disorders (e.g. anxiety, stress, and depression), and aid parents in adapting to their challenges, thereby maintaining their overall resilience.

Chapter 5 Resilience in Mothers of Adolescents with ID in Thailand: A Quantitative Approach (Study 2)

5.1 Introduction

Intellectual disability significantly impacts individuals and families, particularly during adolescence, which is a critical period of development and transition (Backes et al., 2019; Jordan & Andersen, 2017; Malapela & Thupayagale, 2019). Adolescents with ID face numerous challenges and risks, such as academic difficulties, social isolation, bullying, discrimination, and abuse, all of which can affect their self-esteem, identity, and well-being (Christensen et al., 2012; Fisher et al., 2012; Hager & Leadbeater, 2016). At the same time, these adolescents have distinct needs and aspirations, such as autonomy, independence, and participation, which require appropriate support and guidance from their families and communities (Maxey & Beckert, 2017).

Mothers of adolescents with ID play a vital role in providing care and support for their children and facilitating their development and transition (Bourke-Taylor et al., 2019). However, they also experience various stressors and challenges, such as emotional distress, financial burden, social stigma, and role conflict, which affect their mental health, life satisfaction, and quality of life (Albayrak et al., 2019; Hussain & Raihan, 2022). However, mothers of adolescents with ID also have their own needs and goals, such as personal growth, career development, and social relationships, which require adequate resources and opportunities from their families and societies (Shearn & Todd, 2000). Despite these challenges, some mothers demonstrate resilience, maintain a positive outlook and effectively navigate the challenges they face, while others struggle (Babik & Gardner, 2021; Beighton & Wills, 2017, 2019).

Resilience is a dynamic process of positive adaptation to adversity, influenced by individual, relational, and environmental factors, as well as cultural values and societal contexts (Luthar & Cicchetti, 2000; Richardson, 2002). It is particularly relevant for mothers of adolescents with ID, reflecting their ability and capacity

to cope and thrive in the face of the challenges and risks that they encounter, and to achieve and maintain their well-being and quality of life, as well as their children's well-being and quality of life (Palacio et al., 2020). Resilience is also a complex and multifaceted concept, as it involves multiple levels and dimensions, such as personal, interpersonal, and environmental, and varies across contexts, cultures, time, and situations (Ungar, 2008, 2018). Understanding the factors that contribute to resilience in this population is crucial for developing effective interventions and providing support. However, research on resilience among mothers of adolescents with ID is limited, particularly in non-Western cultures.

The systematic review (Study 1) identified the resilience theory proposed by McCubbin et al. (1996) as the most frequently applied framework in the literature. This theory emphasises the dynamic interaction between family members and their environments, highlighting the role of protective factors in promoting resilience. While previous studies have explored the experiences of parents of children with ID and applied resilience theory in various contexts (Caples et al., 2018; John & Zapata Roblyer, 2017; Van Riper, 2007), a number of gaps in the literature have been identified, including specific age groups of adolescents, particularly in the Thai context. This study addresses these gaps by focusing on mothers caring for adolescents with ID in Thailand.

Building upon the findings of the systematic review, which highlighted the multitude of factors contributing to resilience in parents of children with ID, this study will specifically focus on the four factors that were identified as the most important contributors to resilience in the review: (1) coping strategies, (2) social support, (3) perception of ID, and (4) adaptation. With this focus, the aim of Study 2 was to examine the mediating effects of coping strategies, social support, and perception on the relationship between the stressors of caring and adaptation (resilience), guided by the resilience theory proposed by McCubbin et al. (1996).

5.2 Theoretical Framework

The Resiliency Model of Family Stress, Adjustment, and Adaptation (McCubbin et al., 1996) provides the framework for this study. It originated from previous

models, including Hill's ABCX framework (Hill, 1949) and the Double ABCX Model (H.I. McCubbin & Patterson, 1983) and the Family Adjustment and Adaptation Response (FAAR) Model (H.I. McCubbin & Patterson, 1985). The model focuses on resiliency in the family unit, which plays a vital role in stabilising and providing predictability to the family. The Resiliency Model explains how some families can manage, sustain, and survive when faced with adversity, such as illnesses and traumatic conditions. The model emphasises family adaptation as its central concept, which is the process in which families engage in a direct response to the excessive demands of a stressor and depleted resources and realise that systematic changes are needed to restore functional stability and improve family satisfaction (McCubbin et al., 1996) (Diagram 3).

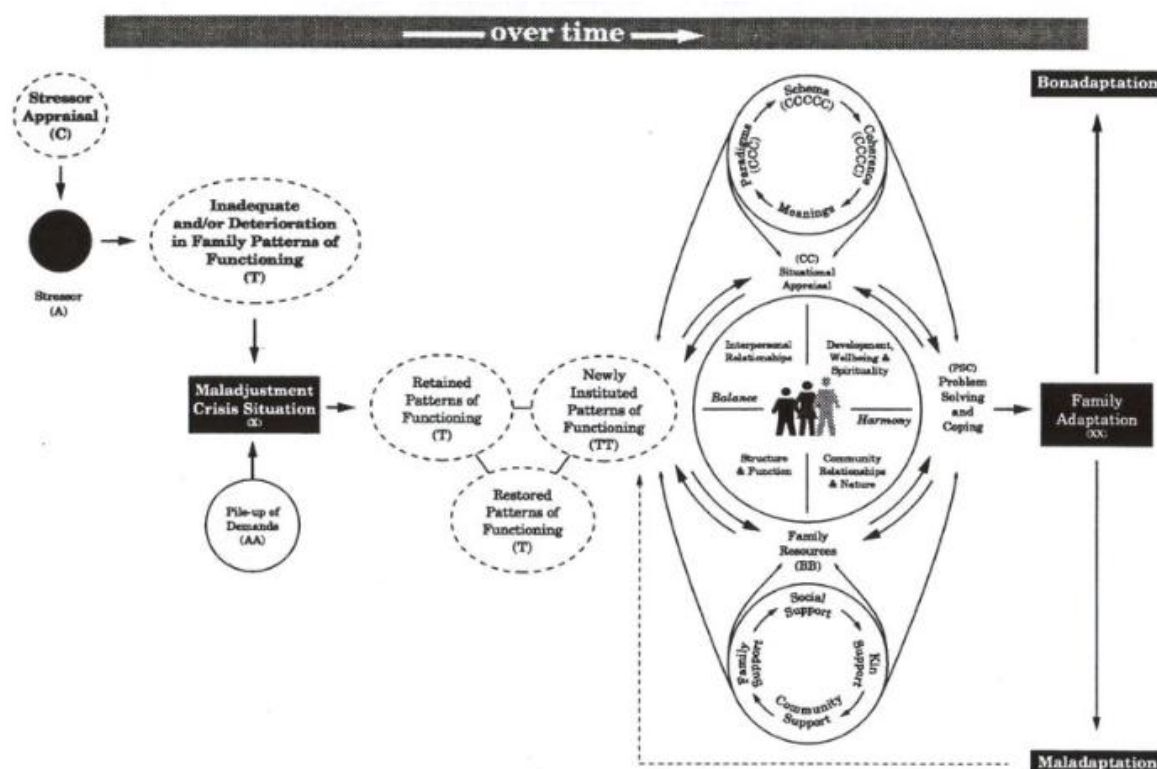


Diagram 3 Resilience Model of Family Stress Adjustment and Adaptation
(McCubbin et al., 1996)

The Resiliency Model is based on five fundamental assumptions about family life. First, families inevitably face hardships and changes throughout their lifecycles. Second, families develop basic competencies, patterns of functioning, and capabilities that promote the growth and development of family members and

protect the family from major disruptions during times of transition and change. Third, families develop unique competencies, patterns of functioning, and capabilities that enable them to protect themselves from unexpected stressors and strains and facilitate their recovery after a crisis or major change. The fourth assumption is that families will utilise and contribute to the relationships and resources available in their community, including their cultural heritage and ethnicity, during times of stress and crisis. Finally, families confronted with crises and changes in their functioning will make efforts to bring back a sense of stability, coherence, and balance to their family dynamics, even in the midst of ongoing changes (McCubbin et al., 1996).

This study adopted the Resiliency Model as its theoretical framework because it explains how parents navigate stressful situations and use their strengths, resources, and perceptions to adapt. The systematic review in Study 1 demonstrated that McCubbin's Resiliency Model has previously been used in research on resilience among parents of children with ID (Caples et al., 2018; Hsiao & Van Riper, 2011; Van Riper, 2007), further reinforcing the rationale for this model in the current study. Since no prior research has specifically explored factors influencing adaptation in mothers of adolescents with ID, this model provides a valuable lens to examine how these mothers cope and adapt over time. The application of the model to Thai mothers of adolescents with ID is illustrated in Diagram 4.

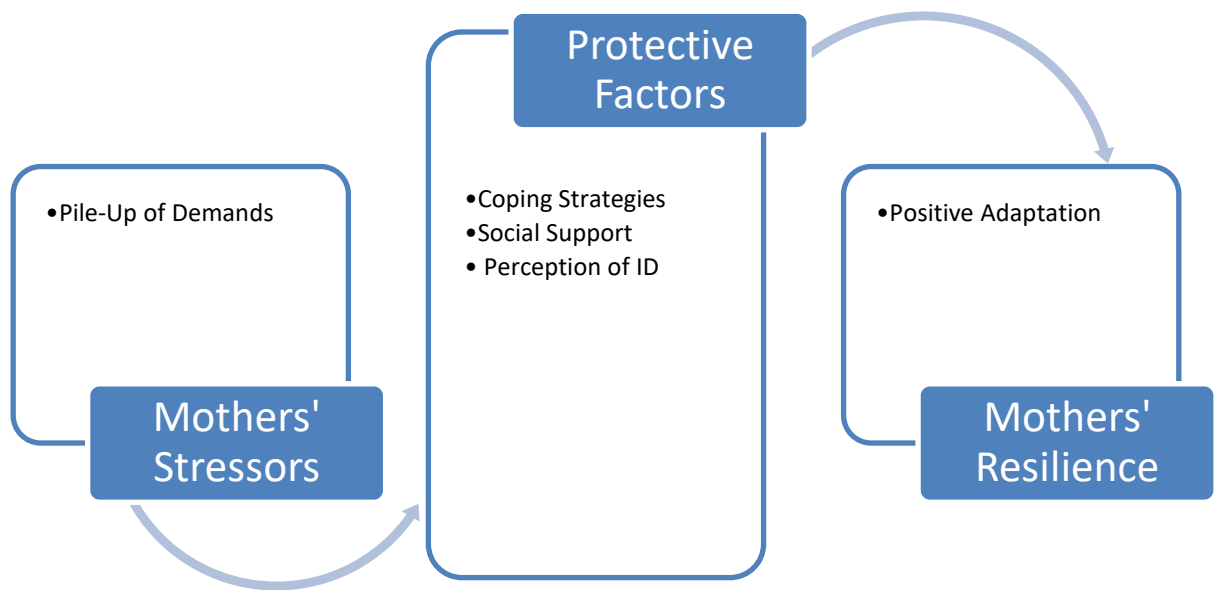


Diagram 4 Hypothesised Model of Resilience in Mothers of Adolescents with ID in Thailand

5.3 Purpose

This study aimed to examine McCubbin's model of resilience in mothers of adolescents with ID in Thailand.

5.4 Research Questions

- (1) How do coping strategies, social support, and perceptions influence the resilience of mothers of adolescents with ID in Thailand?
- (2) What are the direct and indirect factors influencing resilience among mothers of adolescents with ID in Thailand?
- (3) What is the impact of stressors on resilience when coping strategies, social support, and perceptions are mediating factors?

5.5 Methodology

This chapter outlines the methodology of the present study, detailing the research design, population and sample size, setting, instruments, data collection methods, data analysis methods, and ethical considerations.

5.5.1 Research Design

This study employed a quantitative research design. Quantitative research focuses on the collection and analysis of numerical data, allowing statistical analyses to be performed (Creswell, 2017). This study used a correlational survey design to collect data and investigate relationships among variables.

5.5.2 Population

The study population comprised mothers of adolescents with ID living in Thailand. Mothers with diagnosed psychiatric disorders were excluded from the quantitative and qualitative studies to minimise confounding effects between resilience processes and clinical mental health conditions. This decision was made to allow clearer examination of stressors, coping, appraisal, and adaptation within the Resiliency model.

However, this exclusion criterion must be considered in light of the findings of the systematic review, which highlighted elevated vulnerability to depression and anxiety among mothers of children with ID. As such, the empirical studies likely reflect resilience processes among mothers who are not experiencing clinically diagnosed mental health conditions. The findings therefore be interpreted as illustrating patterns of resilience within a psychologically stable subgroup, rather than the full caregiving population.

The following criteria were used to select the participants.

Inclusion Criteria

For Mothers:

1. Biological mother providing direct care to an adolescent with ID.
2. Adolescent with ID diagnosed by a psychiatrist.
3. Aged 18 years and over.
4. Living continuously with an adolescent with ID in the same household.
5. Able to communicate and understand the Thai language.
6. No history of psychiatric disorders.
7. Willing to participate in the study.

For Adolescents with ID:

1. Aged between 10-19 years.
2. Diagnosed with ID by a psychiatrist according to the International Classification of Diseases version 10 (ICD-10) or the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition, Text Revision (DSM-5-TR).

Exclusion Criteria

For Mother:

1. History of psychiatric disorders.
2. Not the primary caregivers.
3. Unable to communicate in Thai.

For Adolescents with ID:

1. Younger than 10 years or older than 19 years of age.
2. Not living full-time in the household.

5.5.3 Sample Size

This study focused on mothers of adolescents with ID and aimed to obtain a sample that accurately represents the target population. It is important to have a sufficient sample size to draw conclusions about the factors that influence the resilience of the target population (Prajapati et al., 2010). The number of participants should be large enough to ensure precise results but not so large

that it wastes the participants' time. In quantitative research, it is important to consider the sample size required to achieve both statistically and clinically significant results while using research resources efficiently and ethically (Field, 2017). The appropriate sample size for a study depends on the research question being investigated. The researcher sought guidance from a skilled statistician at the Robertson Centre, University of Glasgow. The statistician recommended employing power analysis to determine the appropriate sample size using G* Power. G* Power is a software application that enables the calculation of statistical power analyses (Faul et al., 2009). The assumptions for this power analysis included a two-tailed hypothesis, an alpha significance level of 0.05, a power of 0.8, an allocation ratio of 2, and a medium effect size of $d = 0.5$, which reflects a moderate expected relationship based on the prior literature (Iacob et al., 2020; Prajapati et al., 2010; Tejakum et al., 2022). The sample size calculated from this power analysis was 144. A carefully planned and effectively executed survey typically attains response rates ranging from 80 percent to 90 percent (Polit & Beck, 2017). Consequently, an 80 percent response rate was anticipated for this study. With this in mind, the objective will be to enrol 173 participants, or as many as possible, during the data collection period within three months.

5.5.4 Sample Technique

The sampling method used in this study was purposive sampling. This is a non-probability sampling technique that selects participants based on specific criteria and characteristics that are relevant and appropriate for the study (Creswell, 2017). This aims to ensure the analytic relevance of the data, that all participants belonged to the target population, and could complete the standardised measures pertinent to the hypotheses, rather than the representativeness and generalisability of the data (Creswell, 2017). As a non-probability method, purposive sampling limits statistical generalisability and may introduce selection bias (e.g. over-representation of families engaged with specialist services) (Creswell, 2017). Therefore, report eligibility criteria, recruitment procedures, and sample characteristics transparently to aid the appraisal of external validity and transferability. Purposive sampling is suitable for this study, as it allows the identification and recruitment of mothers of

adolescents with ID in Thailand who are primary caregivers and can provide insightful data for the quantitative study.

5.6 Setting

This study was conducted in Thailand at the Rajanukul Institute, a tertiary psychiatric care centre under the Department of Mental Health, Ministry of Public Health, located in Bangkok. Bangkok is the capital city and the largest urban area of Thailand, with a population of approximately 10 million people and diverse and complex social and economic conditions and issues (Embassy, 2023). The institute provides outpatient and inpatient services for children and adolescences with ID aged 1-18 years, as well as those learning, behavioural, or emotional problems. It serves 112 outpatient visits per day and has 300 beds (Rajanukul Institute, 2024), Rajanukul Institute also operates a special education school offering individualised education programmes (IEPs) and implementation plans (IIPs) for students with ID and Autism. The school focuses on promoting both academic and personal development through tailored instruction and movement-based activities. This setting was selected for its central role in the care and education of children and adolescents with ID in Thailand. All participants were recruited from a single tertiary psychiatric institute in Bangkok. It may limit the generalisability of the findings to the wider population of mothers in Thailand. As such, the findings were interpreted as most applicable to service-engaged urban populations rather than representative of all Thai mothers raising adolescents with ID.

5.7 Measures

This study employed a theory-driven selection of validated instruments aligned with the Resiliency Model, which posits that adaptation (resilience) arises from interactions between stressors, resources, and outcomes. Mothers' stressors were identified as antecedents. This study examined the impact of mothers' stressors on family strain. This factor was assessed using the Thai Strains Inventory (Rungreangkulkij et al., 2002).

The study considers coping, social support, and perception as components of mothers' resources that contribute to adaptation which implies resilience. Coping refers to the strategies or problem-solving skills that mothers use to manage, reduce, or tolerate stressful situations. Coping strategies can help mothers adapt to difficult circumstances and minimise the negative impact of stress on their physical and mental well-being. This factor was assessed using the Family Crisis Oriented Personal Evaluation Scales (F-COPES, Thai version) (Rungreangkulkij et al., 2002). Social support refers to the help, assistance, or comfort that mothers receive from others, such as family, friends, or the community, in times of need or stress. Social support can positively impact a person's physical and mental health and overall well-being. This factor was assessed using the Social Support Index (SSI, Thai version) (Rungreangkulkij et al., 2002). These resources are believed to moderate the relationship between mothers' stressors and adaptation. Perception refers to mothers' appraisal of the situation in which they perceive their child with ID. This includes mothers' beliefs and expectations regarding the illness. This factor was assessed using the demands of illness inventory (DOI, Thai version) (Rungreangkulkij et al., 2002).

Adaptation is viewed as mothers' resilience in establishing a new state of balance, coherence, and functioning during stressful situations. This factor was assessed using the Connor-Davidson Resilience Scale 10 (CD-RISC-10, Thai version) (Vongsirimas et al., 2017). Table 5-1 is designed to work in conjunction with Diagram 4, explicitly mapping each component of the hypothesised resilience model to its corresponding measures. All these instruments have been used in Thai studies with caregivers of people with psychiatric disorders. The validity and reliability of each instrument are discussed in the following sections.

Table 5-1 The resiliency model principles and the relevant instruments

Construct	Instruments
Pile-Up of Demands	The Thai Strain Inventory

Coping Strategies	Family Crisis Oriented Personal Scales (F-COPES, Thai version)
Social Support	Social Support Index (The SSI, Thai version)
Perception of ID	Demands of Illness Inventory (DOI, Thai version)
Positive Adaptation	Davidson Resilience Scale 10 (CD-RISC-10, Thai version)

Access to professional support services was not included as a separate variable in the model, because its influence was conceptualised as operating through broader resilience-related constructs already specified in Table 5.1. The role of professional support was explored in greater depth in the qualitative study (Study 3), allowing for contextual and experiential. This study employed six self-reported questionnaires. Multiple instruments were employed because resilience was conceptualised as a multidimensional process involving stressors, resources (coping, social support), appraisal (perception of ID), and adaptation (resilience), in line with McCubbin's Resiliency Model (McCubbin et al., 1996). Each instrument was selected to operationalise a specific construct within the hypothesised model and to align directly with the study aims of examining the McCubbin's Resiliency Model (McCubbin et al., 1996). The use of multiple, validated instruments was therefore necessary to distinguish between conceptually distinct variables, support mediation analysis using Structural Equation Modelling (SEM). Completing all questionnaires took approximately 30-45 minutes. All measures were translated from English to Thai and back-translated by a bilingual translator and modified by the previous Thai studies. Overall, the measures adapted well to the Thai context.

1. A Demographic Information Questionnaire

The questionnaire can be self-administered and takes approximately 5 minutes to complete. Part one of this instrument collected maternal variables (e.g. age, marital status, religion, education, health problems, financial status, and the number of children in the family) and child characteristics (e.g. age, sex, and severity of ID).

2. The Thai Strains Inventory

The Thai Family Strains Questionnaire is a self-report questionnaire comprising 11 items (e.g., “There are conflicts between family members”). In this study, the researcher used this instrument to evaluate mothers’ stress. Rungreangkulkij et al. (2002) developed and validated this instrument for Thai family caregivers Rungreangkulkij et al. (2002). The items were rated on a four-point scale (0 = not at all to 3 = extremely). The final scores ranged from 0 to 33, with higher scores indicating a higher risk of maternal strain. The internal consistency coefficient (Cronbach’s alpha) was 0.73. This was translated from English to Thai and back-translated by a bilingual translator and modified from the 10-item family strain instrument (McCubbin et al., 1996) and studies of Thai family stressors (Leelakraiwan et al., 1992; Sornpaisarn et al., 1998). In this study, the process of obtaining permission to use the instrument was performed. The questionnaire took approximately 5 minutes to complete.

3. Family Crisis Oriented Personal Scales (F-COPES, Thai version)

The Thai version of the F-COPES is a self-report questionnaire comprising 33 items (e.g., “Discussing problems or difficulties with relatives”). This instrument evaluates the problem-solving and coping strategies employed to manage crisis situations. Rungreangkulkij et al. (2002) developed and validated this instrument for Thai family caregivers Rungreangkulkij et al. (2002). The items were rated on a four-point scale (1 = strongly disagree to 4 = strongly agree). Higher scores indicate greater use of coping strategies. The internal consistency coefficient (Cronbach’s alpha) was

0.79. This was translated from English to Thai and back-translated by a bilingual translator and modified from the 30-item family problem-solving and coping skills (F-COPES) (McCubbin et al., 1996). In this study, the process of obtaining permission to use the instrument was performed. The questionnaire took approximately 10 minutes to complete.

4. Social Support Index (SSI, Thai version)

The SSI, Thai version, is a self-report questionnaire consisting of 14 items that assesses the degree of mothers' integration into support from their friends, family, and the community where they live (e.g., "If there's an emergency in my family, I know that even people in our community we don't know would be willing to help us"). Rungreangkulkij et al. (2002) developed and validated this instrument for Thai family caregivers Rungreangkulkij et al. (2002). The items are rated on a four-point scale ranging from 0 (strongly disagree) to 3 (strongly agree), with higher scores indicating greater social support. The internal consistency coefficient (Cronbach's alpha) was 0.79 for the current study. This was translated from English to Thai and back-translated by a bilingual translator and modified from the 17-item social support index (SSI) (McCubbin et al., 1996). In this study, the process of obtaining permission to use the instrument was performed. The questionnaire took approximately 5 minutes to complete.

5. Demands of Illness Inventory (DOII, Thai version)

The DOII, Thai version, is a self-report questionnaire consisting of 19 items that assesses mothers' perceptions of the situation in which a family perceives the presence of their children with ID (e.g., "It is unfair that this happened to our family"). Rungreangkulkij et al. (2002) developed and validated this instrument for Thai family caregivers Rungreangkulkij et al. (2002). The items are rated on a four-point scale ranging from 0 (not at all) to 3 (extremely). Lower scores indicate less negative illness appraisal. The internal consistency coefficient (Cronbach's alpha) was 0.91. This was translated from English to Thai and back-translated by a bilingual translator and modified from the 16-item

demands of illness inventory (DOI) (Haberman et al., 1990; Woods et al., 1987) and adapted related to stigma literature (Wahl & Harman, 1989). In this study, the process of obtaining permission to use the instrument was performed. The questionnaire took approximately 10 minutes to complete.

6. Davidson Resilience Scale 10 (CD-RISC-10, Thai version)

The CD-RISC-10, Thai version, is a self-report questionnaire consisting of 10 items that assesses the degree of mothers' resilience (for example, "I can deal with whatever comes"). This instrument was developed by Connor and Davidson (2003) and translated into Thai with validation in Thai undergraduate university students by Vongsirimas et al. (2017). The items are rated on a five-point scale ranging from 0 (not true at all) to 4 (true nearly all the time), with higher scores indicating greater resilience. The internal consistency coefficient (Cronbach's alpha) was 0.86. In this study, the process of obtaining permission to use the instrument was performed. The questionnaire took approximately 5 minutes to complete.

5.8 Data Collection

Data collection was conducted using a structured survey method appropriate for quantitatively testing hypothesised relationships within the Resiliency Model. The survey was administered to 173 mothers of adolescents with ID, who were recruited through purposive sampling at the Rajanukul Institute in Bangkok. Eligible mothers were identified through clinic attendance lists and were informed about the study by the researcher during routine service visits. Mothers who expressed interest were provided with an information sheet explaining the study aims, procedures, and voluntary nature of participation. Written informed consent was obtained prior to data collection.

5.9 Data Analysis

Data analysis was conducted using descriptive and inferential statistics. Descriptive and inferential statistics are quantitative data analysis techniques

that use numerical and graphical methods to summarise and describe characteristics and distributions and to test and infer hypotheses and relationships of the data, such as the mean, standard deviation, frequency, percentage, correlation, and regression (Creswell, 2017). The proposed hypothetical model was evaluated using path analysis (SEM) to examine the direct and indirect effects of resilience predictors.

Data analysis was conducted using Stata 17 software (Weinberg et al., 2024). Mean, standard deviation, frequency, and percentage were used to describe the participants' demographic characteristics and the distributions of the key variables (stress, coping, social support, perception of ID, and resilience). Pearson's correlation coefficients were computed to examine the strength and direction of the linear relationships among key continuous variables. SEM was performed using Stata software to test the McCubbin's Resiliency Model (McCubbin et al., 1996). SEM was particularly suited to the study aims as it enabled simultaneous examination of multiple direct and indirect pathways, allowing assessment of how stress and coping functioned as mediators between contextual factors and resilience. This analytic approach therefore supported theory testing, in direct alignment with the objectives of Study 2, which sought to test McCubbin's Resiliency Model (McCubbin et al., 1996) among mothers of adolescents with ID in Thailand. SEM has several advantages over standard regression-based modelling (i.e. one dependent variable regressed on independent variables) (Nusair & Hua, 2010). In this context, the key advantage was that SEM supported mediating relationships and feedback loops. For example, one can test hypotheses such as "X affects Y through Z" (mediation) and estimate coefficients on both $X \Rightarrow Z$ and $Z \Rightarrow Y$ paths. A secondary advantage is that standard regression assumes that variables are measured without error, whereas SEM can explicitly model measurement errors in observed variables, leading to more reliable parameter estimates (Nusair & Hua, 2010).

5.10 Ethical Consideration

Ethical approval for this study included permission to verify adolescents' ID diagnoses and mothers' eligibility criteria through the Rajanukul Institute. Access to diagnostic information was limited to confirming eligibility, with no

extraction of detailed medical records. This study was conducted in accordance with the ethical principles outlined in the Declaration of Helsinki (World Medical, 2013). Ethical approval was obtained from the Ethics Committee of the University of Glasgow and the Ethics Committee of the Rajanukul Institute prior to commencement of the study. All participants were informed of the study's objectives and their right to withdraw at any time without penalty. Informed consent was obtained from all participants prior to their participation in the study. Participants' confidentiality and pseudonymity were ensured by assigning a unique code to each participant, and all data were kept in a secure location (details are in the ethics application form) (Appendix D-T).

Chapter 6 Results of Quantitative Study (Study 2)

This chapter presents the results of a quantitative study involving 173 mothers (N=173) of adolescents with ID. Some recruitment challenges were encountered, primarily related to time constraints and caregiving demands. Several eligible mothers were unable to participate due to competing responsibilities, including caregiving duties and employment commitments. However, no major barriers to recruitment were identified, and recruitment was completed within the planned timeframe. This chapter begins with a summary of the participants' demographic and socioeconomic characteristics followed by descriptive statistics of the key variables. Correlation analyses are then presented to examine associations among variables. Finally, the hypothesised model is tested using Structural Equation Modelling (SEM), and the results are compared with the final model. Implications of the findings are discussed where relevant.

6.1 Description of the Sample of Mothers

This section provides an overview of the demographic characteristics of the participating mothers. Understanding these characteristics is essential for contextualising the findings and interpreting the results appropriately.

Demographic information was collected to better understand the backgrounds of the mothers. Table 6.1 presents a summary of the key demographic variables, including age band marital status, religion, education level, financial status, and severity of the child's ID.

Mother's Age Range

The majority of mothers were aged 40-54 years (N=122, 71%), followed by those aged 25-39 years (N=37, 21%). A smaller proportion was in the 55-69 age group (N=13, 7%), and one participant was aged 18-24 (N=1, 1%). In total, over 92% (N=159) were between 25 and 54, reflecting the typical caregiving age for children with ID (Horng et al., 2001). This age distribution aligns with national trends, where Thai women aged 25-54 represent the majority of the population (Prasartkul et al., 2019).

Marital Status

The data show that 71% (N=123) of the mothers were married. Single mothers comprised 13% (N = 22), representing a smaller but notable group. This distribution closely aligns with national statistics on Thai women, where 70% are married, and 30% are not (Dommaraju & Wong, 2023), suggesting that the sample is broadly representative of the general population in Thailand.

Mother's Physical Health Problem

In this study examining maternal health, 29% (N=50) of mothers reported experiencing physical health problems, indicating that nearly one third of the sample faced additional health-related challenges alongside their caregiving responsibilities.

Religion

The majority of participants were Buddhist (N=165, 95%), reflecting the national religious demographics in Thailand, where 94% of the population identifies as Buddhist (Pokpalagon et al., 2024). A small proportion identified as Christian (N=5, 3%), Muslim (N=2, 1%), or reported no religion (N=1, 1%). This distribution confirms the sample's representativeness with respect to religious affiliation.

Education

Nearly half of the participants (N=85, 49%) held an undergraduate degree, indicating a relatively high level of education within the sample. High school graduates made up 34% (N=58), while 10% (N=18) had only primary education or less. A smaller group (N = 12, 7%) held a master's degree. Compared to national data from the Thailand Multiple Indicator Cluster Survey (MICS), which reported 18% of women aged 15-49 with primary education or lower, 44% with a high school education, and 38% with an education beyond high school (MICS, 2022). This sample appears more highly educated than the general.

Financial Status

The participants' financial status varied, with 35% (N=60) reporting savings, suggesting a degree of financial stability. Meanwhile, 26% (N=45) indicated that their income matched their expenses. Notably, the largest group (N=68, 39%) reported being in debt. Compared to national data from the Multiple Indicator Cluster Survey (MICS), which distributed Thai women more evenly across wealth quintiles (MICS, 2022). This sample shows a higher proportion facing financial strain, suggesting possible economic differences relative to the broader population.

Severity of Child's ID

The severity of the adolescent's ID ranged from borderline to profound. Most mothers reported their child's condition as mild (N=59, 34%) or moderate (N=54, 31%), followed by borderline (N=30, 17%). These three categories accounted for over 80% (N=143) of the sample, indicating that mild-to-moderate severity was most common. This pattern broadly reflects national trends in Thailand, where 85% of individuals with ID are classified as mild, 10% as moderate, and 4% as severe (Rajanukul Institute, 2024).

Table 6-1 The demographic characteristics of the mothers

Characteristic	Frequency	Percentage	Cumulative Percent
Age range (Year)			
18 -24*	1	0.58	0.58
25 - 39	37	21.39	21.97
40 - 54	122	70.52	92.49
55 - 69**	13	7.51	100.00
Total	173	100.0	100.0
Marital status			
Married	123	71.10	71.10
Single	22	12.72	83.82
Separated	11	6.36	90.17
Divorced	10	5.78	95.95
Widowed	7	4.05	100.00

Total	173	100.0	100.0
Religion			
Buddhist	165	95.38	95.38
Christian	5	2.89	98.27
Islam	2	1.16	99.42
Other	1	0.58	100.00
Total	173	100.0	100.0
Education			
Primary school and lower	18	10.40	10.40
High school	58	33.53	43.93
Undergraduate degree	85	49.13	93.06
Master degree	12	6.94	100.00
Total	173	100.0	100.0
Financial status			
Have saving	60	34.68	34.68
Income = Expense	45	26.01	60.69
In debt	68	39.31	100.00
Total	173	100.0	100.0
Severity of child's ID			
Borderline	30	17.34	17.34
Mild	59	34.10	51.45
Moderate	54	31.21	82.66
Severe	24	13.87	96.53
Profound	6	3.47	100.00
Total	173	100.0	100.0

*The actual minimum age was 24

**The actual maximum age was 62

6.2 Descriptive Statistics for the Continuous Measures

Descriptive statistics were calculated for the continuous variables to provide an overview of the distribution and characteristics of the data. The mean resilience score among mothers was 27.80 (SD = 7.79), indicating a moderate to high level of resilience within the sample. Stress levels varied widely (M = 8.91, SD = 6.54),

with some mothers reporting no stress while others reported relatively high stress (up to 29). Coping strategies showed a broad range (18-123) with a high average score of 75.57 (SD = 15.96), suggesting that most mothers employed multiple coping strategies. Social support (M = 19.17, SD = 7.73) and perception of ID (M = 19.80, SD = 10.16) also displayed considerable variability, indicating differing levels of available support and subjective perceptions among the mothers. These descriptive results highlight the heterogeneity of mothers' experiences and underline the importance of examining how these factors interrelate to influence resilience. The details of the variables are presented in Table 6.2.

Table 6-2 Summary of continuous variables

Variable	Observations (Obs)	Mean	Std. Dev.	Min	Max
Stress	173	8.91	6.54	0	29
Coping	173	75.57	15.96	18	123
Support	173	19.17	7.73	2	38
Perception	173	19.80	10.16	0	48
Resilience	173	27.80	7.79	4	40

6.3 Correlation Analysis of the Continuous Measures

The correlations among the study's continuous variables, as shown in Table 6.3, reveal several significant relationships.

Table 6-3 Correlations between the study's continuous variables

Variable	Stress	Coping	Social Support	Perception of ID	Resilience
Stress	1.0000				
Coping	0.0921 0.2283	1.0000			
Social Support	-0.1523 0.0455	0.5610 0.0000	1.0000		

Perception of ID	0.5187 0.0000	0.2784 0.0002	0.1028 0.1782	1.0000	
Resilience	-0.4427 0.0000	0.2111 0.0053	0.2634 0.0005	-0.2611 0.0000	1.0000

A significant negative correlation was found between stress and social support ($r = -.1523$, $p = 0.0455$), indicating that higher levels of social support is associated with lower stress levels. In contrast, coping and social support showed a strong positive correlation ($r = .5610$, $p < 0.000$), suggesting that greater social support enhances coping ability. Stress was also positively correlated with the perception of ID ($r = .5187$, $p < 0.0000$), meaning that more negative perceptions of ID are linked to increased stress. Finally, coping and perception of ID were positively correlated ($r = .2784$, $p = 0.0002$), which may suggest that mothers with more unfavourable perceptions of ID engaged more actively with coping strategies.

6.4 Structural Equation Modelling (SEM)

Correlations among the study variables (Table 6-) revealed several significant relationships between the variables. SEM was employed to test these relationships further, examining their direct and mediating effects on resilience.

6.4.1 Postulated Path Model

A theoretical model (Diagram 5) was examined the hypothesised relationships among the study variables and tested against the sample data.

The rationale for each hypothesis path is as follows:

1. Marital status has a direct effect on social support: Being married or having a partner typically provides an inherent social support system. The reverse is not plausible because social support does not determine marital status, which is a stable demographic characteristic.
2. Religion has a direct effect on social support: Religious affiliation often fosters social networks and community support. While religious

involvement can increase social support, social support itself does not determine religiosity.

3. Social support has a bi-directional effect on coping: This relationship is reciprocal. Social support enhances coping by providing emotional or practical support, while effective coping can strengthen social connections and support systems. This mutual influence justifies the bidirectional arrows.
4. Coping has a bi-directional effect on resilience: Coping strategies directly influence resilience, as they improve one's ability to manage challenges. Conversely, resilience enhances coping, enabling individuals to approach difficulties more effectively.
5. Social support has a direct effect on resilience: Supportive relationships provide emotional and practical resources that strengthen resilience. While social support enhances resilience, the reverse is not plausible, as resilience does not in itself create external support networks.
6. Stress has a bi-directional effect on resilience: High stress can weaken resilience, reducing one's ability to recover from adversity. At the same time, resilience can buffer stress, enabling individuals to face challenges with a more adaptive mindset. This mutual influence justifies a two-way relationship.
7. Financial status has a direct effect on stress: Financial instability often leads to increased stress due to uncertainty. However, stress does not directly change financial status, which is shaped by external conditions like income, employment, and living expenses.
8. Carer health problems have a bi-directional effect on stress: A carer's health problems can increase their stress due to worry and functional limitations. In turn, chronic stress can negatively impact health by weakening the immune system and exacerbating medical conditions.

9. Education has a direct effect on coping: Education equips individuals with knowledge, problem-solving skills, and a broader perspective, which enhances their ability to manage stress effectively. The reverse is not plausible, as coping strategies are applied in response to situations and do not determine a person's pre-existing educational attainment.
10. Perception of ID has a bi-directional effect on resilience: A positive perception of ID can strengthen resilience by helping individuals reframe challenges in a constructive way. In contrast, a negative perception can weaken resilience, making it harder to adapt and cope. Likewise, individuals with low resilience are more likely to develop negative views of ID.

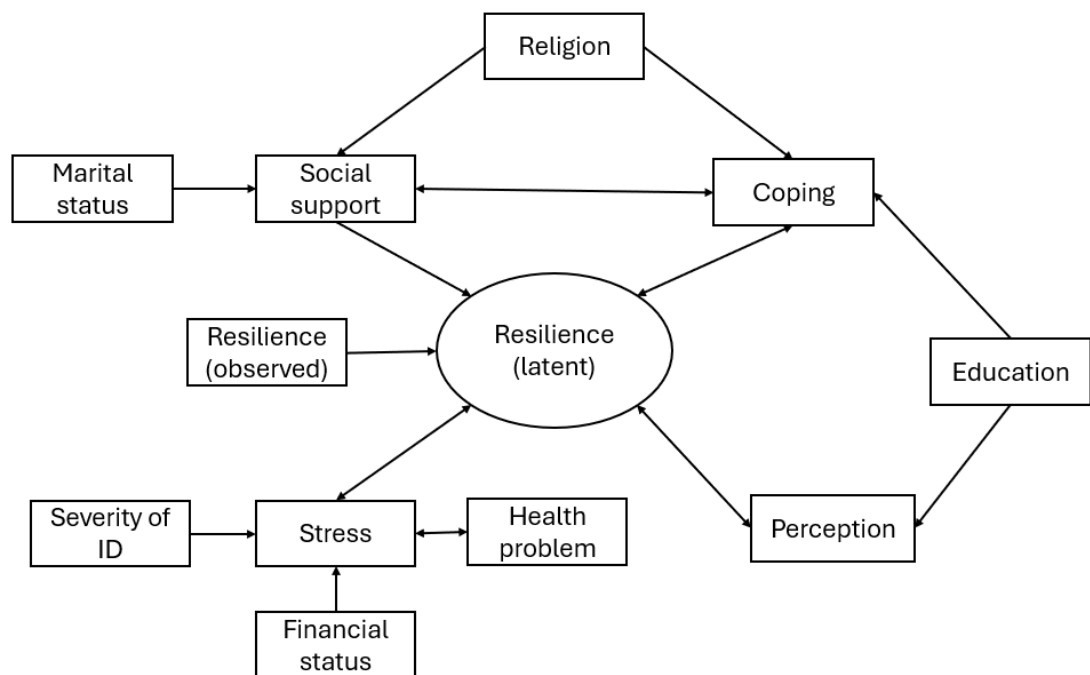


Diagram 5 Postulated Path Model

The postulated path model, presented in Diagram 5, was tested but failed to converge because of the inclusion of the latent variable “Resilience”. After removing this variable from the model, convergence was achieved. Subsequently, modifications were made to improve model fit, including the stepwise exclusion of non-significant variables. These adjustments focused on

the four subcomponents of the postulated model, resulting in the final path model presented in (Diagram 6).

1. Stress side of the postulated path model: health problems were excluded due to statistical non-significance (Table 6.4).

Table 6-4 Stress side of the postulated path model

Variable	Coefficient	Std. Err.	p-value	[95% Conf. Interval]	
Stress					
Health Problem	.773	.954	.418	-1.096	2.642
Debt	4.769	.884	.000	3.036	6.503
Severe and Profound ID	6.095	1.122	.000	3.896	8.293
Resilience					
Stress	-.527	.081	.000	-.686	-.368

2. Social support side of the postulated path model: marital status was excluded due to statistical non-significance, and religion was excluded because everyone in the sample was religious (Table 6.5).

Table 6-5 Social support side of the postulated path model

Variable	Coefficient	Std. Err.	p-value	[95% Conf. Interval]	
Social Support					
Married	1.340	1.069	.210	-.754	3.435
Coping Strategy	.275	.030	.000	.215	.334
Resilience					
Social Support	.265	.074	.000	.121	.410

3. Coping side of the postulated path model: education was excluded due to statistical non-significance, and religion was excluded for the same reason as in point 2 above (Table 6.6).

Table 6-6 Coping side of the postulated path model

Variable	Coefficient	Std. Err.	p-value	[95% Conf. Interval]	
Coping Strategy					
Education	-.819	2.035	0.687	-4.809	3.170

Social Support	1.165	.131	.000	.908	1.422
Resilience					
Coping Strategy	.103	.036	.005	.032	.174

4. Perception of the ID side of the postulated path model: education was excluded due to statistical non-significance (Table 6.7).

Table 6-7 Perception of ID side of the postulated path model

Variable	Coefficient	Std. Err.	p-value	[95% Conf. Interval]	
Perception of ID					
Education	1.785	1.546	.248	-1.245	4.815
Resilience					
Perception of ID	-.200	.056	.000	-.310	-.089

6.4.2 Final Path Model

The findings from SEM used to test the hypothesised relationships between all variables. A final path model was established in which all the included pathways were found to be statistically significant (Table 6.8). A key initial finding is that the overall model demonstrated a good fit to the data. The likelihood-ratio test comparing the proposed model to the saturated model was non-significant ($\chi^2(8) = 14.14$, $p = 0.0783$), indicating that the model's structure is a plausible representation of the relationships in the variables.

Table 6-8 Structural equation model

Variable	Coefficient	Std. Err.	p-value	[95% Conf. Interval]	
Stress					
Perception of ID	.249	.039	.000	.172	.327
Social Support	-.135	.047	.004	-.227	-.042
Debt	3.968	.743	.000	2.510	5.425
Severe and Profound ID	3.792	.986	.000	1.859	5.725
Resilience					
Stress	-.868	.127	.000	-1.117	-.619
Coping Strategy	.122	.032	.000	.059	.185
Coping Strategy					
Perception of ID	.350	.096	.000	.163	.538
Social Support	1.110	.126	.000	.864	1.357

Perception of ID					
Severe and Profound ID	8.827	1.920	.000	5.063	12.591
The error					
resilience (e1)	48.807	6.242	N/A	37.986	62.710
stress (e2)	24.717	2.661	N/A	20.015	30.523
coping (e3)	161.006	17.312	N/A	130.413	198.777
Perception of ID (e4)	91.451	9.833	N/A	74.074	112.905
Covariance Error (e1, e2)	13.337	4.248	.002	5.011	21.662
LR test of model vs. saturated: $\chi^2 = 14.136$					
Prob > $\chi^2 = .078$					

6.4.2.1 Final Path Model Standardised Estimate

The standardised estimate provided the strength of the relationships between the variables within the model. **Error! Reference source not found.** presents the final path model with standardised coefficients, allowing for a direct comparison of the strength of each relationship. The final model revealed the following significant relationships:

Stress was positively associated with debt ($\beta=.30$, $p<0.01$), severity of ID ($\beta=.22$, $p<0.01$), and perception of ID ($\beta=.39$, $p<0.01$). This suggests that higher debt levels, greater severity of ID, and more negative perceptions of ID are associated with increased stress levels. Stress was negatively influenced by social support ($\beta=-.16$, $p<0.01$), indicating that greater social support reduces stress.

Coping was positively associated with social support ($\beta=.54$, $p<0.01$) and perception of ID ($\beta=.23$, $p<0.01$), demonstrating that both higher social support and more negative perceptions of ID enhanced coping ability.

Perception of ID was positively associated with severity ($\beta=.33$, $p<0.01$), indicating that more severe ID is associated with a more negative perception of ID.

Resilience was negatively associated with stress ($\beta=-.72$, $p<0.01$) and positively influenced by coping ($\beta=.25$, $p<0.01$), suggesting that higher stress reduces resilience, whereas greater coping enhances it.

The error terms (ϵ_1 , ϵ_2 , ϵ_3 , ϵ_4) represent the residual variances for resilience, stress, coping, and perception of ID, reflecting unexplained factors that impact these constructs.

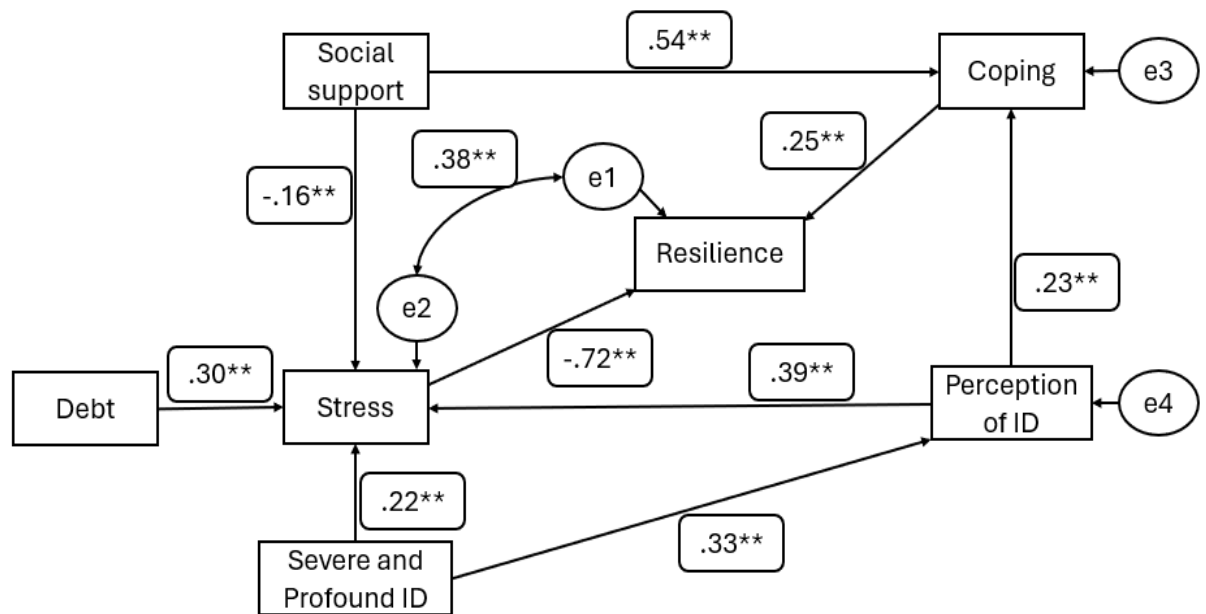


Diagram 6 Final Path Model
(Standardised estimates) ** $p < .001$

Model Fit Indices: Chi square = 14.14 ($p = 0.078$), CFI = 0.976, TLI = 0.945, RMSEA = 0.067

6.4.2.2 Direct Effect

The direct effects between the variables were calculated. Table 6.9 summarises these findings, presenting the coefficients that quantify the strength and direction of each statistically significant relationship.

A detailed analysis of the table reveals several key findings. Stress is shown to be most powerfully associated with external pressures. It was significantly associated with debt (coefficient = 3.97), the level of severe and profound ID (coefficient = 3.79), and negative perception of ID (coefficient = 0.24). Conversely, support provides a mitigating effect, significantly associated with

reducing stress (coefficient = -0.13). Resilience is negatively associated with stress (coefficient = -0.87), while being positively associated with coping (coefficient = 0.12). Furthermore, coping abilities were strongly associated with support (coefficient = 1.11), and perception was most significantly associated with severe and profound ID, which had the largest direct effect in the model (coefficient = 8.83). All reported paths demonstrate statistical significance ($p < .01$), providing robust support for the connections within the final model.

Table 6-9 Direct effects

Variable	Coefficient	Std. Err.	p-value	[95% Conf. Interval]	
Stress					
Perception of ID	.249	.039	.000	.172	.327
Social Support	-.135	.047	.004	-.227	-.042
Debt	3.968	.743	.000	2.510	5.425
Severe and Profound ID	3.792	.986	.000	1.859	5.725
Resilience					
Stress	-.868	.127	.000	-1.117	-.619
Coping Strategy	.122	.032	.000	.059	.185
Coping Strategy					
Perception of ID	.350	.096	.000	.163	.538
Social Support	1.110	.126	.000	.864	1.357
Perception of ID					
Severe and Profound ID	8.827	1.920	.000	5.063	12.591

6.4.2.3 Indirect Effects

The model was analysed to determine the indirect effects, which occur when one variable associated with another through a chain of mediating variables. Table 6.10 presents these statistically significant indirect pathways, revealing the more complex relationships within the model.

The analysis shows that resilience is the outcome most subject to indirect associations. Notably, it is strongly and negatively associated with debt (coefficient = -3.45) and severe and profound ID (coefficient = -4.83) acting through other variables in the model. In contrast, social support has a positive indirect effect on resilience (coefficient = 0.25). Severe and profound ID also

exerted a significant indirect effects on stress (coefficient = 2.20) and coping (coefficient = 3.09). All the indirect effects shown are statistically significant ($p < .01$), underscoring the importance of these mediated relationships in the overall model.

Table 6-10 Indirect effects

Variable	Coefficient	Std. Err.	p-value	[95% Conf. Interval]	
Stress					
Severe and Profound ID	2.202	.592	.000	1.041	3.362
Resilience					
Perception of ID	-.174	.042	.000	-.255	-.092
Social Support	.253	.052	.000	.149	.356
Debt	-3.445	.781	.000	-4.976	-1.915
Severe and Profound ID	-4.827	1.040	.000	-6.866	-2.788
Coping Strategy					
Severe and Profound ID	3.092	1.080	.004	.975	5.209

6.4.2.4 Goodness of Fit of the Model

The fit of the structural model was evaluated using established criteria: chi-square p -values > 0.05 , Root Mean Square Error of Approximation (RMSEA < 0.08) (Browne & Cudeck, 1992), Comparative Fit Index (CFI > 0.9) (McDonald & Ho, 2002), and Tucker-Lewis index (TLI > 0.9) (Bentler & Bonett, 1980). The model demonstrated a good fit to the raw data (chi-square = 14.14 ($p=0.078$), CFI = 0.976, TLI = 0.945, RMSEA = 0.067) (Table 6.11). All path coefficients represented by arrows in the path model (**Error! Reference source not found.**) were statistically significant (** = $p < 0.01$).

Table 6-11 Goodness of fit

Fit statistic	Value	Description
Likelihood ratio		
Chi2	14.136	Model vs. saturated
$p > \text{chi2}$	0.078	
Population error		

RMSEA	0.067	Root mean squared error of approximation
Baseline comparison		
CFI	0.976	Comparative fit index
TLI	0.945	Tucker-Lewis index

6.4.2.5 Total Effect on Resilience

To provide a comprehensive understanding of the cumulative impact on the key outcome of resilience, the total effects of several variables were calculated. The total effect represents the sum of a variable's direct and all indirect (mediated) effects. Table 6-12 summarises the total effect of four key factors associated with resilience.

The analysis shows that stress has the largest total effect on resilience (-0.72). The perception of ID was also found to have a negative total effect on resilience (-0.22). Conversely, both coping and social support have a positive total effect on resilience, each with an estimate of 0.25. These findings identify stress as the most inhibitor associated with resilience, while support and coping provide significant positive contributions.

Table 6-12 Total effect on resilience

Variables	Estimate
Stress	-0.72
Coping	0.25
Support	0.25
Perception of ID	-0.22

Note: *Since support and perception do not have direct effects on resilience, their total effects are simply the sum of all their indirect effects through intermediate variables.*

Total effect of support on resilience

- Support → Coping → Resilience: $0.54 \times 0.25 = 0.135$

- Support → Stress → Resilience: $(-0.16) \times (-0.72) = 0.1152$
- **Total effect:** $0.135 + 0.1152 = 0.2502$

Total effect of perception on resilience

- Perception → Coping → Resilience: $0.23 \times 0.25 = 0.0575$
- Perception → Stress → Resilience: $0.39 \times (-0.72) = -0.2808$
- **Total effect:** $-0.2808 + 0.0575 = -0.2233$

6.4.2.6 Mediation Proportion on Resilience

To better understand the model's mechanisms, the analysis examined how the effects of certain variables on resilience are mediated through the key pathways of stress and coping. Table 6-13 presents these mediation effects, quantifying how much of a variable's association was directed through these two mediators.

The findings show that stress is a significant mediator for the effects of four variables on resilience. The effects of perception of ID (0.39), debt (0.30), and severe and profound ID (0.22) are all directed through stress. Social support has a positive effect on resilience that is mediated by lower stress (-0.16). The analysis also identifies coping as mediator, particularly for the effect of social support on resilience, which has the strongest mediation estimate (0.54). Coping also mediates the effect of perception of ID (0.23). All mediation pathways shown in the table are statistically significant.

Table 6-13 Mediation proportion on resilience

Variables	Estimate (%)	95% CI / SE	P-value
Via Stress			
Support	-0.16	-0.1347088	0.004
Perception of ID	0.39	0.249419	0.000
Debt	0.30	3.967864	0.000
Severe and profound ID	0.22	3.792525	0.000
Via coping			
Support	0.54	1.110322	0.000
Perception of ID	0.23	0.3503035	0.000

The mediation proportion for each pathway was calculated using data from Table 6-8 Structural equation model as follows:

Mediation Proportion = Indirect Effect/Total Effect

Support pathway

Via Stress: $0.1152 / 0.2502 = 0.46$ (46%)

Via Coping: $0.135 / 0.2502 = 0.54$ (54%)

These results indicate that coping mediates a slightly larger portion (53.9%) of the effect of support on resilience than stress (46.1%).

Perception pathway

Via Stress: $0.2808 / 0.3383 = 0.83$ (83%)

Via Coping: $0.0575 / 0.3383 = 0.17$ (17%)

In the perception pathway, stress was a larger portion (83%), while coping was a much smaller portion (17%).

This suggests that perception associated with resilience primarily through stress reduction rather than coping mechanisms.

6.5 Key Interpretation

Stress emerges as a central outcome associated with financial burdens and the severity of ID, indicating that debt and children with severe to profound ID significantly contribute to heightened stress levels. However, greater social support can help reduce stress by offering emotional comfort, practical assistance, and a sense of connection, thereby buffering the negative impacts of these stressors. This finding underscores the importance of addressing financial challenges and related stressors, as well as fostering strong social networks as foundational steps towards improving psychological well-being.

Resilience emerges as a critical construct that is negatively associated with stress but is bolstered by the ability to cope. This highlights the importance of promoting coping skills to enhance resilience, particularly in stressful situations.

The ability to cope with challenges is directly associated with social support and even negative perceptions of ID, which may act as motivators for adaptive

coping skills. This indicates that fostering support systems is crucial for equipping mothers to navigate difficulties effectively. While mothers may not eliminate negative perceptions, it facilitates a critical perspective that could ultimately lead to better problem-solving and growth. This suggests that interventions aimed at reframing the perception of ID and building adaptive coping skills are essential for fostering a healthier outlook on life.

Mothers who perceive their child's ID negatively may experience heightened stress, which can lead to the adoption of more effective coping strategies. Research indicates that negative perceptions of caregiving can motivate mothers to seek coping strategies (Bonab et al., 2017).

The presence of unexplained variances in resilience, stress, coping, and perception of ID indicates that additional factors not included in the model may also play a role. Examining how maternal age interacts with resilience processes represents a valuable direction for future research, particularly in larger or longitudinal studies that can explore life-course effects on caregiving and resilience.

6.6 Discussion

This study aimed to test a model of resilience among mothers of adolescents with ID in Thailand, guided by the Resiliency Model of Family Stress, Adjustment, and Adaptation (McCubbin et al., 1996). The findings provide valuable insights into the factors that contribute to resilience of these mothers.

Although Study 2 was conducted as a standalone quantitative study, the development of a postulated path model was central to its aims rather than a post hoc response to the findings. The model was specified a priori based on the McCubbin's Resiliency Model (McCubbin et al., 1996) and a systematic review (Study 1), with the purpose of testing theoretically informed relationships among stressors, social support, appraisal, coping, and resilience. Quantitative data were then used to examine this model using SEM. This approach allowed the study to move beyond identifying isolated associations and instead examine the processes through which resilience is shaped.

The results from the SEM analysis indicated that the proposed model, with some modifications, provided a goodness of fit to the data. The key findings revealed that the model successfully accounted for the variance in maternal resilience, suggesting that the selected factors play a substantial role in the adaptation process of Thai mothers. These findings directly address the research questions concerning the relationships between these variables and their power to influence resilience.

The present findings illuminate how key psychosocial factors interact to shape resilience in Thai mothers caring for adolescents with ID. The significant inverse relationship between stress and social support ($r = -0.1523$, $p = 0.0455$) indicates that mothers who perceive stronger support networks tend to experience lower levels of stress. Conversely, mothers who reported higher stress levels also tended to appraise their child's disability more negatively, as evidenced by the positive correlation between stress and perception of ID ($r = 0.5187$, $p < 0.0000$). Similarly, coping is closely intertwined with these dynamics: coping correlates strongly and positively with social support ($r = 0.5610$, $p = 0.0000$) and moderately with the perception of ID ($r = 0.2784$, $p = 0.0002$). Taken together, these relationships suggest that resilient adaptation in the caregiving context is fostered by support systems, effective coping strategies, and constructive appraisals of the child's condition. In line with McCubbin's Resiliency Model of Family Stress and Adaptation (McCubbin et al., 1996), mothers' resources, appraisal, and coping emerge as critical determinants of how well they adjust to the ongoing stressor of raising an adolescent with ID. Each of these factors and their interconnections are discussed below considering theory, culture and extant literature.

The identified factors: stressors, coping strategies, social support, and perception of ID, interact in a complex manner to shape the resilience of mothers in this study.

The level of stress experienced by mothers was associated with resilience. This aligns with extensive literature indicating that chronic caregiving stress can erode well-being and adaptive capacities (Scripps et al., 2025). Factors contributing to this stress likely include the daily demands of care, financial pressures, concerns about the adolescent's future, and the severity of the child's

ID, which often correlates with increased care needs and behavioural challenges (John & Zapata Roblyer, 2017; Sevgi & Ayrar, 2024; Shahali et al., 2024). The current study's findings suggest that mothers who reported higher levels of family strain indeed exhibited lower resilience.

Conversely, social support was found to be a crucial resource, acting as a buffer against stress and enhancer of resilience. This is consistent with studies emphasising social support as a key protective factor for parents of children with ID (Cohen et al., 2015; Halstead et al., 2018). The results likely indicated that mothers who perceived higher levels of support, whether from family, friends, or formal services, experienced less stress and demonstrated greater resilience. This supports the notion that feeling understood, valued, and assisted can significantly relieve the caregiving burden and strengthen a mother's capacity to cope (Hassall et al., 2005; Patton et al., 2018; Sevgi & Ayrar, 2024). The finding that social support also positively influenced coping strategies suggests that support networks may provide not only emotional and instrumental aid but also information and encouragement that help mothers adopt more effective ways of dealing with challenges.

Effective coping strategies are directly and positively related to resilience (Caples et al., 2018; Halstead et al., 2018). Mothers who employed more adaptive coping strategies (e.g. problem-focused coping, positive reframing, seeking help often captured by scales like F-COPES (McCubbin et al., 1996)) were better able to navigate adversity and maintain positive functioning. The influence of social support and perception of ID on coping is also noteworthy. If social support facilitated coping, it underscores the enabling role of supportive relationships.

The mother's perception of her child's ID and the associated caregiving demands played a significant role, likely influencing both her stress levels and her coping efforts. A more negative perception of the child's ID was likely associated with increased stress and potential coping strategies. Conversely, mothers who were able to find positive meaning in their caregiving role or perceive the challenges as manageable may have experienced lower stress and engaged in more effective coping, contributing to higher resilience (Gardner & Harmon, 2002). This highlights the role of cognitive appraisal in the stress and adaptation

process. The way a mother interprets and internalises the experience of raising an adolescent with ID appears to be a more determinant of her subsequent stress and coping than perhaps even the objective severity of the disability itself, offering a key avenue for cognitive-behavioural interventions.

The findings of this study align with the Resiliency Model of Family Stress, Adjustment, and Adaptation (McCubbin et al., 1996). The significant negative impact of stressors (pile-up) on resilience (adaptation) is a core tenet of the model. The positive influence of social support and effective coping strategies on resilience corresponds to the model's emphasis on family resources (resources) and coping capabilities (problem-solving) as crucial for achieving bonadaptation (Brown-Baatjies et al., 2008; McCubbin et al., 1996). The role of perception of ID in influencing stress and coping directly reflects the family's definition of the stressor and its more elaborate appraisal components (perception), which mediate the family's response to stressors (Brown-Baatjies et al., 2008; McCubbin et al., 1996).

The mediating roles of stress and coping, as suggested by the SEM results, further support the process-oriented nature of McCubbin's model, where resources and appraisals interact to shape the family's adaptive pathway (McCubbin et al., 1996). For instance, the finding that social support might reduce stress, which in turn enhances resilience, illustrates the buffering hypothesis often discussed in stress literature (Patton et al., 2018; Ren et al., 2020) and embedded within the resource components of McCubbin's framework (McCubbin et al., 1996).

Compared to the existing literature, the study's findings corroborate research highlighting the negative effects of caregiving stress (Gerstein et al., 2009; Patton et al., 2018; Sevgi & Ayrar, 2024) and the protective roles of social support (Cohen et al., 2015; Halstead et al., 2018) and coping (Caples et al., 2018) in mothers of children with ID. The emphasis on the mother's perception of ID aligns with studies indicating that parental appraisal and positive attitudes are key components of resilience (Gardner & Harmon, 2002).

The study contributes to the literature by testing these relationships within the specific cultural context of Thailand. While the core beliefs of family stress and

resilience models may have universal applicability, the relative importance of specific factors and the ways they manifest can be culturally shaped (Widyawati et al., 2023). For example, the sources of social support considered most effective or the types of coping strategies most commonly employed might differ in Thailand. Compared to Western cultures, where much of the foundational research was conducted. The current findings provide evidence of the utility of McCubbin's model in a Thai setting, while also highlighting a way to identify culturally nuanced aspects of maternal resilience. For instance, family-based informal support showed a stronger effect than formal support; this would reflect specific Thai cultural values regarding family obligations and help-seeking.

6.6.1 Implications of the Study

The results of this study have several important practical implications for developing targeted interventions and support systems for mothers of adolescents with ID in Thailand, as well as for informing healthcare professionals, educators, and policymakers.

Given the positive association between adaptive coping strategies and resilience, interventions should focus on providing mothers with an effective coping skills. In this study, effective coping skills refer to adaptive, problem-focused and support-oriented coping strategies, as measured by the F-COPES, which were associated with higher resilience and functioned as key mediators between social support and adaptation. This could include training in problem-solving techniques, stress management (e.g., mindfulness, relaxation), emotion regulation, and cognitive reframing to help mothers manage caregiving demands and their emotional responses more effectively.

The critical role of social support suggests a need for initiatives that build and strengthen mothers' support systems. Healthcare professionals, particularly mental health nurses, should routinely assess maternal stress and perceived support, provide psychoeducation about ID and available resources, and facilitate referrals to specialised services and counselling. Policies should ensure that these formal support services are accessible, affordable, and culturally appropriate. Promoting the development of parent support groups can provide a

valuable source of emotional support, shared experiences, and practical advice from peers who understand their unique challenges. Community-based programs can also help reduce social isolation. Interventions could also aim to improve communication and support within the family unit. This recommendation is directly informed by the quantitative findings, which demonstrated that perceived social support had a strong positive effect on coping and a stress-buffering effect, both of which were associated with higher resilience. As the social support measure captured relational and family-based support processes, these findings suggest that interventions targeting family communication, shared problem-solving, and emotional support may strengthen coping capacity and resilience among mothers. For example, involving fathers and other family members more actively in caregiving and decision-making. However, the financial burden of caring for an adolescent with ID is a significant stressor. Policymakers should consider measures to alleviate this strain, such as financial assistance programs, subsidies for therapies and assistive devices, and support for mothers to engage in income-generating activities.

Interventions that help mothers reframe their perceptions of their child's ID and the caregiving role can be beneficial. This might involve cognitive-behavioural techniques to challenge negative thoughts, to focus on the child's strengths and the positive aspects of the mother-child relationship, and to foster a sense of competence and meaning in caregiving. Culturally sensitive approaches are vital here, acknowledging and respectfully addressing local beliefs about disability.

Professionals working with these families need to be aware of the unique stressors faced by mothers and the factors that promote resilience. Training should emphasise a family-centred approach, empathy, and culturally competent communication.

Policymakers and community leaders have a role in implementing public awareness campaigns to reduce the stigma associated with ID in Thailand, promoting greater understanding, acceptance, and inclusion for individuals with ID and their families.

6.6.2 Strengths and Limitations

This study makes a significant contribution to the understanding of maternal resilience by developing and empirically testing a model specifically for Thai mothers of adolescents with ID. Based on the Resiliency Model of Family Stress, Adjustment, and Adaptation (McCubbin et al., 1996), the research identified key factors: stressors, coping strategies, social support, and perception of ID and clarified the complex pathways through which they influence the resilience of these mothers. A key strength is its focus on a non-Western cultural context, addressing a notable gap in the existing literature and providing insights relevant to the Thai population. A key finding underscored that social support also emerged as a critical, multifaceted resource, not directly fostering resilience but buffering stress and facilitating coping.

Despite its contributions, this study has several limitations that should be considered when interpreting the findings. First, the use of a non-probabilistic purposive sampling method means that the findings may not be generalisable to all Thai mothers of adolescents with ID. Participants were recruited based on specific criteria and accessibility, which may not reflect the broader population. Secondly, the sample was drawn from mothers accessing services at the Rajanukul Institute in Bangkok. Mothers in other regions of Thailand, particularly rural areas, or those not connected to such specialised services, may have different experiences, resources, and levels of resilience. This limits the results' geographical and sociocontextual generalisability. Lastly, the study's cross-sectional design precludes inferring causality among the variables. While the model posits directional relationships based on theory, longitudinal data would be needed to establish temporal precedence and track changes in resilience and its predictors over time.

6.6.3 Future Research

Building on the findings and limitations of this study, several avenues for future research are proposed. Firstly, to better understand the dynamic nature of resilience, longitudinal research is needed to track how maternal resilience and its associated factors evolve as adolescents with ID transition into adulthood and as family circumstances change.

Secondly, In-depth qualitative studies, such as interviews and focus groups, could provide richer, nuanced insights into the lived experiences of Thai mothers, exploring the cultural meanings they ascribe to disability, caregiving, and resilience, and identifying culturally specific coping strategies and support mechanisms not captured by quantitative measures. This approach would help understand the "why" behind the statistical relationships identified in the current model, which is a key reason for Study 3 (a qualitative study).

Moreover, future quantitative research should aim to recruit more diverse samples from various geographical regions of Thailand (urban and rural) and from different socioeconomic strata. Exploring subgroups to identify specific risk and protective factors is indeed valuable. Further subgroup analyses would be a valuable direction for future research using larger samples or longitudinal designs to examine differential resilience pathways in greater depth and ideally using probability sampling methods to enhance generalizability. The model tested in this study provides a foundation for designing and evaluating culturally tailored interventions aimed at enhancing resilience among Thai mothers of adolescents with ID. Such research could evaluate the efficacy of programs that focus on stress reduction, coping skills training, social support enhancement, and cognitive reframing techniques.

Further investigation into other potential predictors of resilience, such as maternal personality traits (optimism, self-efficacy), spirituality, marital quality, paternal involvement, and specific Thai cultural constructs (e.g., karma, calmness), is necessary. Finally, research comparing resilience experiences and models between mothers and fathers or across different types of disabilities could yield further valuable insights.

The combination of quantitative modelling, qualitative exploration, and intervention-focused studies will be crucial for developing a comprehensive understanding and effective strategies to support the well-being of these mothers in Thailand.

6.6.4 Conclusion

In conclusion, this chapter demonstrates that mothers of adolescents with ID in Thailand face complex challenges that can significantly impact their well-being. Understanding and fostering resilience in these mothers is not only crucial for their own mental and physical health but also for the optimal development and quality of life of their adolescent with ID. The development of a resilience model in this study offers a valuable step towards identifying key leverage points for support and informing interventions. By recognising the interplay of stressors, coping strategies, social support networks, and perceptions of ID within a specific cultural context, researchers can move towards more effective, compassionate, and empowering approaches to support these dedicated caregivers. Continued research and collaborative efforts among healthcare professionals, policymakers, and community organisations are essential to translate these understandings into improvements in the lives of Thai mothers.

Importantly, the development of this model also informed the direction of the next phase of research. Building on these quantitative findings, the following chapter (Chapter 7) presents the qualitative study. This phase aimed to deepen the understanding of resilience by exploring the lived experiences of mothers, capturing their voices, meanings, and coping processes in context. The integration of quantitative and qualitative insights enables a more holistic and nuanced interpretation of resilience, ultimately guiding practical recommendations for support strategies in clinical and community settings.

Chapter 7 Exploring Resilience in Mothers of Adolescents with ID in Thailand: A Qualitative Approach (Study 3)

7.1 Introduction

Study three provides a platform for mothers of adolescents with ID to express their lived experiences and perspectives. The aim of study two was to test a model of resilience among mothers of adolescents with ID in Thailand, showing the association among stress, coping strategies, social support, and perceptions of ID. Quantitative methods alone cannot fully capture the depth, context, and emotional complexity of these mothers' experiences. However, to capture rich data on the experiences of mothers of adolescents with ID in Thailand and gain a more comprehensive understanding of their resilience, in-depth interviews were conducted.

This chapter aims to explore how mothers of adolescents with ID in Thailand experience and make sense of resilience in their daily lives and identify the themes and processes that underpin their adaptive capacity.

7.2 Research Objective

This qualitative study aimed to explore how mothers of adolescents with ID in Thailand experience, understand, and sustain resilience in their daily lives, and to provide contextual insight that complements the quantitative model of resilience in Study 2.

Aims

1. To understand the lived experiences of mothers raising adolescents with ID in Thailand.
2. To explore the coping strategies and mechanisms these mothers employed to build resilience.
3. To identify contextual factors that facilitated or hindered resilience among these mothers.

7.3 Purpose and Research Questions

7.3.1 Purpose

The purpose of this study was to explore the factors and processes influencing resilience among mothers of adolescents with ID in Thailand.

7.3.2 Research Questions

1. How do mothers of adolescents with ID in Thailand perceive and experience the challenges and opportunities associated with their children's transition into adolescence?
2. What coping mechanisms and strategies do these mothers employ to navigate the complexities of raising adolescents with ID in the Thai cultural context?
3. What contextual, cultural, and other factors influence the resilience of mothers of adolescents with ID in Thailand?

7.4 Research Design

The qualitative study employed in-depth, semi-structured interviews to explore mothers' lived experiences. This method allowed participants to express their perspectives in their own words and enabled the researcher to probe for deeper insights and clarifications (Braun & Clarke, 2006). Data was analysed using thematic analysis, which is a flexible and systematic method for identifying, organising, and reporting patterns and meanings in the data (Braun & Clarke, 2006). Accordingly, the researcher's positionality and its potential influence on the research process were critically considered throughout the study.

The researcher is a Thai national and a native Thai speaker, with academic training in mental health research and professional familiarity with adolescents with ID and their family contexts. This cultural and linguistic proximity facilitated access to the research setting and supported rapport-building with participants, particularly when discussing sensitive topics related to

motherhood, caregiving burden, and resilience. Shared cultural understandings of family responsibility, maternal sacrifice, and respect for health professionals may have contributed to participants' willingness to engage and disclose personal experiences.

The researcher's academic background and prior exposure to resilience theory may also have shaped expectations regarding stress, coping, and adaptation. These pre-existing theoretical commitments had the potential to influence decisions during data collection (e.g. probing certain topics more deeply) and data interpretation (e.g. privileging resilience-focused narratives). To mitigate this, reflexive practices were embedded throughout the study, including engaging in regular supervisory discussions and revisiting transcripts to ensure that interpretations remained grounded in participants' accounts.

Researcher positionality may also have influenced recruitment, as participants were recruited from Rajanukul Institute where the researcher was perceived as affiliated with mental health research. This may have shaped who volunteered to participate and how experiences were framed during interviews, potentially encouraging socially desirable accounts emphasising coping and endurance. Recognising this, care was taken during analysis to attend to accounts of strain, vulnerability, and ambivalence, as well as resilience. By explicitly acknowledging the researcher's positionality and its potential influence, this study seeks to enhance transparency, reflexivity, and the trustworthiness of the qualitative findings.

7.5 Population and Sampling

7.5.1 Population of the Study

The target population comprised biological mothers of adolescents diagnosed with ID living in Thailand. The following criteria were used to select the participants.

Inclusion Criteria

Eligible participants were:

1. Biological mothers who provide direct care to adolescents with ID.
2. Mothers of adolescents aged 10-19 years who had received a formal diagnosis by a psychiatrist, in accordance with the ICD-10 or DSM-5-TR criteria.
3. Aged 18 years and over.
4. Living continuously with an adolescent with ID in the same household.
5. Able to communicate and understand the Thai language.

Exclusion criteria

Mothers were excluded if they:

1. Had a diagnosed psychiatric disorder
2. Were not the primary caregiver of the adolescent
3. Were unable to communicate in Thai

Adolescents were excluded if they:

1. Were younger than 10 or older than 19 years.
2. Did not reside full-time in the family home.

7.5.2 Sample Size

A total of 12 participants were included in this study until data saturation was reached, defined as the point at which no new themes or insights emerged from the interviews. All participants had previously completed the questionnaire in the quantitative study (study 2) and indicated their willingness to participate in this follow-up qualitative study (study 3).

7.5.3 Sample Technique

This study employed purposive sampling, a non-probability sampling technique in which participants are selected based on specific criteria and characteristics relevant to the research objectives (Creswell, 2017). This approach prioritises the depth and richness of the data over generalisability, making it well-suited for qualitative research. In this study, purposive sampling enabled the

identification and recruitment of mothers of adolescents with ID in Thailand who serve as primary caregivers and could provide in-depth insights into their resilience.

7.5.4 Settings

This study was conducted at the Rajanukul Institute, under the Department of Mental Health, Ministry of Public Health, Bangkok, Thailand. Consequently, the experiences captured may primarily reflect those of mothers who are actively engaged with formal health and education services. Mothers in rural areas, those relying on informal or community-based support, or those with limited access to specialist services may experience resilience and vulnerability differently. While this sampling approach supports depth and contextual richness, it may limit the transferability of the findings to other caregiving contexts within Thailand.

7.6 Instrumentations

This study used semi-structured interviews to gather in-depth qualitative data. This method was chosen for its ability to balance consistency with flexibility, allowing the interviewer to follow a pre-defined guide while also exploring emerging themes of significance to participants (DiCicco-Bloom & Crabtree, 2006). The interview guide included both core and probing questions to explore aspects of maternal resilience, such as challenges and difficulties, coping and adaptation strategies, resources, and supports. It was developed through a review of the literature, theoretical frameworks, and findings from Study 2 (quantitative study), and refined with input from field experts. Interviews were conducted in Thai by the researcher, a native Thai speaker, to ensure linguistic and cultural appropriateness. The complete interview guide is provided in Appendix Q.

7.7 Data Collection and Analysis

7.7.1 Data Collection

All translation processes for this study were undertaken by the researcher. The semi-structured interview guide was translated from English into Thai by the

researcher, who is a native Thai speaker and good in English. All interviews were conducted in Thai, transcribed verbatim in Thai, and subsequently translated into English by the researcher for analysis and reporting. Formal back-translation by an independent translator was not undertaken due to limited resources. Instead, accuracy and meaning equivalence were managed through the researcher's bilingual competence and repeated movement between the Thai and English versions of the transcripts throughout the analytic process. Original Thai transcripts were consistently revisited during coding, theme development, and selection of illustrative quotations to ensure that interpretations remained faithful to participants' intended meanings and cultural context. The interviews were audio-recorded and transcribed verbatim by the researcher to ensure the accuracy and quality of the data. The interviews were conducted using a semi-structured questionnaire, with each interview lasting approximately 45-60 minutes. Interviews were scheduled to coincide with clinic appointments to minimise participant burden and reduce the need for additional travel. In most cases, mothers attended clinic appointments with their adolescent child, as fathers were typically working during the day.

All interviews were conducted with a mother while her adolescent child sat next to her in a private counselling room at the Rajanukul Institute while they were waiting in the queue to see a doctor. This setting ensured confidentiality and allowed participants to speak freely without the presence of other people or clinical staff. Qualitative interviews were conducted in Thai through individual in-depth sessions. The specifics of the data collection process are as follows:

1. Only participants who had been identified as part of study two were selected for individual in-depth interviews using purposive sampling.
2. Once the participants were recruited, they were scheduled for interviews during their children's hospital visits or at times convenient for them.
3. Detailed information about the research project, particularly regarding the individual in-depth interviews and other research tools, was provided to the recruited participants. Participants were given time to make an informed decision before re-signing relevant consent forms. Permission to

audio-record and take field notes during the interviews was requested from the participants.

4. Participants were invited to take part in in-depth interviews guided by a semi-structured questionnaire.
5. The data collected from the participants were carefully reviewed to ensure that their understanding aligned with the information provided. This was done to confirm the accuracy and clarity of the interview data. Participant recruitment continued until no new significant insights emerged, a point known as data saturation.
6. Following each interview, transcripts were generated in Thai. These transcripts were translated into English using information obtained from the semi-structured questionnaire, audio recordings, and field notes.
7. All collected data were stored electronically for analysis.

7.7.2 Analysing Data

A significant amount of comprehensive data was extracted from the interview transcripts. The content of each interview was transcribed and imported into NVIVO software, which played a role in managing and organising the collected data (Jackson, 2019).

Rigour in data analysis was ensured through a systematic and transparent analytic process guided by Braun and Clarke (2006) six-steps approach to thematic analysis. The explanation of each step was presented below.

1. Familiarisation with the Data

This step involved immersing the researchers in the collected data, which were the interview transcripts. By repeatedly reading and reviewing the data, the researchers became acquainted with its content, context, and nuances. This helped the researchers gain a deeper understanding of what the participants communicated.

2. Generating Initial Codes

After becoming familiar with the data, the researchers began coding. Coding involves identifying meaningful segments within the data and codes. In this step, the researcher was not looking for themes; he was organising the data into smaller, manageable chunks that captured different aspects of the participants' experiences or viewpoints.

3. Searching for Themes

Using an initial set of codes, the researchers identified potential themes. Themes are overarching patterns, ideas, or concepts that emerge from coded data segments. The researchers grouped related codes and began to see connections between different parts of the data. These emerging themes represented broader concepts that encapsulate the essence of the participants' responses.

4. Reviewing and Defining Themes

At this stage, the researchers reviewed the identified themes to ensure that they made sense in relation to the entire data set. The researchers checked whether the themes were coherent, distinct, and accurately captured the participants' experiences. Some themes needed to be revised, combined, or refined based on the review.

5. Defining and Naming Themes

Once the themes were refined and validated, the researchers gave them clear and descriptive names. Each theme encapsulated a key aspect of the participants' experiences. This step involved crystallising the meaning of each theme and ensuring that it accurately represented the content it encompassed.

6. Writing the Report

The final step was to compile the analysis into a coherent report. This report communicates the story that emerged from the data, highlighting the identified themes and their significance. This included quotations from the data to illustrate the themes and provide evidence of their existence. This report aimed to present a comprehensive understanding of the data's narrative while remaining true to the participants' perspectives.

Throughout this process, it was important to maintain a flexible and iterative approach. Themes evolved, changed, and occasionally led to the identification of subthemes. The process was not a linear process; there were various iterations and discussions with the supervisory team to ensure that the researcher's interpretation accurately captured the complexity of the participants' experiences.

7.8 Ethical Considerations

Ethical approval for the qualitative study included authorisation to confirm participants' eligibility through the Rajanukul Institute, including verification of adolescents' ID diagnoses and mothers' inclusion and exclusion criteria. No additional medical or psychiatric information beyond eligibility confirmation was accessed. This study was conducted in accordance with the ethical principles outlined in the Declaration of Helsinki (World Medical, 2013), ensuring respect for human dignity, autonomy, and welfare. Ethical approval was obtained from both the University of Glasgow College of Medicine, Veterinary and Life Sciences Research Ethics Committee and the Ethics Committee of the Rajanukul Institute, Thailand, prior to data collection.

Qualitative research, particularly when exploring sensitive topics such as the experiences of mothers raising adolescents with ID, raises important ethical concerns. In-depth interviews may elicit emotional responses as participants reflect on the challenging or painful aspects of their lives. As such, the researcher must be attentive not only to protecting participant confidentiality and informed consent but also to safeguarding participants' emotional well-being during and after the interview.

Participants were provided with an information sheet that explained the purpose, procedures, potential risks, and benefits of the study in clear, accessible language. They were informed of their voluntary participation and of their right to withdraw at any time without consequence or loss of benefits. Written informed consent was obtained from all participants before participation.

During the interviews, care was taken to create a respectful and supportive environment in which participants felt safe sharing their experiences. While most participants were comfortable and willing to speak openly, a small number became visibly emotional when discussing particularly distressing experiences during the interview. In these instances, the interviews were temporarily paused to give the mothers time to recover. Participants were offered the choice to stop the interview, take a break, or continue at their own pace. All participants ultimately chose to continue, and their emotional responses were addressed with empathy and sensitivity.

To protect participant privacy, anonymity was maintained by assigning each participant a unique identifier, and no personally identifiable information was included in transcripts or reports. All data were stored securely in password-protected digital files and locked cabinets accessible only to the research team. Audio recordings were deleted after transcription and verification.

Additionally, participants were informed that they could request clarification or support if participation triggered emotional distress. Contact information for local support services and the researcher was provided in the participant information sheet. These procedures ensured that ethical standards were upheld throughout the research process (Appendix L-O).

7.9 Preliminary Study

A preliminary study was conducted before the main qualitative phase to assess the clarity and appropriateness of the interview questions and procedures. This involved two participants who met the same inclusion criteria as the main study: mothers of adolescents with ID. Recruitment for the preliminary study took place at the Rajanukul Institute using the same approach as that of the main

study. A poster was displayed at the institute, inviting mothers who met the criteria and were interested in participating in a preliminary interview to contact the researcher.

Both participants voluntarily agreed to participate in the preliminary study. The interviews were arranged at a convenient time and conducted in accordance with the approved ethical protocols. This included providing participants with an information sheet, obtaining written informed consent, and conducting interviews in a private, comfortable setting.

The same semi-structured interview schedule intended for the main study was used for the pilot study. The purpose of this preliminary phase was to evaluate whether the interview questions were clear, understandable, and relevant from the participants' perspective. The interviews were audio-recorded, transcribed, and analysed to assess not only the content but also how well the questions facilitated meaningful responses.

Both participants reported understanding the interview questions clearly and found them relevant to their experiences. No confusion or discomfort was reported regarding any of the questions. No modifications were made to the interview schedule, and it was deemed suitable for use with the main study sample.

The preliminary study confirmed the appropriateness of the interview format and supported the decision to use the same questions for the remaining 10 participants in the full study.

Chapter 8 Results of the Qualitative Study (Study 3)

8.1 Introduction

This chapter presents the findings from an in-depth analysis of interviews conducted with 12 mothers of adolescents with ID. As outlined in the previous chapter, these interviews were conducted and analysed following Braun and Clarke's (2006) framework for thematic analysis. The qualitative component of this research explored the factors that contribute to resilience among these mothers.

The participants provided rich, detailed accounts of their experiences raising their adolescent children with ID. The mothers shared both the challenges and rewards of caregiving, reflecting on their journey from their child's adolescence to the present while also considering their future and that of their children. A summary of the participant demographics is provided in Table 6.1. This table outlines the demographic characteristics of the 12 mothers who participated in qualitative interviews. Their ages ranged from 31 to 54 years, with the majority in their 40s. The majority were either married ($n=5$) or had previously been married, including four who were divorced or separated and one who was widowed. Two mothers reported being single. The number of dependents in each family varied, ranging from one to five children; 11 mothers had one child with ID, and one mother had two children with ID.

The adolescents with ID ranged in age from 10 to 18 years, including seven males and five females. In terms of ID severity, the children were diagnosed with mild ($n=2$), moderate ($n=7$), severe ($n=2$), and profound ($n=2$) levels. This variation in age, marital status, family structure, and severity of disability provided a rich foundation for exploring the diverse resilience experiences of the mothers.

Table 8-1 Demographic information of mothers

Mother pseudonym	Age of mother in years	Marital status	Age of an adolescent child with ID in years	Gender of a child with ID	Severity of ID	Number of other dependants (children)	Number of other dependants (grandparents)
1	47	Single	18	Male	Profound	1	-
2	51	Single	12	Male	Profound	-	-
3	47	Married	12	Female	Moderate	1	2 grandparents 1 sister-in-law
4	40	Separated	13, 9	Male Male	Moderate Moderate		1
5	53	Married	13	Female	Mild	-	-
6	49	Married	14	Male	Moderate	-	-
7	43	Divorced	10	Male	Moderate	1	1
8	54	Divorced	18	Female	Moderate	2	-
9	32	Married	12	Female	Severe	1	-
10	54	Widowed	18	Female	Severe	1	2
11	47	Married	13	Male	Mild	1	-
12	31	Married	15	Male	Moderate	1	-

Although each mother's experience was unique, several common themes emerged from their narratives. Many mothers reflected on how parenting an adolescent child with ID profoundly transformed their lives, shaping their perspectives and altering the way they navigated the world. The following sections offer a narrative summary of the key themes and subthemes identified in the participants' experiences (Diagram 7).

The study's key themes were:

1. **Becoming a mother of a child with ID:** Mothers shared their initial emotional responses to the diagnosis and described how love, acceptance, and feelings shaped their early experiences of motherhood.
2. **Finding my way:** The mothers discussed how they navigated the ongoing demands of caregiving, developed coping strategies, and balanced emotional and practical responsibilities.
3. **Navigating challenges:** Mothers described the emotional toll of advocating for their children in unsupportive environments and the internal struggles of managing uncertainty, exhaustion, and feelings of isolation.
4. **Support system:** Mothers reflected on the role of their extended family, friends, and community in providing practical help and emotional encouragement throughout their journey.
5. **Holding on to faith:** Mothers described faith and cultural traditions as important sources of strength, meaning, and guidance in coping with the challenges.
6. **Forward-thinking strategies:** Mothers looked ahead to the future with concerns about their child's long-term care, independence, and support needs.

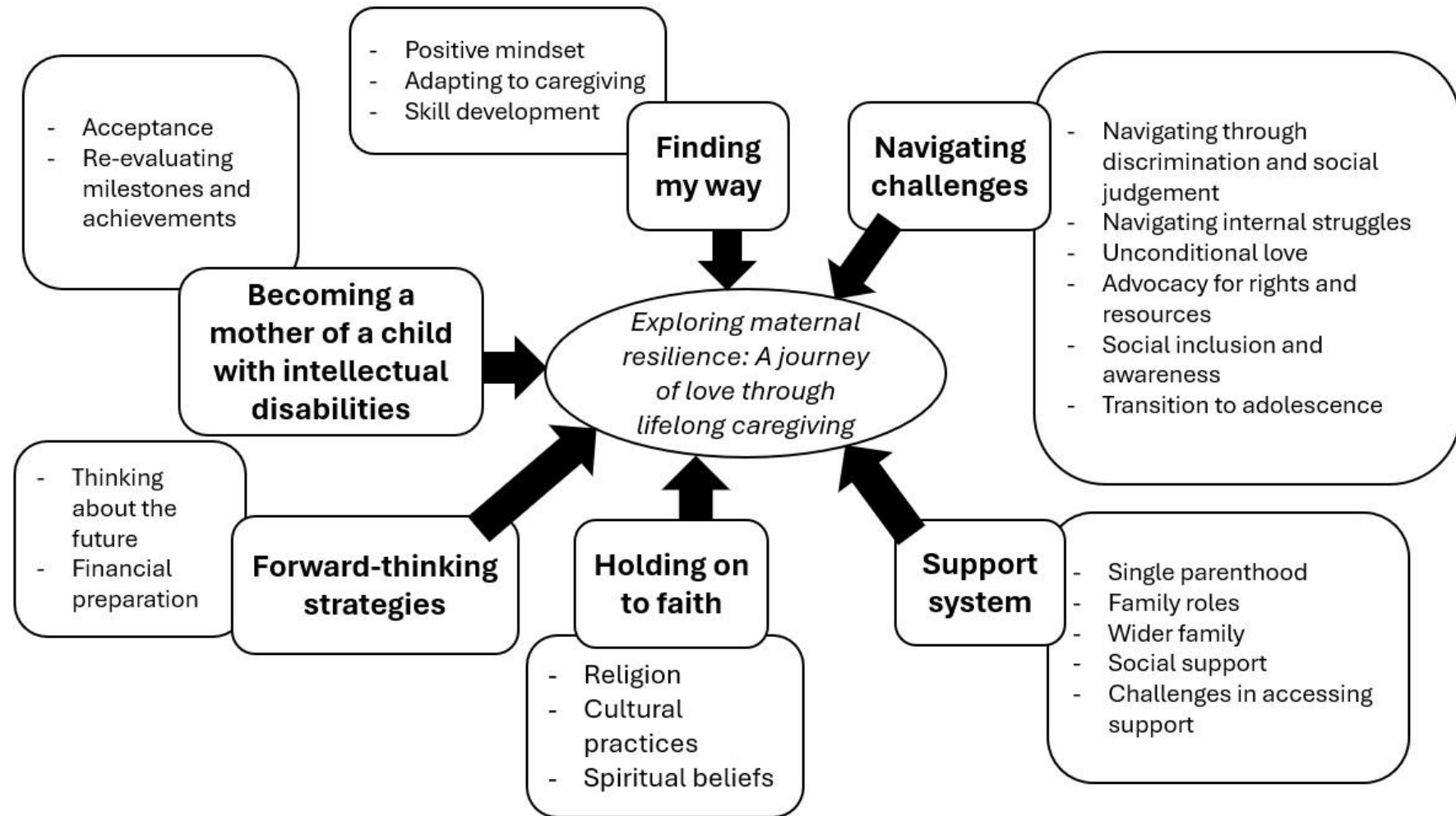


Diagram 7 Themes and Sub-themes

8.2 Theme 1: Becoming a Mother of a Child with ID

Mothers described a wide spectrum of emotional experiences during their caregiving journeys. Their emotions were shaped by their child's needs and developmental milestones. For many, caregiving brought deep fulfilment but also considerable challenges, highlighting the complexity of their emotional landscape.

The emotional responses reported by mothers are captured under two key sub-themes: (i) acceptance and (ii) re-evaluating milestones and achievements. While not every mother expressed all these emotional dimensions, together, they offer a comprehensive understanding of the caregiving experience. The subthemes are outlined below.

1. Acceptance: The mothers shared their emotional journeys towards accepting their child's diagnosis. This process involves overcoming initial grief, letting go of societal expectations, and embracing their child's abilities and worth.
2. Re-evaluating milestones and achievements: Mothers adjusted their expectations by celebrating small milestones in their child's development, whether in communication, self-care, or social interaction, as a meaningful achievement.

8.2.1 Acceptance

For many mothers, acceptance involved coming to terms with their child's condition and embracing them for who they are. This acceptance enabled them to move forward with a more positive and constructive mindset than before.

"At first, it was difficult to see that my child was not developing like other children, but I refused to feel discouraged. I learned not to be ashamed or compare him to others. My child is healthy and living with me, that is already a gift. We talk about it positively at home, and that helps us accept and support our child the best way we can."

(Mother 6)

One mother reported experiencing intense stress and worry upon learning about her child's condition. However, over time, she adapted and focused on providing the best possible care.

"When I first found out that my child was different, I felt extremely stressed and anxious. But in the end, I had to adjust and learn how to take care of her in the best way possible."

(Mother 12)

Another mother shared:

"I believe that my strength comes from accepting the reality of the situation and doing my best in my role as a mother."

(Mother 9)

Some mothers admitted to struggling with negative emotions in the early stages of learning about their children's conditions. However, over time, they found ways to reframe their thoughts:

"At first, I had many negative feelings. When I found out my child was different, I kept asking myself, 'Did I do something wrong?' or 'Why did this happen?' But as time passed, I started to see that maybe my child was sent to teach me patience and to make me stronger."

(Mother 9)

While many mothers shifted their focus from their expectations to their child's unique capabilities, helping them to embrace their journey with resilience and optimism, one mother described lingering doubts and questions about her child's condition which persisted long after the diagnosis. These feelings of uncertainty often led to frustration and self-questioning:

"I still don't understand why my child turned out this way. I've been asking myself this since the beginning, and I still don't have an answer. Why did this

happen to my child? I've never even touched alcohol, yet my child has this condition. Meanwhile, others who drink and live recklessly have perfectly healthy kids. It's unfair."

(Mother 2)

This ongoing internal conflict suggests an unresolved emotional struggle, with acceptance being difficult because of unanswered questions about why her child was born with a disability.

For some mothers, these conflicts were resolved through patience and understanding:

"My patience started from accepting that my child is the way he is. My role is to provide love, understanding, and support him in his own way. I see every problem as something to be solved step by step. Every day that we get through is a small victory, a little happiness for both me and my child. I must create happiness for myself and those around me. If I have a positive mindset, I can pass that positivity on to my child and others."

(Mother 7)

The focus on taking one day at a time and celebrating small victories highlights how mothers reframed success and progress in their caregiving journey. Instead of measuring achievement by conventional standards, many mothers found strength and motivation in recognising the day-to-day improvements in their child's development. This shift in mindset allowed them to find meaning in what might otherwise be overlooked, setting the stage for a re-evaluation of milestones and achievements in their lives.

8.2.2 Re-Evaluating Milestones and Achievements

Mothers expressed immense pride in their children's progress, which reinforced their commitment to caregiving. Witnessing even small developmental milestones validated their efforts and strengthened their resolve:

"My inspiration comes from seeing my child improve every day. That is what keeps me from giving up. No matter how difficult the challenges are, I know that everything I do now will help my child have a better future. It also brings me happiness to know that I am doing something meaningful for him."

(Mother 7)

The ability to take pride in incremental improvements, such as a child learning to walk or communicate, played a significant role in sustaining emotional resilience:

"When my child started to do things independently, like walking or speaking, it made me feel incredibly proud and gave me more motivation. It showed me that all my efforts were not in vain."

(Mother 11)

A sense of pride seemed to strengthen this mother's belief in her child's abilities, helping her stay committed despite the challenges.

Seeing their child's progress served as a powerful motivator for mothers, reinforcing their belief that their caregiving efforts were meaningful and effective. Even minor improvements brought a deep sense of fulfilment, further strengthening their determination to continue supporting their child's development:

"The most important encouragement comes from my child. Seeing her progress, even in small ways, like walking up the stairs or doing something she couldn't do before, gives me energy and makes me proud."

(Mother 10)

Looking back on their child's growth over time helped the mothers maintain their motivation. Reflecting on past achievements allowed them to recognise the tangible impact of their dedication, reinforcing the understanding that every effort contributed to their child's well-being:

"What keeps me going is looking back and seeing how far my child has come. Even small steps, like understanding simple instructions or adjusting to new situations, show me that our efforts are not wasted. It gives me the push to keep moving forward every day."

(Mother 12)

One mother described how even small improvements in their child's abilities became a source of encouragement and motivation for them. Every incremental step towards independence, such as picking up objects, communicating needs, or following simple routines, reinforced their belief in their child's potential:

"Every time I see small improvements, like my child picking up objects on their own or being able to do a simple task. It gives me strength and reminds me that our efforts are worthwhile. I support my child as they are and celebrate every small success. It's not always easy but seeing them grow in their own way makes me proud of them and myself."

(Mother 12)

These narratives emphasise how a child's progress, no matter how gradual, acts as a source of encouragement, reinforcing the mother's commitment to caregiving. Yet not all reflections were marked by reassurance. One mother reflected on her earlier parenting decisions with deep regret feeling that missed opportunities for early intervention had shaped her child's current limitations.

"I wish I could turn back time. I should have trained my child more when he was young, given him intensive skills training. Maybe he would have been more capable now. When I meet other parents, I tell them, 'Train your child from an early age. Don't be like me, don't wait.' It's my biggest regret that I didn't do enough back then."

(Mother 2)

This reflection highlights the mother's perception of having missed opportunities to help her child reach important developmental milestones.

In contracts, most mothers found encouragement in their child's progress and achievements, however small. Each milestone reinforced their belief in their child's potential and strengthened their resolve to pursue better outcomes. Hope for development and pride in their accomplishments served as a protective buffer against the ongoing challenges of caregiving:

"What keeps me motivated to care for my child is love and hope. I want my child to develop better. Even though it is difficult, every time I see them learn and adapt, I feel proud and want to take them as far as she can go."

(Mother 8)

Mothers also expressed hope for their children's future opportunities, including employment and social integration. Their optimism about their child's potential reinforced their ongoing caregiving efforts:

"I still have hope that my child will be able to pass the evaluation for the employment project at Rajanukul Institute. We have to try. With the right support, he might be able to do it."

(Mother 3)

These statements illustrate how re-evaluating milestones and achievements served both as a coping mechanism and a source of motivation, enabling mothers to sustain their dedication to caregiving.

8.2.3 Summary of Becoming a Mother of a Child with ID

Becoming a mother of a child with ID marks a profound emotional shift. Many mothers recalled initial feelings of shock, sadness, and uncertainty upon receiving the diagnosis or noticing their child's developmental differences. The early stages were emotionally challenging.

However, the mothers described developing a deep sense of acceptance, which became a driving force in their caregiving journeys. Despite the challenges, they found strength in their children's progress and drew motivation from even the smallest achievements. For many, the experience fostered their determination,

allowing them to move forward with greater resilience and a renewed sense of purpose. They began to shift from a place of emotional struggle to one of active adaptation to their new reality. The following theme explores how mothers continue to navigate the complexities of caregiving in their daily lives.

8.3 Theme 2: Finding My Way

Mothers demonstrated resilience through various adaptive strategies, coping mechanisms, and sources of inner strength that enabled them to persevere in their caregiving roles.

The analysis identified three subthemes that illustrate how resilience is expressed in the lived experiences of these mothers:

1. Positive mindset: Mothers maintained optimism to continue their caregiving with a sense of purpose.
2. Adaptation to caregiving: Mothers developed new routines, skills, and roles as they adjusted to the evolving nature of caregiving responsibilities.
3. Skill development: Mothers promote independence and life skills among adolescents with ID, including structured routines, early interventions, and practical teaching methods to support their development.

8.3.1 Positive Mindset

Mothers spoke about their refusal to give up, even in the face of adversity or societal injustices, and their commitment to finding ways to improve both their child's and their own situations:

"The most important thing is not giving up. We believe that no matter what situation we face, we must find a way to cope and move forward."

(Mother 9)

This determination was often paired with a proactive approach to caregiving, where mothers strived to make incremental changes that could lead to

meaningful improvements over time. They expressed a sense of purpose in their efforts, driven by a vision of a better future for their child and others in similar situations:

"A never-give-up attitude, even when faced with obstacles or injustices at times. I remain committed to caring for my child and making small changes each day to ensure a better future for my child."

(Mother 10)

Mothers emphasised the importance of maintaining a positive outlook despite challenges, believing that their emotional state directly affected their children's well-being. For instance, some mothers coped with stress by fostering a joyful and optimistic environment:

"A positive attitude is crucial. Even on exhausting or stressful days, we try to smile and laugh because we know that our feelings directly impact our children. If we are stressed, she will sense it and may exhibit behavioural issues. Creating a positive home environment is something we always strive for. The key is to find small joys every day and remind ourselves that we are doing our best for our child."

(Mother 9)

"If I dwell on negative thoughts or worry about what others say, I will feel miserable and discouraged. I choose to forgive and not take people's words or actions personally because anger or resentment does not help. Forgiving and letting go makes me feel lighter and allows me to focus fully on raising my child."

(Mother 11)

Rather than fearing difficulties, some mothers viewed them as valuable lessons:

"Don't be afraid of failure. Every time we face a problem; it's an opportunity to learn and grow."

(Mother 12)

For some mothers, their inner strength was deeply rooted in their past hardships. Their early experiences of overcoming adversity shaped their ability to face the challenges of caregiving:

"As a child, I had to fight for everything. Growing up in a poor rural family, we lacked many things. Neighbours looked down on us for being poor, but I worked hard to prove them wrong. I have always strived to do my best for my family."

(Mother 2)

These early hardships cultivated a mindset of perseverance, which became a valuable resource during her caregiving journey. The ability to confront difficulties without succumbing to despair was a skill learned in childhood that she carried into her role as a mother. Many mothers described resilience as an ongoing process of overcoming challenges and pushing forward, regardless of the difficulties:

"The times I feel strongest are when I overcome challenges and realise I am making my child's life better. That is what keeps me going every single day."

(Mother 7)

Mothers viewed each hurdle as an opportunity to grow stronger and deepen their commitment to their children's well-being. Mothers also had to respond to their child's ongoing developmental changes as caregiving demands evolved over time. The following section explores how mothers adjusted their caregiving approaches, continuously learning and adapting to meet their children's shifting needs.

8.3.2 Adapting to Caregiving

Mothers discussed the importance of adapting to their children's changing needs and circumstances as they grew older. This adaptation often required continuous learning and flexibility to adjust caregiving approaches over time. Many mothers

described the process as challenging but necessary to ensure their children's well-being and happiness. By focusing on what worked best for their children, they found ways to navigate the evolving demands of caregiving.

"I try to adapt and adjust my caregiving methods to suit my child's age and needs. Although it's not easy, I've learned to look at the positive way and hope that my child will grow up happy and as true to himself as possible."

(Mother 7)

This sense of adaptation extended beyond caregiving techniques to include revaluation of personal expectations. Mothers discussed shifting their focus from conventional developmental milestones to fostering their child's self-sufficiency in daily life. This adjustment allowed them to prioritise practical skills that supported their child's independence.

"I've had to adjust my perspective and lower my expectations. Instead, I focus on self-sufficiency, such as managing daily routines and taking care of himself in everyday life."

(Mother 12)

As children with ID grew, mothers found that caregiving became increasingly complex. Some mothers reported continually adapting to new challenges, including behavioural changes, evolving educational needs and social integration.

"The biggest challenge is adapting to both my child's and my own changes at every stage of life. As she grows, the issues become more complex, requiring me to find new ways to handle her."

(Mother 10)

The physical demands associated with managing behavioural escalations were a notable aspect of the caregiving experience for the participants. These challenges became particularly pronounced as children grew physically stronger, occasionally surpassing their parents' physical capacity. One account illustrates the extent of this strain:

"I had to hold him tightly to stop him. I would lock him in place, but sometimes it wasn't enough. He's very strong. Now he's taller than me, stronger than me. Even his father struggles to manage him sometimes. These situations happen frequently."

(Mother 2)

Some mothers highlighted the necessity of being mentally and emotionally prepared for daily uncertainty. They developed strategies to remain resilient and composed in the face of unexpected situations. As one mother explained:

"My strength in facing these challenges comes from preparing myself every day. I must have a steady mindset and wake up ready to handle anything my child might bring, managing it as best as I can."

(Mother 9)

Mothers often experimented with different parenting strategies to determine what worked best for their children. Many recounted having tried multiple approaches before finding effective solutions:

"I have tried everything. When my child had meltdowns, I tested different methods to help him. I kept trying and changing my approach until I found what worked best."

(Mother 2)

Adapting to caregiving responsibilities also required mothers to reevaluate their personal and professional priorities. Some made significant lifestyle changes to dedicate more time to their child's needs:

"Now, I try to spend more time with my child. Before, I had a full-time job and couldn't take care of him as much as I wanted to. But now, I have shifted my role to focus on caregiving."

(Mother 12)

The mothers described how their caregiving journey led to personal growth, fostering mental resilience, and a reflective approach to challenges. These

experiences shaped their self-perception, encouraging them to view themselves as capable and adaptable mothers.

Some mothers spoke about their ability to remain mentally strong in the face of adversity. This resilience was more than just a coping strategy; it became a defining characteristic that empowered them to meet the ongoing demands of raising children with ID. Many expressed pride in their inner strength, viewing it as essential to overcoming everyday obstacles:

"I'm not the type of person who gets stressed or lets small comments or minor details weigh me down or make me feel depressed. I think I have a certain level of mental strength that allows me to face the challenges of raising my child."

(Mother 5)

Self-reflection also plays a significant role in fostering parental growth. Mothers described how they frequently evaluated their actions, questioning whether they could improve or whether they had made mistakes. This reflective process allowed them to identify areas for self-improvement and adjust their behaviour to better support their child, creating a cycle of continuous personal development:

"I often ask myself, 'Did I do something wrong?' If I'm confident I didn't, there's no need to dwell on it. But if there's something I should improve, I adjust myself to be better."

(Mother 11)

Mothers emphasised the importance of continuous learning, acknowledging that caregiving required them to constantly acquire new knowledge and refine their parenting strategies. They valued learning from professionals, teachers, and healthcare workers, using expert insights to enhance their caregiving approaches:

"Keeping an open mind and learning from experienced teachers or professionals is important. They often have advice or methods we might not have tried before. We can't be like a cup that's already full. We need to be open to

learning new things. If something doesn't work, we adjust it to find what's best for our child."

(Mother 7)

Similarly, some mothers took a proactive approach to researching and learning independently to improve their caregiving skills:

"At first, I had no idea how to properly take care of my child. But once I found out he is special needs, I started researching, reading articles, and learning about how to support him. Consistent learning is essential because it helps me handle challenges better and contributes to my child's development."

(Mother 12)

Mothers also recognised the importance of forming a meaningful bond with their children, even when communication barriers existed. They actively worked on strengthening their relationships by engaging in small, consistent interactions that fostered trust and understanding:

"We must be strong and patient, starting with small things like talking to our child every day. Even if they don't respond the way we expect, communication builds our connection and helps them learn."

(Mother 6)

Through these narratives, the mothers illustrated how their caregiving roles not only tested their resilience but also provided opportunities for self-discovery and growth. Their ability to balance mental strength with self-awareness underscored their commitment to being the best mothers possible for their children.

8.3.3 Skills Development

Mothers highlighted the importance of fostering independence in their children by gradually teaching them life skills that support self-reliance. These efforts were carefully adapted to each child's abilities, requiring patience, persistence, and a long-term view of skill development. Building competence in everyday

tasks was seen as a crucial step toward preparing children for greater autonomy and integration into everyday life.

One mother expressed how she actively engaged her child in simple activities, such as household chores and basic self-care routines, to encourage the development of self-help skills. Through these hands-on experiences, these aimed to build her child's confidence and capability:

"I involve my child in activities that teach self-help skills, such as washing clothes, cleaning, or preparing small meals. This help him practice being independent."

(Mother 7)

However, mothers acknowledged that certain areas, such as personal hygiene or more complex household tasks, required ongoing effort and training. This process was approached with flexibility, adapting to the pace at which their child could learn:

"My child has started to show progress in some areas, like picking up his own plate or expressing his needs, such as saying he is hungry or wants something. But there are still many skills he needs to work on, like personal hygiene or simple household chores. I keep practising these skills at a pace that suits him."

(Mother 12)

One mother highlighted the significance of starting interventions early by enrolling her child in specialised schools and therapy programmes. These structured environments helped her child develop basic skills such as eye contact, social interactions, and self-care habits. However, as her child grew older, new challenges arose, requiring ongoing adjustments to caregiving strategies.

"I started taking my child to therapy and special education programs from a young age. Over time, I saw improvements in some areas, like making eye contact and learning basic skills. But as she grows, new challenges arise."

(Mother 7)

Mothers emphasised that consistency and repetition were key in helping their children develop and maintain life skills. They understood that skill development required structured and persistent practice both at home and in external therapy or training centres:

"I believe that consistency in training is the most important part of raising a child with special needs. It's not just about taking them to therapy or special training centres; we need to practice at home too. For example, physical exercises help strengthen their development, and maintaining regular routines reinforces progress."

(Mother 10)

Mothers adopted a step-by-step approach to skill development, focusing on personal hygiene, cleaning, and other household tasks. By recognising their children's individual limitations, they aimed to foster independence and reduce long-term reliance on others:

"I focus on the present and help my child improve little by little each day. I want them to learn how to take care of themselves and not be a burden on others or society. I teach them simple tasks like cleaning the house and maintaining personal hygiene. But sometimes, I push too hard, wanting them to do more than they're capable of. I have to remind myself that some things take time and need to be learned gradually."

(Mother 4)

8.3.4 Summary of Finding My Way

Mothers described finding ways to manage ongoing challenges. Rather than explicitly describing themselves as "resilient," mothers spoke about enduring challenges, adapting to changing circumstances, and doing what was necessary to support their adolescent children over time. First, a positive mindset anchored in perseverance, optimism, forgiveness, and meaning-making helped regulate emotions and sustain a sense of purpose. Second, adaptation to caregiving involved recalibrating expectations (from normative milestones to functional independence), experimenting with strategies, reorganising routines

and roles, and maintaining mental readiness for daily uncertainty. Third, skill development focused on building adolescents' self-reliance through early interventions, structured routines, and step-by-step instruction in self-care and household tasks, reinforced by consistent practice at home and guidance from professionals.

Together, these practices converted ongoing stressors into manageable goals, strengthened maternal efficacy, and promoted children's participation and autonomy in their care. Simultaneously, growth brings new complexities (e.g. stronger bodies, shifting needs), underscoring that resilience is an ongoing process rather than a fixed state. These adaptive capacities lay the groundwork for confronting the external stigma and internal strains explored in the next theme.

8.4 Theme 3: Navigating Through the Challenges

As mothers continued their caregiving journeys, they encountered a range of external and internal challenges that tested their resilience, values, and emotional strength. This section explores these experiences through six subthemes, each reflecting how mothers confronted and managed the complexities of caregiving:

1. **Navigating through discrimination and societal judgement:** Mothers frequently encountered stigma and negative attitudes from others in their communities. Despite these experiences, many mothers found ways to protect their children and themselves from negativity.
2. **Navigating internal struggles:** Mothers also faced inner conflicts, such as self-doubt, guilt, and emotional exhaustion. These internal struggles were often tied to the pressure of being responsible for their children's well-being. However, over time, many mothers developed personal coping strategies that helped them regain emotional balance and continue caregiving with renewed strength.
3. **Unconditional love:** A love for their child helped them persevere through difficult moments and reaffirmed their commitment to caregiving.

4. Advocacy for rights and resources: Mothers often assumed the role of advocates, working to secure educational, medical, and financial support for their children.
5. Social inclusion: Mothers expressed hope for more inclusive communities where their children could participate without fear of rejection.
6. Transition to adolescence: Mothers spoke about managing behavioural changes. Handling these developmental shifts was often a turning point, requiring both practical and emotional adjustments.

8.4.1 Navigating Through Discrimination and Societal Judgement

Mothers spoke about encountering discrimination and societal judgement, which often evoked simultaneous feelings of discouragement and determination in them. Experiences of stigma, such as others avoiding their child or making unkind remarks, initially caused anger or sadness but ultimately strengthened their resolve to advocate for their child and foster their development. These incidents often became a driving force, motivating mothers to challenge negative perceptions and to highlight their children's potential. One mother expressed:

"Some people look down on my child. For example, once on a bus, someone saw my child and moved to another seat. It made me feel discouraged, but at the same time, it gave me the strength to keep fighting. I thought to myself, 'Why do they despise my child? If this were their child or grandchild, how would they feel?' I wasn't angry; I understood and let them move. But it motivated me to ensure my child develops as much as possible, so they can be independent. This determination started when people in my own home doubted me. They said I couldn't raise my child well. That pressure became a push for me to show them that my child could progress and improve."

(Mother 3)

Most mothers expressed feeling judged by society, mentioning persistent negative perceptions of their children. Many felt their child was unfairly

ostracised, with others refusing to interact with them or assuming they were dangerous or incapable of social integration:

"Society always sees my child negatively, and it makes me overthink. People avoid my child. They don't want to talk or play with him. Sometimes, I try to ignore it, but on difficult days, those harsh glances and judgemental stares make me feel deeply disheartened."

(Mother 4)

"Some neighbours assume that all children with ID are the same. If one child with autism behaves aggressively, they believe my child will do the same. They tell others not to let their kids play with mine. It's heartbreaking that people still think this way."

(Mother 6)

"The hardest thing is dealing with how others look at and talk about my child. Some people see my child as a 'social problem' or make hurtful comments. But I try not to let it affect me and instead focus on helping my child develop. What matters most is that my child knows I am always by his side."

(Mother 11)

This persistent stigma caused many mothers to feel isolated, pressured, and at times, even depressed. The emotional burden of constantly needing to explain or prove their child's worth to others further heightened their stress.

Mothers' anger and frustration were common responses to seeing a child rejected in public, often deepening their feelings of isolation and powerlessness:

"Some people look down on my child. I remember sitting on the bus, and when someone saw my child, they immediately moved to another seat. I felt frustrated and angry. They did it right in front of me!"

(Mother 3)

This anger stemmed from the direct and indirect ways in which society alienates children with ID:

"When my child was younger, he had a facial abnormality. People would stare, and I used to get so angry. A seven-year-old once called my child a 'ghost child' while we were at the hospital. I wanted to yell at them, but I held back. The parents quickly shushed their child, but by then, I was already overwhelmed with anger and sadness."

(Mother 1)

This resentment stems from the repeated negative experiences mothers faced. These societal judgments not only influenced how others perceived their children but also deeply affected the mothers' emotional well-being. Over time, these external challenges became intertwined with internal struggles, prompting mothers to confront feelings of guilt, frustration, and self-doubt. The following section explores how mothers navigated these inner battles and found ways to maintain their emotional strength throughout their caregiving journey.

8.4.2 Navigating Internal Struggles

Mothers navigated the challenges of raising a child while striving to support their development. Sadness, often triggered by societal perceptions and internal struggles, coexisted with a deep motivation to provide the best possible care for their child. One mother captured this in the following way:

"I do have motivation, but I must admit that sometimes I feel disheartened. These feelings of disheartenment can make me sad, but at the same time, they also push me to fight harder. I want my child to become more capable and to improve. I want to help him in any way I can and teach him to be more independent. I won't give up. I'm not someone who gives up easily. Okay, my child is like this, but he doesn't harm anyone, he doesn't steal my money."

(Mother 6)

Another mother shared her feelings of emotional exhaustion and isolation, and limited opportunities for freedom and self-care:

"I feel extremely stressed. Honestly, I'd love to go to the beach, have drinks with friends, or relax for a couple of days, but I can't. Being with my child 24/7 builds up stress. I watch YouTube videos of friends going out to eat and travel, and I wonder why my life is like this."

(Mother 1)

One mother also acknowledged that caring for her child was emotionally and physically demanding, often leading to feelings of fatigue and frustration:

"Every mother worries about their child. If I am no longer here, who will love my child as much as I do? Even though I love my child deeply, I still have moments of frustration. Sometimes, I feel annoyed. Sometimes, I feel tired. It's natural. It's just human. There are moments when I feel like I've had enough, but I keep going because I know my child needs me."

(Mother 5)

This mother's acknowledgement of emotional exhaustion reflects the reality of caregiving, where love and frustration coexist in equal measure. She manages these emotions by balancing her fatigue with an enduring sense of responsibility.

However, one mother emphasised how she navigated her internal struggles through self-encouragement. They acknowledged the need for perseverance and self-compassion in the caregiving journey:

"Do not give up when facing challenges, because every problem has a solution. Even if we cannot solve everything today, if we remain patient and give it time, we will eventually find a way."

(Mother 7)

Some mothers adopted a stance of emotional detachment from external criticism, choosing to focus solely on their child's needs rather than on how others perceived them to be. This approach enabled them to cope with public scrutiny and remain focused on their child's well-being:

"When my child has a meltdown in public, I tell myself not to look at other people. I focus only on my child. I don't care about what others think. I don't feel anything about their judgement. I just love my child. That's all that matters."

(Mother 2)

"I try not to let other people's opinions affect me. I always tell myself, 'Let them think whatever they want. My only focus is my child.'"

(Mother 11)

Many mothers emphasised the importance of maintaining a positive mindset to cope with difficulties. They actively chose to focus on the positive, letting go of negativity and external judgement:

"Looking at the world positively is important. If we dwell on negative thoughts or let others' words affect us, we will feel miserable and lose motivation. I choose to forgive and not take others' comments to heart. Holding onto anger or resentment does not help. Forgiving and letting go makes me feel lighter and allows me to fully focus on raising my child."

(Mother 11)

By choosing optimism, mothers were able to sustain their emotional well-being and provide more effective care for their children. This perspective highlights how a positive outlook can help mothers navigate the emotional complexities of caregiving with strength and determination. The following section explores how this deep bond with their child became a vital source of strength and resilience throughout their journeys.

8.4.3 Unconditional Love

For many mothers, unconditional love for their child was a powerful motivator throughout their caregiving journeys. This deep emotional bond provided the strength to face ongoing challenges and difficulties. Their unwavering dedication

often served as the foundation of their ability to persevere through the demands of caregiving:

"I have him, I love him, and I will take care of him in the best way I can."

(Mother 4)

This unconditional love was closely linked to the ability to overcome hardships, as mothers expressed a willingness to endure difficulties for their child's well-being:

"The love and understanding I have for my child are what drive me to keep fighting and do everything I can to give him the best life possible. Even when faced with difficult challenges, I know that everything I do is always worth it. The encouragement I create for myself, the love I have for my child, is the driving force that keeps me going."

(Mother 7)

Mothers described how their love for their children became a driving force that helped them overcome their own fears and limitations. Many initially doubted their abilities as caregivers, particularly when faced with uncertainty, lack of support, or societal stigma. However, their love and responsibility for their children became catalysts for personal growth and resilience:

"I wasn't always a strong person. Before having my child, I was afraid of many things afraid I wouldn't be able to raise them properly, afraid I wasn't ready. I had no one to rely on, and everything seemed like I had to handle it alone. But after having my child, that fear turned into motivation. I learned how to manage problems, whether it was their health, caregiving, or dealing with people who didn't understand our situation. Every time I faced difficulties; I told myself I had to fight for my child. No one loves them or is willing to do everything for them as much as I do. Even though it's hard, my love for my child makes me stronger."

(Mother 6)

Such moments of vulnerability were common among mothers. Many mothers felt a strong sense of responsibility to actively protect and promote their children's rights in society. This sense of duty led mothers to become public advocates. The next section explores how mothers engaged in advocacy to ensure that their children were treated with fairness, respect, and dignity.

8.4.4 Advocacy for Rights and Resources

Mothers frequently described their role as advocates for their children's rights, particularly in public and institutional settings. For some participants, advocacy was deeply intertwined with navigating everyday experiences in public spaces. They highlighted the importance of standing up for their children's rights in real-time situations, ensuring that they were treated fairly and with dignity:

"I feel that protecting my child's rights is always important. For example, when I take my child to different places, I make sure they receive the rights they deserve, like sitting in designated areas for people with disabilities or using discounts for special-needs children at restaurants and other services."

(Mother 7)

Another mother extended her advocacy efforts beyond immediate needs to address systemic issues in the healthcare system. She emphasised the significance of speaking out for her child's requirements, not only to support her family but also to drive societal understanding and change. Advocacy was seen as a way to challenge misconceptions and pave the way for a more inclusive society:

"Advocating or voicing my child's needs isn't just about helping my own child. It also helps build understanding in society."

(Mother 8)

Mothers frequently described the challenges they faced in accessing financial aid and government support for their children. Many had to actively seek available resources, such as disability benefits and medical care, to alleviate the financial burden of caregiving:

"I received financial aid from the foundation, but only occasionally. I have been bringing my child to therapy at Rajanukul Institute since he was a year and a half old, and we have received financial support twice. I also advised the father to apply for disability rights for him, so we could access free medical care."

(Mother 2)

The availability of disability cards and subsidies for public transportation, healthcare, and financial assistance was acknowledged as helpful, but mothers still had to take the initiative to navigate complex systems to access these benefits.

"The rights and opportunities for children with special needs, even small things like getting a 5-baht discount on the bus or receiving a disability card that allows them to access free medical care and government aid, are essential. These benefits make a significant difference in their lives."

(Mother 6)

While financial support existed, it was not always easily accessible, and mothers had to actively advocate for their children to receive what they were entitled to receive.

Beyond securing resources, mothers emphasised that advocacy personally empowered them. Many viewed speaking up for their children's rights as an act of strength that reinforced their resilience:

"I try to push for and speak about my child's needs in every situation, whether at school, hospitals, or community events. I always ask myself, 'If I don't speak up for my child, who will?' Sometimes, explaining to others that my child is special and needs different care makes me feel stronger and more determined to fight for them."

(Mother 7)

Advocacy was not just about securing tangible benefits but also about reinforcing a mother's role as a protector and representative of her child in various life aspects.

Mothers also extended their advocacy efforts beyond personal benefits to promote systemic improvements. One concern was the lack of accessible daycare centres tailored to the needs of children with ID:

"Support for families caring for children with special needs should be more flexible and aligned with daily life. For example, special-needs daycare centres in Bangkok should operate like regular schools, where parents can drop their children off in the morning and pick them up in the evening, instead of only offering long-term residential care."

(Mother 8)

Through their advocacy, these mothers play a critical role in improving their children's lives and shaping a more inclusive future. Central to this broader mission is the desire for genuine, social inclusion. Many mothers recognised that while policies and services are important, true acceptance must begin at the level of community attitudes. The following section explores how mothers worked to promote social awareness and inclusion, striving to ensure that their children were valued and accepted as full members of society.

8.4.5 Social Inclusion and Awareness

Mothers frequently emphasised the importance of fostering genuine social acceptance in their children's lives. They described how societal attitudes towards their children often fell short, advocating for a deeper understanding and recognition of their children as equal. For these mothers, social inclusion was not just about tolerance but about creating an environment where their children could thrive as respected community members:

"Society should foster genuine acceptance and view children with special needs as individuals with value, just like everyone else."

(Mother 10)

In addition to calling for acceptance, the mothers actively raised awareness of the challenges their children faced. They often took it upon themselves to highlight issues affecting their children's well-being and advocate for change at

both the community and systemic levels. Through these efforts, mothers sought to ensure that children with ID would be treated equitably and with dignity, as one mother expressed:

"I try to talk about the problems or situations that affect my child's well-being to raise awareness in society. I hope this leads to equal treatment of the rights and needs of special-needs children and people with disabilities."

(Mother 10)

Mothers often found themselves in situations where they had to intervene to ensure their children were included in social activities. Some described direct advocacy in settings such as schools, where they had to confront exclusionary attitudes from teachers and peers:

"I don't want anyone to mistreat my child. I don't complain about everything, but if someone does something unfair, like hitting my child without reason or treating them as if they are incapable. I will stand up for them. For example, there was a time in kindergarten when my child was not allowed to participate in group activities. The teacher said it was because my child was special needs and couldn't do it. I had to ask, 'Why not let my child join? I want them to have social experiences.'"

(Mother 4)

Mothers actively challenged misconceptions and pushed for their children's right to be included in regular social interaction.

Participation in structured activities was seen as a vital way for children to develop confidence, build skills, and form meaningful connections. Special programs such as the Special Olympics provided opportunities for these children to engage socially and gain a sense of accomplishment:

"Having activities for teenagers with special needs is extremely important. These activities help them develop skills, build confidence, and learn to work with others. For example, my child participated in the Special Olympics and performed a song called 'Thank You for Walking with Me.' It was such a valuable experience. My child was incredibly proud of himself, watching the

performance video repeatedly throughout the day. It was clear that he felt happy and saw his own worth. These activities don't just help with personal development; they allow children to make friends, collaborate, and adapt to different situations. It makes them feel that they 'can do it' just like everyone else."

(Mother 11)

Mothers made deliberate efforts to facilitate their children's social integration, often striving to create an appearance of normalcy to prevent discrimination against their children. At the same time, they found encouragement in moments when members of society responded with empathy and acceptance:

"To help my child adapt better to society, I try to do everything I can to make her seem as typical as possible. At the same time, there are also positive moments that warm my heart—when some people in the community understand and don't discriminate against my child. They smile, welcome my child, and treat her like any other child. These moments give me a lot of encouragement."

(Mother 8)

The attitudes of others played a significant role in shaping mothers' experiences, both positively and negatively. While negative attitudes could be draining, they also served as motivation to prepare and advocate more effectively, as can be seen from this excerpt:

"The attitudes of those around me have both negative and positive effects on my strength. The negative side is that it can be exhausting to constantly explain or deal with judgemental looks. However, on the positive side, it pushes me to be more patient and prepared. For example, I now plan ahead for every activity to avoid situations that might make my child or myself uncomfortable."

(Mother 12)

Beyond active advocacy, one mother found hope in acts of societal kindness, where people offered support without being asked to do so. These moments reinforced their belief in the possibility of a more compassionate society:

"In daily life, I have encountered situations where I had to assert my child's rights, like taking a seat on the bus for special-needs children. However, sometimes I choose not to say anything out of politeness. That said, when I see some people in society naturally understanding and offering support to my child without me having to ask, it gives me a lot of encouragement."

(Mother 8)

These accounts reflect the dual objectives of mothers' efforts to promote social inclusion: fostering a shift in societal attitudes towards acceptance and understanding while also advocating for tangible improvements in the treatment and opportunities available to children with ID. By addressing both awareness and action, these mothers were contributing to building an inclusive and equitable society. As their children grew older, this awareness became even more crucial in navigating the new complexities that come with adolescence. The following section explores how mothers respond to and manage this significant life stage,

8.4.6 Transition to Adolescence

As children with ID entered adolescence, the emotional demands on their mothers intensified. Mothers highlighted how they adapted their caregiving approaches to respond to their children's changing emotional needs, sexual development, and educational transitions.

8.4.6.1 Managing Emotions and Behaviour

Many mothers highlighted the importance of patience and emotional regulation as key strategies for managing behavioural challenges during adolescence. They described how staying calm helped to de-escalate difficult situations and served as a model for their children's own emotional self-regulation as one mother shared that:

"Raising a teenager with ID is challenging. We must be very patient. Sometimes I need to step away, calm myself down, and then return to speak to my child in a gentle manner."

(Mother 9)

Another mother shared:

"Staying calm is the most important thing. Raising a child with special needs, especially during their teenage years, requires immense patience. If we remain calm, they will learn to regulate their emotions too."

(Mother 11)

Some mothers found motivation by comparing their circumstances with those of other parents in more difficult situations. Seeing others endure greater hardships reinforced their determination to persevere:

"I see other parents whose children are bedridden, unable to walk. When I see them fighting to look after their children, I think, why can't I? My child can still walk, so I have to keep going."

(Mother 3)

One mother shared how she controlled her emotions when handling difficult situations with her child:

"When my child exhibits difficult behaviours, such as tantrums or arguing, I remind myself not to react emotionally. If I explode with frustration, it only makes things worse. Instead, I stop, think, and decide on the best way to handle the situation."

(Mother 9)

By focusing on non-violent communication and positive discipline, mothers encouraged cooperation and emotional regulation in their children, reinforcing the idea that discipline should teach rather than punish:

"Discipline should be a teaching tool rather than a form of harm. For example, instead of punishment, I have my child sit quietly in their own space to calm down. Using physical discipline isn't effective because they might retaliate or

internalize negative behaviours. Instead, we should create boundaries and teach them that if they want something, they must be patient or follow the right steps first."

(Mother 9)

8.4.6.2 Navigating Sexual Development

One mother faced new anxieties regarding her child's sexual development, including concerns about safety, autonomy, and understanding personal boundaries. This added an additional layer of emotional strain, as one mother shared:

"I have another appointment with the doctor regarding birth control, but I haven't decided yet. I don't know if it's the right time. I just don't trust the situation. Now that my child is a teenager, I worry that someone might take advantage of her. If she gets pregnant, it will be a huge problem. It's about safety. I fear that my child might not be able to control herself."

(Mother 5)

Beyond safety concerns, one mother also had to navigate new behavioural challenges related to her child's growing awareness of his own body:

"My child is growing up and starting to show sexual behaviours, which is new for me. At first, I was really worried when I saw him touching himself or playing in the water for too long in the bathroom. But the teachers and specialists reassured me that it's a normal behaviour at this age. So, I had to adjust and teach him about sexuality, self-care, and hygiene. It takes a lot of time and patience."

(Mother 7)

8.4.6.3 Next Steps in Education

Another source of distress was uncertainty regarding their child's education. Many mothers expressed concern over the limited schooling options available for children with ID, especially as their children reached the age limit for special education programs:

"I haven't really thought about where he will study next. He still can't write, even when I teach him. After finishing at Rachanukul, he just stays home because they only accept students until 15 years old."

(Mother 2)

"I am worried about finding another school for my child. Next year, when he turns 15, he will have to leave Rachanukul because of the age limit. I don't know where to send him next. Maybe he can take vocational training, but it's only occasional. I plan to talk to a Teacher to see if he can learn art and whether there's an available slot for him."

(Mother 3)

8.4.7 Summary of Navigating Through the Challenges

Mothers faced intertwined external and internal pressures: stigma, judgement, and exclusion on the one hand, and sadness, fatigue, guilt, and worry on the other. They responded by cultivating selective attention to what matters (the child's needs), positive reappraisal, and calm and non-violent discipline. Unconditional love anchors perseverance and catalyses personal growth. Advocacy was a recurrent strategy: mothers navigated complex systems to secure rights and resources, challenged exclusionary practices in everyday settings, and promoted wider social awareness to normalise participation.

Adolescence intensifies demands, requiring tailored approaches to emotional regulation, emerging sexuality, safety, and uncertain educational pathways after special school-age limits. Across these challenges, mothers adapted by continuously planning, setting boundaries, and preparing for foreseeable transitions while drawing strength from supportive networks where available. Overall, this theme shows resilience as practical, value-driven action under constraint and highlights the persistent need for inclusive community attitudes, accessible services, and clearer adolescent transition supports.

While personal resilience played a crucial role in sustaining caregiving efforts, many mothers emphasised the importance of external support. Their ability to cope was often strengthened by the presence of family, community, and social

networks, which provided both practical assistance and emotional encouragement, as discussed in more depth in the next theme.

8.5 Theme 4: Support System

Mothers shared their experiences of navigating the challenges of caregiving with the support of their family and community. From their narratives, five key subthemes emerged:

1. Single parenthood: Some mothers independently assumed caregiving responsibilities, demonstrating resilience and adaptability in the absence of a co-parent.
2. Family roles: Within families, shared responsibilities and emotional support from partners and extended relatives enhanced resilience among family members.
3. Wider Family: Mothers navigated complex family dynamics by balancing caregiving with maintaining relationships and fostering sibling understanding.
4. Social support: Many mothers emphasised the importance of community connections and social interactions. These included participation in support groups and engagement with the neighbours.
5. Challenges in accessing support: Despite the availability of support systems, many mothers faced difficulties accessing necessary resources, including limited community engagement, limited resources in urban areas, and trust issues with support systems.

8.5.1 Single Parenthood

Single mothers often expressed a heightened sense of perseverance and resilience, recognising that they must take on caregiving responsibilities without the same level of support that two-parent households may have. This reality demands extraordinary strength and endurance, as they navigate the challenges of daily life on their own:

"I feel like I have to be more patient than other parents. So much more patient because other parents might have their husbands by their side"

(Mother 1)

One mother revealed that moments of helplessness were among the most challenging emotional experiences in her caregiving journey. These feelings typically arose during critical situations, such as medical emergencies, where the lack of immediate support exacerbated her feelings of despair. She described the physical and emotional toll of these moments, along with the fear of not being able to act in time to help her child:

"I felt most helpless when my child was sick. For example, when my child had a seizure. I had no one to help carry him to the hospital. Carrying him meant taking him down from the 8th floor, and during a seizure, I was alone with my younger child who couldn't help. When I want her to carry her brother who with ID, she felt weak because she is just a little girl, and I also worried I wouldn't get my child with ID to the hospital in time. Some people suggested calling 1669 (emergency services), but waiting for them could take 30 minutes or even an hour. By that time, my child could die. That's where the helplessness comes from."

(Mother 1)

Another mother also spoke about the emotional exhaustion that caregiving brought into her life. Managing the needs of children with different behaviours and challenges was described as relentless and draining. The daily demands of caregiving often left her feeling depleted, with little time or energy to process her own emotions.

"Raising these two children with ID is extremely tiring. It makes me feel quite depressed because there are a thousand things happening in a day. Their behaviours are so different from each other."

(Mother 4)

Despite having occasional assistance from extended family members, most single mothers emphasised that they ultimately carried the full responsibility for their children's well-being. The lack of a stable co-parenting partnership often means that all major caregiving decisions and daily routines rest on their shoulders:

"Taking care of my child is something I have to do entirely on my own. I understand my child the most, and that means I must be patient and flexible in every situation. The hardest part is managing my time. Even though my younger brother helps with the family to some extent, in the end, I am the only one who provides full-time care. I have to prioritize my child above all else because he still needs more support and attention than anyone else in the house."

(Mother 7)

One mother expressed how her past struggles had prepared her for the demands of raising a child with an ID. She emphasised that her personal hardships, such as working from a young age or raising her child alone, had strengthened her ability to endure challenges:

"The driving force behind my resilience and patience in every situation is the love I have for my child. Being a mother has made me stronger. Even though my life has been filled with difficulties, working since I was young, raising my child alone after separating from his father during pregnancy. I see these obstacles as experiences that have made me tougher."

(Mother 8)

The burden of caregiving often rested entirely on the shoulders of single mothers, leaving them with no choice but to persist despite the challenges. Their narratives revealed a powerful sense of duty and unwavering commitment to their children's well-being:

"The moment I feel the strongest and most resilient as a mother of a teenager with ID is when I stand firm and fight for my child alone. The thought that keeps me going every day is: 'If I don't love and take care of my child, who will?' This is my greatest motivation to overcome every obstacle."

(Mother 8)

Self-reliance and strength were defining aspects of these mothers' experiences. Their journeys are marked by both struggle and resilience as they learn to

navigate life's difficulties with determination and a deep commitment to their child. However, these journeys were not navigated entirely by themselves. For many mothers, family support significantly shaped their caregiving experiences. The following section explores how family roles, particularly the involvement of partners, influenced mothers' ability to cope, share responsibilities, and sustain emotional balance throughout their caregiving journey.

8.5.2 Family Roles

The roles and support systems within families varied. Some mothers described meaningful support from new partners, who although not the biological fathers of the child with ID, became significantly involved in caregiving. These partners contributed both emotionally and practically, easing the burden of daily care and enhancing the mothers' overall sense of resilience and wellbeing:

"My new partner waits until my child comes home, helps with cooking, cleaning, and getting her ready for school. He is the main reason I feel stronger."

(Mother 5)

"My current partner has helped raise my child since he was three years old. He treats my child as his own, making him feel loved and secure. Not having to care for my child alone has reduced my stress and given me more strength to continue."

(Mother 12)

Caregiving was a collaborative effort, with parents dividing responsibilities to meet their children's needs. This shared commitment allowed them to balance caregiving with other demands in their lives:

"We take turns. I mostly take care of picking up and dropping off. I stay with the child most of the time, teaching and training them. The father focuses on earning a living. Together, we raise our child."

(Mother 6)

However, mothers frequently bore the primary responsibility for behavioural training, which added to their physical and emotional fatigue. Many felt unsupported by their partners, carrying the weight of teaching their children essential skills alone:

"At home, my husband doesn't really train our child. He just feeds him and dresses him instead of letting him do it himself. I'm the one who bathes him and teaches him how to do things. Lately, as my child has grown, I try to involve my husband more. So, he knows how to take care of our child. But my child still prefers that I do it."

(Mother 2)

Support from extended family members also played a pivotal role. Participants highlighted how family members, who initially struggled to understand the importance of developmental training for children with ID, eventually became key sources of encouragement. These supportive relationships often grew stronger over time as family members witnessed progress in the child's development:

"At first, my mother didn't understand why we needed to bring our child to developmental training. But when I explained that children with ID need consistent training to improve and become more self-reliant, she began to support us. Later, when she saw the improvement, she became more understanding. She now encourages us to take our child to training regularly. Even when we are far away, she calls to check in, gives us words of encouragement, or sends things for the family."

(Mother 4)

Family unity was crucial in overcoming caregiving challenges. Love, understanding, and mutual support among family members were key factors in maintaining emotional strength and resilience, as shared by one mother:

"Love, understanding, and helping each other are the heart of keeping our family moving forward happily. The warmth of our family and having a life

partner who is willing to support me are crucial factors in getting through difficult times."

(Mother 9)

A supportive partner was often described as an essential source of emotional stability and practical assistance. Mothers shared how their partners helped ease their caregiving burdens by providing encouragement and hands-on support:

"My ex-partner's parents were doctor and nurse, so financial issues were never a problem, allowing me to dedicate my full time to caregiving. My new partner waits until our child comes home, prepares meals, participates in activities, cleans the house, does the laundry, and gets everything ready before taking our child to school. I don't need to have another job. He also fully accepts my child's condition, as he is a doctor."

(Mother 5)

"My partner is my greatest source of encouragement. If he sees me exhausted or overwhelmed, he steps in to take care of our child and tells me to rest. This helps relieve my burden significantly."

(Mother 9)

One mother stressed the importance of direct involvement and quality time with her child with ID. Her active participation in daily routines and learning activities was crucial for the child's development:

"Paying attention and spending time with my child is very important. If I am present, teaching, taking care, and supporting my child closely, he will be able to adapt and develop in his own way."

(Mother 12)

Consistency in parental involvement appeared to play a major role in helping children with ID grow and gain independence. However, while family support was a major source of strength, some mothers faced pressure and emotional strain from family members who did not initially understand their struggles.

Judgement from relatives and societal expectations sometimes made caregiving even more challenging:

"I was criticised a lot, which made me want to bring my child to study outside, just like before. That way, I could leave the house every day and not have to listen to my mother's harsh words. When I stayed at home, everyone was stressed—my father, too, because he also got blamed."

(Mother 3)

For some mothers, negative family dynamics and lack of understanding could lead to stress, isolation, and emotional burden. Despite the demands of caregiving, some mothers made intentional efforts to maintain healthy relationships with their partners. Finding moments to connect as a couple was essential for strengthening their bond and preventing emotional exhaustion:

"Sometimes we find opportunities to spend time together, like having a meal alone while leaving our child with their grandmother or another family member. This helps us maintain our personal relationship and emotional connection."

(Mother 12)

This highlighted the importance of preserving strong marital relationships for some mothers amid caregiving duties. Dedicating time to their partner allowed mothers to sustain emotional balance and strengthen their support systems. Caregiving extended beyond mother-child and spousal relationships. This required ongoing coordination within the entire family unit. Mothers were often at the centre of this dynamic. The following section explores how they managed the complex task of balancing caregiving with the needs of other family members, striving to maintain harmony and well-being in the household.

8.5.3 Wider Family

This sub-theme reflects how caregiving responsibilities were negotiated and distributed across the wider family system, rather than managed solely by mothers at an individual level. Mothers described the intricate balancing act

required to provide care for their children while meeting the needs of other family members. This balance was often a delicate and ongoing process, requiring thoughtful adjustments and intentional planning to ensure the well-being of all family members.

The needs of children with ID often took precedence over other responsibilities. Mothers recognised that while other family members might need emotional support, their child with ID required constant hands-on care:

"I prioritise caring for my younger child (with ID) over anyone else because she still needs close supervision and assistance in every aspect of life. As for her older sibling, I provide support and advice rather than direct care, as she can take care of herself to some extent."

(Mother 8)

"My child with special needs requires extra attention. My husband, on the other hand, can take care of himself just fine, so there's no problem there."

(Mother 6)

Balancing caregiving responsibilities extended beyond simply prioritising children with ID. Mothers also had to manage competing demands of household tasks, work, and other family members:

"My youngest child is stubborn, and my other child with ID cries all the time. I don't even know why. It makes it impossible to concentrate. For example, if I want to focus on selling something online, I just can't. It's like my thoughts are completely blocked. Every time I try to think, I have to stop and handle arguments with my youngest child or deal with chores like washing dishes. Meanwhile, my youngest child won't do anything because she's addicted to gaming. I set a rule for two hours game time, but in reality, it turns into eight hours."

(Mother 1)

To navigate these challenges, some mothers employed various strategies to ensure that all family members felt included and valued while still providing the

necessary level of care for their child with ID. One key strategy was making thoughtful compromises to create inclusive experiences:

"I try to treat all my children equally. For example, if my eldest child wants to do something, but my youngest child has limitations, such as not being able to join an activity like eating out, I adjust. I'll buy food to bring home so everyone can participate in a way that works for them. I prioritize addressing the physical and emotional needs of each child without neglecting anyone and aim to create happiness and satisfaction for every family member."

(Mother 10)

Another important strategy was structuring time effectively to ensure that siblings did not feel overlooked while caregiving responsibilities remained intact:

"When I care for my youngest child, I try to ensure it doesn't impact the needs of others in the family. For instance, if my eldest child wants time to play or engage in activities, I organise the schedule clearly to avoid feelings of neglect. I can care for my special-needs child fully while still prioritizing the happiness and needs of everyone in the family."

(Mother 12)

These reflections illustrate the dedication and effort that mothers invest in trying to balance their caregiving responsibilities. By fostering inclusion and managing expectations, they strove to create an environment in which all family members felt valued and supported, even amid the demands of caring for a child with ID. For many mothers, connecting with others who understood their journey played a crucial role in sustaining their mental well-being. The following section explores how social support, particularly from peers in similar situations, provided encouragement and practical advice for navigating the caregiving journey.

8.5.4 Social Support

Many mothers emphasised that being part of a supportive social environment significantly improved their emotional well-being. Support networks, particularly

those formed within special education communities, helped them feel less isolated and offered practical guidance on caregiving. For example, one mother reflected on how connecting with other parents transformed her outlook and reduced the stress she had experienced in isolation:

"Before coming to Rachanukul Institute, I was deeply stressed and sad because of family problems. But after joining the community here, I met other parents, shared experiences, and realized that many had even greater challenges than mine. We exchanged tips on how to train and help our children improve. Some even gave me encouragement and shared resources like food and household items. This community has helped me a lot."

(Mother 4)

Mothers also described how these support systems fostered emotional resilience through mutual encouragement and a shared understanding. Rather than feeling judged, they found safe spaces to be open and honest and receive empathy, as reflected in these mothers' narrative accounts:

"Receiving encouragement and exchanging experiences with other parents in similar situations has been so important. Meeting other parents raising children with special needs made me feel like I wasn't alone. We exchanged caregiving methods, experiences, and even shared our struggles. It felt like making new friends who truly understood me without barriers of where anyone came from. Everyone helped each other with words of encouragement, which gave me the strength and drive to keep caring for my child."

(Mother 11)

Over time, many mothers reported a shift in mindset from attempting to manage everything independently to recognising the value of asking for help. This transformation often occurs during moments of personal crisis. As one mother shared, becoming seriously ill prompted her to rethink her reliance on others:

"When I was seriously ill, I started thinking: if I couldn't take care of my child, who would? This made me realise that relying on others is sometimes unavoidable. I began looking for backup plans, like strengthening relationships with people who might help care for my child in the future."

(Mother 7)

This reflection highlights how vulnerability led to increased openness towards building support systems, a sentiment echoed by one mother who emphasised the emotional relief in simply acknowledging the need for help:

"If negative thoughts arise, I have to pull myself back. If I need help, I should not hesitate to ask. There are people in the community or family who are willing to support us. I want to tell every mother facing the same situation. You are not alone, and don't be afraid to ask for help."

(Mother 8)

In addition to peer and family support, many mothers identified healthcare professionals as essential allies in managing the challenges of caregiving. Regular consultations were described as a cornerstone of effective caregiving, especially when dealing with behavioural or psychological problems. One mother explained:

"Regular medical visits are essential and should never be overlooked. Sometimes, the child may exhibit uncontrollable behaviour or severe symptoms, such as self-harm or aggression towards others. Consulting doctors for treatment and appropriate medication can help alleviate these issues and make caregiving more manageable. Don't be afraid to seek help from specialists."

(Mother 12)

However, while some mothers benefited from strong community and institutional support, others felt excluded or hesitant to engage with their social networks because of mistrust or cultural dynamics. For example, one mother expressed reluctance to be open and honest, even within formal parent groups:

"Other than at the special education school, I don't have anyone to talk to. My neighbours don't interact much, and even in parent support groups, I only attend training sessions. I don't feel comfortable sharing personal issues because I don't trust that they won't gossip about me."

(Mother 3)

Similarly, another mother noted the absence of supportive interactions in her neighbourhood:

"In my neighbourhood, no one really comes to talk or offer help. There's no space to express my feelings or get support. We just aren't close like that."

(Mother 6)

These experiences reflect the uneven distribution of community support, where cultural or social barriers prevented some caregivers from fully benefiting from the available resources. Social norms and local culture played significant roles in shaping mothers' feelings of safety in seeking support.

In some cases, financial support helped mothers stay home and provide consistent care for their children. As expressed by one mother, financial support from an ex-partner enabled her to prioritise caregiving and maintain a sense of stability and fulfilment in her role:

"I receive a monthly allowance of 10,000-20,000 baht from my ex-husband, depending on what is provided. While some may see this as not much, for me, it's a lot because it allows me to stay home with my child. If I had to work for 300-350 baht per day, I would only make about 9,000-10,000 per month, which wouldn't be enough. This financial aid allows me to care for my child full-time, and that is my happiness."

(Mother 1)

Similarly, another mother described how careful financial planning enabled her family to remain stable and provide care:

"We are financially stable and able to care for our child well. We live simply, following the idea of sufficiency economy. We use what we have wisely. My husband is the sole earner, so we plan carefully knowing his salary, we allocate specific amounts for our child's expenses, household costs, and transportation."

(Mother 6)

For one mother, financial security also gave her a sense of confidence and contentment, allowing her to support others in their community who might be facing greater financial hardship:

"I don't worry about what others think because we are stable. I see families struggling financially, especially at the training centre, where some parents barely have enough money for food. When I see this, I buy meals for them or help in any way I can."

(Mother 5)

While some mothers actively engaged in financial planning, others grappled with economic hardships that made such planning difficult. The daily strain of managing basic needs while fulfilling caregiving responsibilities often overshadowed financial goal:

"Having money would make things much easier because everything costs money, school transportation, food, household expenses, and taking care of my children and my mother. If I don't have enough, I can't do anything. But I'm not asking to be rich, just enough to eat, pay rent, and survive. That's all I want."

(Mother 4)

The financial burden of caregiving caused significant stress and anxiety for some mothers, who had to leave their jobs to provide full-time care, resulting in economic hardships and a loss of social connections:

"Leaving my job to care for my child was a tough decision. Not only did I lose income, but I also lost the social connections I had with my colleagues. However, I don't regret it because being with my child has helped me

understand his behaviour and needs more deeply. It has also enabled me to manage his behaviour more effectively."

(Mother 9)

Apart from financial support, special education centres such as Rachanukul were often cited as key sources of both practical and emotional support. These institutions not only offered formal services but also facilitated peer connections and problem-solving. As one mother described, the community at Rachanukul filled a critical gap in her support system:

"The community at Rachanukul is much better than my home environment. Here, we share, discuss, and solve problems together. Every family has its own struggles, and through conversations, we realise that we are not alone. We help each other find ways to cope."

(Mother 3)

Her account underscores the value of specialised institutions in creating safe and empathetic spaces for caregivers to share their experiences. For many mothers, these centres offered the kind of relational support that was missing in their families or neighbourhoods. However, not all mothers had equal access to such services, and their ability to participate often depended on their geographic location or personal circumstances. The following section examines the challenges mothers encountered, particularly in urban settings.

8.5.5 Challenges in Accessing Support

Despite access to healthcare and educational institutions, urban environments often lack community networks that can provide mothers with essential support. Some caregivers found that moving to the city resulted in a decline in community support, leaving them to manage their responsibilities with little external help:

"I moved to Bangkok when my child was four years old. Now, my child is 13, so it has been almost ten years. Since then, we've been in the city, I haven't received any support from the community at all."

(Mother 5)

Many mothers reflected on the changing nature of society, noting that traditional community values of mutual support and shared responsibility have diminished. The shift towards individualistic living, particularly in urban settings such as apartment complexes, has made it difficult for families to find compassion and assistance from their neighbours:

"In rental apartments like mine, no one helps each other. Society today is not like it used to be. Everyone stays in their own rooms, even when they see my child, they don't acknowledge him. That is when I realised. This is how people in condominiums live. When I was young, people used to help us, giving food or clothes. But nowadays, ever since the year 1997 onwards, the younger generation seems to lack manners and empathy. There's no compassion for people with disabilities anymore. Society has lost that sense of care."

(Mother 1)

These mothers described a generational and cultural shift, one where a modern lifestyle has reduced neighbourly interactions and mutual aid, leaving some caregivers feeling abandoned by the very communities they live in. This lack of empathy and shared responsibility can make mothers feel invisible, further reinforcing their sense of social isolation and loneliness.

8.5.6 Summary of Support System

Families and communities are critical buffers against caregiving strain. Support ranged from single mothers' self-reliance to shared parenting and help from partners and extended relatives, which distributed tasks, stabilised emotions, and sustained perseverance. Mothers actively balanced the competing demands of caring for a child with ID while maintaining partner relationships and attending to siblings using structured routines, inclusive compromises, and clear

time allocation. Peer networks (e.g. at special education centres) and responsive professionals provided practical tips, validation, and problem-solving spaces that reduced isolation. Where available, financial stability further eased the day-to-day pressures.

However, many faced difficulties in accessing adequate support. Some struggled with judgement from family members or felt isolated in urban environments, where community ties were weak. Single mothers shared how they relied on self-reliance, and personal coping strategies were pivotal in the absence of co-parents.

Along with family and community support, many mothers drew upon their faith and cultural traditions as enduring sources of strength, which will be discussed further in the next theme. Spiritual beliefs and practices offered comfort, guided mothers perspectives, and helped them cope with the uncertainties of raising a child with ID.

8.6 Theme 5: Holding on to Faith

Mothers shared how spirituality and cultural practices were integrated into their lives, offering them comfort, meaning, and adaptation in their caregiving journeys.

‘Holding on to faith’ is explored through three subthemes that emerged from the data analysis, which are outlined below:

1. Religion: Mothers used religious practices, such as prayer and participation in rituals, to find emotional relief and guidance in challenging times.
2. Cultural practices: Mothers adapted traditional cultural practices to suit the realities of their caregiving responsibilities, often prioritising practical needs over conventional norms.
3. Spiritual beliefs: Mothers fostered deeper personal reflection, leading to spiritual development and a redefined sense of purpose and connection with the divine.

8.6.1 Religion

Daily prayer was a common practice among mothers, offering guidance and strength. For some, it became a daily ritual that offered stability during challenging times, helping them approach obstacles with a calmer and more focused mindset. Mothers shared that prayer helped them reflect on their situations and plan their caregiving roles with greater clarity. As one mother explained:

"One of the things I do every day is pray and ask for blessings. I ask for mindfulness, good health, and solutions to challenges when they arise. These practices are not just a source of comfort but also help me reflect and plan my life better. I believe the calmness that comes from praying and making merit gives me the strength to face challenges in raising my child and makes me feel less alone."

(Mother 7)

Religious rituals, such as visiting temples and making merit (a key concept in Buddhist tradition that involves performing good deeds such as offering food to monks, donating to the temple, or engaging in acts of kindness), helped mothers find peace and emotional solace. These acts, often dedicated to karmic influences, provided relief and reinforced resilience in the face of ongoing challenges. As one mother shared:

"I go to the temple to make merit and dedicate it to any karmic influences affecting us. From what I've done so far, it has helped. It makes me feel at peace."

(Mother 3)

Many mothers described how religious activities such as praying, listening to Dharma teachings, meditating, or visiting temples played a vital role in maintaining their emotional well-being. These practices helped cultivate inner peace, patience, and a sense of hope, even when faced with overwhelming responsibilities:

"These religious practices don't just benefit my child; they also give me time to reflect on myself and regain emotional strength when I'm exhausted. They help me find hope and patience in the long-term caregiving process. I also believe that allowing my child to experience these things helps bring happiness and peace into their life as well."

(Mother 12)

For some, daily religious rituals became a structured way to manage stress and find clarity in their caregiving roles:

"What keeps me strong is Dharma. I listen to Dharma teachings and meditate every day. It helps me stay calm and see the world in a more positive light. No matter how difficult things get, I don't let anger take over, because reacting in frustration doesn't help. Instead, I choose forgiveness and focus on my role as a mother."

(Mother 11)

Religion provided mothers with a sense of control and emotional regulation, helping them cope with adversity constructively. Mothers often prayed for their children's health, development, and emotional stability, believing that divine intervention could help their children grow and improve. Temples and religious settings provided a calming space for both mothers and their children, creating an environment where they could find relief from daily stresses:

"Going to the temple helps me feel at peace and more patient. When I'm there, I always pray for my child's good health and development. Sitting in the temple's quiet surroundings allows me to relax, and my child also seems calmer and more at ease during these visits."

(Mother 9)

Religious practices were described as a form of self-care that allowed mothers to regulate their emotions and prevent burnout. Engaging in rituals such as chanting, making merit, and meditating helped them feel more grounded and capable of handling caregiving challenges:

"Religious practices help my mental state a lot. Praying and chanting calm my mind and ease my worries. They help me relax, so I don't feel overwhelmed anymore. These practices have helped me find peace in my everyday life."

(Mother 6)

Beyond personal relief, these rituals also served as a reminder of strength and perseverance, reinforcing the belief that endurance and patience are essential virtues in caregiving:

"When I have inner peace from religious practice, I become more patient and better at managing different situations."

(Mother 8)

Some mothers found comfort and mindfulness through sacred objects such as Buddha statues, images of the Emerald Buddha, or personal altars at home. These objects served as daily reminders of faith, strength, and patience in their caregiving journey:

"I have a Buddha statue and an image of the Emerald Buddha at home. I see these as reminders to stay focused and calm. When I pray, I ask for my child to develop well, to avoid harming others, and to improve in their communication skills."

(Mother 7)

Similarly, seeking divine support through prayer was a common practice among mothers, as they believed it could positively influence their children's well-being and behaviour:

"When I go to the temple, I pray for my family's health and for my child to improve in their communication and behaviour. I ask for guidance in raising my child. I believe these prayers help us in some way."

(Mother 2)

Mothers drew emotional reassurance and hope from religious practices to strengthen their caregiving abilities. Some mothers observed that their children

responded positively in religious settings. Visiting temples, engaging in merit-making activities, or simply being in spiritual environments seemed to have a calming effect on their children:

"It helps me feel at ease when I take my child to make merit and pray. When I take them into the temple, they don't act out. They seem calmer and don't have tantrums like before."

(Mother 2)

Religion appeared to not only support mothers emotionally but also influence their children's behaviour by fostering routine, stability, and emotional regulation. In addition to religious beliefs, cultural practices played a crucial role in shaping mothers' caregiving experiences. While religion offered emotional grounding, cultural traditions provided a sense of identity, continuity, and connection to the community.

8.6.2 Cultural Practices

Time limitations were a recurring factor influencing mothers' engagement with cultural practices. Many mentioned reducing their participation in regular activities due to competing responsibilities such as work and caregiving. Despite this, they made conscious efforts to uphold traditions during special occasions, finding ways to balance their multiple roles:

"Lately, we've been going to the temple less often because of our responsibilities and limited time. For example, my child's father often has to work on weekends or during festivals, so we can't go together as we used to. Even so, we still try to find time for special occasions, like the New Year, to take our child to make merit and offer alms to monks."

(Mother 9)

While cultural traditions and rituals provided moments of peace and structure, some mothers did not view them as essential guiding principles in their daily

lives. Instead, they prioritised love, patience, and understanding as the core values in their caregiving approach.

"These cultural practices help to some extent, especially in bringing inner peace, but they are not something I strictly follow as the most important part of life. I believe more in love, understanding, and the daily effort to care for my child."

(Mother 9)

Mothers appeared to view cultural traditions as supportive rather than foundational, emphasising that caregiving relies more on consistent love and practical efforts than on strictly adhering to cultural expectations.

For others, cultural practices were not only a means of preserving tradition but also a way to promote their children's learning and emotional well-being. Activities such as participating in festivals and temple visits were adapted to support qualities such as patience, routine, and emotional regulation in their children:

"During the Loy Krathong festival, my child was restless the first year, but in the following years, they began to enjoy it and engage more. They learned the process, like choosing a krathong, lighting incense and candles, and floating it on their own with little instruction. These activities not only brought happiness but also helped my child develop a sense of learning and calmness."

(Mother 12)

Mothers navigated the intersection of caregiving and cultural practices, adapting to the realities of their lives while ensuring that their children benefited from these meaningful traditions. In addition to cultural practices, many mothers found strength in personal spiritual beliefs, which added another layer of meaning and comfort to their caregiving journeys.

8.6.3 Spiritual Beliefs

Spiritual beliefs were central to how some mothers interpreted and responded to their circumstances. For example, belief in guardian spirits or sacred entities

was a source of reassurance, with mothers attributing positive outcomes to these beliefs. These beliefs fostered a sense of protection and gratitude, creating a framework through which mothers could make sense of their experiences:

"I believe in spiritual guardians, like the household spirits. Sometimes, if we fail to pay respect to them, my child might fall ill. So, I'll make amends, and my child seems to feel better afterward. At home, we have a 'kuman thong' that we worship. I truly believe it protects my child well. Ever since we started this practice, people have come into our lives offering kindness and help. Perhaps it's just the right timing or coincidence, but I believe the sacred entities I respect have brought us these opportunities and good people."

(Mother 4)

Spiritual practices, such as prayer, rituals, and seeking blessings for their children, were integral to many mothers' routines. These practices offered hope, reassurance, and a sense of emotional stability. Instead of focusing on negative energies or misfortunes, they centred their spirituality on positive intentions, reinforcing a mindset of acceptance, patience, and protection for their families:

"Besides praying and chanting, I also believe in spirits and divine beings, but I don't obsess over them. I am a simple person. I don't hold onto negative beliefs that make my mind feel heavy. When I pray, I ask for peace, good health for my family, and for my child to be a good person. I believe these prayers give me strength."

(Mother 6)

Many mothers developed a strong sense of intuition over time, believing that their spiritual connection enabled them to anticipate events related to their children's health and well-being. These experiences provided a sense of control and preparedness even in the face of uncertainty.

"I believe in my intuition. I call it my 'sense' like a signal that something is about to happen. For example, when a relative is about to pass away, I often have a dream or a feeling that warns me. The same thing happens with my

child, when they're about to get sick, I sometimes dream about them falling into water. When I wake up, I prepare by taking extra care of them, making sure they see a doctor or take medicine early. Even though I can't prevent everything, having these signs helps me feel like I am doing my best to care for my child in every way possible."

(Mother 11)

Some mothers initially turned to fortune-telling and superstition to make sense of their lives and to predict future outcomes. These beliefs offered a sense of reassurance and explanation for life's events, particularly during uncertain times:

"I used to believe in fortune-telling. When I was 21, I went to a fortune teller who used tarot cards, and he was startled by what he saw. He told me that by the time I turned 22, I would have wealth, a house, and someone from far away would come into my life. Three to four months later, I started working night shifts and met my child's father. He gave me gold, and after six months, he bought me a house just like the fortune teller predicted!"

(Mother 1)

However, some mothers described a shift in perspective over time, moving away from relying on predictions and supernatural beliefs towards a more self-empowered approach to life:

"I used to be interested in magic and fortune-telling, but as time passed, I realized that everything depends more on my own actions than on fate."

(Mother 8)

As mothers deepened their spiritual practices, many learned to let go of negative emotions such as anger, resentment, or fear. By focusing on forgiveness, acceptance, and merit-making, they cultivated a more positive and peaceful mindset, enhancing their emotional well-being:

"I believe in doing good and letting go of grudges. After my divorce, when I was deceived and lost a large sum of money, I dedicated merit to the person who wronged me. I told myself that by giving them this merit, my future would be better. And it was. I met my new husband, who is supportive and loving. I believe it was because of the merit I made. By letting go of anger and embracing forgiveness, I became more cheerful, and my relationships with others improved."

(Mother 5)

This spiritual transformation, from holding onto resentment to embracing positivity, demonstrates how spirituality serves as a powerful emotional tool for healing and building resilience.

8.6.4 Summary of Holding on to Faith

Mothers drew on religion, cultural traditions, and personal spiritual beliefs as flexible, culturally grounded resources that helped them regulate their emotions, make sense of their experiences, and sustain hope in day-to-day caregiving. Practices such as prayer, merit-making, listening to the Dharma, meditation, temple visits, and the use of sacred objects provide calm, patience, and a sense of perceived guidance. These activities also created routines and soothing environments in which some children appeared more settled, indirectly supporting the caregiving.

Engagement was selective and adaptive, as mothers adjusted cultural participation to time constraints, prioritising practical care, love, and understanding over strict adherence to ritual. Some described a shift from reliance on fortune-telling to greater personal agency. Overall, faith operated less as dogma and more as a coping toolkit that strengthened positive appraisal (acceptance, forgiveness), reinforced self-control and perseverance, and complemented rather than replaced material and social support. This spiritual-cultural foundation set the stage for the proactive, future-oriented strategies described in the next theme.

8.7 Theme 6: Forward Thinking Strategies

Mothers shared the practical strategies they used to foster growth and resilience in themselves and their children. Shaped by the unique challenges and demands of caregiving, these strategies highlighted the importance of adaptability and forward-thinking. The subthemes are outlined below.

1. Thinking about the future: Mothers made plans to ensure their child's future stability, including financial security, vocational self-sufficiency, and medical preparedness.
2. Financial preparation: Mothers made strategic decisions to ensure their child's well-being and security in the future by planning and saving for long-term care.
3. Self-care: Mothers adopted self-care practices to maintain their strength and set boundaries to avoid caregiver burnout.

8.7.1 Thinking About the Future

Mothers emphasised the critical importance of planning for their child's future, particularly considering a time when they might no longer be able to provide care. For some mothers, long-term planning involved creating opportunities for their children to develop sustainable living. These plans focused on vocational skills and activities tailored to the child's abilities and interests, enabling them to lead a productive life while maintaining a sense of stability and security:

"I'm planning to build a future for my child, such as developing jobs they can do on their own. I've started projects like fish farming, raising laying hens, and opening a small restaurant, sustainable jobs that will suit them in the future. When I'm no longer here, they'll be able to take care of themselves."

(Mother 11)

Another mother echoed a similar hope, aiming to prepare her child for adulthood through access to vocational training opportunities:

"I am already thinking about my child's future after they turn 18. I want them to have opportunities to undergo vocational training so they can develop the ability to support themselves and live a stable life."

(Mother 8)

This vision of the future was also deeply rooted in a desire to nurture the child's strengths and maximise their potential for independence:

"My goal is for my child to become as independent as possible in the future. Even though he may not be like others, I am confident that he has his own strengths, and I will support him in every way I can."

(Mother 7)

This forward-thinking approach is focused on equipping children with practical skills to enhance their self-sufficiency and integration into society. However, preparing for the future went beyond life skills and involved careful financial planning. Some mothers recognised that long-term caregiving demanded financial stability to ensure the continuity of care. The next section explores how mothers addressed financial preparation as a critical element in securing their children's future well-being.

8.7.2 Financial Preparation

One mother viewed financial preparation as a cornerstone of long-term caregiving, understanding the need to budget, save, and manage expenses to secure their child's future. Financial stability reduced stress and allowed them to provide consistent care and support:

"Preparing for her future is something we focus on. We're trying to save money to cover future expenses because we don't know how self-reliant she'll be. Our main goal is to help her become as independent as possible in the long term."

(Mother 12)

In addition to managing money, mothers also recognised the importance of preparing for their child's ongoing health and well-being. This led to deliberate

efforts regarding self-care and future medical decision-making, ensuring that their children would continue to receive appropriate support as they aged.

8.7.3 Self-Care

Some mothers recognised that their own well-being directly impacted their child's care, emphasising the importance of maintaining good health and emotional stability. They understood that staying physically and mentally strong was necessary for them to continue being effective caregivers for as long as possible:

"I try to take care of my health and avoid getting sick because if I fall, my child will be directly affected. Having good health is a fundamental necessity that allows me to have the energy to care for them."

(Mother 9)

Mothers viewed self-care not as a luxury but as a responsibility that ensures they can provide consistent and reliable support for their children.

However, one mother expressed concern about the future. Especially regarding their own health and ability to continue caregiving as they age:

"Right now, I have no health problems, but I'm worried about the future. I know I will grow older, and if I ever develop a health issue, it will definitely impact my ability to care for my child. What if one day I can't take care of them anymore? I'm afraid there will be no one to replace me."

(Mother 3)

This fear of not being able to care for their child in the long run added an extra layer of anxiety, making it difficult for mothers to find peace.

8.7.4 Summary of Forward-Thinking Strategies

Mothers adopted a proactive, future-oriented stance to secure their children's long-term stability and sustain their own capacity to care. Three interlocking practices were evident: (1) anticipatory planning for adulthood (vocational skills,

daily living competence, and medical preparedness), (2) financial preparation (budgeting, saving, and planning for potential long-term care), and (3) deliberate self-care (maintaining health and setting boundaries to prevent burnout). Collectively, these strategies transformed chronic worries about “what happens when I am gone” into goal-directed action, mobilising resources and strengthening a sense of control. At the same time, an enduring fear about the succession of care persisted, underscoring the need for structured support. Overall, this theme portrays resilience as an ongoing adaptive process that balances hope with realism and preparation with caregivers' well-being.

8.8 Discussion

This qualitative study aimed to explore the lived experiences and resilience pathways of Thai mothers raising adolescents with ID. This is the first known qualitative investigation to focus specifically on this group in Thailand. The findings revealed that resilience for these mothers is a dynamic, multifaceted, and culturally embedded process. Mothers moved from an initial emotional adjustment to their child's diagnosis, the development of diverse coping strategies, the influence of support systems, the navigation of challenges, including societal stigma, reliance on faith and cultural practices, and forward-thinking actions for their child and themselves. This discussion interprets these findings in light of the existing literature and outlines the implications, strengths, and limitations before offering recommendations for future research.

At the outset of this journey, many mothers in this study experienced profound emotional upheaval upon realising that their children had an ID. This shift is often laden with sorrow, anxiety, and a sense of loss for the future they envisioned (Dikow et al., 2019; Fernández-Ávalos et al., 2020). Over time, however, the participants also experienced caregiving as a context for personal growth. Mothers reported developing patience, emotional regulation, and a renewed sense of purpose, mirroring evidence that adversity can catalyse growth (Beighton & Wills, 2019; Jamir Singh et al., 2023; Minić et al., 2022). In this study, that growth trajectory was traceable across themes: moving from early grief toward acceptance and re-evaluating milestones (“Becoming a mother of a child with ID”), and then intentionally cultivating a positive

mindset, adapting routines, and teaching daily living skills (“Finding my way”). These accounts align with evidence that problem-focused coping and skill-building buffer stress in long-term care (Jamir Singh et al., 2023). The current study also complements parent-mediated approaches while showing how, in resource-variable settings, mothers often generate and refine techniques informally at home (Duncan et al., 2021; Koly et al., 2021; Taconet et al., 2024). This transformation underscores resilience as complex and evolving, rather than a fixed trait (McCubbin et al., 1996; Walsh, 2016). Notably, the mothers in this study repeatedly noted that strategies changed as their children’s needs evolved through adolescence, suggesting resilience as a continuous cycle of appraisal, adaptation, and evaluation.

Simultaneously, the narratives illuminated the weight of external and internal stressors. Mothers navigated social stigma and subtle exclusion while managing guilt, sadness, and exhaustion that coexisted with their deep love for their child. In this context, grief often coexists with, and sometimes deepens, unconditional love. This is consistent with Palacio et al. (2020), who posited that caregivers’ coping capacity is shaped by emotional appraisals and the support available in difficult moments. As the mothers in this study began to reappraise their circumstances through the lens of love and commitment, they appeared to shift from despair toward purpose.

With growing confidence, many mothers engage in advocacy efforts for their children’s welfare. The transition into advocacy roles often marks a significant evolution in their self-perception; what once may have felt like a solitary struggle transforms into a broader movement towards inclusion and recognition for all children with ID (Ottemöller et al., 2021). This illustrates that taking action for a child’s needs translates into broader social change. Mothers’ experiences indicate that advocacy not only serves their children but also cultivates a sense of agency, reinforcing their resilience and commitment to fighting for systemic change. Their advocacy, whether negotiating with schools, health providers, or officials, was a daily practice aimed at securing rights, resources, and dignity (Rossetti et al., 2021; Smith-Young et al., 2022). The transition to adolescence amplifies these pressures, with new demands regarding behaviour, puberty, sexuality, and service transitions (Ally et al., 2018; Betz,

2023; Ramachandran et al., 2025). This echoes the notion that transition points are particular stress peaks; in this study, mothers linked transition challenges directly to their own well-being, underscoring the need for earlier, clearer planning pathways.

Support systems play a crucial role in shaping these mothers' resilience. Consistent with the caregiving literature, robust familial and community support enhances mothers' sense of competence and capacity (Chan & Shorey, 2021). In this study, support often came from the extended family, which buffered stress. This aligns with evidence that social support strengthens resilient coping strategies (Ingersoll-Dayton et al., 2020; Kodyee et al., 2024). Conversely, single mothers described heightened perseverance despite concentrated responsibility and financial strain. Kim et al. (2023) similarly revealed that single-parent families raising a child with ID face greater risks regarding family relationships, economic stability, and legal rights compared to two-parent families. Their interview data highlighted the difficulties faced by single mothers, including the burden of sole caregiving, compromised physical and mental health, experiences of isolation and alienation, the strain of balancing employment with caregiving duties, and limited access to support services (Kim et al., 2023). In addition, mothers who experience social isolation or negative judgments experience heightened stress and a diminished sense of competence (Jones et al., 2019). These findings reflect the strong association between resilience and relational environments (Pham et al., 2010).

The mothers in this study benefited from supportive partners, family members, and communities that encouraged. This underscores the necessity of interconnectedness in fostering resilience among mothers. These accounts are consistent with studies on the direct positive effects of social support in caregiving (Chen et al., 2025; Halstead et al., 2018; Tejakum et al., 2022; Zhong et al., 2020). Hence, resilience thrives within a network of positive relationships that bolster emotional well-being.

Religion, cultural practices, and spiritual beliefs are also significant contributors to resilience in these Thai mothers, captured in the theme "Holding on to faith". Research in Thailand has highlighted that Buddhism shapes outlooks and resilience (Falk et al., 2021). For example, a qualitative study of Thai families

caring for relatives with mental illness found that caregiving was framed as an expression of Buddhist faith, an act of compassion, and a way to fulfil religious duty (Sethabouppha & Kane, 2005). The caregivers in this study maintained compassion and acceptance despite ongoing hardships, guided by core Buddhist beliefs that suffering is a natural part of life (Sethabouppha & Kane, 2005). Similarly, qualitative studies with family caregivers of older adults further show how notions of *katanyu* (filial gratitude), karma, and merit-making reframe care as a moral duty and a source of positive appraisal that can buffer stress and sustain meaning over time (Aulino, 2016; Gray et al., 2016).

Meditation is another key Buddhist practice that enhanced the resilience of the mothers in this study. Many are familiar with meditation through religious and cultural practices, making it an acceptable strategy for managing stress. Empirical support comes from Petcharat and Liehr's (2021) report that a culturally tailored mindfulness program delivered over two weekends to parents of children with ID produced significant reductions in anxiety (Petcharat & Liehr, 2021).

Conceptually, these benefits align with the self-compassion literature: mindfulness is one of self-compassion's three core components and involves holding painful thoughts and feelings in balanced awareness rather than over-identifying with them (Neff, 2003). The centrality of self-compassion in Buddhist and Eastern traditions is well documented (Cleare et al., 2018). However, the study was conducted to validate a psychological measurement scale, not to describe a specific mindfulness or meditation intervention (Cleare et al., 2018). Taken together, these strands of evidence indicate that mindfulness and meditative practices can mitigate emotional distress and enhance coping skills in Thai mothers. Through practices such as prayer, meditation, and participation in cultural rituals, mothers have reported finding comfort and clarity in the face of their challenges (Gibbs et al., 2020).

A frequently observed culturally specific pathway of Thai mothers in this study was acceptance, encapsulated in the concept of *Thum-jai*. *Thum-jai* means to "make peace in your heart", essentially to accept and let go of situations beyond one's control (Mills et al., 2019). This coping style, deeply rooted in Buddhist teachings of impermanence and non-attachment, helps caregivers

endure hardships that cannot be changed (Mills et al., 2019). This means that rather than fighting against the stress of illness or feeling anger at their circumstances. Thai caregivers often deliberately cultivate acceptance, viewing the suffering as part of life's cycle (birth, aging, sickness, death), as taught in Buddhism (Mills et al., 2019). Such acceptance is not passive resignation but an active spiritual adjustment that protects mental well-being. Studies of Thai Buddhist caregivers confirm that understanding suffering as a normal part of existence can help manage their stress more effectively (Mills et al., 2019). By relinquishing excessive worry and trusting karma or fate, caregivers achieve a mental balance that allows them to continue their duties with less distress.

Cultural practices, such as prayer and merit-making at temples, play a tangible role in helping these mothers cope. This finding aligns with evidence that Buddhist ethics and practices, including chanting, are associated with improved physical and mental health during pandemics and disasters (Bodhiprasiddhinand, 2024). Many Thai family caregivers encouraged Buddhist chant recitation (mantras) at home to uplift spirits and improve quality of life (Mamom & Daovisan, 2022). This finding resonates with studies on religious coping, which emphasise spirituality's ability to provide not only hope but also systemic support in managing life's adversities. For example, research underscores that spirituality can serve as a protective factor, enhancing emotional regulation and fostering a sense of inner peace, which is crucial when facing ongoing caregiving stressors (Hussain & Ahmad, 2021).

Similarly, mothers in this study who engaged in spiritual practices frequently described experiences of divine support that guided them through the caregiving process, demonstrating the interconnection between faith and emotional resilience. Faith emerges as a significant resource, alongside personal resolve and adaptive parenting techniques learned through experience (Simpson et al., 2020). Mothers frequently recounted using cognitive reframing to alter their emotional responses to stressful situations. This aligns with a study that emphasises the importance of finding a sense of understanding and meaning in one's life circumstances (Ojo & Rider, 2025). The mothers' ability to derive meaning from their caregiving responsibilities illustrates how resilience can be

cultivated not only through external support but also through a strong internal locus of control and a sense of coherence with their circumstances.

A noteworthy aspect of the journey towards resilience in this study is the mothers' proactive stance towards future planning. Engaging in activities such as teaching practical life skills, saving for care, or even embarking on entrepreneurial ventures illustrates a forward-thinking approach that transcends mere survival (Griffiths et al., 2011). This perspective aligns with the concept of adaptive resilience, which is characterised by the ability to prepare for future challenges rather than simply enduring the present moment (Ally et al., 2018). Such proactive measures indicate that these mothers are not just reacting to the demands of caregiving but are actively crafting a vision for their children's futures, illustrating that resilience encompasses adapting to and planning for uncertainties ahead.

While many factors identified in this thesis, such as stress, coping, and social support, are consistent with international research on mothers of children with ID, the findings highlight several features that are distinctive to the Thai context. In particular, resilience among Thai mothers was closely linked to cultural expectations of maternal responsibility, Buddhist-informed meaning-making, and an emphasis on endurance and acceptance rather than individual assertiveness. Social support operated primarily through maintaining family harmony and relational obligation, rather than explicit help-seeking behaviours commonly described in Western literature.

In addition, financial strain and debt emerged as central mechanisms influencing stress and resilience, reflecting structural and welfare differences between Thailand and higher-income countries. Together, these findings suggest that resilience in Thai mothers is embedded within cultural, religious, and socioeconomic systems that shape how adversity is appraised and managed. This thesis therefore extends existing resilience literature by demonstrating how resilience processes are culturally situated rather than universally expressed.

8.8.1 Implication of the Study

The findings have several important implications. Mental health nurses and other healthcare professionals in Thailand can use these insights to develop more culturally congruent and effective support for mothers of adolescents with ID. This includes acknowledging and validating their emotional journeys, supporting the development of adaptive coping strategies that resonate with Thai cultural values (e.g., discussions around "Thum-jai" not as passive resignation but as active meaning-making). Facilitating access to peer support networks where shared experiences can be normalised, and empowering mothers in their advocacy roles. Interventions should aim to bolster their sense of comprehensibility, manageability, and meaningfulness.

Although mothers did not always explicitly refer to “respite care”, mothers’ accounts consistently highlighted the importance of having periods of relief from continuous caregiving, often facilitated informally through extended family support. These experiences align conceptually with respite care as a mechanism for reducing stress and sustaining coping capacity. This interpretation is supported by the quantitative findings (Study 2), which demonstrated that reduced stress and increased social support were key pathways to resilience, suggesting that structured respite services may strengthen these mechanisms. The findings highlight the need for policymakers in Thailand to strengthen support systems for these families. This includes improving access to respite care, providing adequate financial assistance, investing in vocational training programs for adolescents with ID, and implementing sustained public awareness campaigns to reduce stigma and promote social inclusion. Services should be designed to be easily navigable and culturally sensitive.

For education, training programs for healthcare and social service professionals should incorporate content on the lived experiences of caregivers, the nuances of resilience in diverse cultural contexts, and strategies for providing family-centred and empowerment-focused care.

8.8.2 Strengths and Limitations

This study has several strengths. This is the first qualitative investigation to focus specifically on this group in Thailand. It provides rich, in-depth qualitative insights into the experiences of Thai mothers of adolescents with ID in their unique cultural context. The use of a native Thai-speaking researcher enhanced cultural sensitivity, rapport with participants, and the authenticity of the data. This study builds on a sequence of prior studies (Study 1: a systematic review and Study 2: a quantitative model). This allowed for a more comprehensive and contextualised understanding of resilience. Furthermore, the focus on resilience and strengths offers a balanced perspective, moving beyond an exclusive focus on burden and pathology.

However, certain limitations must be acknowledged. As with all qualitative research, the findings are not intended to be statistically generalisable. Although efforts were made to ensure trustworthiness (e.g. thematic analysis), the potential for researcher bias in the interpretation of qualitative data may exist. Participant recall bias may also have influenced their accounts of past experiences. The recruitment from the Rajanukul Institute means that participants were already connected to a specialised service. Their experiences might differ from mothers who lack such connections. Finally, the cross-sectional nature of the interviews captures experiences at a particular point in time, although the narratives often reflected longitudinal journeys.

8.8.3 Future Research

Building on the findings and acknowledging the limitations of this study, several important directions for future research arise. This study offers opportunities to deepen the understanding of resilience in the context of Thai families raising adolescents with ID. One critical way is the need for longitudinal qualitative studies that follow mothers over time. Capturing how their resilience evolves through the shifting developmental stages of their children. Such research could provide a richer, more dynamic picture of how resilience is sustained or strained over the years.

Another gap lies in the focus on mothers alone. Future studies should include fathers and other primary caregivers, such as grandparents, who often play significant roles in caregiving in Thai households. Including these voices would broaden the lens to a more holistic family perspective. Offering insights into shared and divergent experiences of caregiving and adaptation. Equally important is the need to listen to the adolescents with ID themselves. Their voices are rarely heard, yet their perspectives on life, relationships, support, and self-understanding are crucial to building truly inclusive and responsive care practices in Thailand.

Geography also matters. While this study focused on an urban context Bangkok. There is a pressing need to explore rural Thai settings, where access to services and social support networks may differ significantly. Comparative research could uncover how local environments shape resilience pathways and caregiving experiences in unique ways. In practical terms, the study's findings should inform the development and evaluation of culturally sensitive intervention programs. These interventions must be grounded in the lived realities of Thai mothers and tailored to enhance their resilience and well-being, not just in theory, but in daily caregiving.

Broader expansion of the research is also warranted. Including caregivers of children with other disabilities or chronic illnesses could help identify resilience factors that are either shared across conditions or unique to ID. This comparative approach could guide more inclusive policy and program development.

Finally, future studies should explore the specific cultural mechanisms that shape resilience. Concepts such as *Thum-jai* (acceptance) and the influence of Buddhist practices appear to play pivotal roles in how mothers cope and make meaning of their experiences. Multi-method designs could be particularly useful in unpacking how these cultural elements interact with mental health and caregiving in complex, nuanced ways.

8.8.4 Conclusion

This qualitative study has provided a nuanced understanding of the complex, dynamic, and culturally embedded journey of resilience among Thai mothers raising adolescents with ID. The findings illuminate that resilience for these mothers is not a static attribute but an evolving process. This journey commences with significant emotional adjustments following their child's diagnosis, progresses through the development of diverse and often culturally specific coping strategies such as "Thum-jai" and reliance on Buddhist faith. Critically shaped by the availability and quality of multi-level support systems. Furthermore, their resilience is forged through the active navigation of substantial challenges. Including pervasive societal stigma and barriers and this expressed through forward-thinking actions aimed at securing their child's future and their own well-being.

The mothers in this study demonstrated remarkable strength, adaptability, and an unwavering commitment to their children. Their narratives highlight an incredible capacity for love, personal growth in the face of persistent adversity. Understanding their unique lived experiences, from their own perspectives and within their specific cultural milieu, is paramount for informing compassionate, respectful, and effective support. This qualitative inquiry underscores the value of listening to these voices, not only to acknowledge their agency and resilience but also to recognise the ongoing societal and responsibilities to create environments where these mothers and their children can truly thrive.

Chapter 9 Final Discussion

This chapter discusses the findings of the three PhD studies at the interpretive level to develop a comprehensive understanding of resilience in Thai mothers of adolescents with ID. It contextualises these findings with current research on maternal resilience, the Thai cultural context, and the support systems available to families of children with ID in Thailand. The chapter also explores the broader implications for theory, clinical practice, policy development and community services aimed at improving the well-being of mothers and families affected by caregiving an adolescent with ID.

9.1 Final Conceptual Model of Resilience in Thai Mothers of Adolescents with ID

The final conceptual model in Diagram 8 presents an expanded conceptual model of resilience in Thai mothers of adolescents with ID, building on McCubbin's Resiliency Model of Family Adjustment and Adaptation. While retaining the core structure of stressors, resources (appraisal, social support, coping), and adaptation, the model extends existing frameworks by explicitly incorporating cultural and religious resources, forward-thinking strategies, and advocacy as dynamic components of resilience in Thai context. This model serves as a theoretical framework for integrating insights across the three studies.

Study 1 (Systematic Review) synthesised 27 studies to identify key factors associated with parental resilience, highlighting both personal (e.g. coping strategies, perceptions, and self-efficacy) and contextual (e.g. social support, socioeconomic factors, and cultural beliefs) factors that enable parents to adapt. Study 2 (Quantitative Study) built on these insights by testing a model in a cross-sectional survey of 173 Thai mothers, examining how factors such as stress, social support, coping strategies, and appraisal of the child's ID relate to maternal resilience. Study 3 (Qualitative Study) explored the lived experiences of 12 mothers through in-depth interviews, allowing nuanced themes to emerge (e.g. journeys of acceptance, coping through faith, advocacy for their child, and planning for the future). These qualitative narratives humanised and

contextualised the quantitative trends, offering rich descriptions of “how” and “why” certain factors influence resilience.

Together, the three studies were sequentially and synergistically linked: the systematic review informed the survey’s choice of variables, the quantitative findings identified patterns that qualitative enquiry could explain, and ultimately, all three sets of findings were integrated to provide a comprehensive understanding of maternal resilience in this Thai context. From this integration, a final conceptual model of resilience was developed.

The integration process involved identifying recurring patterns and thematic elements from each study and mapping them onto the components of McCubbin’s model. For instance:

(1) Stressors and demands reflected the severity of the child’s ID, daily caregiving challenges, financial strain, and experiences of social stigma, which emerged as core stressors across the studies. These cumulative demands, if unbuffered, were associated with heightened stress, burnout, and isolation indicators of maladaptation (Study 1,2, and 3).

(2) Several resource domains were found to play protective and moderating roles: cognitive appraisal processes, such as mothers’ perception of their child’s condition (Study 1,2, and 3), acceptance vs. denial, and positive reframing, were crucial in shaping coping responses (highlighted in Study 3). Coping strategies, including problem-solving, emotional regulation, self-efficacy, and self-care, were significant mediators of the impact of stressors (Study 1,2, and 3). Social support from extended families and community actors (e.g. religious institutions and disability services) (highlighted in Study 3) buffered stress and promoted positive functioning. Cultural and religious resources, including Buddhist beliefs, spiritual practices, and cultural norms of endurance and self-sacrifice, moderated both cognitive appraisal and emotional adjustment (Study 3). Forward-thinking strategies, such as future planning and advocacy for their children’s rights, demonstrated proactive resilience building (Study 3).

(3) The integrated findings support a continuum of outcomes ranging from maladaptation (elevated stress, burnout, and isolation) to positive adaptation,

including lower stress, personal growth, and improved family functioning. These outcomes reflected the varied resilience trajectories among mothers, depending on how they interpreted, managed, and responded to ongoing caregiving demands (Study 1,2, and 3).

By applying McCubbin's model, the researcher systematically organised the diverse findings, demonstrating how Thai mothers' resilience is shaped through a dynamic interplay of stress, support, and adaptive responses. This integration underscores the importance of a culturally attuned, systems-based approach to understanding and supporting resilience in families with children with ID.

This conceptual model (Diagram 8) draws from McCubbin's Resiliency Model and the finding from the current study. Core elements derived directly from McCubbin's model are now explicitly labelled and visually differentiated, while factors identified through the current study are overlaid onto the model with yellow clearly marked as study-specific contributions. This study is an original synthesis of empirical evidence obtained from Thai mothers of adolescents with ID. Specifically, the current model highlights culturally nuanced factors that are not fully represented in earlier theoretical frameworks, such as the role of Buddhist spiritual practices and the significant influence of extended family and community support systems. This model emphasises resilience as a dynamic interplay between internal resources, external support, coping strategies, cognitive appraisal, and culturally specific adaptations identified through multi-method findings.

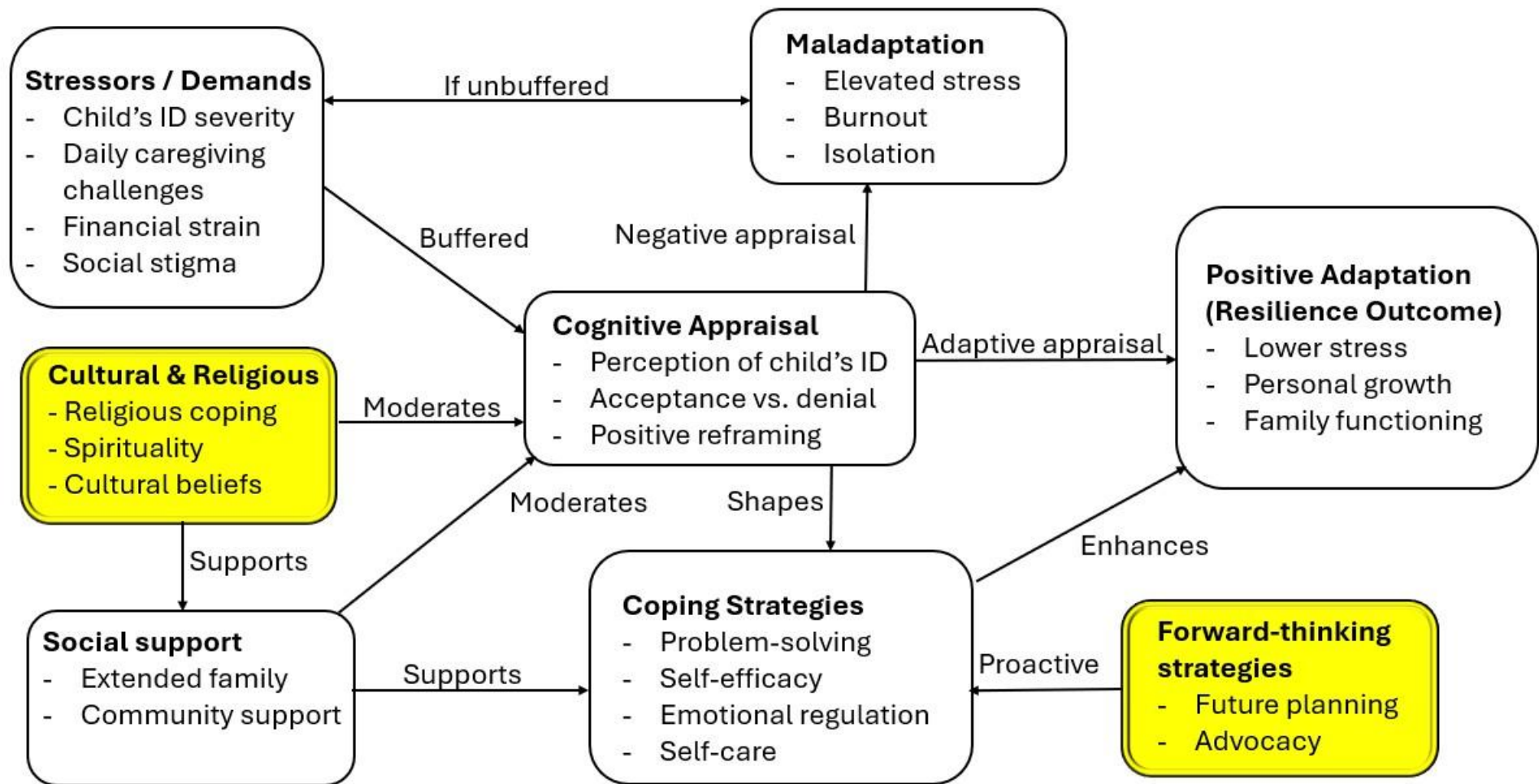


Diagram 8 Conceptual Model of Resilience in Thai Mothers of Adolescents with ID

9.2 Main Findings Across the Three Studies

This section summarises and integrates the key findings from the three studies, organised according to the dimensions outlined in the final conceptual model of resilience presented in Section 9.1. The main integrated findings (from Studies 1, 2, and 3) include the following:

- (1) Stressors and demands, such as caregiving challenges, erode the resilience of caregivers. However, it sometimes spurred positive adaptations.
- (2) Cognitive appraisal of a child's ID significantly influenced their resilience.
- (3) Social support and coping strategies are protective factors that bolster maternal resilience.
- (4) Cultural and religious factors play a prominent role in the resilience of Thai mothers.
- (5) Forward-thinking strategies are new coping strategies for Thai mothers to adopt.
- (6) Resilience is a dynamic process manifested in daily life rather than a fixed trait.

These key findings are discussed in the following section to show how they contributed to the evidence.

9.2.1 Stressors and Demands

All three studies (Study 1, Study 2, Study 3) underscored that raising an adolescent with ID involves substantial stress and challenges, which can test the mother's resilience. Consistent with the literature on caregiver burden, higher stress levels were associated with lower resilience (Singh & Kumar, 2022). In the quantitative study (Study 2), stress emerged as a pivotal negative influence on resilience (with a strong direct effect). Multiple factors were found to elevate

mothers' stress levels: higher financial strain (e.g. being in debt), greater severity of the child's disability, and a more negative appraisal of the child's condition, all of which showed significant positive effects on stress.

These findings mirror the established literature that caregivers under economic hardship or dealing with more severe impairments report higher stress (Chiu et al., 2013; Gusrianti et al., 2018). The qualitative results (Study 3) corroborated these stressors and described their natures. In Theme 3 (Navigating through the challenges), mothers spoke about a range of external and internal challenges that caused them distress. For instance, many described facing societal stigma and discrimination, such as community members avoiding or making derogatory remarks about their children.

These experiences often led to feelings of hurt, anger, or discouragement. Similarly, a study in other Asian contexts (China) found that stigma or "loss of face" concerns contribute to high psychological distress among caregivers (Chiu et al., 2013). This aligns with the quantitative finding (Study 2) regarding "negative perception of ID," since societal negativity can contribute to a mother's own negative appraisal of her child's disability (indeed, stress was strongly correlated with perceiving the child's condition more negatively). This finding aligns with prior studies highlighting the role of mindset. Hsiao and Van Riper (2011) noted that families who appraise their child's condition in a more positive or accepting light show better family functioning and less distress, whereas negative appraisals can intensify stress. However, the qualitative study (Study 3) extends these findings by highlighting culturally specific forms of stigma and their impacts, underscoring the necessity of explicitly addressing cultural factors within resilience frameworks (as shown in Figure 9.1).

In addition, the internal struggles mothers reported, such as self-doubt, guilt, and emotional exhaustion, also tie into the concept of stress as captured in standardised measures. These women often felt immense pressure as the primary caregiver responsible for their child's well-being, which sometimes led to burnout or feelings of being overwhelmed (one mother described the caregiving demands as "relentless and draining" when managing multiple children's needs). The qualitative study (Study 3) thus puts human faces on the stress construct, illustrating the kinds of chronic strains (stigma, burnout,

financial worry, and health concerns) that underlie elevated stress scores in the quantitative study (Study 2).

A particularly poignant challenge highlighted in all three studies (Studies 1, 2, and 3) was the financial and practical strain many families faced. Quantitatively, nearly 40% of the sample reported being in debt, and the level of debt was associated with stress. This aligns with evidence from the systematic review (Study 1) that economic hardship can deeply strain caregivers' well-being. For example, (John & Zapata Roblyer, 2017) documented that financial burdens (such as having to quit jobs or pay out-of-pocket for therapies) lead to significant parental stress and erode family resilience. Likewise, low-income families of children with ID often experience greater strain and lower adaptive capacity than those with more resources.

Qualitatively (Study 3), mothers frequently mentioned worries about money, from daily expenses to long-term financial security, as an ongoing stressor. This was further compounded for those who were single mothers or had to stop working to care for their child, thereby reducing household income (Kim et al., 2023). Another challenge is related to the severity of a child's disability. Parents of children with severe ID experienced significantly higher stress than those with mild ID (Rajan & John, 2017). The quantitative study (Study 2) showed that having a child with severe or profound ID (as opposed to mild/moderate ID) was associated with higher maternal stress and a more negative perception of the disability. Qualitative narratives support this: mothers of children with more intensive needs recounted greater caregiving burdens (e.g. constant supervision for health issues, difficulty managing challenging behaviours) and often more frequent encounters with stigma. For example, some neighbours or school staff assumed very low capabilities or problematic behaviour from children with more visible or pronounced disabilities. These mothers had to continuously advocate for their children's basic inclusion and appropriate services, which was stressful and tiring.

Despite the heavy load of stressors, the integration of findings also shows that many mothers actively develop resilience in response to these challenges. Qualitatively (Study 3), even as mothers narrated their hardships in Theme 3 (Navigating through the challenges), they also described the sources of strength

and determination that arose because of those hardships. One striking insight was that unconditional love and advocacy helped mothers cope with external challenges. Many mothers said that their deep love for their child fuelled their perseverance through difficult moments and reinforced their commitment to caregiving. This love became a form of emotional resilience, transforming feelings of despair into resolve. For instance, when facing discrimination, instead of becoming defeated, some mothers became more determined to advocate for their child, to “prove” to others that their child could learn and thrive. Mother 3’s account exemplified this, as she turned others’ doubts and negative judgments into motivation to help her child progress. In essence, the experience of stigma ignited an advocacy response, which is a positive adaptation not captured by quantitative measures (Study 2).

The qualitative data (Study 3) thus add a transformational perspective: stressors can, for some mothers, become “activation triggers” for resilience through advocacy and fighting for rights (Theme 3 subtheme: Advocacy for rights and resources). This complements the quantitative results by suggesting that resilience is not merely the absence of stress, but often the result of successfully confronting stress. Advocacy and social action are difficult to measure, but they are certainly expressions of resilience, as McCubbin et al. (1996) family resilience model calls “bonadaptation” outcomes, such as engaging with the community in a positive way.

Previous studies have similarly observed that parents of children with ID often become adept advocates and report personal growth (e.g. increased confidence and skills) as a result of navigating adversity (Beighton & Wills, 2019; Dykens & Lambert, 2013; Rajan & John, 2017). For example, Beighton and Wills (2019) found in a review that many parents reported personal growth, such as increased assertiveness or empathy, as a result of raising a child with ID. Dykens and Lambert (2013) also noted that mothers of children with autism and ID, while highly stressed, often become extremely knowledgeable and strong advocates for their children’s needs, effectively turning stress into positive action. These examples illustrate that resilience can involve harnessing stress not in the sense of denying it but in using the adversity as fuel to develop new strengths or to drive change.

9.2.2 Cognitive Appraisal

The multi-method integration provided particularly valuable insight into the role of cognitive appraisal in how mothers perceive their child's disability in the resilience process. In a systematic review (Study 1) and a quantitative study (Study 2), "perception of ID" was found to be a significant factor. A more negative perception (e.g. seeing the child's condition pessimistically) was associated with higher stress and, through that pathway, with lower resilience. Interestingly, Study 2 (Quantitative study) showed that negative perceptions had a direct positive link to coping. In other words, mothers who acknowledged more negative aspects or difficulties tended to engage in more coping efforts. This somewhat counterintuitive finding requires elaboration. The qualitative data (Study 3) help make sense of this by revealing the complex journey of acceptance and the dual nature of appraisals.

The emotional trajectory reported by the mother's initial shock, grief, self-blame, and eventual acceptance is well-documented in the literature on parenting children with ID (Morgan et al., 2023). Receiving a child's diagnosis is often described as a "crisis event" that triggers acute shock, denial, anger, and sorrow (Morgan et al., 2023). Similarly to Study 3 (qualitative study) in Theme 1 (Becoming a mother of a child with ID). Mothers described their emotional journey towards acceptance of the diagnosis. Initially, many experienced shock, grief, or self-blame upon learning about their child's disability. A phase of very negative appraisal (e.g. "Why my child? Is it my fault?" were common early questions, even tied to spiritual attributions).

Over time, however, most mothers worked through these feelings and embraced their children's abilities and worth. Acceptance here meant letting go of unrealistic societal expectations and appreciating the child for who they are, which in turn alleviated some of the emotional difficulty. One mother noted that accepting her child fully "enabled [her] to find strength in [the] child's progress and draw motivation from even the smallest achievements". This process of acceptance aligns with research showing that moving past denial and grappling with reality is a crucial turning point for healthier adjustment (Mohan & Kulkarni, 2018). Accepting a child's condition has been identified as a key resilience factor that enables constructive coping (Mohan & Kulkarni, 2018).

Mohan and Kulkarni (2018) emphasised that a mother's acceptance of her child's ID is "important for coping" and allows continued caregiving with a more positive outlook. Thus, the qualitative (Study 3) theme of "Becoming the mother of a child with ID" with its journey from anguish to acceptance mirrors the commonly observed stages of parental adaptation in the broader literature.

This qualitative study (Study 3) illustrates that a positive, accepting appraisal of a disability can be a powerful enabler of resilience. It reduces chronic stress (since the mother is not constantly fighting or regretting the situation) and allows her to focus on constructive coping (such as planning for the child's needs). This aligns with family adaptation theory (McCubbin & Patterson, 1983; McCubbin et al., 1996; Patterson, 1988), where appraisal of the stressor (in this case, seeing the disability in a manageable way) is crucial to the outcomes. Indeed, mothers who achieved acceptance often spoke of feeling more at peace and seeing their child's value rather than only their deficits, which likely correlates with lower stress and better well-being. The literature supports this; positive reframing of a child's disability and perceiving benefit or meaning in the experience have been linked to lower parental distress and higher resilience (e.g. parents who come to see their child as bringing new purpose or strengthening the family) (Mohan & Kulkarni, 2018; Singh & Kumar, 2022).

In contrast, the qualitative study (Study 3) also reflected that persistent negative appraisals can act in some cases. Mothers who remained very worried or saw their child's future as miserable often responded by seeking more help or training for their children (Kim & Chung, 2016). Essentially, their anxiety drove them to cope actively with their condition. For instance, a mother who felt her child was falling far behind (negative appraisal) might double down on teaching skills or securing therapy (active coping). This provides a plausible explanation for the quantitative study (Study 2), where a "negative perception of ID" was linked to enhanced coping efforts. As noted in Chapter 6, a more critical perspective on the situation can serve as a motivator for problem-focused coping.

One qualitative example (Study 3) is the mother who said that others' scepticism (and, presumably, her own realisation of her child's challenges) pushed her to work hard to help her child progress. Another mother acknowledged that

accepting reality, which included recognising the serious limitations her child had, forced her to plan more carefully for the future and seek out every available resource. Mothers in a study similarly reported that embracing their child's reality, rather than continually asking "why me?" Eventually, this brings a measure of peace and emotional stability (Morgan et al., 2023). This suggests that realism (even when "negative"), coupled with proactive coping, may lead to better preparation for the future. Trute et al. (2007) found that parents' interpretations of disability (both positive and negative) were significant predictors of adaptation. Specifically, a more negative appraisal of the child's condition was associated with poorer long-term family adjustment and lower parental self-esteem (Trute et al., 2007). This nuanced insight suggests that while a positive perception/acceptance seems healthier, a certain degree of problem recognition is necessary to mobilise coping.

Mothers who were overly optimistic or in denial early on eventually had to confront difficulties in adapting effectively. Thus, integration reveals a dynamic balance in cognitive appraisal. Acceptance and optimism sustain emotional well-being, whereas critical realism can drive practical coping actions. An overly negative outlook is harmful if it leads only to despair (high stress, low resilience); however, when channelled into determined coping efforts, it can paradoxically contribute to resilience (by prompting the mother to seek solutions). This interpretation is supported by Bonab et al. (2017), who found that negative perceptions of caregiving can motivate caregivers to seek new coping strategies to reduce their burden.

Mothers who can redefine the situation in a more positive or manageable light tend to show better well-being. One study observed that positive appraisal predicted better early adjustment in mothers and was linked to enhanced self-esteem (Trute et al., 2007). In line with family resilience theory (the Double ABCX and Resiliency models), it appears that "perception of the stressor" (how the child's ID is perceived) is a crucial component influencing whether families move toward maladaptation or bonadaptation (McCubbin & Patterson, 1983; McCubbin et al., 1996)

Similarly, qualitative data (Study 3) showed that most mothers ultimately strive for a balanced or positive appraisal. That is, acceptance of the disability

combined with recognition of their child's strengths and potential. Many mothers described reaching a point where they acknowledged the challenges but no longer viewed their children's disability as a disaster or a punishment. Instead, they emphasised their child's small victories and unique qualities. This constructive appraisal was often a "driving force in their caregiving journey", providing motivation to continue working for their child's wellbeing. It also extended outwards, with mothers becoming advocates for the social acceptance of people with disabilities (calling for communities to value their children as individuals with worth, not to pity or exclude them). By advocating for societal acceptance, mothers reinforced their positive appraisals, effectively pushing back against the negative perceptions that caused stress. This is a powerful elaboration of the topic.

Cognitive appraisal, particularly the transformative process from negative appraisal to acceptance, aligns with McCubbin's Resiliency Model (McCubbin et al., 1996). Acceptance emerged as a central process underpinning resilience among Thai mothers of adolescents with ID. Rather than representing passive resignation, acceptance functioned as an active cognitive and emotional appraisal that reduced distress, facilitated adaptive coping, and supported long-term endurance. Informed by Buddhist beliefs and cultural expectations of caregiving, acceptance enabled mothers to reframe disability as a permanent life condition and to sustain caregiving efforts over time. These findings suggest that acceptance plays a foundational role in resilience processes in this context, particularly in the management of chronic, lifelong caregiving demands.

Moreover, resilience is not only about adapting internally but also about actively reshaping external perceptions of the self. Advocacy efforts (from Theme 3, sub-theme advocacy for rights and resources) to promote inclusion and understanding can be seen as mothers attempting to change the social context to be more favourable for their children and themselves. In doing so, they address one source of stress (stigma) at its root. Essentially, it is an external coping strategy targeting societal attitudes. This finding is consistent with McCubbin's Resiliency Model of Family Stress, Adjustment, and Adaptation (McCubbin et al., 1996), which includes outcomes of bonadaptation, such as family advocacy and community engagement, as signs of resilience. In this study,

mothers' advocacy can be viewed as an outcome of successful adaptation (resilience) and as a continued coping mechanism to ensure better future conditions for their child.

9.2.3 Social Support and Coping Strategies

One of the findings was the importance of social support and coping strategies in bolstering maternal resilience. The systematic review (Study 1) had highlighted social support as a crucial resilience factor in parents, with support networks (family, friends, professionals) were more likely to adapt well. This aligns with the literature identifying social support as a key resilience factor for parents of children with ID (Broll et al., 2025; Peer & Hillman, 2014). The quantitative analysis (Study 2) confirmed this pattern, showing that mothers who perceived stronger support networks experienced significantly lower stress and were better able to cope with caregiving demands. In turn, both lower stress and better coping were linked to higher resilience. These findings align with a large body of literature identifying social support and adaptive coping as key protective factors for parents of children with ID (Bayrakli & Kaner, 2012; Ben-Zur et al., 2005; Peer & Hillman, 2014). For example, Peer and Hillman (2014) noted in a review that strong social support networks help parents maintain emotional stability during stressful times, and positive coping and optimism enable them to manage ongoing challenges effectively. Higher social support is associated with greater problem-focused coping and resilience in families with children with ID (Bayrakli & Kaner, 2012).

Qualitative narratives (Study 3) illustrate how these protective processes manifest in daily life. In Theme 2 (Finding my way), the mothers described various adaptive coping mechanisms and sources of inner strength that enabled them to persevere in caregiving. They spoke of maintaining a positive mindset ("refusal to give up"), actively adapting to their child's needs by learning new skills and routines and seeking ways to improve their situation incrementally. This optimistic and proactive attitude mirrors the concept of resilient coping identified in the quantitative study (Study 2). Indeed, many mothers emphasised optimism and finding "small joys every day," believing that their own emotional state influences their child's emotional state.

This complements the systematic review (Study 1) and quantitative findings (Study 2) that coping contributes to resilience by showing the real-world expressions of coping: for example, “even on stressful days, we try to smile and laugh...if we are stressed, she will sense it” (code from Study 3). Such testimony underscores how an optimistic coping style, analogous to what the literature calls positive reappraisal and meaning-focused coping, helps maintain maternal resilience (Peer & Hillman, 2014). The systematic review (Study 1) similarly found that problem-focused coping and related skills (problem-solving, effective communication, etc.) were strongly associated with higher parental resilience. For example, Rajan et al. (2018) reported that parents who engaged in proactive problem-solving and had an internal locus of control exhibited greater resilience than those who coped with stress passively

Notably, some mothers explicitly framed their perseverance as a purpose-driven mission, often motivated by their love for their child and hope for their future. This internal drive is a qualitative nuance that enriches the statistical link between coping and resilience: beyond just a skill, coping for these mothers is fuelled by deep emotional bonds and goals, such as “doing our best for our child” and “never giving up”. This finding resonates with studies showing that a sense of purpose or meaning can sustain long-term caregivers through adversity (Peer & Hillman, 2014).

In parallel, social support emerged as a vital external resource in both strands. Quantitatively, social support not only reduced stress but also indirectly boosted resilience by facilitating coping. Qualitatively, Theme 4 (Support System) revealed the multifaceted nature of support in the Thai context. Mothers credited family members (spouses, parents, siblings) with sharing caregiving duties and providing emotional encouragement, which “helped ease the challenges of daily care”. The extended family involvement observed in the model (Figure 9.1) suggests a broader conceptualisation of social support within the Thai cultural context, challenging existing Western-centric frameworks.

In particular, those in extended families benefited from a cultural tradition in which relatives assisted in raising children with ID at home (Vorapanya & Dunlap, 2014). This cultural norm in Thailand, where extended families traditionally work together to support the parents of children with ID, reinforces the

quantitative findings (Study 2) by showing why most mothers report having at least some support. This also reflects prior research noting that, in collectivist cultures, familial support is a critical resilience factor for caregivers (Vorapanya & Dunlap, 2014). Furthermore, mothers spoke about community and peer support, such as participating in parent support groups, connecting with other parents at the clinic or school, and receiving kindness from their neighbours. These community connections reduced isolation and provided practical knowledge (e.g. sharing advice on therapies or services), echoing the notion that informational and emotional support from peers can bolster parental coping. Such qualitative details (Study 3) elaborate the statistical construct of “social support”, demonstrating that it encompasses not only emotional comfort but also tangible help (e.g. babysitting, financial aid) and a sense of belonging.

Simultaneously, the challenges and gaps in support identified qualitatively (Study 3) provide complementary insights into this positive quantitative link (Study 2). Several mothers, especially those who were single, widowed, or separated, highlighted difficulties in accessing support (Theme 4 subtheme: Challenges in accessing support). They recounted moments of acute helplessness when no help was available for example, a single mother struggling alone to get her seizing child to the hospital. These accounts emphasise that not all mothers in the study enjoyed robust support, and that support needs may be unmet in critical moments. This nuance may explain some of the variance in the quantitative data (Study 2) (e.g. why social support had a modest effect size on stress). Some mothers have strong networks, but others remain isolated or face barriers even in a family-centric culture. Therefore, multi-method integration highlights that social support is a key resilience resource, but its availability is uneven, suggesting the need for interventions to reach mothers who lack adequate support.

9.2.4 Cultural and Religious

One area where the qualitative findings added a completely new dimension to the quantitative model is in the role of religion and spirituality in coping. Given that 95% of the participants were Buddhist (with a few Christians and others), the quantitative data noted this homogeneity but did not directly examine religious coping beyond perhaps recording religious association. The role of

religion in these mothers' lives is very different from the assumptions made about religion in disability studies in the Global North, which heavily privileges contemporary, seemingly secularised societies (Blackie et al., 2025). Within this paradigm, religion is frequently cast in a negative light and stereotyped as a monolithic force that separates people as "abnormal" and oppresses those with disabilities (Blackie et al., 2025). This bias is built on a secular, modernist assumption that religion is a "backward" superstition that will naturally disappear as people become more economically advanced (Goodley et al., 2012). Consequently, mainstream disability scholars often discount the significance of religious beliefs in shaping the perceptions and experiences of disabled people and their caregivers (Blackie et al., 2025).

However, the study's findings are relevant to other contexts. Religion and theology are central ways that many people make sense of the world and their own place within it (Imhoff, 2017). Through their faith, individuals often find the strength to manage their pain, utilising a "positive framing" that makes their circumstances feel less distressing and gives them a greater sense of control (Imhoff, 2017). In the Indian context, the Hindu doctrine of karma frequently induces an attitude of "tacit acceptance" regarding physical disability (Goodley et al., 2012). Rather than just passive resignation, this spiritual belief can keep a person's faith in a "just world" intact, helping them to understand their own angst and allowing a sense of both "desolation and hope" to be entertained together (Goodley et al., 2012). The systematic review (Study 1) and qualitative interviews (Study 3) (Theme 5: Holding on to Faith) revealed that spirituality and cultural practices were deeply integrated into many mothers' resilience processes. The mothers shared their engagement in religious practices. Daily prayer, chanting, attending temples, and making merit (doing good deeds) provided them with comfort, guidance, and a sense of peace. Numerous studies have identified spirituality and religious coping as common and effective strategies for parents of children with ID (Karaca & Konuk, 2021; Vorapanya & Dunlap, 2014). For instance, Karaca and Konuk (2021) reported that Turkish mothers frequently used religious practices (e.g. prayer and reading holy texts) to cope with the stress of raising a child with DD. Large-scale studies in the US, Europe, and the Middle East have likewise found that spiritual faith is among the

most widely used coping resources for parents of children with disabilities, often associated with finding meaning, hope, and emotional comfort (Pandya, 2017).

In the qualitative findings (Study 3), mothers who drew strength from faith or viewed their child as bringing purpose echoed what the literature calls positive appraisal or meaning-making (Karaca & Konuk, 2021). This showed that parents who can find positive meaning in their caregiving journey, seeing the child as a “gift” or believing caregiving is part of a divine plan, tend to report better adaptation and resilience. Moreover, the participant found comfort in performing merit-making rituals and believed that it positively influenced her situation, helping her find peace with her child’s condition. These practices can be interpreted as forms of religious coping both emotion-focused coping (soothing anxiety through prayer, gaining hope through faith) and meaning-focused coping (making sense of the hardship via spiritual beliefs).

This qualitative insight (Study 3) aligns with the literature noting that many mothers of children with DD turn to religion and spirituality as coping mechanisms to adjust to ongoing changes and stress (Karaca & Konuk, 2021). Mothers in such situations often use religious faith to reduce anxiety and find solutions, indicating that spirituality can buffer stress and enhance adaptation (Çaksen, 2025; Karaca & Konuk, 2021). In the qualitative study (Study 3), the cultural context of Thailand (a predominantly Buddhist society) was particularly relevant.

Buddhism teaches about suffering, compassion, and karma, which likely shapes how mothers interpret their children’s disabilities and their roles. Some mothers mentioned karma or spiritual reasoning, believing that their caregiving and merit-making could improve their child’s circumstances. In Thai culture, disability is sometimes viewed through a karmic lens (consequences of past-life actions) (Vorapanya & Dunlap, 2014). This can have a double-edged effect on the results. On the one hand, it might lead to stigma or fatalism (as disability is seen as “deserved” by past karma) (Vorapanya & Dunlap, 2014), but on the other hand, Buddhist practice offers a path to cope (through acceptance of suffering as a part of life and through accumulating merit to improve one’s karma).

The qualitative findings (Study 3) suggest that these mothers leaned on the constructive aspects of their faith in God. Many did not dwell on the question of cosmic “why” (which could induce guilt) but instead focused on practical spirituality, using prayer and ritual to gain patience and hope. The subtheme of cultural practices in Theme 5 noted that mothers sometimes adapted traditional practices to suit their needs, prioritising caregiving over strict observance when necessary. This indicates a flexible and utilitarian use of religion. It is a tool for coping rather than a rigid doctrine.

By integrating this with quantitative understanding, the researchers found that religious coping likely enhances other resilience factors. For instance, participating in a faith community can be a form of social support (temple communities or church groups may provide emotional aid or material help). Personal faith can bolster a positive mindset and feelings of being supported (Skinner et al., 2001), giving mothers a sense of “I am not alone, a higher power supports me” or framing their struggle as spiritually meaningful. It can also assist in cognitive appraisals. A mother might interpret her child’s condition as an opportunity for spiritual growth or as a test of her strength, rather than as a meaningless misfortune. Although Study 2 (quantitative study) did not measure these dimensions, Study 1 (a systematic review) and Study 3 (qualitative study) and supporting literature (Karaca & Konuk, 2021) suggest that religious coping is an important complementary resilience factor for many Thai mothers.

Buddhist spiritual practices expand upon McCubbin’s conceptualisation of coping as primarily psychological and emotional processes. This culturally grounded coping strategy demonstrates the need for resilience models to incorporate culturally specific forms of coping and adaptation (Diagram 9.1). This highlights the cultural context in Thailand, where Buddhism and spiritual beliefs are interwoven with daily life and likely serve as an enduring source of strength for caregivers. Any comprehensive understanding of resilience must include this facet.

9.2.5 Forward-Thinking Strategies

Another area where the qualitative findings extended beyond the systematic review (Study 1) and the quantitative results (Study 2) is mothers proactive

planning for their children's future. The quantitative study (Study 2) focused on psychosocial factors (stress, support, coping, etc.) affecting current resilience. It did not explicitly capture future-oriented behaviours or worries (aside from indirectly through stress or perhaps an item on a scale).

However, Theme 6 (Forward Thinking Strategies) in the qualitative chapter revealed that planning for the future is a major component of these mothers' resilience and caregiving approaches. Mothers discussed "thinking about the future" as a conscious strategy. For instance, mothers may plan for their child's adulthood by teaching vocational skills, arranging future living situations, or ensuring financial security. This aligns with existing research suggesting that engaging in concrete future planning can alleviate anxiety (Yip et al., 2024).

Conversely, many families delay or avoid such planning, and fewer parents of children with ID have made formal long-term care plans for their children's adulthood (Petriwskyj et al., 2017). The subthemes included financial preparation and self-care, as well as planning for the child's independence. This indicates that resilient mothers do not just cope day-to-day but also actively anticipate and prepare for long-term challenges.

Common barriers include the emotional difficulty of caregiving and lack of appropriate services or financial resources (Resch et al., 2010). This echoes the qualitative finding that while mothers worry about adult services, guardianship, and finances for their child's future, resilient mothers took action by starting small businesses for the child and arranging vocational training. One mother gave an example of starting small businesses (fish farming, a restaurant) that her child could take over in the future to have sustainable work.

Another was arranging vocational training after the child finished school. These proactive steps demonstrate preparation and hope. Mothers work towards a future in which their children can thrive, even when the mothers might no longer be around. This forward planning is a facet of resilience often noted in studies of aging parents of children with ID; concern for "what will happen when I am gone" can be a significant stressor (Gordon & Bila, 2023; Mkabile et al., 2021), but those who have that concern and engage in concrete planning often feel more at ease and resilient (Silberman et al., 2009; Yip et al., 2024). The

qualitative study (Study 3) supports this, as mothers felt “the importance of planning” and took comfort in having plans for their child’s future. Such proactive coping turns a potential stressor into an area of control, a strategy which the literature suggests can bolster present resilience by reducing uncertainty (Silberman et al., 2009; Yip et al., 2024).

In Theme 6, the mothers mentioned self-care as a strategy, recognising that they must maintain their own health and well-being to continue caring for their children in the long run. This was not captured in Study 2 (quantitative study), but it was found in Study 1 (a systematic review study), which is a significant point. Resilient mothers eventually learn to set boundaries, seek respite when possible, or find small ways to recharge (even something as simple as a short break). Self-care is well recognised in the caregiver literature as being crucial for preventing burnout (Gardner & Harmon, 2002; Schulz et al., 2020). Chronic caregiving can lead to burnout and health decline if caregivers neglect their own needs (Gardner & Harmon, 2002). In fact, health-promoting self-care (such as respite breaks, managing stress, and tending to one’s health) is consistently recommended in the literature to prevent caregiver burnout and improve the sustainability of care (Gardner & Harmon, 2002). In Study 1 (A systematic review), Gardner and Harmon (2002) found that one key trait of resilience was that these mothers practiced self-care and positive coping strategies, alongside utilising support resources. Similarly, a study of caregiver interventions highlighted that teaching caregivers to care for themselves is essential in any program aimed at reducing caregiver distress (Gordon & Bila, 2023). The mothers in Study 3 (Qualitative study) who set boundaries, sought respite, or found small ways to recharge unknowingly mirrored evidence-based recommendations for caregiver well-being. By including it in their narratives, the mothers elaborated on the construct of coping and resilience to include caring for oneself, not just the child.

In summary, these aspects-negative perception of ID, religious coping, cultural attitudes, advocacy, future planning, and self-care-show how the qualitative findings complemented the quantitative results by broadening the scope of relevant factors. While the quantitative study focused on core psychological and social factors identified in prior literature (stress, social support, coping,

appraisal), the qualitative study allowed other themes to emerge naturally from the mothers' stories.

The integrated discussion acknowledges those additional themes, supported by literature where available. For instance, the role of faith aligns with studies in both Western and Eastern contexts that cite spirituality as a coping resource for parents (Karaca & Konuk, 2021). Future planning has been documented as a common concern among parents of children with IDD (e.g., studies find parents often worry about adult services, guardianship, and financial plans for their disabled children's care) (Gordon & Bila, 2023; Illum et al., 2018).

The findings show that mothers are not only worried but also act towards future planning, which is a proactive form of coping that likely contributes to their resilience by reducing uncertainty. By engaging in forward-thinking behaviour, mothers turn a potential stressor (the future) into a domain of control (through planning), which likely helps them feel empowered in the present. This is a notable insight for practitioners in the field. Encouraging and assisting families in future planning can be an important way to bolster their current resilience.

9.2.6 Resilience as a Dynamic Process

A recurrent theme across the studies is that maternal resilience is not a static trait one either has or lacks, but a dynamic process that unfolds over time and through daily practice. This aligns with the family resilience theory, which defines resilience as an ongoing process of positive adaptation in the context of adversity (McCubbin & Patterson, 1983; McCubbin et al., 1996; Patterson, 1988; Walsh, 2015). Earlier in the field, resilience was sometimes conceptualised as an individual personality trait or a fixed quality ("resilient" vs "non-resilient" person) (Kalisch et al., 2015), but newer research emphasises that resilience is multifaceted and context-dependent, involving interactions between the person and the environment over time (Broll et al., 2025). All three PhD studies support this modern view.

In the quantitative study (Study 2), maternal resilience was likely measured using a standardised scale (e.g. resilience), and "coping" was captured using a general coping efficacy score. While useful, those measures are abstract. The

qualitative findings (Study 3) explain these constructs. The mothers' stories portrayed resilience not as an innate trait but as an active process. A series of decisions and practices that help them continue their caregiving role. Maintaining a positive mindset reflects optimism and hope; mothers deliberately reframed challenges to find positives, consistent with research showing that a positive outlook is associated with better outcomes (Beighton & Wills, 2019). For example, resilience was manifested in Theme 2 (Finding my way through subthemes of maintaining a positive mindset, adapting to caregiving, and skill development for their child). Each of these subthemes gives substance to "resilience."

A positive mindset reflects the optimism component of resilience noted in the literature (Peer & Hillman, 2014). Mothers described consciously focusing on hope and not giving in to despair, echoing findings that optimism is linked to better parental outcomes (Peer & Hillman, 2014). Adaptation to caregiving illustrates the flexibility and learning aspects of resilience. Mothers recounted how, over time, they adjusted their routines, sought information, and grew more competent in managing their children's needs. This resonates with the concept of adaptive coping, in which one modifies expectations and behaviours to meet new challenges. Interestingly, skill development was primarily about mothers actively investing in their child's growth (such as teaching life skills and pursuing therapies). While at first glance this is about child development, it also reflects maternal resilience. This shows mothers taking an empowered, problem-solving approach, which likely contributes to their sense of efficacy and hope. By teaching their children skills and witnessing their progress, mothers gain confidence that their efforts can make a difference, reinforcing their resilience. This elaboration connects with research by (Bayat, 2007), who found that many parents of children with autism reported becoming stronger and more resourceful as they learned to help their child develop, often reframing the disability as a manageable challenge rather than an insurmountable problem. The qualitative study (Study 3) similarly indicated that resilience involves an iterative learning process, where overcoming one hurdle at a time builds a mother's endurance and capacity for the next hurdle.

The systematic review (Study 1) supports the notion of resilience as dynamic, noting that factors such as parental problem-solving abilities and hope can develop and change over the caregiving journey. However, the review also pointed out a gap: many studies did not explicitly track how resilience unfolds over different caregiving phases (e.g. early childhood vs. adolescence vs. adulthood) and called for more attention to the caregiving trajectory. These PhD studies (Study 2, Study 3) begin to address this by focusing on adolescence, a stage less studied than early childhood in this context. The qualitative results (Study 3) included a subtheme about the transition to adolescence, where new challenges (such as puberty, the child's awareness of being "different", or planning for life after school) emerged. Mothers had to further adapt during this period, indicating that resilience is continually tested and refined as circumstances change. This stage-specific insight complements prior research which often examined parents of younger children; adolescence introduces issues (e.g. the child's emerging autonomy or behavioural changes) that require resilience to take new forms. These integrated findings suggest that many mothers rise to these new challenges by learning and evolving themselves. They become advocates, planners, and mentors for their nearly adult children.

Additionally, the qualitative narratives (Study 3) highlighted emotional regulation and meaning-making as part of coping, which elaborates on what a high "coping score" entails. Mothers provided examples of letting go of anger and practising forgiveness to lighten their emotional burden (e.g. "I choose to forgive... anger or resentment does not help"). Such comments illustrate coping strategies, such as emotional acceptance and reframing, which are known to be adaptive in chronic stress situations. Others spoke about not being afraid of failures and viewing problems as lessons, indicating a growth mindset. These descriptions align with a review of the key factors associated with resilience, which states that the cognitive appraisal of a stressor determines the coping response (Peer & Hillman, 2014). Here, mothers appraised challenges as opportunities to learn, which is a positive reappraisal strategy linked to resilience. Quantitative measures (Study 2) might label this generally as "adaptive coping" but the qualitative data (Study 3) show the real thought processes and philosophies mothers use (e.g. drawing on past hardships to cultivate perseverance).

9.3 Challenges, Strengths and Limitations

This PhD project has several strengths that lend credibility to its findings. First, by integrating quantitative and qualitative approaches, it captures a comprehensive picture of maternal resilience. The quantitative component, with a relatively large sample of 173 mothers, provides statistical power to detect relationships and lends generalisability (at least to similar urban Thai settings), while the qualitative interviews offer depth and insight into the mechanisms behind those relationships.

This complementarity strengthens the validity of the interpretations through triangulation. For example, the convergence of survey and interview data on the importance of social support and coping adds confidence that these are truly key factors and not artefacts of one method. Second, the study is grounded in a strong theoretical framework (McCubbin's Resiliency Model of Family Stress, Adjustment, and Adaptation), which guided the quantitative model and aided in organising the discussion, yet it also remained open to new themes via inductive qualitative analysis.

This balance ensured that expected constructs were measured and evaluated against the literature while allowing novel findings (such as the prominence of religious coping and advocacy) to emerge. Third, focusing specifically on Thai mothers of adolescents with ID addresses gaps in the literature. Many existing studies on caregiver resilience focus on Western contexts or younger children. By zeroing in on adolescence (a period of new challenges, as noted in Theme 3 with the Transition to adolescence subtheme) in a non-Western culture.

This study provides unique insights that can inform culturally sensitive practices and expand the theoretical understanding of resilience. The rich descriptions of how mothers manage teen behavioural changes or plan for adulthood contribute knowledge for this transitional life stage, which has been less studied than early childhood. Another strength is the inclusion of a wide range of participants in the qualitative phase, capturing diverse experiences (mothers varied in age, marital status, number of children, and child disability severity).

This diversity in the qualitative sample allowed the thematic analysis to identify common patterns that likely resonate with many others, as well as note differences (e.g. single vs. married mothers' experiences). The use of direct quotes and personal stories in the results (some of which the researcher has cited) adds authenticity and gives voice to the participants. This fulfils the ethical strength of qualitative research and represents the participants' perspectives in their own words.

Despite these strengths, there are important limitations to acknowledge, which contextualise the findings and suggest caution in their generalisation. First, the sampling method and representation pose limitations. The quantitative sample of 173 was obtained through non-probabilistic means (convenience sampling of mothers associated with a particular institute in Bangkok). As noted in Chapter 6, this limits the sample representativeness. The mothers in this study may not represent all Thai mothers of adolescents with ID. For instance, those in rural areas, different regions, or who are not connected to healthcare or educational services might have systematically different experiences (perhaps less support, different cultural practices, etc.).

Additionally, because all participants were from a single urban centre (Rajanukul Institute in Bangkok), the findings are most applicable to similar urban Thai contexts and may not translate directly to rural villages or other countries. These population decisions suggest that the findings primarily reflect resilience processes among mothers who are psychologically stable and engaged with specialist services. While this allowed for clearer examination of coping, appraisal, and adaptation within the Resiliency Model, it also narrows the scope of applicability. The findings therefore were interpreted as describing patterns of resilience within a bounded subgroup rather than the full spectrum of caregiving experiences. Another limitation is the cross-sectional design of this quantitative study. All data (stress, coping, support, resilience, etc.) were collected at one point in time; therefore, causal inferences are tentative.

The SEM model suggests pathways (e.g. support → coping → resilience); however, because of simultaneity and possible reciprocal effects, causation cannot be certain. For example, it is plausible that more resilient mothers also cultivate stronger support networks (reverse causation) or that unmeasured

personality traits influence all variables (e.g. an optimistic personality leads to higher perceived support, more coping, and higher resilience). The study attempted to justify causal directions based on theory, but longitudinal data are needed to confirm these dynamic relationships.

In the qualitative phase, while only 12 mothers were interviewed, there was depth and richness to the data shared in the interviews in addition to data saturation, where no new themes emerged after the final few interviews. A sample size of 12 participants was considered appropriate for this qualitative study (Study 3). However, important perspectives may be missing. For example, the voices of mothers who are severely distressed might have provided a different view of barriers to resilience. Additionally, only mothers were included, which is a limitation if the researcher considers the family systems theory. Fathers' resilience or the roles of other family members were not directly studied, although they were indirectly mentioned in mothers' accounts. This provides a maternal-centric view, which is valuable given that mothers are often the primary caregivers. However, future work could incorporate multiple family members to obtain a fuller picture.

Another limitation pertains to the cultural bias in the measures. The quantitative measures (for stress, coping, resilience, etc.) were presumably either developed and validated in Western or rural Thai contexts. There is always a question of whether these scales fully capture culturally specific manifestations. For instance, a resilience scale might not capture advocacy or self-transcendence, which the researcher found to be part of resilience for these mothers. Thus, there is a possible construct validity limitation in that some culturally relevant factors were not measured quantitatively. The researcher mitigated this by the qualitative component, but it is a reminder that some results (such as the relatively small direct effect of support) could be because of measurement nuances (perceived support vs. received support, etc.).

In conclusion, while the study provides valuable insights, it is not without constraints. The findings should be generalised carefully, considering the specific sample and setting. However, the multi-method approach design counterbalances some weaknesses of each method (e.g. the qualitative narratives lend credibility (validity) to the quantitative trends, and the

quantitative scope gives weight to the qualitative observations). Recognising these limitations allows us to frame the implications more appropriately and identify areas for future research to build on this work.

9.4 Implications and Recommendations

This thesis identifies several resilience processes that are distinctive to the Thai context. Resilience among Thai mothers was characterised by endurance, acceptance, and fulfilment of moral caregiving responsibilities, rather than individual recovery. Buddhist belief systems played a central role in shaping cognitive appraisal and emotional regulation, while resilience was negotiated collectively within extended family networks and prioritised family harmony over individual needs. In addition, financial strain emerged as a dominant and ongoing stressor, reflecting structural and welfare conditions in Thailand. These findings demonstrate that resilience is culturally and structurally situated and cannot be assumed to operate uniformly across contexts.

Therefore, this thesis contributes new knowledge by demonstrating that resilience among Thai mothers of adolescents with ID is culturally embedded. While consistent with international evidence that stress, coping, and support are central to resilience, the findings extend existing literature by highlighting the role of Buddhist meaning-making, economic vulnerability, and anticipatory adaptation in shaping resilience processes.

The robustness of the evidence base is supported by a systematic review, a large quantitative study employing validated Thai instruments and SEM, and an in-depth qualitative study that provides contextual richness. While the empirical studies drew on a service-engaged urban sample, the detailed convergence of findings support analytic transferability to Thai mothers in similar caregiving contexts. However, the identified resilience mechanisms particularly the roles of family support, meaning-making, and economic strain are likely to be relevant across a wide range of Thai families raising children with ID.

Accordingly, the integrated findings from this multi-method study have important implications for theory, practice (particularly nursing, mental health, and social services), policy, and future research.

9.4.1 Theoretical Implications

The results of this study reinforce and expand the theoretical models of family resilience in the context of child disability. The clear correspondence with McCubbin's Resiliency Model (McCubbin et al., 1996) (resources, coping, and appraisal leading to adaptation) provides empirical support for these frameworks in a non-Western setting. This suggests that these models, originally developed largely in Western contexts, have cross-cultural applicability but with culturally specific manifestations. For example, "resources" in this Thai sample included not only generic social support but also culturally embedded resources such as faith communities and extended family networks; "appraisal" included spiritual interpretations (e.g., karma) in addition to cognitive appraisal. Therefore, theory should accommodate a broader, culture-sensitive definition of resources and appraisal. Additionally, the finding that negative appraisals can co-occur with proactive coping efforts adds nuance to the theory. This highlights that the relationship between appraisal and coping is not one-directional. Theories of resilience may need to consider that in some contexts, perceiving a higher threat (usually "negative" appraisal) could activate resilience processes, up to a point. This aligns with stress inoculation or challenge models of resilience, where some stress can be motivating (Quine & Pahl, 1991). However, too much negative perception clearly was detrimental (increasing stress). Thus, resilience models might integrate a threshold concept. Moderate concern can be adaptive by mobilising coping, whereas an overwhelming negative appraisal is maladaptive. In practical terms, interventions might not aim to eliminate all caregiver worries but to keep them at a manageable level and use them constructively.

This study also highlights the role of religious coping, which is often underrepresented in mainstream resilience models. This implies that spiritual faith or meaning-making should be explicitly integrated into resilience frameworks for caregiving families. The findings strongly concur, showing that shared cultural-religious belief systems (such as Buddhism's emphasis on making meaning of suffering) are central for many families. Future theoretical work could more explicitly model how spiritual coping intersects with social and psychological factors. For instance, within the "beliefs and appraisals" domain.

9.4.2 Practical Implications for Intervention

This study is intended for healthcare providers, mental health professionals, and community organisations working with families of children with ID in Thailand. There are several clear implications, as described below.

9.4.2.1 Enhancing Social Support

Given the proven importance of support in reducing stress and facilitating coping (Caples et al., 2018; Hassall et al., 2005; Hassanein et al., 2021), interventions should aim to strengthen the support networks around these mothers. This can be achieved by establishing parent support groups (leveraging mothers' appreciation for peer support noted in Theme 4), facilitating community meet-ups, or connecting newer caregivers with mentor mothers who have more experience (McConnell & Savage, 2015). Professionals can also involve the extended family in counselling or training sessions to strengthen their understanding and support for the mother (Modula, 2022). Additionally, since some mothers faced challenges accessing support, community workers should identify barriers (e.g. transportation, stigma, or lack of knowledge) (Mitter et al., 2019) and work to overcome them (perhaps via community education to reduce stigma, or mobile/home-based services to reach isolated families). In the quantitative data, support had only a modest direct effect, reminding us that simply "having people around" is not enough. The quality and accessibility of support are important. Thus, interventions should aim for functional support, ensuring that mothers truly feel supported (e.g. respite care services, parent networks, or even online forums for those who cannot meet in person).

9.4.2.2 Stress Management and Coping Skills Training

To address high stress levels, interventions in clinical settings (such as paediatric or mental health clinics) could provide stress management programs tailored to these mothers. Techniques from cognitive-behavioural therapy (CBT) or mindfulness-based stress reduction may be useful (Beighton & Wills, 2017; K. A. Crnic et al., 2017). For example, training in relaxation techniques, mindfulness meditation (potentially framed in culturally compatible ways, similar to Buddhist mindfulness practices), and cognitive strategies to reframe negative thoughts could help mothers reduce stress and feel more in control of their lives. Coping

skills training is also implied alongside stress management (Arzeen et al., 2020; Beighton & Wills, 2017). The findings suggest that focusing on enhancing effective coping strategies, such as problem-solving, seeking social support, and positive reappraisal, is important. This could involve workshops where mothers learn from each other's strategies (many of whom demonstrated excellent coping in Theme 2: Finding my way) and from facilitators about coping techniques. One practical method is to role-play challenging scenarios and brainstorm coping responses, or to use reflective exercises for mothers to identify coping methods that have worked for them in the past and how to strengthen them. Interventions can also encourage self-care practices as a valid and necessary coping strategy (Scripps et al., 2025). Many mothers put themselves last in the priority list. Educating them that taking care of their own health and well-being is part of being a good caregiver could empower them to take breaks, schedule personal health appointments, or engage in small leisure activities without guilt.

9.4.2.3 Promoting Positive Appraisal and Acceptance

Professionals (nurses, social workers, and psychologists) can help mothers work through the process of acceptance, as identified in Theme 1. This might involve counselling that addresses grief and guilt in the early stages and facilitates a shift towards more constructive appraisals. Techniques from family therapy or strengths-based counselling can help mothers identify their child's strengths and reframe the disability in a more positive or hopeful manner (Black & Lobo, 2008; Gordon & Bila, 2023).

Findings from this thesis suggest that staff education should move beyond technical knowledge to encompass culturally informed, family-centred understandings of resilience. Education should focus on recognising resilience as a dynamic process that coexists with vulnerability, the role of cultural and religious meaning-making in shaping acceptance and coping, and the importance of working with families as relational systems rather than focusing solely on individual caregivers. Such education would be most effective if delivered through a collaborative, involving multidisciplinary professionals alongside families of people with ID and, where appropriate, people with ID themselves.

The findings show that mothers who reach acceptance and see their child's worth beyond the disability fare better emotionally. Acceptance is a critical psychological process that involves fully adjusting to a child's disability and finding peace in the present reality (Bekhet et al., 2012; Luong et al., 2009). When mothers reach this stage, they often stop trying to "fix" the child and instead channel their energy into nurturing the child's development and strengthening the parent-child bond (Luong et al., 2009). Thus, interventions could include psychoeducation about the common emotional journey (so mothers know their initial grief is normal but also see that acceptance is achievable) and peer mentoring, where experienced mothers who have reached a level of acceptance share their stories with newer mothers.

Additionally, given the interesting pattern in which negative perceptions sometimes spurred coping (Biswas et al., 2017), practitioners should be attentive to mothers' concerns and not dismiss them outright. Instead, validate their worries but then channel that energy into problem-solving ("Yes, your child may have significant challenges, what can we do step by step to address them?"). This approach can transform potentially overwhelming worries into actionable plans.

9.4.2.4 Integrating Culturally Relevant Coping (Religious/Spiritual support)

The implications for practice are to acknowledge and incorporate mothers' faith and spiritual practices into the support plan (Cless et al., 2018). Healthcare providers in Thailand should feel comfortable enquiring about a family's religious coping (for example, "Do you find support in religious or spiritual practices?"). Then facilitate those if appropriate. For instance, hospitals or clinics could partner with local temples or faith-based organisations to provide spiritual counselling or prayer sessions for interested parents (Gibbs et al., 2020; Mkabile & Swartz, 2020). Simple measures, such as providing a quiet space for prayer or including monks in the care team (some Thai hospitals invite monks to counsel patients), could be beneficial. Support programs might also organise group visits to temples or religious retreats focused on healing and resilience for caregivers (Gibbs et al., 2020; Mkabile & Swartz, 2020). Culturally, because the vast majority of the population is Buddhist, framing stress reduction in terms of mindfulness or meditation might resonate well. On the other hand, providers

should be cautious not to impose spiritual explanations (some mothers might feel blamed by karma concepts) (Ilias et al., 2018); rather, they should listen to and support whatever belief system the mother finds strengthening. The key implication is that spiritual well-being is tied to the emotional well-being of many of these mothers. Thus, holistic care that addresses spiritual needs is recommended. This may also involve dispelling harmful fatalism. For example, if a mother feels that her child's disability is punishment and therefore nothing can be done, a skilled counsellor or monk could reframe that into a more empowering interpretation within her belief system.

9.4.2.5 Empowering Advocacy and Planning

The fact that many mothers became strong advocates suggests that harnessing this advocacy can benefit not only them but also the community (Bourke-Taylor et al., 2012; Lefakane & Maseko, 2023). Organisations can support parent advocacy groups or involve mothers in local policy discussions (e.g. school boards, disability rights forums). Empowering mothers in advocacy can provide them with a greater sense of purpose and agency (Beighton & Wills, 2017), further boosting resilience (as the qualitative data showed, advocacy was cathartic for some). Training in leadership or providing platforms for mothers to share their stories (at conferences, in the media) can also validate their experiences and potentially reduce societal stigma. For future planning, practical future-planning workshops should be offered. These may cover legal aspects (such as guardianship or trusts), financial planning (savings, insurance for the child's long-term care), and connecting with adult disability services (vocational training, sheltered workshops, group homes, etc.). By proactively addressing future concerns, such programs would directly respond to mothers' expressed needs and possibly alleviate some of their anxiety about the unknown future (Lefakane & Maseko, 2023). Professionals could encourage mothers to start planning early, as some mothers in this study did, thereby improving their peace of mind. Collaboration with financial advisors or NGOs specialising in disability future planning would be useful. In essence, service providers should not only address present coping but also help families prepare for transitions, as this is part of the resilience trajectory of caregiving.

9.4.3 Policy Implications

At the policy level, this study underscores the need for the continued development of support systems for families of children with ID in Thailand. Policymakers should note that community and institutional support bolsters family resilience (Oti-Boadi, 2017). Thus, policies that improve access to resources are needed. For example, expanding respite care services (Azar & Badr, 2006), providing financial assistance to low-income families (to relieve the debt/financial stress burden) (Oh & Lee, 2009), and ensuring inclusive education and adequate special education resources (Havananda, 2007) can significantly impact maternal resilience. The finding that debt/financial strain heightens stress points to an economic policy perspective. Providing financial relief or benefits (such as caregiver allowances or subsidies for therapies) could reduce stress and, thereby, improve family outcomes. Additionally, anti-stigma campaigns and public education about ID are implied. The mothers in this study called for greater understanding and inclusivity. Government and civil society can partner to run campaigns that highlight the abilities and rights of people with ID (Matthews et al., 2021). Aiming to shift public attitudes (which cultural discussion noted are rooted in karma beliefs and lack of exposure). By making communities more welcoming, such efforts would directly support mothers' resilience (less discrimination means less stress and more support). There are also policy implications for mental health services (Bourke-Taylor et al., 2012). Ensuring that counselling and mental health support are available and accessible to caregivers. If clinics that these families visit (such as developmental paediatric clinics) could have an embedded mental health professional or support group program. It would normalise and facilitate mothers getting help for themselves, not just their child. Finally, policies should consider the transition to adulthood that these adolescents will soon face (Chauke et al., 2021). Mothers are clearly looking ahead to the future. Policies regarding vocational training, adult daycare, employment opportunities, and long-term care for people with ID will greatly influence these mothers' peace of mind and their children's future outcomes. Supporting the development of such programs will not only benefit adolescents but also alleviate one of the major worries (and potential sources of future crises) for mothers. Thus, it is a resilience-building measure at the societal level.

9.5 Future Research

This study opens up several opportunities for further research. A natural next step would be a longitudinal study that follows these families over time. Especially through the transition from adolescence to adulthood. This could test the causal directions hypothesised and see how maternal resilience evolves (for example, does resilience generally increase as mothers adapt over the years, or do some experience burnout as the child ages).

It would also be illuminating to see how the plans mothers made for the future (Theme 6: Forward-thinking strategies) actually play out and affect outcomes (for both mothers and children). Another research direction is to include fathers and other family members to obtain a fuller picture of family resilience. In Thai culture, fathers' caregiving role is less than that of mothers, but those who are involved can have a significant impact (positive or negative) on mothers' resilience (e.g., a supportive husband could greatly reduce stress, whereas an unsupportive one could add to it).

Studying couples' dynamics or family functioning would complement the mother-focused perspectives. Additionally, intervention research could be conducted to test some of the implications above. For instance, a support group or a coping skills training program for these mothers could be trialled, and outcomes (e.g., stress reduction, improved resilience scores) measured. This study suggests what may work. The next step is to implement and evaluate the system scientifically. Culturally tailored interventions (such as a mindfulness program that incorporates Buddhist practices) could be particularly interesting to evaluate: do they further enhance resilience compared to generic interventions?

Moreover, future qualitative research should explore specific subgroups in more depth. For example, an ethnographic study of how Buddhist faith communities support parents of disabled children, or a focused study on single mothers versus married mothers to see how their resilience strategies differ. Another potential angle is the perspective of adolescents with ID on their mothers' caregiving and resilience.

Although many have intellectual limitations, some can provide meaningful insights (especially those with milder ID) into how they perceive their mother's efforts and what relationship factors help them both be resilient. This could enrich the family narrative and possibly highlight bidirectional resilience (the child's behaviour and progress can affect the mother's resilience and vice versa).

Finally, comparative research should examine whether these patterns hold in other cultural contexts. In a Western or another Asian country could highlight which aspects are universal (e.g. social support) and which are culture-specific (e.g. the form of religious coping might differ between a Buddhist-majority and a Christian-majority context). Such cross-cultural comparisons would deepen the understanding of the cultural context of resilience. The academic contribution of this study is that it provides data from a Southeast Asian context. Building on this with more diverse contexts will strengthen global theories of maternal resilience.

9.6 Concluding Remarks

The conceptual model of resilience presented here synthesises original empirical findings while critically engaging with existing resilience frameworks, highlighting both convergences and critical extensions necessary to reflect the culturally specific dynamics observed among Thai mothers. This integrated understanding confirms the foundational aspects of resilience theory while also challenging and enriching these models through the incorporation of distinctive cultural and spiritual elements uncovered in this study.

The findings from the quantitative (Chapters 4 and 6) and qualitative (Chapter 8) studies of this multi-method study present an integrated understanding of maternal resilience among Thai mothers of adolescents with ID. The multi-method approach was invaluable. The quantitative data revealed factors related to resilience and the structural relationships among stress, social support, coping, appraisal, and resilience, while the qualitative data humanised these factors and uncovered rich themes of personal growth, faith, advocacy, and planning. Together, they offer a coherent story of resilience as a multifaceted process, where these mothers draw upon external resources (support from

family, community, and faith), cultivate internal strengths (optimism, acceptance, and perseverance), and employ active strategies (problem-focused coping, advocacy, skill-building, and future planning) to navigate the considerable challenges of raising adolescents with ID.

This integration highlights key convergences. In particular, the protective role of support and coping and the harmful effects of stress and stigma. Additionally, each method complemented the other by addressing gaps (for example, qualitative data on religious coping complemented the quantitative model, and quantitative evidence of patterns was given weight to mothers' subjective reports).

The discussion situates these findings within the context of existing literature on stress, coping, social support, and resilience. While confirming broad agreement with prior studies, this study contributes to new culturally specific insights from Thailand. Phenomena common elsewhere (such as the importance of optimism and support or the stress of financial strain) also emerged here, but expressions such as Buddhist coping practices and extensive family involvement reflect more distinctive cultural features. These findings affirm family resilience frameworks while suggesting extensions to incorporate the cultural and spiritual dimensions.

Reflecting on these findings reveals resilience as a dynamic, evolving capacity rather than a fixed trait. It is forged through adversity and strengthened by connections with others. It is the result of continual adaptation, sometimes born from moments of despair that turn into determination. Other times, they are sustained by small victories, deep faith, and unwavering love for their child.

In summary, this chapter demonstrates how blending statistical evidence with personal narratives provides a holistic understanding of maternal resilience in this context. Convergent findings on support, coping, and positive appraisal are enriched by qualitative elaborations of optimism, advocacy, religious faith, and future planning, all framed within Thai cultural values. These insights reinforce existing knowledge on caregiver resilience, highlighting culturally specific factors such as Buddhist coping and community attitudes. Ultimately, resilience among Thai mothers caring for adolescents with ID emerges as a dynamic, contextually grounded process enriched by strong social bonds, guided by belief

systems, challenged by stressors, and continually refined through experience. The strengths and limitations discussed provide directions for future improvements in research and practice. By understanding and supporting the intertwined personal and cultural factors that foster resilience, practitioners and policymakers can better empower mothers and others in similar situations to thrive in the face of adversity, ensuring better outcomes for themselves, their children, and their communities

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Appendices

Appendix A: A systematic review search strategy (Study 1)

A systematic search was conducted using five databases: Medical Literature Analysis and Retrieval System Online (MEDLINE), Psychological Information Database (PsycINFO), Excerpta Medica dataBASE (EMBASE), Cumulative Index to Nursing and Allied Health Literature (CINAHL) and Sociology research database (SocINDEX).

Electronic search

We conducted electronic searches by utilizing the Ovid EMBASE search approach and modifying it as needed for other databases.

1. exp parent/
2. parent*.mp. [mp=title, book title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms, population supplementary concept word, anatomy supplementary concept word]
3. mother*.mp. [mp=title, book title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms, population supplementary concept word, anatomy supplementary concept word]
4. father*.mp. [mp=title, book title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms, population supplementary concept word, anatomy supplementary concept word]
5. 1 or 2 or 3 or 4
6. exp psychological resilience/
7. resilien*.mp. [mp=title, book title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms, population supplementary concept word, anatomy supplementary concept word]
8. coping.mp. [mp=title, book title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms, population supplementary concept word, anatomy supplementary concept word]
9. cope.mp. [mp=title, book title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word,

- rare disease supplementary concept word, unique identifier, synonyms, population supplementary concept word, anatomy supplementary concept word]
10. adapt*.mp. [mp=title, book title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms, population supplementary concept word, anatomy supplementary concept word]
 11. hardiness.mp. [mp=title, book title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms, population supplementary concept word, anatomy supplementary concept word]
 12. 6 or 7 or 8 or 9 or 10 or 11
 13. 5 and 12
 14. exp child/
 15. child*.mp. [mp=title, book title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms, population supplementary concept word, anatomy supplementary concept word]
 16. 14 or 15
 17. exp intellectual impairment/
 18. mental retardation.mp. [mp=title, book title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms, population supplementary concept word, anatomy supplementary concept word]
 19. intellectual disabilit*.mp. [mp=title, book title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms, population supplementary concept word, anatomy supplementary concept word]
 20. Down syndrome.mp. [mp=title, book title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms, population supplementary concept word, anatomy supplementary concept word]
 21. learning disabilit*.mp. [mp=title, book title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms, population supplementary concept word, anatomy supplementary concept word]
 22. developmental disabilit*.mp. [mp=title, book title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol

supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms, population supplementary concept word, anatomy supplementary concept word]

23. 17 or 18 or 19 or 20 or 21 or 22

24. 16 and 23

25. 13 and 24

26. limit 25 to (human and english language)

Hand-searching

We also reviewed the reference lists of the included studies, applying both backward and forward reference searching techniques to ensure that they did not miss any relevant

Appendix B: Quality assessment for quantitative studies in systematic review (Study 1)

CASP checklist	Azar & Badr, 2006	Bayrakli & Kaner, 2012	Ben-Zur et al, 2004	Caples et al, 2018	Choi & Yoo, 2015
1. Did the study address a clearly focused issue?	Yes	Yes	Yes	Yes	Yes
2. Was the cohort recruited in an acceptable way?	Yes	Yes	Yes	Yes	Yes
3. Was the exposure accurately measured to minimise bias?	Yes	Yes	Yes	Yes	Yes
4. Was the outcome accurately measured to minimise bias?	Yes	Yes	Yes	Yes	Yes
5. (a) Have the authors identified all important confounding factors?	Yes	Yes	Yes	Yes	Yes
5. (b) Have they taken account of the confounding factors in the design and/or analysis?	Yes	Yes	Yes	Yes	Yes
6. (a) Was the follow up of subjects complete enough?	Yes	Yes	Yes	Yes	Yes
6. (b) Was the follow up of subjects long enough?	Yes	Yes	Yes	Yes	Yes
7. What are the results of this study?	Yes	Yes	Yes	Yes	Yes
8. How precise are the results?	Can't Tell	Yes	Can't Tell	Can't Tell	Can't Tell
9. Do you believe the results?	Yes	Yes	Yes	Yes	Yes
10. Can the results be applied to the local population?	Yes	Yes	Yes	Yes	Can't Tell
11. Do the results of this study fit with other available evidence?	Yes	Yes	Yes	Yes	Yes
12. What are the implications of this study for practice?	Yes	Yes	Yes	Yes	Yes
Total score	B1	A	B1	B1	B2

CASP checklist	Cless et al, 2017	Costigan et al, 1997	Dukmak, 2009	Ellingsen et al, 2014	Gerstein et al, 2009
1. Did the study address a clearly focused issue?	Yes	Yes	Yes	Yes	Yes
2. Was the cohort recruited in an acceptable way?	Yes	Yes	Yes	Yes	Yes
3. Was the exposure accurately measured to minimise bias?	Can't Tell	Yes	Yes	Yes	Yes
4. Was the outcome accurately measured to minimise bias?	Yes	No	Yes	Yes	Yes
5. (a) Have the authors identified all important confounding factors?	Yes	Can't Tell	Yes	Yes	Yes
5. (b) Have they taken account of the confounding factors in the design and/or analysis?	Yes	Can't Tell	Yes	Yes	Yes
6. (a) Was the follow up of subjects complete enough?	Yes	Yes	Yes	Yes	Yes
6. (b) Was the follow up of subjects long enough?	Yes	Yes	Yes	Yes	Yes
7. What are the results of this study?	Yes	Yes	Yes	Yes	Yes
8. How precise are the results?	Yes	Can't Tell	Can't Tell	Yes	Can't Tell
9. Do you believe the results?	Yes	Yes	Yes	Yes	Yes
10. Can the results be applied to the local population?	Yes	Yes	Can't Tell	Yes	Yes
11. Do the results of this study fit with other available evidence?	Yes	Yes	Yes	Yes	Yes
12. What are the implications of this study for practice?	Yes	Can't Tell	Yes	Yes	Can't Tell
Total score	B1	C1,4	B2	A	B2

CASP checklist	Ginevra et al, 2018	Hsiao & Riper, 2011	Hsiao, 2014	Lloyd & Hastings, 2009	Lustig & Thomas, 1997	Rajan et al, 2016
1. Did the study address a clearly focused issue?	Yes	Yes	Yes	Yes	Yes	Yes
2. Was the cohort recruited in an acceptable way?	Yes	Yes	Yes	Yes	Yes	Yes
3. Was the exposure accurately measured to minimise bias?	Yes	Yes	Yes	Yes	Yes	Yes
4. Was the outcome accurately measured to minimise bias?	Yes	Yes	Yes	Yes	Yes	Yes
5. (a) Have the authors identified all important confounding factors?	Yes	Yes	Yes	Yes	Yes	Yes
5. (b) Have they taken account of the confounding factors in the design and/or analysis?	Yes	Yes	Yes	Yes	Yes	Yes
6. (a) Was the follow up of subjects complete enough?	Yes	Yes	Yes	Yes	Yes	Yes
6. (b) Was the follow up of subjects long enough?	Yes	Yes	Yes	Yes	Yes	Yes
7. What are the results of this study?	Yes	Yes	Yes	Yes	Yes	Yes
8. How precise are the results?	Yes	Can't Tell	Can't Tell	Can't Tell	Yes	Can't Tell
9. Do you believe the results?	Yes	Yes	Yes	Yes	Yes	Yes
10. Can the results be applied to the local population?	Can't Tell	Can't Tell	Can't Tell	Can't Tell	Yes	Can't Tell
11. Do the results of this study fit with other available evidence?	Yes	Yes	Yes	Yes	Yes	Yes
12. What are the implications of this study for practice?	Yes	Yes	Yes	Yes	Can't Tell	Yes
Total score	B1	B2	B2	B2	B1	B2

CASP checklist	Rajan & John, 2017	Rajan et al, 2018	Raspa et al, 2014	Riper, 2007	Truitt et al, 2012
1. Did the study address a clearly focused issue?	Yes	Yes	Yes	Yes	Yes
2. Was the cohort recruited in an acceptable way?	Yes	Yes	Yes	Yes	Yes
3. Was the exposure accurately measured to minimise bias?	Yes	Yes	Yes	Yes	Yes
4. Was the outcome accurately measured to minimise bias?	Yes	Yes	Yes	Yes	Yes
5. (a) Have the authors identified all important confounding factors?	Yes	Yes	Yes	Yes	Yes
5. (b) Have they taken account of the confounding factors in the design and/or analysis?	Yes	Yes	Yes	Yes	Yes
6. (a) Was the follow up of subjects complete enough?	Yes	Yes	Yes	Yes	Yes
6. (b) Was the follow up of subjects long enough?	Yes	Yes	Yes	Yes	Yes
7. What are the results of this study?	Yes	Yes	Yes	Yes	Yes
8. How precise are the results?	Can't Tell	Can't Tell	Yes	Can't Tell	Can't Tell
9. Do you believe the results?	Yes	Yes	Yes	Yes	Yes
10. Can the results be applied to the local population?	Yes	Can't Tell	Can't Tell	Can't Tell	Yes
11. Do the results of this study fit with other available evidence?	Yes	Yes	Yes	Yes	Yes
12. What are the implications of this study for practice?	Yes	Can't Tell	Can't Tell	Yes	Yes
Total score	B1	B3	B2	B2	B1

Rating A = low risk of bias in all domains

Rating Bx = unclear risk of bias in x domains, low risk of bias in all other domains

Rating Cxy = high risk of bias in y domains, unclear risk of bias in x domains, low risk of bias in all other domain

Appendix C: Quality assessment for qualitative studies in a systematic review (Study 1)

CASP checklist	Gardner & Harmon, 2002	Grant & Whittell, 2000	John & Roblyer, 2017	Karaca & Sener, 2021	Mohan & Kulkarni, 2018	Poehlmann et al, 2005
1. Was there a clear statement of the aims of the research?	Yes	Yes	Yes	Yes	Yes	Yes
2. Is a qualitative methodology appropriate?	Yes	Yes	Yes	Yes	Yes	Yes
3. Was the research design appropriate to address the aims of the research?	Yes	Yes	Yes	Yes	Yes	Yes
4. Was the recruitment strategy appropriate to the aims of the research?	Yes	Yes	Yes	Yes	Yes	Yes
5. Was the data collected in a way that addressed the research issue?	Yes	Yes	Yes	Yes	Yes	Yes
6. Has the relationship between researcher and participants been adequately considered?	Can't Tell	Yes	Can't Tell	Can't Tell	Can't Tell	Can't Tell
7. Have ethical issues been taken into consideration?	Can't Tell	Can't Tell	Yes	Yes	Can't Tell	Can't Tell
8. Was the data analysis sufficiently rigorous?	Can't Tell	Yes	Yes	Yes	Yes	Yes
9. Is there a clear statement of findings?	Yes	Yes	Yes	Yes	Yes	Yes
10. How valuable is the research?	Yes	Yes	Yes	Yes	Yes	Yes
Total score	B3	B1	B1	B1	B2	B2

Rating A = low risk of bias in all domains

Rating Bx = unclear risk of bias in x domains, low risk of bias in all other domains

Rating Cxy = high risk of bias in y domains, unclear risk of bias in x domains, low risk of bias in all other domains

Appendix D: Participant information sheet for quantitative study (Study 2)



1. Study title / Researchers

Resilience in Mothers of Adolescents with Intellectual Disabilities in Thailand

Principal Investigator: Mr Wattana Tejakum, School of Health and Wellbeing, University of Glasgow, Scotland, United Kingdom

Supervisors:

1. Dr Maria Truesdale
2. Prof Deborah Cairns

2. Invitation paragraph

You are being invited to take part in a research study. The study will contribute towards an educational qualification, the University of Glasgow, which is in Scotland, United Kingdom. This study aims to explore sensitive topics and it is important that you feel comfortable about taking part and sharing your experiences. This information sheet will give you an overview of the purpose of the research, understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. If there is anything that is not clear or if you would like more information, please feel free to contact the researcher (details at the end). Please remember there is no obligation to take part and your right to withdraw at any time.

3. What is the purpose of the study?

Resilience in mothers of adolescents with Intellectual disabilities (IDs) is associated with various factors. However, research into the role of factors in these relationships is surprisingly lacking. This absence of research leaves vital gaps in our understanding of why some mothers facing adversity manage to function well and come out stronger while others do not. The purpose of this study is to explore some of the factors that might influence resilience in mothers of adolescents with IDs in Thailand. By participating, you will help provide vital insight, gain an understanding of the caregiver's experiences, strengths, and challenges as you navigate the journey of raising an adolescent child with IDs.

4. Why have I been invited to participate?

You have been invited to take part in this study because you are a mother of an adolescent aged 10 – 19 with IDs. Your perspective and insights are invaluable to our research efforts.

5. Do I have to take part?

No, it is up to you to decide whether or not to take part. If you do decide to take part, you will be given this information sheet to keep and be asked to sign a consent form. If you decide to take part, you are still free to withdraw at any time and without giving a reason.

6. What will happen to me if I take part?

This study will require you to answer a series of questions regarding mother's stressors, protective factors, and mother's resilience. These surveys are administered in-person. The surveys will be a one session ranging from 45-60 minutes. Please note that there are no right or wrong answer. Approximately 173 mothers raising adolescents with intellectual disabilities will be invited to participate in this study. Once we reach the desired number of participants, recruitment will be closed. On the final page of the survey, you can choose to provide your email address or telephone number to opt-in to a monetary compensation of 100 Thai Bath Lotus voucher and for contact about future research related to exploring resilience in mothers of adolescents with IDs in Rajanukul Institute Thailand: a qualitative study.

7. What do I have to do?

As a participant in this research study, your involvement will primarily consist of providing information and sharing your experiences.

8. What are the possible disadvantages and risks of taking part?

We value your well-being and want to provide you with accurate information about the possible disadvantages and risks associated with participating in this research study. While we strive to minimize any potential negative impacts, it is essential to consider the following factors:

Time commitment: Participating in this study will require a time commitment from your side. This includes completing questionnaires. It is important to assess your availability and ensure that you can allocate the necessary time to fully engage in the study.

Emotional or psychological discomfort: Sharing personal experiences, challenges, and emotions related to raising an adolescent with intellectual disabilities may bring about emotional or psychological discomfort. It is important to be aware that discussing sensitive topics might evoke strong feelings or memories.

Please note that the research team is committed to addressing any concerns or questions you may have throughout the study. If you experience any adverse effects or have any concerns during your participation, please do not hesitate to contact the researcher for support and guidance. We also provide contact details of organisations who could provide support for you if you are feeling down, at the bottom of this information sheet.

9. What are the possible benefits of taking part?

There are no direct or immediate intended benefits to participants. However, it is important to consider the following potential benefits:

Contributing to knowledge and understanding: By sharing your experiences, challenges, and insights, you will play a vital role in enhancing the understanding of the unique journey

of mothers raising adolescents with intellectual disabilities. Your participation will help us to understand the factors that influence resilience better and may also contribute towards improved resilience interventions for future generations facing similar challenges.

Personal reflection and growth: Reflecting on your experiences and answering the surveys about your journey as a mother can lead to personal growth and self-awareness. It can provide an opportunity for self-reflection and potentially contribute to your own well-being and resilience.

While these potential benefits exist, it is important to acknowledge that they may vary among individuals, and no specific benefits can be guaranteed.

10. Will my taking part in this study be kept confidential?

Confidentiality is importance in this research study. We are committed to maintaining the privacy and confidentiality of all participants. Here is how we ensure confidentiality:

Pseudonymity: You will be identified by an ID number, and any information about you will have your name and address removed so that you cannot be recognized from it. This means that any information you provide will be treated with strict confidentiality, and your identity will remain confidential.

Secure data storage: All information collected during the study will be stored securely and accessible only to authorized research personnel. Any data in paper form will be scanned and stored in electronic format in encrypted files on the secure password-protected computers of the research team and the principal research's secure OneDrive account provided by the University of Glasgow.

Limited access: Only the research team and authorized personnel involved in the study will have access to the data collected.

Please note: In the case of possible risk/harm, if you reveal information that suggests a risk of harm to yourselves or others, we are ethically and legally obligated to take appropriate actions to ensure safety. This may involve notifying relevant authorities, such as mental health professionals or emergency services, in order to prevent harm.

11. What will happen to my data?

The responses to the questionnaire will be securely saved in protected by a password, hosted on the University of Glasgow's network. We will handle all study data in compliance with the General Data Protection Regulation (2018). This data will remain confidential and will only be accessible to the research team. It will be kept in accordance with the University of Glasgow's retention policy for a maximum of 10 years.

You can request access to the information we process about you before the collecting data process finishes. If at collecting data point you believe that the information, we process relating to you is incorrect, you can request to see this information and may in some instances request to have it restricted, corrected or erased. Once your data is completely

collected and included in the final dataset, it becomes irreversible, and data withdrawal is not possible. However, if you want to withdraw from the study after, all the necessary data have already been collected. In this case, the relevant data collected up to that point will be retained and used pseudonymously for the remainder of the study. If you would like to learn more about how we handle your data, please feel free to contact the researcher (details at the end).

In our research study, we acknowledge the importance of addressing the international transfer of data, particularly as it relates to the handling of consent sheets and participant data. Any data transferred internationally will be done using secure and encrypted channels provided by the University of Glasgow. To protect against unauthorized access during transmission.

12. What will happen to the results of the research study?

We understand your interest in the results and outcomes. Here is what will happen to the results:

Publication of Results:

The research team aims to publish the results of the study in reputable scientific journals and share the findings with the broader research community. The publication of the results is expected to take place within a year after the completion of the study.

Accessing Published Results:

Once the study results are published, you can request a copy of the published report or article from the study coordinator or researcher. We will provide you with information on how to access and obtain a copy of the published results.

Alongside any academic reports, we will create a plain language summary of the study findings. This summary will be written in a way that is easily understandable to a non-academic audience, including yourself. It will provide a clear and concise overview of the key findings, their implications, and what you mean for individuals caring for adolescents with IDs. To address this, you can contact the researcher (detailed at the end), so that you can easily reach out with your questions or requests for the information.

13. Who is organising and funding the research?

This research study is organized by Wattana Tejakum (principal research; post graduate research student at the University of Glasgow) and supervised by Dr Maria Truesdale (University of Glasgow), Professor Deborah Cairns (University of Glasgow). It is funded by Praboromarajchanok Institute, Thailand.

The research team conducting this study is affiliated with the school of Health and Wellbeing, College of Medical, Veterinary and Life Sciences of the University of Glasgow. They have expertise and experience in the field of intellectual disabilities and are dedicated to conducting high-quality research for the betterment of families in similar situations.

14. Who has reviewed the study?

The project has been reviewed by the University of Glasgow, College of Medical, Veterinary & Life Sciences Ethics Committee.

15. Contact for Further Information

Contact Information:

If you have any questions, concerns, or would like further information about the study, please feel free to contact Mr Wattana Tejakum, email: w.tejakum.1@research.gla.ac.uk, tel.

Thank you for reading the Information Sheet

Contact details of organisations in Thailand who could provide support for you if you are feeling down.

Mental Health Hotline. Tel: 1323

24/7, free and confidential support by phone and online chat. The trained counsellors exist to help people everyone in Thailand who may need emotional support with abuse & domestic violence, anxiety, bullying, dementia & Alzheimers, depression, eating & body image, family, gambling, gender & sexual identity, loneliness, parenting, pregnancy & abortion, trauma & PTSD, relationships, school & work, self-harm, sexual abuse, stress, substance use, suicidal thoughts, supporting others, grief & loss, and physical illness.

When you reach out to them you will talk with one of their trained counsellors who have experience in how to help people with similar experiences to your own. They will listen, express empathy and understanding, and assist you to find a way through your situation. Anyone can call and receive free support. They exist to help everyone regardless of age, gender, beliefs or ethnicity. They recognise that difficult mental health or crisis experiences can happen at any time, so they are available 24 hours a day, every day of the week.

Rajanukul Institute

If you are looking for further information or support specifically around IDs, the following websites have useful links and resources.

Website: Rajanukul Institute

Appendix E: Participant information sheet for quantitative study (Study 2, Thai version)

 กรมสุขภาพจิต สถาบันราชานุกูล	คณะกรรมการพิจารณาจริยธรรมการวิจัยในมนุษย์ สถาบันราชานุกูล	AF 07.1
	เอกสารข้อมูลคำอธิบายสำหรับอาสาสมัครผู้รับการวิจัย (Information sheet for research participant)	เริ่มใช้ 15 มิถุนายน 2563

ชื่อโครงการวิจัย: ความยืดหยุ่นทางจิตใจในการดาของวัยรุ่นที่มีความบกพร่องทางสติปัญญาในสถาบันราชานุกูล
ประเทศไทย

ผู้สนับสนุนการวิจัย: -

ผู้วิจัยหลัก

ชื่อ นายวัฒนา เตจาคำ
 สถานที่ทำงาน โรงเรียนสุขภาพและความเป็นอยู่ที่ดี, วิทยาลัยแพทยศาสตร์ สัตวแพทยศาสตร์ และวิทยาศาสตร์
 สุขภาพ, มหาวิทยาลัยกลาสโกว์, สก็อตแลนด์, สหราชอาณาจักร
 หมายเลขโทรศัพท์

ผู้วิจัยร่วม 1

ชื่อ ดร. มาเรีย ทูสเดล
 สถานที่ทำงาน โรงเรียนสุขภาพและความเป็นอยู่ที่ดี, วิทยาลัยแพทยศาสตร์ สัตวแพทยศาสตร์ และวิทยาศาสตร์
 สุขภาพ, มหาวิทยาลัยกลาสโกว์, สก็อตแลนด์, สหราชอาณาจักร
 หมายเลขโทรศัพท์

ผู้วิจัยร่วม 2

ชื่อ ศาสตราจารย์ เดโบราห์ แครนส์
 สถานที่ทำงาน โรงเรียนสุขภาพและความเป็นอยู่ที่ดี, วิทยาลัยแพทยศาสตร์ สัตวแพทยศาสตร์ และวิทยาศาสตร์
 สุขภาพ, มหาวิทยาลัยกลาสโกว์, สก็อตแลนด์, สหราชอาณาจักร
 หมายเลขโทรศัพท์

เรียน อาสาสมัครผู้รับการวิจัยทุกท่าน

ท่านได้รับเชิญให้เข้าร่วมในโครงการวิจัยนี้เนื่องจากท่านเป็นผู้หนึ่งที่มีคุณสมบัติตรงตามข้อกำหนดงานวิจัยก่อนที่
 ท่านจะตัดสินใจเข้าร่วมในการศึกษาวิจัยดังกล่าว ขอให้ท่านอ่านเอกสารฉบับนี้อย่างถี่ถ้วน เพื่อให้ท่านได้ทราบถึงเหตุผลและ
 รายละเอียดของการศึกษาวิจัยในครั้งนี้ หากท่านมีข้อสงสัยใดๆ เพิ่มเติม กรุณาซักถามจากทีมงานของผู้ทำวิจัย หรือผู้ร่วมทำ
 วิจัยซึ่งจะเป็นผู้สามารถตอบคำถามและให้ความกระจ่างแก่ท่านได้

ท่านสามารถขอคำแนะนำในการเข้าร่วมโครงการวิจัยนี้จากครอบครัว เพื่อน หรือแพทย์ประจำตัวของท่านได้ ท่าน
 มีเวลาอย่างเพียงพอในการตัดสินใจโดยอิสระ ถ้าท่านตัดสินใจแล้วว่า จะเข้าร่วมในโครงการวิจัยนี้ ขอให้ท่านลงนามใน
 เอกสารแสดงความยินยอมของโครงการวิจัยนี้

 กรมสุขภาพจิต สถาบันราชานุกูล	คณะกรรมการพิจารณาจริยธรรมการวิจัยในมนุษย์ สถาบันราชานุกูล	AF 07.1
	เอกสารข้อมูลคำอธิบายสำหรับอาสาสมัครผู้รับการวิจัย (Information sheet for research participant)	เริ่มใช้ 15 มิถุนายน 2563

เหตุผลความเป็นมา

ความยืดหยุ่นทางจิตใจในการดาของวัยรุ่นที่มีความบกพร่องทางสติปัญญา มีความเกี่ยวข้องกับปัจจัยต่างๆหลายอย่าง อย่างไรก็ตามการวิจัยเกี่ยวกับปัจจัยเหล่านี้ในความสัมพันธ์กับความยืดหยุ่นทางจิตใจโดยเฉพาะในการดาของวัยรุ่นที่มีความบกพร่องทางสติปัญญา ในประเทศไทย ยังขาดหายไปอย่างน่าแปลกใจ ในการวิจัยจึงขาดข้อมูลสำคัญในการเข้าใจว่าทำไมมารดาบางท่าน ที่ต้องเผชิญกับความท้าทายในการเลี้ยงดูบุตร สามารถใช้ชีวิตอย่างมีประสิทธิภาพและมีความยืดหยุ่นทางจิตใจมากขึ้น ในขณะที่มารดาท่านอื่นไม่สามารถทำได้

วัตถุประสงค์ของการศึกษา

โครงร่างการวิจัยนี้มีวัตถุประสงค์เพื่อ สํารวจปัจจัยที่อาจมีผลต่อความยืดหยุ่นทางจิตใจในการดาของวัยรุ่นที่มีความบกพร่องทางสติปัญญา ที่มารับบริการในสถาบันราชานุกูล ประเทศไทย โดยให้มารดาตอบแบบสอบถามในระยะที่หนึ่ง และหากมารดาท่านใดสนใจเข้าร่วมวิจัยในระยะที่สอง จะเป็นการสัมภาษณ์เชิงลึก โดยเป็นการพูดคุยถามคำถามเกี่ยวกับปัจจัยที่อาจมีผลต่อความยืดหยุ่นทางจิตใจในการดาของวัยรุ่นที่มีความบกพร่องทางสติปัญญา ที่มารับบริการ ในสถาบันราชานุกูล ประเทศไทย การเข้าร่วมในงานวิจัยนี้จะช่วยให้เกิดความเข้าใจเพิ่มเติมเกี่ยวกับประสบการณ์ของมารดาในฐานะผู้ดูแล และความยืดหยุ่นทางจิตใจของมารดา ขณะที่มารดาต้องเผชิญกับความท้าทายในการเลี้ยงดูลูกวัยรุ่นที่มีความบกพร่องทางสติปัญญา จำนวนอาสาสมัครในโครงร่างการวิจัย ระยะที่หนึ่ง คือ 173 คน และระยะที่สอง คือ 10 คน

วิธีการที่เกี่ยวข้องกับการวิจัย

หลังจากท่านให้ความยินยอมที่จะเข้าร่วมในโครงร่างการวิจัยนี้ ผู้วิจัยจะขอสอบถามเพื่อคัดกรองว่าท่านมีคุณสมบัติที่เหมาะสมที่จะเข้าร่วมในการวิจัย

หากท่านมีคุณสมบัติตามเกณฑ์คัดเข้า ท่านจะได้รับเชิญให้มาตามวันเวลาที่ผู้วิจัยนัดหมาย คือ วัน แ ล ะ เ ว ล า ราชการที่สะดวกกับท่าน เพื่อ ทำแบบสอบถามด้วยตนเองตามแบบสอบถามที่ผู้วิจัยได้จัดเตรียมไว้จำนวน 6 สอบถาม โดยตลอดระยะเวลาที่ท่านอยู่ในโครงการวิจัยในระยะที่หนึ่ง คือ เวลา 45-60 นาที และมาพบผู้วิจัยทั้งสิ้น 1 ครั้ง หากท่านสนใจที่จะเข้าร่วมโครงการวิจัยในระยะที่สอง ซึ่งเป็นการสัมภาษณ์เชิงลึก โดยเป็นการพูดคุยถามคำถามเกี่ยวกับปัจจัยที่อาจมีผลต่อความยืดหยุ่นทางจิตใจในการดาของวัยรุ่นที่มีความบกพร่องทางสติปัญญา ผู้วิจัยจะขออนุญาตบันทึกเสียงระหว่างการสัมภาษณ์ โดยตลอดระยะเวลาที่ท่านอยู่ในโครงร่างการวิจัยในระยะที่สอง คือ เวลา 45-60 นาที และมาพบผู้วิจัยทั้งสิ้นจำนวน 1 ครั้ง

ความรับผิดชอบของอาสาสมัครผู้รับการวิจัยในโครงร่างการวิจัย

หากท่านตกลงเข้าร่วมโครงการครั้งนี้ ท่านจะได้รับทราบผลการศึกษาจากงานวิจัยเรื่องนี้เพื่อเป็นประโยชน์ในด้านของความรู้ ซึ่งสามารถนำไปต่อยอดศึกษาในอนาคตได้ โดยสามารถติดตามความก้าวหน้าของงานวิจัยได้ผ่านทางช่องทางการติดต่อของผู้วิจัยที่ได้ให้ไว้ข้างต้น

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ความเสี่ยงที่อาจได้รับ

ผู้ปกครองอาจเกิดความเครียด ระหว่างการตอบแบบสอบถามหรือสัมภาษณ์ ซึ่งทางผู้วิจัยยินดีให้ท่านหยุดพักในระหว่างการตอบแบบสอบถามหรือสัมภาษณ์ได้ รวมทั้งช่วยดูแลและให้คำปรึกษาเพื่อให้คลายความเครียดลง

ประโยชน์ที่อาจได้รับ

1. การมีส่วนร่วมในการสร้างความรู้และความเข้าใจ โดยการแบ่งปันประสบการณ์ของท่าน, ความท้าทาย และความรู้สึก, ท่านจะมีบทบาทสำคัญในการเสริมสร้างความเข้าใจเกี่ยวกับความท้าทายของมารดาที่ให้การดูแลเลี้ยงลูกวัยรุ่นที่มีความบกพร่องทางสติปัญญา การเข้าร่วมของท่านจะช่วยให้ผู้วิจัยเข้าใจปัจจัยที่มีผลต่อความยืดหยุ่นทางจิตใจได้อย่างดีขึ้น และอาจมีส่วนช่วยในการพัฒนาแนวทางการเสริมสร้างความยืดหยุ่นทางจิตใจให้ดียิ่งขึ้นสำหรับมารดาท่านอื่นที่ต้องเผชิญกับความท้าทายที่เหมือนกัน

2. การสะท้อนความรู้สึกและการเติบโตของตัวเอง เป็นการสะท้อนความรู้สึกของท่านและการให้สัมภาษณ์เกี่ยวกับความท้าทายของท่านที่ให้การดูแลเลี้ยงลูกวัยรุ่นที่มีความบกพร่องทางสติปัญญา ในฐานะมารดาซึ่งอาจทำให้ท่านเติบโตและเข้าใจตนเองมากขึ้น ซึ่งอาจเป็นโอกาสในการสะท้อนตัวเองและมีส่วนช่วยให้เกิดความรู้สึกที่ดีของท่านเอง ตลอดจนความยืดหยุ่นทางจิตใจของท่านด้วย

วิธีการและรูปแบบการรักษาอื่น ๆ ซึ่งมีอยู่สำหรับอาสาสมัครผู้รับการวิจัย

ท่านไม่จำเป็นต้องเข้าร่วมโครงการวิจัยนี้เพื่อประโยชน์ในการรักษาโรคที่ท่านเป็นอยู่ เนื่องจากมีแนวทางการรักษาอื่น ๆ หลายแบบสำหรับรักษาโรคของท่านได้ ดังนั้นจึงควรศึกษาก่อนตัดสินใจเข้าร่วมในการวิจัย

ข้อปฏิบัติของท่านขณะที่ร่วมในโครงการวิจัย

ขอให้ท่านปฏิบัติดังนี้

- ให้ข้อมูลท่านและผู้บกพร่องทางสติปัญญา ผู้ทำวิจัยด้วยความสัตย์จริง
- แจ้งปัญหาที่เกิดขึ้นในระหว่างที่ท่านร่วมในโครงการวิจัยได้ทุกปัญหา

อันตรายที่อาจเกิดขึ้นจากการเข้าร่วมในโครงการวิจัยและความรับผิดชอบของผู้ทำวิจัย/ผู้สนับสนุนการวิจัย

หากพบอันตรายที่เกิดขึ้นจากการวิจัยนี้ ท่านจะได้รับการรักษาอย่างเหมาะสมทันที

ในกรณีที่ท่านได้รับอันตรายใด ๆ จากการเข้าร่วมงานวิจัยนี้ หรือต้องการข้อมูลเพิ่มเติมที่เกี่ยวข้องกับโครงการวิจัย ท่านสามารถติดต่อกับผู้ทำวิจัยคือ นายวัฒนา เตจาคำ ได้ตลอด 24 ชั่วโมง

ค่าใช้จ่ายของท่านในการเข้าร่วมการวิจัย

ท่านจะไม่มีค่าใช้จ่ายที่จะต้องรับผิดชอบในโครงการนี้

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คำตอบแทนสำหรับผู้เข้าร่วมวิจัย (ถ้ามี)

ท่านจะได้รับบัตรกำนัลโลตัสเพื่อเป็นค่าชดเชย ค่าเดินทางและชดเชยการสูญเสียรายได้ เสียเวลา หรือความไม่สะดวก ไม่สบาย ในการมาพบผู้วิจัย ในระยะที่ หนึ่ง มูลค่าครั้งละ 100.....บาทรวมทั้งหมด ...1..... ครั้ง และหากท่านสนใจเข้าร่วมงานวิจัยในระยะที่ สอง มูลค่าครั้งละ 200.....บาทรวมทั้งหมด ...1..... ครั้ง

การประกันภัยเพื่อคุ้มครองผู้เข้าร่วมวิจัย (ถ้ามี)

ไม่มี

การเข้าร่วมและการสิ้นสุดการเข้าร่วมโครงการวิจัย

การเข้าร่วมในโครงการวิจัยครั้งนี้เป็นไปโดยความสมัครใจ หากท่านไม่สมัครใจจะเข้าร่วมการศึกษาแล้ว ท่านสามารถถอนตัวได้ตลอดเวลา การขอลงตัวออกจากโครงการวิจัยจะไม่มีผลต่อการดูแลรักษาโรคของท่านแต่อย่างใด

ผู้ทำวิจัยอาจถอนท่านออกจากการเข้าร่วมการวิจัย เพื่อเหตุผลด้านความปลอดภัยของท่าน หรือเมื่อผู้สนับสนุนการวิจัยยุติการดำเนินงานวิจัย หรือ ในกรณีดังต่อไปนี้

- ท่านไม่สามารถปฏิบัติตามคำแนะนำของผู้ทำวิจัย
- ไม่ได้มาตามที่นัดหมาย

การปกป้องรักษาข้อมูลความลับของอาสาสมัครผู้รับการวิจัย

ข้อมูลนี้อาจนำไปสู่การเปิดเผยตัวท่าน จะได้รับการปกปิดและจะไม่เปิดเผยแก่สาธารณชน ในกรณีที่ผลการวิจัยได้รับการตีพิมพ์ ชื่อและที่อยู่ของท่านจะต้องได้รับการปกปิดอยู่เสมอ โดยจะใช้เฉพาะรหัสประจำโครงการวิจัยของท่าน

จากการลงนามยินยอมของท่านผู้ทำวิจัย และผู้สนับสนุนการวิจัยสามารถเข้าไปตรวจสอบบันทึกข้อมูลทางการแพทย์ของท่านได้แม้จะสิ้นสุดโครงการวิจัยแล้วก็ตาม หากท่านต้องการยกเลิกการให้สิทธิ์ดังกล่าว ท่านสามารถแจ้ง หรือเขียนบันทึกขอยกเลิกการให้คำยินยอม โดยส่งไปที่ นายวัฒนา เตจาคำ วิทยาลัยพยาบาลบรมราชชนนี กรุงเทพฯ เลขที่ 2/1 แขวงทุ่งพญาไท เขตราชเทวี กรุงเทพฯ 10400 หากท่านขอยกเลิกการให้คำยินยอมหลังจากที่ท่านได้เข้าร่วมโครงการวิจัยแล้ว ข้อมูลส่วนตัวของท่านจะไม่ถูกบันทึกเพิ่มเติม อย่างไรก็ตามข้อมูลอื่น ๆ ของท่านอาจถูกนำมาใช้เพื่อประเมินผลการวิจัย และท่านจะไม่สามารถกลับมาเข้าร่วมในโครงการนี้ได้อีก ทั้งนี้เนื่องจากข้อมูลของท่านที่จำเป็นสำหรับใช้เพื่อการวิจัยไม่ได้ถูกบันทึก

การตอบคำถามในแบบสอบถามโดยเอกสารจะถูกสแกนและบันทึกไว้ในรูปแบบไฟล์ดิจิทัล เมื่อเสร็จขั้นตอนนี้แล้ว เอกสารที่เป็นกระดาษจะถูกทำลายทันทีด้วยเครื่องทำลายเอกสาร และ การบันทึกเสียงถูกบันทึกไว้ในรูปแบบไฟล์ดิจิทัล (mp3.) เก็บไว้ในระบบออนไลน์ที่ปลอดภัยด้วยรหัสผ่าน และถูกจัดเก็บบนเครือข่ายของมหาวิทยาลัยกลาสโกว์ ข้อมูลของงานวิจัยทั้งหมดจะถูกจัดการตามกฎหมายคุ้มครองข้อมูลส่วนบุคคลทั่วไป (General Data Protection Regulation, GDPR) ในปี 2018 ข้อมูลนี้จะถูกเก็บรักษาเป็นความลับและสามารถเข้าถึงได้เฉพาะทีมวิจัยเท่านั้น และจะถูกทำลายเมื่อการวิจัยเสร็จสมบูรณ์

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ท่านสามารถขอเข้าถึงข้อมูลที่เราประมวลผลเกี่ยวกับท่านก่อนสิ้นสุดกระบวนการเก็บข้อมูลได้ หากในระหว่างที่เก็บข้อมูล ท่านเชื่อว่าข้อมูลที่ผู้วิจัยประมวลผลเกี่ยวกับท่านไม่ถูกต้อง ท่านสามารถขอข้อมูลเหล่านี้ได้และอาจขอ แก้ไข หรือลบข้อมูลได้ หลังจากข้อมูลของท่านถูกเก็บรวบรวมและรวมเข้าในชุดข้อมูลสุดท้ายแล้ว จะกลายเป็นข้อมูลที่ไม่สามารถเปลี่ยนแปลงได้และไม่สามารถถอนข้อมูลได้อีก ในกรณีที่ผู้วิจัยได้รับความยินยอมจากท่านในการประมวลผลข้อมูลของท่าน ท่านยังสามารถถอนความยินยอมของท่านได้ในทุกเวลา อย่างไรก็ตาม หากท่านต้องการถอนการเข้าร่วมงานวิจัยหลังจากที่ข้อมูลทั้งหมดถูกเก็บรวบรวมแล้ว ในกรณีนี้ข้อมูลที่ถูกเก็บรวบรวมถึงขั้นตอนนั้นจะถูกเก็บไว้และใช้ในรูปแบบที่ไม่เปิดเผยตัวตนสำหรับงานวิจัย

ในงานวิจัยนี้ ผู้วิจัยให้ความสำคัญเกี่ยวกับการถ่ายโอนข้อมูลระหว่างประเทศ โดยเฉพาะเรื่องการจัดการเอกสารยินยอมการเข้าร่วมและข้อมูลของอาสาสมัครเข้าร่วมงานวิจัย การถ่ายโอนข้อมูลระหว่างประเทศ จะถูกดำเนินการโดยใช้ช่องทางที่ปลอดภัยและเข้ารหัสที่มหาวิทยาลัยกลาสโกว์จัดเตรียมไว้ให้ผู้วิจัย เพื่อป้องกันการเข้าถึงโดยไม่ได้รับอนุญาตขณะการถ่ายโอนข้อมูลนั้น

การจัดการกับตัวอย่างชีวภาพที่เหลือ

ไม่มี

สิทธิ์ของอาสาสมัครผู้รับการวิจัยในโครงร่างการวิจัย

ในฐานะที่ท่านเป็นผู้เข้าร่วมในโครงร่างการวิจัย ท่านจะมีสิทธิ์ดังต่อไปนี้

1. ท่านจะได้รับทราบถึงลักษณะและวัตถุประสงค์ของการวิจัยในครั้งนี้
2. ท่านจะได้รับการอธิบายเกี่ยวกับระเบียบวิธีการของการวิจัยทางการแพทย์ รวมทั้งยาและอุปกรณ์ที่ใช้ในการวิจัยครั้งนี้
3. ท่านจะได้รับการอธิบายถึงความเสี่ยงและความไม่สบายที่จะได้รับจากการวิจัย
4. ท่านจะได้รับการอธิบายถึงประโยชน์ที่ท่านอาจจะได้รับจากการวิจัย
5. ท่านจะได้รับการเปิดเผยถึงทางเลือกในการรักษาด้วยวิธีอื่น ยา หรืออุปกรณ์ซึ่งมีผลดีต่อท่านรวมทั้งประโยชน์และความเสี่ยงที่ท่านอาจได้รับ
6. ท่านจะได้รับทราบแนวทางในการรักษา ในกรณีที่พบโรคแทรกซ้อนภายหลังการเข้าร่วมในโครงร่างการวิจัย
7. ท่านจะมีโอกาสได้ซักถามเกี่ยวกับงานวิจัยหรือขั้นตอนที่เกี่ยวข้องกับงานวิจัย
8. ท่านจะได้รับทราบว่าความยินยอมเข้าร่วมในโครงร่างการวิจัยนี้ ท่านสามารถถอนตัวจากโครงการเมื่อไรก็ได้ โดยผู้เข้าร่วมในโครงร่างการวิจัยสามารถถอนตัวจากโครงการโดยไม่ได้รับผลกระทบใด ๆ ทั้งสิ้น
9. ท่านจะได้รับเอกสารข้อมูลคำอธิบายสำหรับผู้เข้าร่วมในโครงร่างการวิจัยและสำเนาเอกสารใบยินยอมที่มีทั้งลายเซ็นและวันที่

 กรมสุขภาพจิต สถาบันราชานุกูล	คณะกรรมการพิจารณาจริยธรรมการวิจัยในมนุษย์ สถาบันราชานุกูล	AF 07.1
	เอกสารข้อมูลคำอธิบายสำหรับอาสาสมัครผู้รับการวิจัย (Information sheet for research participant)	เริ่มใช้ 15 มิถุนายน 2563

10. ท่านมีสิทธิในการตัดสินใจว่าจะเข้าร่วมในโครงการวิจัยหรือไม่ก็ได้ โดยปราศจากการใช้อิทธิพลบังคับข่มขู่ หรือการหลอกลวง

หากท่านไม่ได้รับการชดเชยอันควรต่อการบาดเจ็บหรือเจ็บป่วยที่เกิดขึ้นโดยตรงจากการวิจัย หรือท่านไม่ได้รับการปฏิบัติตามที่ปรากฏในเอกสารข้อมูลคำอธิบายสำหรับผู้เข้าร่วมในการวิจัย ท่านสามารถร้องเรียนได้ที่ คณะกรรมการจริยธรรมการวิจัยในมนุษย์ สถาบันราชานุกูล โทร. _____ ต่อ _____ ในเวลาราชการ
ขอขอบคุณในการร่วมมือของท่านมา ณ ที่นี้

Appendix F: Consent form for quantitative study (Study 2)



University of Glasgow | College of Medical,
Veterinary & Life Sciences

Centre Number:

Project Number:

Participant Identification number:

Title of Project: Resilience in Mothers of Adolescents with Intellectual Disabilities in Rajanukul Institute Thailand.

Name of Researcher(s): Mr Wattana Tejakum

CONSENT FORM

Please
initial box

I confirm that I have read and understood the Participant Information Sheet version 2.0 dated 21/09/2023.

I confirm that I have read and understood the Privacy Notice version 2.0 dated 21/09/2023.

I have had the opportunity to think about the information and ask questions and understand the answers I have been given.

I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason, without my legal rights being affected.

I confirm that I agree to the way my data will be collected and processed and that data will be stored for up to 10 years in University archiving facilities in accordance with relevant Data Protection policies and regulations.

I understand that all data and information I provide will be kept confidential and will be seen only by study researchers and regulators whose job it is to check the work of researchers.

I agree that my name, contact details and data described in the information sheet will be kept for the purposes of this research project.

I understand that if I withdraw from the study, my data collected up to that point will be retained and used for the remainder of the study.

In the case of possible risk/harm, if you reveal information that suggests a risk of harm to yourselves or others, we are ethically and legally obligated to take appropriate actions to ensure safety.

I understand that all data and information I provide will be transferred internationally to University of Glasgow network.

I agree to take part in the study.

☐

Name of participant

Date

Signature

Researcher

Date

Signature

(1 copy for participant; 1 copy for researcher)

Appendix G: Consent form for quantitative study (Study 2, Thai version)

	คณะกรรมการพิจารณาจริยธรรมการวิจัยในมนุษย์ สถาบันราชานุกูล	AF 07.2
	เอกสารแสดงความยินยอมเข้าร่วมในโครงการวิจัย (Informed consent form)	เริ่มใช้ 15 มิถุนายน 2563

โครงการวิจัยเรื่อง ความยืดหยุ่นทางจิตใจในมารดาของวัยรุ่นที่มีความบกพร่องทางสติปัญญาในสถาบันราชานุกูล ประเทศไทย

วันให้คำยินยอม วันที่.....เดือน.....พ.ศ.....

ข้าพเจ้า นาย/นาง/นางสาว.....

ที่อยู่.....ได้อ่าน

รายละเอียดจากเอกสารข้อมูลสำหรับผู้เข้าร่วมโครงการวิจัยที่แนบมาฉบับวันที่..... และ

ข้าพเจ้ายินยอมเข้าร่วมโครงการวิจัยโดยสมัครใจ

ข้าพเจ้าได้รับสำเนาเอกสารแสดงความยินยอมเข้าร่วมในโครงการวิจัยที่ข้าพเจ้าได้ลงนาม และ วันที่พร้อมด้วยเอกสารข้อมูลสำหรับผู้เข้าร่วมโครงการวิจัย ทั้งนี้ก่อนที่จะลงนามในใบยินยอมให้ทำการวิจัยนี้ ข้าพเจ้าได้รับการอธิบายจากผู้วิจัยถึงวัตถุประสงค์ของการวิจัย ระยะเวลาของการทำวิจัย วิธีการวิจัย ความเสี่ยงหรืออาการที่อาจเกิดขึ้นจากการวิจัย หรือจากยาที่ใช้ รวมทั้งประโยชน์ที่จะเกิดขึ้นจากการวิจัย และแนวทางการรักษาโดยวิธีอื่นอย่างละเอียด ข้าพเจ้ามีเวลาและโอกาสเพียงพอในการซักถามข้อสงสัยจนมีความเข้าใจอย่างดีแล้ว โดยผู้วิจัยได้ตอบคำถามต่าง ๆ ด้วยความเต็มใจไม่ปิดบังซ่อนเร้นจนข้าพเจ้าพอใจ

ข้าพเจ้ารับทราบจากผู้วิจัยว่าหากเกิดความเสียหายหรืออันตรายใด ๆ จากการวิจัยดังกล่าว ข้าพเจ้าจะได้รับการรักษาพยาบาลโดยไม่เสียค่าใช้จ่าย และจะได้รับค่าชดเชยจากผู้วิจัย

ข้าพเจ้ามีสิทธิ์ที่จะบอกเลิกเข้าร่วมในโครงการวิจัยเมื่อใดก็ได้ โดยไม่จำเป็นต้องแจ้งเหตุผล และการบอกเลิกการเข้าร่วมการวิจัยนี้ จะไม่มีผลต่อการรักษาโรคหรือสิทธิอื่น ๆ ที่ข้าพเจ้าจะพึงได้รับต่อไป

ผู้วิจัยรับรองว่าจะเก็บข้อมูลส่วนตัวของข้าพเจ้าเป็นความลับ และจะเปิดเผยได้เฉพาะเมื่อได้รับการยินยอมจากข้าพเจ้าเท่านั้น บุคคลอื่นในนามของบริษัทผู้สนับสนุนการวิจัย หรือคณะกรรมการพิจารณาจริยธรรมการวิจัยในคน อาจได้รับอนุญาตให้เข้ามาตรวจสอบและประมวลผลข้อมูลของข้าพเจ้า ทั้งนี้จะต้องกระทำไปเพื่อวัตถุประสงค์เพื่อตรวจสอบความถูกต้องของข้อมูลเท่านั้น โดยการตกลงที่จะเข้าร่วมการศึกษานี้ข้าพเจ้าได้ให้คำยินยอมที่จะให้มีการตรวจสอบข้อมูลประวัติทางการแพทย์ของข้าพเจ้าได้

ผู้วิจัยรับรองว่าจะไม่มีการเก็บข้อมูลใด ๆ เพิ่มเติม หลังจากที่ข้าพเจ้าขอยกเลิกการเข้าร่วมโครงการวิจัย และต้องการให้ทำลายเอกสารและ/หรือ ตัวอย่างที่ใช้ตรวจสอบทั้งหมดที่สามารถสืบค้นถึงตัวข้าพเจ้าได้

ข้าพเจ้าเข้าใจว่า ข้าพเจ้ามีสิทธิ์ที่จะตรวจสอบหรือแก้ไขข้อมูลส่วนตัวของข้าพเจ้าและสามารถยกเลิกการให้สิทธิ์ในการใช้ข้อมูลส่วนตัวของข้าพเจ้าได้ โดยต้องแจ้งให้ผู้วิจัยรับทราบ

ข้าพเจ้าได้ตระหนักว่าข้อมูลในการวิจัยรวมถึงข้อมูลทางการแพทย์ของข้าพเจ้าที่ไม่มีการเปิดเผยชื่อจะผ่านกระบวนการต่าง ๆ เช่น การเก็บข้อมูล การบันทึกข้อมูลในแบบบันทึกและในคอมพิวเตอร์ การตรวจสอบการวิเคราะห์ และการรายงานข้อมูลเพื่อวัตถุประสงค์ทางวิชาการ รวมทั้งการใช้ข้อมูลทางการแพทย์ในอนาคตหรือการวิจัยทางด้านเภสัชภัณฑ์ เท่านั้น

	คณะกรรมการพิจารณาจริยธรรมการวิจัยในมนุษย์ สถาบันราชานุกูล	AF 07.2
	เอกสารแสดงความยินยอมเข้าร่วมในโครงการวิจัย (Informed consent form)	เริ่มใช้ 15 มิถุนายน 2563

ข้าพเจ้าได้อ่านข้อความข้างต้นและมีความเข้าใจดีทุกประการแล้ว ยินดีเข้าร่วมในการวิจัยด้วยความเต็มใจ จึงได้ลงนามในเอกสารแสดงความยินยอมนี้

.....ลงนามผู้ให้ความยินยอม
(.....) ชื่อผู้ยินยอมตัวบรรจง
วันที่ เดือน.....พ.ศ.....

ข้าพเจ้าได้อธิบายถึงวัตถุประสงค์ของการวิจัย วิธีการวิจัย อันตราย หรืออาการไม่พึงประสงค์หรือความเสี่ยงที่อาจเกิดขึ้นจากการวิจัย หรือจากยาที่ใช้ รวมทั้งประโยชน์ที่จะเกิดขึ้นจากการวิจัยอย่างละเอียด ให้ผู้เข้าร่วมในโครงการวิจัยตามนามข้างต้นได้ทราบและมีความเข้าใจดีแล้ว พร้อมลงนามลงในเอกสารแสดงความยินยอมด้วยความเต็มใจ

.....ลงนามผู้ทำวิจัย
(.....) ชื่อผู้ทำวิจัย ตัวบรรจง
วันที่ เดือน.....พ.ศ.....

.....ลงนามพยาน
(.....) ชื่อพยาน ตัวบรรจง
วันที่ เดือน.....พ.ศ.....

Appendix H: Quantitative survey (Study 2)

Appendix B

1. Demographic Information:

Part 1	
1) Participant number:	Date:
2) Mother's age	Years old:
3) Marital Status	Single: Married: Divorced: Separated: Widowed:
4) Religion	Buddhist: Christian: Islam: Others....
5) Education	Primary School and lower: High School: Undergraduate School: Master's Degree: Doctorate's Degree:
6) Do you have any health problem?	No: Yes, please indicate:
7) What is your family financial status?	Have savings: Income = Expenses: In debt:
8) How many dependants in the family?	Number of children with ID: Number of children with typically development (TD): Elderly parent: Other family member:
9) How many people living in household?	Number:
Part 2	
1) Child's age	Years old:
2) Sex	Male: Female:
3) Severity of ID	Borderline: Mild: Moderate: Severe: Profound:
4) Health problems?	Please specify:
5) Challenging behaviour?	Please specify:

2. Pile-up of Demands:

The Thai Strain Inventory Family Stress Survey

Instructions: Please read each statement and decide to what extent these events have occurred in your family in the past 12 months.

Not at all 0 - means the statement did not occur in your family

A little 1 - means the statement occurred in your family occasionally (1-2 times)

Moderately 2 - means the statement occurred in your family a moderate number of times (4-5 times)

Mostly 3 - means the statement occurred frequently in your family

No.	Statement	Not at all	A little	Moderately	Mostly
1	Family members have problems with job responsibilities/personal tasks/colleagues				
2	There are financial problems in the family				
3	Family members have problems with studying/examinations				
4	Family members/relatives/close friends have serious illnesses or have suffered serious injuries				
5	There are conflicts between family members				
6	In addition to the patient, some family members are anxious/overthinking				
7	Family members/relatives have physical disabilities or chronic illnesses				
8	Family members, relatives, or close friends have passed away				
9	There are unresolved problems that have increased (e.g., housework, etc.)				
10	There is increasing difficulty in raising children				
11	There has been a loss of property (e.g., robbed/stolen/cheated/house fire/house or land seized)				

3. Coping Strategies:

F-COPES Problem Solving

Instructions: Please read each statement carefully and tick the box that aligns with your attitudes and behaviors in response to problems or difficulties in your family.

Not at all (1) - Meaning, the statement does not occur in your family.

A little (2) - Meaning, the statement sometimes happens in your family.

Somewhat (3) - Meaning, the statement moderately happens in your family.

Very much (4) - Meaning, the statement happens in your family most of the time.

When we face problems or difficulties, our family finds solutions by:

No.	Statement	Not at all	A little	Somewhat	Very much
1	Discussing problems or difficulties with relatives.				
2	Seeking emotional and moral support from friends.				
3	Having confidence that we have the ability to solve major problems ourselves.				
4	Seeking information, advice, and suggestions from other families with similar problems.				
5	Asking for advice from relatives (e.g., grandparents).				
6	Seeking help from community organizations and programs designed to assist families in similar situations.				
7	Believing in our family's resilience to solve problems.				
8	Receiving help from neighbors (e.g., food, money).				
9	Seeking information and advice from public health officials.				
10	Asking for help from neighbors.				
11	Confronting problems directly and attempting to solve them immediately.				
12	Watching TV, listening to the radio, watching movies.				
13	Showing that we are strong.				
14	Going to a temple to ask for advice from a monk or to				

	make merit to alleviate misfortunes.				
15	Accepting that difficult situations are a part of life.				
16	Sharing feelings of discomfort with close friends.				
17	Accepting that luck plays a significant role in successfully solving family problems.				
18	Exercising with friends to strengthen the body and reduce stress.				
19	Accepting that the difficulties that occur are unexpected.				
20	Participating in activities with relatives (e.g., visiting, dining together).				
21	Seeking advice and help from experts.				
22	Believing that we can manage our problems.				
23	Participating in religious activities.				
24	Thinking positively about family problems so as not to lose morale in solving them.				
25	Asking for opinions from relatives about the problems we are facing.				
26	Feeling that no matter how well we prepare to face problems, we still find it difficult to solve them.				
27	Seeking advice from village leaders or elders.				
28	Ignoring, letting problems resolve themselves.				
29	Sharing problems with neighbors.				
30	Having faith in religion (chanting, paying respects to the Buddha).				
31	Seeing a prophet to find ways to solve problems.				
32	Praying to sacred things for help and protection.				
33	Invoking a deity or spirit to find the cause or solution to problems.				

4. Social Support:

Social Support Index (SSI)

Instructions: Please read each statement one by one, and tick the box that corresponds with your family's situation.

Doesn't apply at all: 0 - This means the statement does not apply to your family at all.

Applies a little: 1 - This means the statement applies to your family to some extent.

Moderately applies: 2 - This means the statement moderately applies to your family.

Applies very much: 3 - This means the statement applies to your family to a great extent.

No.	Statement	Doesn't apply at all	Applies a little	Moderately applies	Applies very much
1	If there's an emergency in my family, I know that even people in our community we don't know would be willing to help us.				
2	People in the community know they can ask for help from the community if they have problems.				
3	I have friends who make me feel valued and feel that I can help them in some way.				
4	People in the community where I live help each other.				
5	My friends in this community are a part of my daily routine.				
6	I need to be cautious when doing something for my friends.				
7	I feel secure living in my current community.				
8	There's something about the community that makes me think people here are not very friendly.				
9	This community is not good enough to raise children.				
10	I feel confident that I am as important to my				

	friends as they are to me.				
11	I have close friends who are not in my family, and I know they love and care about me.				
12	My community has organizations or funds that provide excellent assistance to people in the community.				
13	People in the community always encourage me and my family.				
14	State personnel such as public health officers provide good advice to me and my family on patient care.				

5. Perception:

Demands of illness inventory (DOII)

Instructions: Please read each statement one by one, and tick the box that aligns with your family situation.

Doesn't apply at all 0 means your family has never had thoughts in line with the statement

Applies slightly 1 means your family has had thoughts somewhat in line with the statement

Applies moderately 2 means your family has had thoughts moderately in line with the statement

Applies very much 3 means your family thinks in line with the statement almost every day

The effects of the illness of my son/daughter make my family think about:

No.	Statement	Doesn't apply at all	Applies slightly	Applies moderately	Applies very much
1.	How much longer I will live				
2.	Re-prioritizing things in my life and for the members of my family				
3.	My family and I were not prepared for an experience like this				
4.	The uncertainty that my family and I must face				
5.	Whether my family's life will return to normal				
6.	What will happen to my future				
7.	Whether my other children will face the same illness				
8.	I have never had an experience like this or anything similar				
9.	Comparing what happened to my family with other families who had the same or similar experiences				
10.	Why this is happening to our family				
11.	It is unfair that this happened to our family				
12.	It's a fault of my family to have an intellectually disabled child/daughter				
13.	I don't want anyone to know that I have an intellectually disabled child/daughter				
14.	I think the neighbors disdain my relatives for having an intellectually disabled child/daughter				
15.	I think the neighbors disdain my family for having an intellectually disabled child/daughter				
16.	I feel that the patient is a burden to the family				

17.	I or other family members are annoyed by the intellectually disabled child/daughter				
18.	My family and I want our intellectually disabled child/daughter to stay in the hospital permanently				
19.	I think my intellectually disabled child/daughter will recover and become normal				

6. Resilience:

Connor-Davidson Resilience Scale 10 (CD-RISC-10)

Instructions: The following statements relate to your feelings, thoughts, and behaviors. Please mark X in the box that corresponds most with how you think, feel, and behave.

	Statement	Not true at all	Very untrue	Sometimes untrue	Often true	Almost always true
1.	I can adapt to change					
2.	I can deal with whatever comes					
3.	I try to see the funny side of problems					
4.	Dealing with stress can make me stronger					
5.	I usually bounce back after illness/difficulties					
6	I can achieve goals despite obstacles					
7.	I can stay focused under pressure					
8.	I'm not the kind of person to give up easily, even when faced with failure					
9.	I think I am a strong person					
10.	I can deal with unwanted feelings					

The final page of the survey

You can choose to provide your email address or telephone number to opt-in to a monetary compensation of 2.50 £ in Lotus voucher and for contact about future research related to exploring resilience in mothers of adolescents with IDs in Rajanukul Institute Thailand: a qualitative study.

Your email:

Your telephone number.....

Your email and telephone number will be held separate to your survey responses meaning your responses remain completely anonymous.

Appendix I: Quantitative survey (Study 2, Thai version)

เครื่องมือที่ใช้ในโครงงานวิจัยโดยมารดาเป็นผู้กรอกแบบสอบถามด้วยตนเอง

1. ข้อมูลเกี่ยวกับมารดา:

ส่วนที่ 1	
1) เลขที่ผู้เข้าร่วมวิจัย:	วันที่:
2) อายุมารดา	อายุ(ปี):
3) สถานะสมรส	โสด: คู่: หย่าร้าง: แยกกันอยู่: หม้าย:
4) ศาสนา	พุทธ: คริสต์: อิสลาม: อื่นๆ(ระบุ):
5) ระดับการศึกษา	ประถมศึกษา หรือต่ำกว่า: มัธยมศึกษา: ประกาศนียบัตร/ปริญญาตรี: ปริญญาโท: ปริญญาเอก:
6) ท่านมีโรคประจำตัวหรือไม่?	ไม่: ถ้ามี โปรดระบุ:
7) สถานะทางการเงินของท่าน?	มีเงินสำรองไว้ใช้จ่าย: รายได้ = รายจ่าย: มีหนี้สิน:
8) ในบ้านท่านมีผู้ที่ต้องได้รับการดูแลจากท่านอีกหรือไม่?	จำนวนบุตรที่บกพร่องทางสติปัญญา: จำนวนบุตรที่มีพัฒนาการปกติ: ผู้สูงอายุ: อื่นๆ:
9) จำนวนสมาชิกทั้งหมดในครอบครัวของท่าน?	จำนวน:
ส่วนที่ 2	

1) อายุบุตรของท่าน	อายุ (ปี):
2) เพศ	ชาย: หญิง:
3) ระดับความรุนแรงของความบกพร่องทางสติปัญญา	เล็กน้อยมาก: เล็กน้อย: ปานกลาง: รุนแรง: รุนแรงมาก:
4) ปัญหาสุขภาพอื่นๆ?	โปรดระบุ:
5) พฤติกรรมที่ไม่พึงประสงค์?	โปรดระบุ:

2. แบบสำรวจความเครียด:

แบบสำรวจความเครียดในครอบครัว

คำชี้แจง กรุณาอ่านข้อความและตัดสินใจว่าสิ่งต่าง ๆ ในแต่ละข้อเกิดขึ้นในครอบครัวของท่านในระหว่าง 12 เดือนที่ผ่านมา ในระดับใด

ไม่ตรงเลย	0	หมายถึง ข้อความนั้นไม่เกิดขึ้นในครอบครัวของท่าน
ตรงเล็กน้อย	1	หมายถึง ข้อความนั้นเกิดขึ้นในครอบครัวของท่านบ้าง นาน ๆ ครั้ง (1-2 ครั้ง)
ตรงปานกลาง	2	หมายถึง ข้อความนั้นเกิดขึ้นในครอบครัวของท่านปานกลาง (4-5 ครั้ง)
ตรงมากที่สุด	3	หมายถึง ข้อความนั้นเกิดขึ้นในครอบครัวของท่านเป็นประจำบ่อยครั้ง

ลำดับที่	ข้อความ	ไม่ตรง เลย	ตรง เล็กน้อย	ตรงปาน กลาง	ตรงมาก ที่สุด	สำหรับ ผู้วิจัย
1	สมาชิกในครอบครัวมีปัญหาเกี่ยวกับหน้าที่การงาน/ กิจการส่วนตัว/เพื่อนร่วมงาน					
2	มีปัญหาเกี่ยวกับค่าใช้จ่ายในครอบครัว					
3	สมาชิกในครอบครัวมีปัญหาเกี่ยวกับการเรียน/การสอบ					
4	สมาชิกในครอบครัว/ญาติ/เพื่อนสนิท มีการเจ็บป่วย รุนแรง หรือได้รับอันตรายบาดเจ็บรุนแรง					
5	มีความขัดแย้งระหว่างสมาชิกในครอบครัว					
6	นอกจากผู้ป่วยแล้วสมาชิกในครอบครัวบางคนมีความ วิตกกังวล/คิดมาก					
7	สมาชิกในครอบครัว/ญาติ มีการบกพร่องทางร่างกาย หรือ เจ็บป่วยเรื้อรัง					
8	สมาชิกในครอบครัวญาติ หรือเพื่อนสนิทเสียชีวิต					
9	มีปัญหายุ่งยากที่ไม่ได้รับการแก้ไขดังค้างมากขึ้น (เช่น งาน บ้าน.....)					
10	มีความยากลำบากในการเลี้ยงดูบุตรมากขึ้น					
11	มีการสูญเสียทรัพย์สิน (เช่น ถูกปล้น/ขโมย/โจง/ไฟ ไหม้บ้าน/ถูกยึดบ้านที่/ดิน)					

3. วิธีการแก้ปัญหา:

แบบสำรวจวิธีการแก้ปัญหา

คำชี้แจง กรุณาอ่านข้อความที่ละเอียด และวงกลมล้อมรอบตัวเลข ที่สอดคล้องกับทัศนคติ และ พฤติกรรมในการตอบสนองต่อปัญหา หรือความยุ่งยากในครอบครัวของท่าน

ไม่ตรงเลย	1	หมายถึง ข้อความนั้นไม่เกิดขึ้นในครอบครัวของท่าน
ตรงเล็กน้อย	2	หมายถึง ข้อความนั้นเกิดขึ้นในครอบครัวของท่านบ้าง
ตรงปานกลาง	3	หมายถึง ข้อความนั้นเกิดขึ้นในครอบครัวของท่านปานกลาง
ตรงมากที่สุด	4	หมายถึง ข้อความนั้นเกิดขึ้นในครอบครัวของท่านมากที่สุด

เมื่อเราเผชิญกับปัญหาหรือความยุ่งยาก ครอบครัวของเราจะหาวิธีแก้ไขโดย

ลำดับที่	ข้อความ	ไม่ตรง เลย	ตรง เล็กน้อย	ตรงปาน กลาง	ตรงมาก ที่สุด	สำหรับ ผู้วิจัย
1	บอกปัญหาหรือความยุ่งยากกับญาติพี่น้อง					
2	แสวงหากำลังใจ และแรงสนับสนุนจากเพื่อน					
3	มั่นใจว่าเรามีความสามารถที่จะแก้ปัญหาหลัก ๆ ได้เอง					
4	แสวงหาความรู้ข้อมูล และคำแนะนำจากครอบครัวอื่น ซึ่งมีปัญหาล้ายคลึงกัน					
5	ขอคำแนะนำจากญาติพี่น้อง (เช่น ปู่ ย่า ตา ยาย.....)					
6	ขอความช่วยเหลือจากหน่วยงานในชุมชนและโครงการ โปรแกรม ที่สร้างขึ้นเพื่อช่วยเหลือครอบครัวที่อยู่ใน สถานการณ์เช่นเดียวกับครอบครัวเรา					
7	มั่นใจว่าครอบครัวของเรามีความเข้มแข็ง ที่จะแก้ปัญหา					
8	ได้รับความช่วยเหลือจากเพื่อนบ้าน (เช่น อาหาร เงิน)					
9	แสวงหาข้อมูลคำแนะนำจากเจ้าหน้าที่สาธารณสุข					
10	ขอความช่วยเหลือจากเพื่อนบ้าน					
11	เผชิญกับปัญหาตรง ๆ และพยายามแก้ปัญหาทันที					
12	ดูโทรทัศน์, ฟังวิทยุ, ดูภาพยนตร์					
13	แสดงออกว่าเราเข้มแข็ง					
14	ไปวัด ขอคำแนะนำจากพระทำบุญสะเดาะเคราะห์					
15	ยอมรับว่าเหตุการณ์ที่ยุ่งยาก เป็นความจริงสำหรับชีวิต					
16	บอกเล่าความไม่สบายใจกับเพื่อนสนิท					
17	ยอมรับว่าโชคมีส่วนสำคัญต่อความสำเร็จในการ แก้ปัญหาครอบครัว					
18	ออกกำลังกายกับเพื่อน เพื่อให้ร่างกายแข็งแรง และลด ความตึงเครียด					
19	ยอมรับว่าความยุ่งยากที่เกิดขึ้น เป็นสิ่งที่คาดคิดไม่ได้					
20	มีกิจกรรมร่วมกับญาติพี่น้อง (ไปเยี่ยม รับประทาน อาหาร					

	ร่วมกัน ฯลฯ)					
21	แสวงหาคำแนะนำ ปรึกษาความช่วยเหลือจากผู้เชี่ยวชาญ					
22	เชื่อว่าเราสามารถจัดการต่อปัญหาของเรา					
23	เข้าร่วมกับกิจกรรมทางศาสนา					
24	คิดถึงปัญหาของครอบครัวในทางที่ดี เพื่อที่เราจะได้ไม่ เสียกำลังใจในการแก้ไขปัญหา					
25	ถามความคิดเห็นจากญาติพี่น้อง เกี่ยวกับปัญหาที่เผชิญ อยู่					
26	มีความรู้สึกที่ ไม่ว่าเราจะเตรียมตัวในการเผชิญปัญหาดี เพียงใด เราก็ยังมีความยุ่งยาก ลำบากในการแก้ปัญหา					
27	ขอคำแนะนำจากท่าน ผู้ใหญ่บ้าน อสม.					
28	วางแผน ปล่อยให้อุปกรณ์คล้อยตาม					
29	บอกเล่าปัญหาให้กับเพื่อนบ้าน					
30	เชื่อมั่นในศาสนา (สวดมนต์ไหว้พระ)					
31	ดูหมอ เพื่อหาแนวทางแก้ปัญหา					
32	บนบานสิ่งศักดิ์สิทธิ์ให้ช่วยเหลือคุ้มครอง					
33	ทรงเจ้า/เข้าทรง เพื่อหาสาเหตุหรือทางแก้ไขปัญหา					

4. การสนับสนุนทางสังคม:

แบบสำรวจการได้รับการสนับสนุนทางสังคม

คำชี้แจง กรุณาอ่านข้อความทีละข้อความ และทำเครื่องหมายวงกลมล้อมรอบตัวเลข ที่สอดคล้องกับครอบครัวท่าน

ไม่ตรงเลย	0	หมายถึง ข้อความนั้นไม่เกิดขึ้นในครอบครัวของท่าน
ตรงเล็กน้อย	1	หมายถึง ข้อความนั้นเกิดขึ้นในครอบครัวของท่านบ้าง
ตรงปานกลาง	2	หมายถึง ข้อความนั้นเกิดขึ้นในครอบครัวของท่านปานกลาง
ตรงมากที่สุด	3	หมายถึง ข้อความนั้นเกิดขึ้นในครอบครัวของท่านมากที่สุด

ลำดับที่	ข้อความ	ไม่ตรง เลย	ตรงเล็กน้อย	ตรงปาน กลาง	ตรงมาก ที่สุด	สำหรับ ผู้วิจัย
1	ถ้ามีเหตุการณ์ฉุกเฉินขึ้นในครอบครัว ฉันรู้ว่า แม่คนในชุมชนที่เราไม่รู้จักก็ยินดีให้ความช่วยเหลือครอบครัวเรา					
2	คนในชุมชนรู้ว่าสามารถขอความช่วยเหลือจากชุมชนถ้าเขามีปัญหา					
3	ฉันมีเพื่อนที่ทำให้ฉันรู้สึกว่าเขาเห็นคุณค่าของฉัน และ รู้สึกว่าฉันสามารถช่วยเขาได้ในบางอย่าง					
4	คนในชุมชนที่ฉันอาศัยอยู่ให้ความช่วยเหลือซึ่งกันและกัน					
5	เพื่อน ๆ ของฉันในชุมชนนี้เป็นส่วนหนึ่งของกิจวัตรประจำวันของฉัน					
6	ฉันต้องระมัดระวังเวลาจะทำงานบางสิ่งบางอย่างให้กับเพื่อน ๆ					
7	ฉันรู้สึกมั่นคงในการอาศัยอยู่ในชุมชนที่ฉันอยู่ขณะนี้					
8	มีบางสิ่งบางอย่างในชุมชน ที่ทำให้คิดว่า คนในชุมชนนี้ ไม่ค่อยแสดงความเป็นมิตรต่อกันมาก					
9	ชุมชนนี้ไม่ดีพอที่จะเลี้ยงเด็กให้เติบโตขึ้นในชุมชน					
10	ฉันรู้สึกมั่นใจว่าฉันมีความสำคัญต่อเพื่อน ๆ ของฉันเท่า ๆ กับที่พวกเขามีความสำคัญต่อตัวฉัน					
11	ฉันมีเพื่อนสนิทที่ไม่ได้อยู่ในครอบครัวฉัน ซึ่งฉันรู้ว่าเขารักและห่วงใยกัน					
12	ชุมชนฉันมีองค์กรหรือกองทุนต่าง ๆ ที่ให้ความช่วยเหลือคนในชุมชนเป็นอย่างดี					
13	คนในชุมชนให้กำลังใจฉันและครอบครัวเสมอ					
14	บุคลากรของรัฐเช่น เจ้าหน้าที่สาธารณสุข ให้คำแนะนำแก่ ฉันและครอบครัวของฉันในการดูแลผู้ป่วยเป็นอย่างดี					

5. การรับรู้ต่อการเจ็บป่วย:

แบบสำรวจการให้ความหมายต่อการเจ็บป่วยของสมาชิกในครอบครัว

คำชี้แจง กรุณาอ่านที่ละข้อความ และวงกลมล้อมรอบตัวเลขที่ตรงกับครอบครัวของท่าน

ไม่ตรงเลย	0	หมายถึง ครอบครัวของท่านไม่เคยมีความคิดตรงกับข้อความนั้นเลย
ตรงเล็กน้อย	1	หมายถึง ครอบครัวของท่านมีความคิดตรงกับข้อความนั้นบ้าง
ตรงปานกลาง	2	หมายถึง ครอบครัวของท่านมีความคิดตรงกับข้อความนั้นปานกลาง
ตรงมากที่สุด	3	หมายถึง ครอบครัวของท่านมีความคิดตรงกับข้อความนั้นเกือบทุกวัน

ผลของการเจ็บป่วย ของบุตร/ธิดา ที่มีความบกพร่องทางสติปัญญา ทำให้ครอบครัวของท่านต้องคิดถึง

ลำดับที่	ข้อความ	ไม่ตรง เลย	ตรงเล็กน้อย	ตรงปาน กลาง	ตรงมาก ที่สุด
1.	ฉันจะมีชีวิตอยู่อีกนานเท่าไร				
2.	จัดลำดับความสำคัญของสิ่งต่างๆ ในชีวิตของฉันและสมาชิกในครอบครัวใหม่				
3.	ฉันและสมาชิกในครอบครัวไม่ได้รับการเตรียมตัวต่อประสบการณ์เช่นนี้มาก่อน				
4.	ความไม่แน่นอนที่ฉัน และครอบครัวต้องเผชิญ				
5.	ชีวิตของฉันและครอบครัวจะกลับสู่สภาวะปกติหรือไม่				
6.	อะไรจะเกิดขึ้นกับอนาคตของฉันในอนาคต				
7.	ลูก ๆ ของฉันจะเผชิญการเจ็บป่วยเดียวกันหรือไม่				
8.	ฉันไม่มีประสบการณ์เช่นนี้ หรือคล้ายคลึงเช่นนี้มาก่อน				
9.	เปรียบเทียบเหตุการณ์ที่เกิดขึ้นกับครอบครัวของฉันกับครอบครัวอื่น ซึ่งมีประสบการณ์เดียวกันหรือคล้ายคลึงกัน				
10.	ทำไมสิ่งนี้จึงเกิดขึ้นกับครอบครัวเรา				
11.	การที่มีเหตุการณ์เช่นนี้เกิดขึ้นต่อครอบครัวของฉันเป็นสิ่งที่ไม่ยุติธรรม				
12.	เป็นความผิดปกติกของครอบครัวของฉันที่มีลูกเป็นผู้บกพร่องทางสติปัญญาเกิดขึ้นในครอบครัว				
13.	ไม่อยากให้ใครทราบว่าลูกฉันเป็นผู้บกพร่องทางสติปัญญา				
14.	คิดว่าชาวบ้านรังเกียจลูกของฉันที่เป็นผู้บกพร่องทางสติปัญญา				
15.	คิดว่าชาวบ้านรังเกียจครอบครัวของฉันที่มีลูกเป็นผู้บกพร่องทางสติปัญญา				
16.	รู้สึกว่าการที่ฉันเป็นผู้บกพร่องทางสติปัญญาเป็นภาระต่อครอบครัว				
17.	ฉันหรือสมาชิกคนอื่นๆ ในครอบครัวมีความเบื่อกว่าต่อลูกที่เป็นผู้บกพร่องทางสติปัญญา				
18.	ฉันและครอบครัวของฉันอยากให้ลูกที่เป็นผู้บกพร่องทางสติปัญญาอยู่ในโรงพยาบาลต่อไป				
19.	ฉันคิดว่าลูกที่เป็นผู้บกพร่องทางสติปัญญาของฉันจะหายเป็นปกติ				

6. ความแข็งแกร่ง ยึดหยุ่นของชีวิต:

แบบวัดความแข็งแกร่ง ยึดหยุ่นของชีวิต

(Connor & Davidson, 2003; Campbell-Sills & Stein, 2007)

คำแนะนำ ข้อความต่อไปนี้เป็นข้อความเกี่ยวกับความรู้สึกและความคิด และพฤติกรรมของท่าน กรุณาทำเครื่องหมาย X ลงในช่องที่ตรงกับที่คุณคิดหรือรู้สึก และพฤติกรรมของท่านมากที่สุด

	ข้อความ	ไม่จริง ทั้งหมด	ไม่จริงอย่าง มาก	ไม่จริง บางครั้ง	จริงบ่อยครั้ง	จริงเกือบ ตลอดเวลา
1.	ฉันสามารถปรับตัวต่อการเปลี่ยนแปลงได้					
2.	ฉันสามารถจัดการกับสิ่งต่างๆที่เข้ามาไม่ว่า จะเป็นอะไรก็ตาม					
3.	ฉันพยายามที่จะมองหาด้านความตกลง ขบขันของปัญหา					
4.	การจัดการกับความเครียดสามารถทำให้ฉัน แข็งแกร่งขึ้น					
5.	ฉันมักจะกลับคืนสู่สภาพปกติได้ภายหลัง ประสบการณ์เจ็บป่วย/ความยากลำบาก					
6.	ฉันสามารถไปถึงเป้าหมายต่างๆ ที่มี อุปสรรค					
7.	ฉันสามารถเอาใจจดจ่อกับสิ่งที่ทำอยู่ได้แม้ อยู่ภายใต้ภาวะกดดัน					
8.	ฉันไม่ใช่คนที่หมดกำลังใจง่ายๆ แม้ ประสบการณ์ล้มเหลว					
9.	ฉันคิดว่าตัวเองเป็นคนที่เข้มแข็ง					
10.	ฉันสามารถจัดการกับอารมณ์ที่ไม่พึง ประสงค์ได้					

หน้าสุดท้ายของแบบสำรวจ

คุณสามารถเลือกที่จะให้ที่อยู่อีเมลหรือหมายเลขโทรศัพท์ของคุณเพื่อจะได้รับคำตอบแทนการเข้าร่วมงานวิจัย เพื่อเป็นการแสดงความขอบคุณท่าน สำหรับการสละเวลาและเป็นค่าเดินทางที่ท่านมาร่วมงานวิจัยของเรา ด้วยคูปองมูลค่า 100 บาท และเพื่อการติดต่อเข้าร่วมงานวิจัยในอนาคต ที่เกี่ยวข้องกับการสำรวจความยืดหยุ่นทางจิตใจของแม่ที่มีลูกวัยรุ่นที่มีความบกพร่องทางสติปัญญาในประเทศไทย: การศึกษาเชิงคุณภาพ

อีเมลของคุณ:

หมายเลขโทรศัพท์ของคุณ:

ที่อยู่อีเมลและหมายเลขโทรศัพท์ของคุณจะถูกเก็บเป็นรายการแยกจากการตอบแบบสำรวจ ซึ่งหมายความว่า การตอบของคุณจะยังคงเป็นความลับ

Appendix J: Ethical approval from University of Glasgow (Study 2)



Dr Maria Truesdale

MVLS College Ethics Committee

Resilience in mothers of adolescents with intellectual disabilities in Thailand

The College Ethics Committee has reviewed your application and has agreed that there is no objection on ethical grounds to the proposed study. We are happy therefore to approve the project, subject to the following conditions

- Project end date as stipulated in original application.
- Ethical approval from Rajankul Institute – this should be submitted to MVLS ethics for our files.
- DPO approval of DPIA.
- The data should be held securely for a period of ten years after the completion of the research project, or for longer if specified by the research funder or sponsor, in accordance with the University's Code of Good Practice in Research:
(http://www.gla.ac.uk/media/media_227599_en.pdf)
- The research should be carried out only on the sites, and/or groups defined in the application.
- Any proposed changes in the protocol should be submitted for reassessment, except when it is necessary to change the protocol to eliminate hazard to the subjects or where the change involves only the administrative aspects of the project. The Ethics Committee should be informed of any such changes.
- For projects requiring the use of an online questionnaire, the University has an Online Surveys account for research. To request access, see the University's application procedure at <https://www.gla.ac.uk/research/strategy/ourpolicies/useofonlinesurveystoolforresearch/>.
- You should submit a short end of study report within 3 months of completion.

Yours sincerely

Dr Terry Quinn

Terry Quinn

FWSO, FESO, MD, FRCP, BSc (hons), MBChB (hons)
Reader / Honorary Consultant

College of Medicine, Veterinary & Life Sciences
School of Cardiovascular and Metabolic Health
terry.quinn@glasgow.gla.ac.uk

The University of Glasgow, charity number SC004401

Appendix K Ethical approval from Rajanukul Institute (Study 2)



กรมสุขภาพจิต
สถาบันราชานุกูล

COA No. 02/2567

คณะกรรมการพิจารณาจริยธรรมการวิจัยในมนุษย์ สถาบันราชานุกูล
กรมสุขภาพจิต กระทรวงสาธารณสุข
ที่อยู่ 4737 ถนนดินแดง แขวงดินแดง เขตดินแดง กรุงเทพมหานคร 10400

เอกสารรับรองโครงการวิจัย

คณะกรรมการพิจารณาจริยธรรมการวิจัยในมนุษย์ สถาบันราชานุกูล ดำเนินการให้การรับรองโครงการวิจัยตามแนวทางหลักจริยธรรมการวิจัยในมนุษย์ที่เป็นมาตรฐานสากลได้แก่ Declaration of Helsinki, The Belmont Report, CIOMS Guideline และ International Conference on Harmonization in Good Clinical Practice หรือ ICH-GCP

ชื่อโครงการ : ความยืดหยุ่นทางจิตใจในการดาของวัยรุ่นที่มีความบกพร่องทางสติปัญญาในสถาบันราชานุกูล ประเทศไทย

รหัสโครงการ : RI.IRB 011/2566_Ful

ผู้วิจัยหลัก : นายวัฒนา เตจาคำ

สังกัดหน่วยงาน : มหาวิทยาลัยกลาสโกว์ สหราชอาณาจักร

วิธีทบทวน : แบบเต็มชุด (Full Board Review)

รายงานความก้าวหน้า : ส่งรายงานความก้าวหน้าอย่างน้อย 1 ครั้ง/ปี หรือส่งรายงานฉบับสมบูรณ์หากดำเนินโครงการเสร็จสิ้นก่อน 1 ปี

เอกสารที่รับรอง :

1. แบบเสนอโครงการวิจัย	ฉบับแก้ไขครั้งที่ 1 วันที่ 26 กุมภาพันธ์ 2567
2. เอกสารข้อมูลคำอธิบายสำหรับอาสาสมัครผู้รับการวิจัย	ฉบับแก้ไขครั้งที่ 1 วันที่ 26 กุมภาพันธ์ 2567
3. เอกสารแสดงความยินยอมเข้าร่วมโครงการวิจัย สำหรับผู้แทนโดยชอบธรรม/ผู้ปกครอง	ฉบับวันที่ 8 ธันวาคม 2566
4. เครื่องมืองานวิจัย	ฉบับแก้ไขครั้งที่ 1 วันที่ 26 กุมภาพันธ์ 2567
5. ประวัตินักวิจัยหลัก	ฉบับวันที่ 8 ธันวาคม 2566
6. เอกสารระบาสัมพันธ์เชิงอาสาศาสมัครเข้าร่วมวิจัย	ฉบับวันที่ 8 ธันวาคม 2566

ลงนาม

(นายประเสริฐ จุฑา)

รองประธานคณะกรรมการพิจารณาจริยธรรมการวิจัยในมนุษย์

ลงนาม

(นางนพวรรณ ศรีวงศ์พานิช)

ผู้อำนวยการสถาบันราชานุกูล

วันที่รับรอง : 11 มีนาคม 2567

วันที่หมดอายุ : 12 มีนาคม 2568

ทั้งนี้ การรับรองนี้มีเงื่อนไขดังที่ระบุไว้ด้านหลังทุกข้อ (ดูด้านหลังของเอกสารรับรองโครงการวิจัย)

Appendix L: Participant information sheet for qualitative study (Study 3)



University of Glasgow | College of Medical,
Veterinary & Life Sciences

1. Study title / Researchers

Exploring Resilience in Mothers of Adolescents with Intellectual Disabilities in Rajanukul Institute Thailand: A Qualitative Study

Principal Investigator: Mr Wattana Tejakum, School of Health and Wellbeing, University of Glasgow, Scotland, United Kingdom

Supervisors:

1. Dr Maria Truesdale
2. Prof Deborah Cairns

2. Invitation paragraph

You are being invited to take part in a research study. The study will contribute towards an educational qualification, the University of Glasgow, which is in Scotland, United Kingdom. This study aims to explore sensitive topics and it is important that you feel comfortable about taking part and sharing your experiences. This information sheet will give you an overview of the purpose of the research, understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. If there is anything that is not clear or if you would like more information, please feel free to contact the researcher (details at the end). Please remember there is no obligation to take part and your right to withdraw at any time.

3. What is the purpose of the study?

Resilience in mothers of adolescents with Intellectual disabilities (IDs) is associated with various factors. However, research into the role of factors in these relationships is limited. This absence of research leaves vital gaps in our understanding of why some mothers manage to function well and come out stronger while others do not. The purpose of this study is to explore the factors and processes that influence resilience in mothers of adolescents with IDs in Rajanukul Institute Thailand. By participating, you will help provide vital insight, gain an understanding of the caregiver's experiences, strengths, and challenges as you navigate the journey of raising an adolescent child with IDs.

4. Why have I been invited to participate?

You have been invited to take part in this study because you are a mother of an adolescent aged 10 – 19 with IDs. Your perspective and insights are invaluable to our research efforts.

5. Do I have to take part?

No, it is up to you to decide whether or not to take part. If you do decide to take part, you will be asked to sign a consent form. If you decide to take part, you are still free to withdraw at any time and without giving a reason.

6. What will happen to me if I take part?

This study will require you to share your caregiver's experiences by answering semi-structured interview questions. This interview is in-person or phone call depends on how suitable for the participants. The interview will be a one session ranging from 45-60 minutes. Approximately 10 mothers raising adolescents with IDs will be invited to participate in this study. Once we reach the desired number of participants, recruitment will be closed. On the final page of the survey, you can choose to opt-in to a monetary compensation of 200 Baht (4.50 £) in Lotus voucher.

7. What do I have to do?

As a participant in this research study, your involvement will primarily consist of providing information and sharing your experiences.

8. What are the possible disadvantages and risks of taking part?

We value your well-being and want to provide you with accurate information about the possible disadvantages and risks associated with participating in this research study. While we strive to minimize any potential negative impacts, it is essential to consider the following factors:

Time commitment: *Participating in this study will require a time commitment from your side.* This includes completing questionnaires. It is important to assess your availability and ensure that you can allocate the necessary time to fully engage in the study.

Emotional or psychological discomfort: *Sharing personal experiences, challenges, and emotions related to raising an adolescent with intellectual disabilities may bring about emotional or psychological discomfort.* It is important to be aware that discussing sensitive topics might evoke strong feelings or memories. You have the right to decline to answer any questions or to withdraw from the study if you feel uncomfortable at any point.

Please note that the research team is committed to addressing any concerns or questions you may have throughout the study. If you experience any adverse effects or have any concerns during your participation, please do not hesitate to contact the researcher for support and guidance. We also provide contact details of organisations who could provide support for you if you are feeling down, at the bottom of this information sheet.

9. What are the possible benefits of taking part?

You will contribute to knowledge and understanding by sharing your experiences, challenges, and insights, you will play a vital role in enhancing the understanding of the unique journey of mothers raising adolescents with intellectual disabilities. Your participation will help us to understand the factors that influence resilience better and may also contribute towards improved resilience interventions for future generations facing similar challenges. Reflecting on your experiences and answering the surveys about your journey as a mother can lead to personal growth and self-awareness. It can provide an

opportunity for self-reflection and potentially contribute to your own well-being and resilience.

10. Will my taking part in this study be kept confidential?

Confidentiality is important in this research study. We are committed to maintaining the privacy and confidentiality of all participants. Here is how we ensure confidentiality:

Anonymity: You will be identified by an ID number, and any information about you will have your name removed so that you cannot be recognized from it. This means that any information you provide will be treated with strict confidentiality, and your identity will remain confidential.

Secure data storage: All information collected during the study will be stored securely and accessible only to authorized research personnel. Any data in paper form will be scanned and stored in electronic format in encrypted files on the secure password-protected computers of the research team and the principal research's secure OneDrive account provided by the University of Glasgow.

Limited access: Only the research team and authorized personnel involved in the study will have access to the data collected.

Please note: In the case of possible risk/harm, if you reveal information that suggests a risk of harm to yourselves or others, we are ethically and legally obligated to take appropriate actions to ensure safety. This may involve notifying relevant authorities, such as mental health professionals or emergency services, in order to prevent harm.

11. What will happen to my data?

The responses to the interview will be securely saved in protected by a password, hosted on the University of Glasgow's network. We will handle all study data in compliance with the General Data Protection Regulation (2018). This data will remain confidential and will only be accessible to the research team. It will be kept in accordance with the University of Glasgow's retention policy for a maximum of 10 years.

You can request access to the information we process about you before the collecting data process finishes. If at collecting data point you believe that the information, we process relating to you is incorrect, you can request to see this information and may in some instances request to have it restricted, corrected or erased. Once your data is completely collected and included in the final dataset, it becomes irreversible, and data withdrawal is not possible. However, if you want to withdraw from the study after, all the necessary data have already been collected. In this case, the relevant data collected up to that point will be retained and used pseudonymously for the remainder of the study. If you would like to learn more about how we handle your data, please feel free to contact the researcher (details at the end).

In our research study, we acknowledge the importance of addressing the international transfer of data, particularly as it relates to the handling of consent sheets and participant data. Any data transferred internationally will be done using secure and encrypted

channels provided by the University of Glasgow. To protect against unauthorized access during transmission.

12. What will happen to the results of the research study?

We understand your interest in the results and outcomes. Here is what will happen to the results:

Publication of Results:

The research team aims to publish the results of the study in reputable scientific journals and share the findings with the broader research community. The publication of the results is expected to take place within a year after the completion of the study.

Accessing Published Results:

Once the study results are published, you can request a copy of the published report or article from the study coordinator or researcher. We will provide you with information on how to access and obtain a copy of the published results.

Alongside any academic reports, we will create a plain language summary of the study findings. This summary will be written in a way that is easily understandable to a non-academic audience, including yourself. It will provide a clear and concise overview of the key findings, their implications, and what you mean for individuals caring for adolescents with IDs. To address this, you can contact the researcher (detailed at the end), so that you can easily reach out with your questions or requests for the information.

13. Who is organising and funding the research?

This research study is organized by Wattana Tejakum (principal research; post graduate research student at the University of Glasgow) and supervised by Dr Maria Truesdale (University of Glasgow) and Professor Deborah Cairns (University of Glasgow). It is funded by Praboromarajchanok Institute, Thailand.

The research team conducting this study is affiliated with the school of Health and Wellbeing, College of Medical, Veterinary and Life Sciences of the University of Glasgow. They have expertise and experience in the field of intellectual disabilities and are dedicated to conducting high-quality research for the betterment of families in similar situations.

14. Who has reviewed the study?

The project has been reviewed by the University of Glasgow, College of Medical, Veterinary & Life Sciences Ethics Committee.

15. Contact for Further Information

Contact Information:

If you have any questions, concerns, or would like further information about the study, please feel free to contact Mr Wattana Tejakum, email: w.tejakum.1@research.gla.ac.uk, tel.

Thank you for reading the Information Sheet

Contact details of organisations in Thailand who could provide support for you if you are feeling down.

Mental Health Hotline. Tel: 1323

24/7, free and confidential support by phone and online chat. The trained counsellors exist to help people everyone in Thailand who may need emotional support with abuse & domestic violence, anxiety, bullying, dementia & Alzheimers, depression, eating & body image, family, gambling, gender & sexual identity, loneliness, parenting, pregnancy & abortion, trauma & PTSD, relationships, school & work, self-harm, sexual abuse, stress, substance use, suicidal thoughts, supporting others, grief & loss, and physical illness.

When you reach out to them you will talk with one of their trained counsellors who have experience in how to help people with similar experiences to your own. They will listen, express empathy and understanding, and assist you to find a way through your situation. Anyone can call and receive free support. They exist to help everyone regardless of age, gender, beliefs or ethnicity. They recognise that difficult mental health or crisis experiences can happen at any time, so they are available 24 hours a day, every day of the week.

Rajanukul Institute

If you are looking for further information or support specifically around IDs, the following websites have useful links and resources.

Website: [Rajanukul Institute](#)

Appendix M: Participant information sheet for qualitative study (Study 3, Thai version)

 กรมสุขภาพจิต สถาบันราชานุกูล	คณะกรรมการพิจารณาจริยธรรมการวิจัยในมนุษย์ สถาบันราชานุกูล	AF 07.1
	เอกสารข้อมูลคำอธิบายสำหรับอาสาสมัครผู้รับการวิจัย (Information sheet for research participant)	เริ่มใช้ 15 มิถุนายน 2563

ชื่อโครงการวิจัย: ความยืดหยุ่นทางจิตใจในการดาของวัยรุ่นที่มีความบกพร่องทางสติปัญญาในสถาบันราชานุกูล
ประเทศไทย

ผู้สนับสนุนการวิจัย: -

ผู้วิจัยหลัก

ชื่อ นายวัฒนา เตจาคำ
 สถานที่ทำงาน โรงเรียนสุขภาพและความเป็นอยู่ที่ดี, วิทยาลัยแพทยศาสตร์ สัตวแพทยศาสตร์ และวิทยาศาสตร์
 สุขภาพ, มหาวิทยาลัยกลาสโกว์, สก็อตแลนด์, สหราชอาณาจักร
 หมายเลขโทรศัพท์ -

ผู้วิจัยร่วม 1

ชื่อ ดร. มาเรีย ทูสเดล
 สถานที่ทำงาน โรงเรียนสุขภาพและความเป็นอยู่ที่ดี, วิทยาลัยแพทยศาสตร์ สัตวแพทยศาสตร์ และวิทยาศาสตร์
 สุขภาพ, มหาวิทยาลัยกลาสโกว์, สก็อตแลนด์, สหราชอาณาจักร
 หมายเลขโทรศัพท์ -

ผู้วิจัยร่วม 2

ชื่อ ศาสตราจารย์ เดโบราห์ แครนส์
 สถานที่ทำงาน โรงเรียนสุขภาพและความเป็นอยู่ที่ดี, วิทยาลัยแพทยศาสตร์ สัตวแพทยศาสตร์ และวิทยาศาสตร์
 สุขภาพ, มหาวิทยาลัยกลาสโกว์, สก็อตแลนด์, สหราชอาณาจักร
 หมายเลขโทรศัพท์ -

เรียน อาสาสมัครผู้รับการวิจัยทุกท่าน

ท่านได้รับเชิญให้เข้าร่วมในโครงการวิจัยนี้เนื่องจากท่านเป็นผู้หนึ่งที่มีคุณสมบัติตรงตามข้อกำหนดงานวิจัยก่อนที่
 ท่านจะตัดสินใจเข้าร่วมในการศึกษาวิจัยดังกล่าว ขอให้ท่านอ่านเอกสารฉบับนี้อย่างถี่ถ้วน เพื่อให้ท่านได้ทราบถึงเหตุผลและ
 รายละเอียดของการศึกษาวิจัยในครั้งนี้ หากท่านมีข้อสงสัยใดๆ เพิ่มเติม กรุณาซักถามจากทีมงานของผู้ทำวิจัย หรือผู้ร่วมทำ
 วิจัยซึ่งจะเป็นผู้สามารถตอบคำถามและให้ความกระจ่างแก่ท่านได้

ท่านสามารถขอคำแนะนำในการเข้าร่วมโครงการวิจัยนี้จากครอบครัว เพื่อน หรือแพทย์ประจำตัวของท่านได้ ท่าน
 มีเวลาอย่างเพียงพอในการตัดสินใจโดยอิสระ ถ้าท่านตัดสินใจแล้วว่า จะเข้าร่วมในโครงการวิจัยนี้ ขอให้ท่านลงนามใน
 เอกสารแสดงความยินยอมของโครงการวิจัยนี้

 กรมสุขภาพจิต สถาบันราชานุกูล	คณะกรรมการพิจารณาจริยธรรมการวิจัยในมนุษย์ สถาบันราชานุกูล	AF 07.1
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เหตุผลความเป็นมา

ความยืดหยุ่นทางจิตใจในการดาของวัยรุ่นที่มีความบกพร่องทางสติปัญญา มีความเกี่ยวข้องกับปัจจัยต่างๆหลายอย่าง อย่างไรก็ตามการวิจัยเกี่ยวกับปัจจัยเหล่านี้ในความสัมพันธ์กับความยืดหยุ่นทางจิตใจโดยเฉพาะในการดาของวัยรุ่นที่มีความบกพร่องทางสติปัญญา ในประเทศไทย ยังขาดหายไปอย่างน่าแปลกใจ ในการวิจัยจึงขาดข้อมูลสำคัญในการเข้าใจว่าทำไมมารดาบางท่าน ที่ต้องเผชิญกับความท้าทายในการเลี้ยงดูบุตร สามารถใช้ชีวิตอย่างมีประสิทธิภาพและมีความยืดหยุ่นทางจิตใจมากขึ้น ในขณะที่มารดาท่านอื่นไม่สามารถทำได้

วัตถุประสงค์ของการศึกษา

โครงร่างการวิจัยนี้มีวัตถุประสงค์เพื่อ สํารวจปัจจัยที่อาจมีผลต่อความยืดหยุ่นทางจิตใจในการดาของวัยรุ่นที่มีความบกพร่องทางสติปัญญา ที่มารับบริการในสถาบันราชานุกูล ประเทศไทย โดยให้มารดาตอบแบบสอบถามในระยะเวลาที่หนึ่ง และหากมารดาท่านใดสนใจเข้าร่วมวิจัยในระยะเวลาที่สอง จะเป็นการสัมภาษณ์เชิงลึก โดยเป็นการพูดคุยถามคำถามเกี่ยวกับปัจจัยที่อาจมีผลต่อความยืดหยุ่นทางจิตใจในการดาของวัยรุ่นที่มีความบกพร่องทางสติปัญญา ที่มารับบริการ ในสถาบันราชานุกูล ประเทศไทย การเข้าร่วมในงานวิจัยนี้จะช่วยให้เกิดความเข้าใจเพิ่มเติมเกี่ยวกับประสบการณ์ของมารดาในฐานะผู้ดูแล และความยืดหยุ่นทางจิตใจของมารดา ขณะที่มารดาต้องเผชิญกับความท้าทายในการเลี้ยงดูลูกวัยรุ่นที่มีความบกพร่องทางสติปัญญา จำนวนอาสาสมัครในโครงร่างการวิจัย ระยะที่หนึ่ง คือ 173 คน และระยะที่สอง คือ 10 คน

วิธีการที่เกี่ยวข้องกับการวิจัย

หลังจากท่านให้ความยินยอมที่จะเข้าร่วมในโครงร่างการวิจัยนี้ ผู้วิจัยจะขอสอบถามเพื่อคัดกรองว่าท่านมีคุณสมบัติที่เหมาะสมที่จะเข้าร่วมในการวิจัย

หากท่านมีคุณสมบัติตามเกณฑ์คัดเข้า ท่านจะได้รับเชิญให้มาตามวันเวลาที่ผู้วิจัยนัดหมาย คือ วัน แ ล ะ เ ว ล า ราชการที่สะดวกกับท่าน เพื่อ ทำแบบสอบถามด้วยตนเองตามแบบสอบถามที่ผู้วิจัยได้จัดเตรียมไว้จำนวน 6 สอบถาม โดยตลอดระยะเวลาที่ท่านอยู่ในโครงการวิจัยในระยะที่หนึ่ง คือ เวลา 45-60 นาที และมาพบผู้วิจัยทั้งสิ้น 1 ครั้ง หากท่านสนใจที่จะเข้าร่วมโครงการวิจัยในระยะที่สอง ซึ่งเป็นการสัมภาษณ์เชิงลึก โดยเป็นการพูดคุยถามคำถามเกี่ยวกับปัจจัยที่อาจมีผลต่อความยืดหยุ่นทางจิตใจในการดาของวัยรุ่นที่มีความบกพร่องทางสติปัญญา ผู้วิจัยจะขออนุญาตบันทึกเสียงระหว่างการสัมภาษณ์ โดยตลอดระยะเวลาที่ท่านอยู่ในโครงร่างการวิจัยในระยะที่สอง คือ เวลา 45-60 นาที และมาพบผู้วิจัยทั้งสิ้นจำนวน 1 ครั้ง

ความรับผิดชอบของอาสาสมัครผู้รับการวิจัยในโครงร่างการวิจัย

หากท่านตกลงเข้าร่วมโครงการครั้งนี้ ท่านจะได้รับทราบผลการศึกษาจากงานวิจัยเรื่องนี้เพื่อเป็นประโยชน์ในด้านของความรู้ ซึ่งสามารถนำไปต่อยอดศึกษาในอนาคตได้ โดยสามารถติดตามความก้าวหน้าของงานวิจัยได้ผ่านทางช่องทางการติดต่อของผู้วิจัยที่ได้ให้ไว้ข้างต้น

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ความเสี่ยงที่อาจได้รับ

ผู้ปกครองอาจเกิดความเครียด ระหว่างการตอบแบบสอบถามหรือสัมภาษณ์ ซึ่งทางผู้วิจัยยินดีให้ท่านหยุดพักในระหว่างการตอบแบบสอบถามหรือสัมภาษณ์ได้ รวมทั้งช่วยดูแลและให้คำปรึกษาเพื่อให้คลายความเครียดลง

ประโยชน์ที่อาจได้รับ

1. การมีส่วนร่วมในการสร้างความรู้และความเข้าใจ โดยการแบ่งปันประสบการณ์ของท่าน, ความท้าทาย และความรู้สึก, ท่านจะมีบทบาทสำคัญในการเสริมสร้างความเข้าใจเกี่ยวกับความท้าทายของมารดาที่ให้การดูแลเลี้ยงลูกวัยรุ่นที่มีความบกพร่องทางสติปัญญา การเข้าร่วมของท่านจะช่วยให้ผู้วิจัยเข้าใจปัจจัยที่มีผลต่อความยืดหยุ่นทางจิตใจได้อย่างดีขึ้น และอาจมีส่วนช่วยในการพัฒนาแนวทางการเสริมสร้างความยืดหยุ่นทางจิตใจให้ดียิ่งขึ้นสำหรับมารดาท่านอื่นที่ต้องเผชิญกับความท้าทายที่เหมือนกัน

2. การสะท้อนความรู้สึกและการเติบโตของตัวเอง เป็นการสะท้อนความรู้สึกของท่านและการให้สัมภาษณ์เกี่ยวกับความท้าทายของท่านที่ให้การดูแลเลี้ยงลูกวัยรุ่นที่มีความบกพร่องทางสติปัญญา ในฐานะมารดาซึ่งอาจทำให้ท่านเติบโตและเข้าใจตนเองมากขึ้น ซึ่งอาจเป็นโอกาสในการสะท้อนตัวเองและมีส่วนช่วยให้เกิดความรู้สึกที่ดีของท่านเอง ตลอดจนความยืดหยุ่นทางจิตใจของท่านด้วย

วิธีการและรูปแบบการรักษาอื่น ๆ ซึ่งมีอยู่สำหรับอาสาสมัครผู้รับการวิจัย

ท่านไม่จำเป็นต้องเข้าร่วมโครงการวิจัยนี้เพื่อประโยชน์ในการรักษาโรคที่ท่านเป็นอยู่ เนื่องจากมีแนวทางการรักษาอื่น ๆ หลายแบบสำหรับรักษาโรคของท่านได้ ดังนั้นจึงควรศึกษาก่อนตัดสินใจเข้าร่วมในการวิจัย

ข้อปฏิบัติของท่านขณะที่ร่วมในโครงการวิจัย

ขอให้ท่านปฏิบัติดังนี้

- ให้ข้อมูลท่านและผู้บกพร่องทางสติปัญญา ผู้ทำวิจัยด้วยความสัตย์จริง
- แจ้งปัญหาที่เกิดขึ้นในระหว่างที่ท่านร่วมในโครงการวิจัยได้ทุกปัญหา

อันตรายที่อาจเกิดขึ้นจากการเข้าร่วมในโครงการวิจัยและความรับผิดชอบของผู้ทำวิจัย/ผู้สนับสนุนการวิจัย

หากพบอันตรายที่เกิดขึ้นจากการวิจัยนี้ ท่านจะได้รับการรักษาอย่างเหมาะสมทันที

ในกรณีที่ท่านได้รับอันตรายใด ๆ จากการเข้าร่วมงานวิจัยนี้ หรือต้องการข้อมูลเพิ่มเติมที่เกี่ยวข้องกับโครงการวิจัย ท่านสามารถติดต่อกับผู้ทำวิจัยคือ นายวัฒนา เตจาคำ ได้ตลอด 24 ชั่วโมง

ค่าใช้จ่ายของท่านในการเข้าร่วมการวิจัย

ท่านจะไม่มีค่าใช้จ่ายที่จะต้องรับผิดชอบในโครงการนี้

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คำตอบแทนสำหรับผู้เข้าร่วมวิจัย (ถ้ามี)

ท่านจะได้รับบัตรกำนัลโลตัสเพื่อเป็นค่าชดเชย ค่าเดินทางและชดเชยการสูญเสียรายได้ เสียเวลา หรือความไม่สะดวก ไม่สบาย ในการมาพบผู้วิจัย ในระยะที่ หนึ่ง มูลค่าครั้งละ 100.....บาทรวมทั้งหมด ...1..... ครั้ง และหากท่านสนใจเข้าร่วมงานวิจัยในระยะที่ สอง มูลค่าครั้งละ 200.....บาทรวมทั้งหมด ...1..... ครั้ง

การประกันภัยเพื่อคุ้มครองผู้เข้าร่วมวิจัย (ถ้ามี)

ไม่มี

การเข้าร่วมและการสิ้นสุดการเข้าร่วมโครงการวิจัย

การเข้าร่วมในโครงการวิจัยครั้งนี้เป็นไปโดยความสมัครใจ หากท่านไม่สมัครใจจะเข้าร่วมการศึกษาแล้ว ท่านสามารถถอนตัวได้ตลอดเวลา การขอลงตัวออกจากโครงการวิจัยจะไม่มีผลต่อการดูแลรักษาโรคของท่านแต่อย่างใด

ผู้ทำวิจัยอาจถอนท่านออกจากการเข้าร่วมการวิจัย เพื่อเหตุผลด้านความปลอดภัยของท่าน หรือเมื่อผู้สนับสนุนการวิจัยยุติการดำเนินงานวิจัย หรือ ในกรณีดังต่อไปนี้

- ท่านไม่สามารถปฏิบัติตามคำแนะนำของผู้ทำวิจัย
- ไม่ได้มาตามที่นัดหมาย

การปกป้องรักษาข้อมูลความลับของอาสาสมัครผู้รับการวิจัย

ข้อมูลนี้อาจนำไปสู่การเปิดเผยตัวท่าน จะได้รับการปกปิดและจะไม่เปิดเผยแก่สาธารณชน ในกรณีที่ผลการวิจัยได้รับการตีพิมพ์ ชื่อและที่อยู่ของท่านจะต้องได้รับการปกปิดอยู่เสมอ โดยจะใช้เฉพาะรหัสประจำโครงการวิจัยของท่าน

จากการลงนามยินยอมของท่านผู้ทำวิจัย และผู้สนับสนุนการวิจัยสามารถเข้าไปตรวจสอบบันทึกข้อมูลทางการแพทย์ของท่านได้แม้จะสิ้นสุดโครงการวิจัยแล้วก็ตาม หากท่านต้องการยกเลิกการให้สิทธิ์ดังกล่าว ท่านสามารถแจ้ง หรือเขียนบันทึกขอยกเลิกการให้คำยินยอม โดยส่งไปที่ นายวัฒนา เตจาคำ วิทยาลัยพยาบาลบรมราชชนนี กรุงเทพฯ เลขที่ 2/1 แขวงทุ่งพญาไท เขตราชเทวี กรุงเทพฯ 10400 หากท่านขอยกเลิกการให้คำยินยอมหลังจากที่ท่านได้เข้าร่วมโครงการวิจัยแล้ว ข้อมูลส่วนตัวของท่านจะไม่ถูกบันทึกเพิ่มเติม อย่างไรก็ตามข้อมูลอื่น ๆ ของท่านอาจถูกนำมาใช้เพื่อประเมินผลการวิจัย และท่านจะไม่สามารถกลับมาเข้าร่วมในโครงการนี้ได้อีก ทั้งนี้เนื่องจากข้อมูลของท่านที่จำเป็นสำหรับใช้เพื่อการวิจัยไม่ได้ถูกบันทึก

การตอบคำถามในแบบสอบถามโดยเอกสารจะถูกสแกนและบันทึกไว้ในรูปแบบไฟล์ดิจิทัล เมื่อเสร็จขั้นตอนนี้แล้ว เอกสารที่เป็นกระดาษจะถูกทำลายทันทีด้วยเครื่องทำลายเอกสาร และ การบันทึกเสียงถูกบันทึกไว้ในรูปแบบไฟล์ดิจิทัล (mp3.) เก็บไว้ในระบบออนไลน์ที่ปลอดภัยด้วยรหัสผ่าน และถูกจัดเก็บบนเครือข่ายของมหาวิทยาลัยกลาสโกว์ ข้อมูลของงานวิจัยทั้งหมดจะถูกจัดการตามกฎหมายคุ้มครองข้อมูลส่วนบุคคลทั่วไป (General Data Protection Regulation, GDPR) ในปี 2018 ข้อมูลนี้จะถูกเก็บรักษาเป็นความลับและสามารถเข้าถึงได้เฉพาะทีมวิจัยเท่านั้น และจะถูกทำลายเมื่อการวิจัยเสร็จสมบูรณ์

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	เอกสารข้อมูลคำอธิบายสำหรับอาสาสมัครผู้รับการวิจัย (Information sheet for research participant)	เริ่มใช้ 15 มิถุนายน 2563

ท่านสามารถขอเข้าถึงข้อมูลที่เราประมวลผลเกี่ยวกับท่านก่อนสิ้นสุดกระบวนการเก็บข้อมูลได้ หากในระหว่างที่เก็บข้อมูล ท่านเชื่อว่าข้อมูลที่คุณวิจัยประมวลผลเกี่ยวกับท่านไม่ถูกต้อง ท่านสามารถขอข้อมูลเหล่านี้ได้และอาจขอ แก้ไข หรือลบข้อมูลได้ หลังจากข้อมูลของท่านถูกเก็บรวบรวมและรวมเข้าในชุดข้อมูลสุดท้ายแล้ว จะกลายเป็นข้อมูลที่ไม่สามารถเปลี่ยนแปลงได้และไม่สามารถถอนข้อมูลได้อีก ในกรณีที่ผู้วิจัยได้รับความยินยอมจากท่านในการประมวลผลข้อมูลของท่าน ท่านยังสามารถถอนความยินยอมของท่านได้ในทุกเวลา อย่างไรก็ตาม หากท่านต้องการถอนการเข้าร่วมงานวิจัยหลังจากที่ข้อมูลทั้งหมดถูกเก็บรวบรวมแล้ว ในกรณีนี้ข้อมูลที่ถูกเก็บรวบรวมถึงขั้นตอนนี้จะถูกเก็บไว้และใช้ในรูปแบบที่ไม่เปิดเผยตัวตนสำหรับงานวิจัย

ในงานวิจัยนี้ ผู้วิจัยให้ความสำคัญเกี่ยวกับการถ่ายโอนข้อมูลระหว่างประเทศ โดยเฉพาะเรื่องการจัดการเอกสารยินยอมการเข้าร่วมและข้อมูลของอาสาสมัครเข้าร่วมงานวิจัย การถ่ายโอนข้อมูลระหว่างประเทศ จะถูกดำเนินการโดยใช้ช่องทางที่ปลอดภัยและเข้ารหัสที่มหาวิทยาลัยกลาสโกว์จัดเตรียมไว้ให้ทีมวิจัย เพื่อป้องกันการเข้าถึงโดยไม่ได้รับอนุญาตขณะการถ่ายโอนข้อมูลนั้น

การจัดการกับตัวอย่างชีวภาพที่เหลือ

ไม่มี

สิทธิ์ของอาสาสมัครผู้รับการวิจัยในโครงร่างการวิจัย

ในฐานะที่ท่านเป็นผู้เข้าร่วมในโครงร่างการวิจัย ท่านจะมีสิทธิ์ดังต่อไปนี้

1. ท่านจะได้รับทราบถึงลักษณะและวัตถุประสงค์ของการวิจัยในครั้งนี้
2. ท่านจะได้รับการอธิบายเกี่ยวกับระเบียบวิธีการของการวิจัยทางการแพทย์ รวมทั้งยาและอุปกรณ์ที่ใช้ในการวิจัยครั้งนี้
3. ท่านจะได้รับการอธิบายถึงความเสี่ยงและความไม่สบายที่จะได้รับจากการวิจัย
4. ท่านจะได้รับการอธิบายถึงประโยชน์ที่ท่านอาจจะได้รับจากการวิจัย
5. ท่านจะได้รับการเปิดเผยถึงทางเลือกในการรักษาด้วยวิธีอื่น ยา หรืออุปกรณ์ซึ่งมีผลดีต่อท่านรวมทั้งประโยชน์และความเสี่ยงที่ท่านอาจได้รับ
6. ท่านจะได้รับทราบแนวทางในการรักษา ในกรณีที่พบโรคแทรกซ้อนภายหลังการเข้าร่วมในโครงร่างการวิจัย
7. ท่านจะมีโอกาสได้ซักถามเกี่ยวกับงานวิจัยหรือขั้นตอนที่เกี่ยวข้องกับงานวิจัย
8. ท่านจะได้รับทราบว่าความยินยอมเข้าร่วมในโครงร่างการวิจัยนี้ ท่านสามารถขอถอนตัวจากโครงการเมื่อไรก็ได้ โดยผู้เข้าร่วมในโครงร่างการวิจัยสามารถขอถอนตัวจากโครงการโดยไม่ได้รับผลกระทบใด ๆ ทั้งสิ้น
9. ท่านจะได้รับเอกสารข้อมูลคำอธิบายสำหรับผู้เข้าร่วมในโครงร่างการวิจัยและสำเนาเอกสารใบยินยอมที่มีทั้งลายเซ็นและวันที่

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	เอกสารข้อมูลคำอธิบายสำหรับอาสาสมัครผู้รับการวิจัย (Information sheet for research participant)	เริ่มใช้ 15 มิถุนายน 2563

10. ท่านมีสิทธิในการตัดสินใจว่าจะเข้าร่วมในโครงการวิจัยหรือไม่ก็ได้ โดยปราศจากการใช้สิทธิพลบังคับข่มขู่ หรือการหลอกลวง

หากท่านไม่ได้รับการชดเชยอันควรต่อการบาดเจ็บหรือเจ็บป่วยที่เกิดขึ้นโดยตรงจากการวิจัย หรือท่านไม่ได้รับการปฏิบัติตามที่ปรากฏในเอกสารข้อมูลคำอธิบายสำหรับผู้เข้าร่วมในการวิจัย ท่านสามารถร้องเรียนได้ที่ คณะกรรมการจริยธรรมการวิจัยในมนุษย์ สถาบันราชานุกูล โทร _____ ต่อ _____ ในเวลาราชการ
ขอขอบคุณในการร่วมมือของท่านมา ณ ที่นี้

Appendix N: Consent form for qualitative study (Study 3)



University of Glasgow | College of Medical,
Veterinary & Life Sciences

Centre Number:

Project Number:

Participant Identification number:

Title of Project: Exploring Resilience in Mothers of Adolescents with Intellectual Disabilities in Rajanukul Institute Thailand: A Qualitative Study.

Name of Researcher(s): Mr Wattana Tejakum

CONSENT FORM

Please
initial box

I confirm that I have read and understood the Participant Information Sheet version 2.0 dated 14/12/2023.

☐

I confirm that I have read and understood the Privacy Notice version 2.0 dated 14/12/2023.

☐

I have had the opportunity to think about the information and ask questions and understand the answers I have been given.

☐

I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason, without my legal rights being affected.

☐

I confirm that I agree to the way my data will be collected and processed and that data will be stored for up to 10 years in University archiving facilities in accordance with relevant Data Protection policies and regulations.

☐

I understand that all data and information I provide will be kept confidential and will be seen only by study researchers and regulators whose job it is to check the work of researchers.

☐

I agree that my name, contact details and data described in the information sheet will be kept for the purposes of this research project.

☐

I understand that if I withdraw from the study, my data collected up to that point will be retained and used for the remainder of the study.

☐

In the case of possible risk/harm, if you reveal information that suggests a risk of harm to yourselves or others, we are ethically and legally obligated to take appropriate actions to ensure safety.

☐

I understand that all data and information I provide will be transferred internationally to University of Glasgow network.

☐

I agree to take part in the study.

☐

Name of participant

Date

Signature

Researcher

Date

Signature

(1 copy for participant; 1 copy for researcher)

Appendix O: Consent form for qualitative study (Study 3, Thai version)

	คณะกรรมการพิจารณาจริยธรรมการวิจัยในมนุษย์ สถาบันราชานุกูล	AF 07.2
	เอกสารแสดงความยินยอมเข้าร่วมในโครงการวิจัย (Informed consent form)	เริ่มใช้ 15 มิถุนายน 2563

โครงการวิจัยเรื่อง ความยืดหยุ่นทางจิตใจในมารดาของวัยรุ่นที่มีความบกพร่องทางสติปัญญาในสถาบันราชานุกูล ประเทศไทย

วันที่ให้คำยินยอม วันที่.....เดือน.....พ.ศ.....

ข้าพเจ้า นาย/นาง/นางสาว.....

ที่อยู่.....ได้อ่าน

รายละเอียดจากเอกสารข้อมูลสำหรับผู้เข้าร่วมโครงการวิจัยที่แนบมาฉบับวันที่..... และ

ข้าพเจ้ายินยอมเข้าร่วมโครงการวิจัยโดยสมัครใจ

ข้าพเจ้าได้รับสำเนาเอกสารแสดงความยินยอมเข้าร่วมในโครงการวิจัยที่ข้าพเจ้าได้ลงนาม และ วันที่พร้อมด้วยเอกสารข้อมูลสำหรับผู้เข้าร่วมโครงการวิจัย ทั้งนี้ก่อนที่จะลงนามในใบยินยอมให้ทำการวิจัยนี้ ข้าพเจ้าได้รับการอธิบายจากผู้วิจัยถึงวัตถุประสงค์ของการวิจัย ระยะเวลาของการทำวิจัย วิธีการวิจัย ความเสี่ยงหรืออาการที่อาจเกิดขึ้นจากการวิจัย หรือจากยาที่ใช้ รวมทั้งประโยชน์ที่จะเกิดขึ้นจากการวิจัย และแนวทางการรักษาโดยวิธีอื่นอย่างละเอียด ข้าพเจ้ามีเวลาและโอกาสเพียงพอในการซักถามข้อสงสัยจนมีความเข้าใจอย่างดีแล้ว โดยผู้วิจัยได้ตอบคำถามต่าง ๆ ด้วยความเต็มใจไม่ปิดบังซ่อนเร้นจนข้าพเจ้าพอใจ

ข้าพเจ้ารับทราบจากผู้วิจัยว่าหากเกิดความเสียหายหรืออันตรายใด ๆ จากการวิจัยดังกล่าว ข้าพเจ้าจะได้รับการรักษาพยาบาลโดยไม่เสียค่าใช้จ่าย และจะได้รับค่าชดเชยจากผู้วิจัย

ข้าพเจ้ามีสิทธิ์ที่จะบอกเลิกเข้าร่วมในโครงการวิจัยเมื่อใดก็ได้ โดยไม่จำเป็นต้องแจ้งเหตุผล และการบอกเลิกการเข้าร่วมการวิจัยนี้ จะไม่มีผลต่อการรักษาโรคหรือสิทธิอื่น ๆ ที่ข้าพเจ้าจะพึงได้รับต่อไป

ผู้วิจัยรับรองว่าจะเก็บข้อมูลส่วนตัวของข้าพเจ้าเป็นความลับ และจะเปิดเผยได้เฉพาะเมื่อได้รับการยินยอมจากข้าพเจ้าเท่านั้น บุคคลอื่นในนามของบริษัทผู้สนับสนุนการวิจัย หรือคณะกรรมการพิจารณาจริยธรรมการวิจัยในคน อาจได้รับอนุญาตให้เข้ามาตรวจสอบและประมวลผลข้อมูลของข้าพเจ้า ทั้งนี้จะต้องกระทำไปเพื่อวัตถุประสงค์เพื่อตรวจสอบความถูกต้องของข้อมูลเท่านั้น โดยการตกลงที่จะเข้าร่วมการศึกษานี้ข้าพเจ้าได้ให้คำยินยอมที่จะให้มีการตรวจสอบข้อมูลประวัติทางการแพทย์ของข้าพเจ้าได้

ผู้วิจัยรับรองว่าจะไม่มีการเก็บข้อมูลใด ๆ เพิ่มเติม หลังจากที่ข้าพเจ้าขอยกเลิกการเข้าร่วมโครงการวิจัย และต้องการให้ทำลายเอกสารและ/หรือ ตัวอย่างที่ใช้ตรวจสอบทั้งหมดที่สามารถสืบค้นถึงตัวข้าพเจ้าได้

ข้าพเจ้าเข้าใจว่า ข้าพเจ้ามีสิทธิ์ที่จะตรวจสอบหรือแก้ไขข้อมูลส่วนตัวของข้าพเจ้าและสามารถยกเลิกการให้สิทธิ์ในการใช้ข้อมูลส่วนตัวของข้าพเจ้าได้ โดยต้องแจ้งให้ผู้วิจัยรับทราบ

ข้าพเจ้าได้ตระหนักว่าข้อมูลในการวิจัยรวมถึงข้อมูลทางการแพทย์ของข้าพเจ้าที่ไม่มีการเปิดเผยชื่อจะผ่านกระบวนการต่าง ๆ เช่น การเก็บข้อมูล การบันทึกข้อมูลในแบบบันทึกและในคอมพิวเตอร์ การตรวจสอบการวิเคราะห์ และการรายงานข้อมูลเพื่อวัตถุประสงค์ทางวิชาการ รวมทั้งการใช้ข้อมูลทางการแพทย์ในอนาคตหรือการวิจัยทางด้านเภสัชภัณฑ์ เท่านั้น

	คณะกรรมการพิจารณาจริยธรรมการวิจัยในมนุษย์ สถาบันราชานุกูล	AF 07.2
	เอกสารแสดงความยินยอมเข้าร่วมในโครงการวิจัย (Informed consent form)	เริ่มใช้ 15 มิถุนายน 2563

ข้าพเจ้าได้อ่านข้อความข้างต้นและมีความเข้าใจดีทุกประการแล้ว ยินดีเข้าร่วมในการวิจัยด้วยความเต็มใจ จึงได้ลงนามในเอกสารแสดงความยินยอมนี้

.....ลงนามผู้ให้ความยินยอม
(.....) ชื่อผู้ยินยอมตัวบรรจง
วันที่ เดือน.....พ.ศ.....

ข้าพเจ้าได้อธิบายถึงวัตถุประสงค์ของการวิจัย วิธีการวิจัย อันตราย หรืออาการไม่พึงประสงค์หรือความเสี่ยงที่อาจเกิดขึ้นจากการวิจัย หรือจากยาที่ใช้ รวมทั้งประโยชน์ที่จะเกิดขึ้นจากการวิจัยอย่างละเอียด ให้ผู้เข้าร่วมในโครงการวิจัยตามนามข้างต้นได้ทราบและมีความเข้าใจดีแล้ว พร้อมลงนามลงในเอกสารแสดงความยินยอมด้วยความเต็มใจ

.....ลงนามผู้ทำวิจัย
(.....) ชื่อผู้ทำวิจัย ตัวบรรจง
วันที่ เดือน.....พ.ศ.....

.....ลงนามพยาน
(.....) ชื่อพยาน ตัวบรรจง
วันที่ เดือน.....พ.ศ.....

Appendix P: Qualitative interview (Study 3)

1. Demographic Information:

Part 1	
1) Participant number:	Date:
2) Mother's age	Years old:
3) Marital Status	Single: Married: Divorced: Separated: Widowed:
4) Religion	Buddhist: Christian: Islam: Others....
5) Education	Primary School and lower: High School: Undergraduate School: Master's Degree: Doctorate's Degree:
6) Do you have any health problem?	No: Yes, please indicate:
7) What is your family financial status?	Have savings: Income = Expenses: In debt:
8) How many dependants in the family?	Number of children with ID: Number of children with typically development (TD): Elderly parent: Other family member:
9) How many people living in household?	Number:
Part 2	
1) Child's age	Years old:
2) Sex	Male: Female:
3) Severity of ID	Borderline: Mild: Moderate: Severe: Profound:
4) Health problems?	Please specify:
5) Challenging behaviour?	Please specify:

2. The interview guide:

Preamble: Thanks for joining this study. You decide how much you want to share. If you ever feel uncomfortable, you can let me know and we can stop. Are you ready to continue?

1. "Can you share your experiences of raising an adolescent with IDs?"

2. "What are some challenges you've faced while parenting your adolescent with IDs as they transitioned into adolescence, and how have you managed them?"
(Prompts: Transition child to adult in terms of services, education)

3. "Can you share any moments when you've felt particularly resilient in your role as a mother of an adolescent with an ID?"

(Prompts: What kept you motivated?)

4. "What kinds of support from your family, community or social circle have helped you in times of difficulty?"

5. "How do you find a balance between the needs of your adolescent with an ID and the needs of the rest of your family?"
(Prompts: Do you have any examples you would like to share?)

6. "Do you have any cultural practices or traditions that you've found helpful in coping with the unique challenges you face?"
(Prompts: Attending the church or temple or praying)

7. "How do you think societal attitudes toward IDs have impacted your resilience?"

8. "What personal qualities or strengths do you draw upon when facing the challenges of raising an adolescent with an ID?"
(Prompt: Never give up, positive attitude)

9. "Have you ever felt empowered to advocate for adolescent's needs?"

10. "Looking back on your experiences, what advice would you give to other mothers in a similar situation within your cultural community?"

(Prompts: What lessons have you learned that you wish you knew when you first started your parenting journey?)

11. "Are there any comments that you would like to add?"

Appendix Q: Qualitative interview (Study 3, Thai version)

คำถามในการสัมภาษณ์

1. ข้อมูลเกี่ยวกับมารดา:

ส่วนที่ 1	
1) เลขที่ผู้เข้าร่วมวิจัย:	วันที่:
2) อายุมารดา	อายุ(ปี):
3) สถานะสมรส	โสด: คู่: หย่าร้าง: แยกกันอยู่: หม้าย:
4) ศาสนา	พุทธ: คริสต์: อิสลาม: อื่นๆ(ระบุ):
5) ระดับการศึกษา	ประถมศึกษา หรือต่ำกว่า: มัธยมศึกษา: ประกาศนียบัตร/ปริญญาตรี: ปริญญาโท: ปริญญาเอก:
6) ท่านมีโรคประจำตัวหรือไม่?	ไม่: ถ้ามี โปรดระบุ:
7) สถานะทางการเงินของท่าน?	มีเงินสำรองไว้ใช้จ่าย: รายได้ = รายจ่าย: มีหนี้สิน:
8) ในบ้านท่านมีผู้ที่ต้องได้รับการดูแลจากท่านอีกหรือไม่?	จำนวนบุตรที่บกพร่องทางสติปัญญา: จำนวนบุตรที่มีพัฒนาการปกติ: ผู้สูงอายุ: อื่นๆ:
9) จำนวนสมาชิกทั้งหมดในครอบครัวของท่าน?	จำนวน:
ส่วนที่ 2	

1) อายุบุตรของท่าน	อายุ (ปี):
2) เพศ	ชาย: หญิง:
3) ระดับความรุนแรงของความบกพร่องทางสติปัญญา	เล็กน้อยมาก: เล็กน้อย: ปานกลาง: รุนแรง: รุนแรงมาก:
4) ปัญหาสุขภาพอื่นๆ?	โปรดระบุ:
5) พฤติกรรมที่ไม่พึงประสงค์?	โปรดระบุ:

2. คำถามสำหรับการสัมภาษณ์:

กล่าวนำ: ขอขอบคุณที่เข้าร่วมรายการศึกษานี้ครับ คุณสามารถตัดสินใจเองได้ว่าจะแบ่งปันข้อมูลใดๆ กับเรามากน้อยแค่ไหน หากคุณรู้สึกไม่สบายใจเรายินดีรับฟังและสามารถหยุดได้เสมอครับ คุณพร้อมที่จะให้สัมภาษณ์ต่อไหมครับ?

1. "คุณช่วยแบ่งปันประสบการณ์ในการเลี้ยงลูกวัยรุ่นที่มีภาวะบกพร่องทางสติปัญญา ได้หรือไม่ครับ?"

2. "มีความท้าทายใดบ้างที่คุณพบในการเลี้ยงลูกวัยรุ่นที่มีภาวะบกพร่องทางสติปัญญา เมื่อพวกเขาเริ่มเข้าสู่วัยรุ่น และคุณได้จัดการกับสถานการณ์เหล่านั้นอย่างไรครับ?"

(คำถามช่วย: การเปลี่ยนผ่านจากช่วงเด็กไปจนถึงช่วงผู้ใหญ่ ในเรื่องที่เกี่ยวข้องกับการรับบริการหรือการศึกษา)

3. "คุณช่วยแบ่งปันความทรงจำเมื่อคุณรู้สึกว่ามีความอดทนหรือความยืดหยุ่นทางจิตใจ ในบทบาทของคุณแม่ของลูกวัยรุ่นที่มีภาวะบกพร่องทางสติปัญญาได้หรือไม่ครับ?"

(คำถามช่วย: สิ่งใดที่ทำให้คุณมีแรงจูงใจ?)

4. "คุณได้รับการสนับสนุนจากครอบครัว ชุมชน หรือสังคมช่วยอย่างไรบ้างในช่วงเวลาที่มีความยากลำบากนี้ครับ?"

5. "คุณคิดว่าจะสร้างความพอดีระหว่างความต้องการของลูกวัยรุ่นที่มีภาวะบกพร่องทางสติปัญญา กับความต้องการของครอบครัวที่เหลืออย่างไรครับ?"

(คำถามช่วย: คุณมีตัวอย่างใดที่คุณต้องการแบ่งปันไหม?)

6. "วัฒนธรรมหรือประเพณีใดที่คุณพบว่าเป็นประโยชน์ในการรับมือกับความท้าทายที่คุณพบเจอนี้บ้างครับ?"

(คำถามช่วย: การไปโบสถ์ หรือไปวัด หรือการสวดมนต์ อธิษฐาน)

7. "คุณคิดว่าทัศนคติของสังคมต่อภาวะบกพร่องทางสติปัญญา มีผลต่อความอดทนหรือความยืดหยุ่นทางจิตใจของคุณอย่างไรครับ?"

8. "คุณใช้จุดแข็งหรือความแข็งแกร่งของคุณในการเผชิญหน้ากับความท้าทายในการเลี้ยงลูกวัยรุ่นที่มีภาวะบกพร่องทางสติปัญญานี้ อย่างไรครับ?"

(คำถามช่วย: ไม่ยอมแพ้, การคิดด้านบวก)

9. "คุณเคยมีความรู้สึกต้องการปกป้องสิทธิของลูกวัยรุ่นที่มีภาวะบกพร่องทางสติปัญญาหรือไม่ครับ?"

10. "เมื่อกลับมาดูที่ประสบการณ์ของคุณ คุณมีคำแนะนำใดๆ สำหรับแม่คนอื่นๆในสถานการณ์ที่คล้ายกันกับคุณหรือไม่ครับ?"

(คำถามช่วย: บทเรียนที่คุณได้รับคืออะไร)

11. "คุณมีความคิดเห็นใดๆ ที่คุณอยากเพิ่มเติมบ้างหรือไม่ครับ?"

Appendix R: Ethical approval from University of Glasgow (Study 3)



Dr Maria Truesdale

MVLS College Ethics Committee

Exploring resilience in mothers of adolescents with intellectual disabilities in Thailand: A qualitative study

The College Ethics Committee has reviewed your application and has agreed that there is no objection on ethical grounds to the proposed study. We are happy therefore to approve the project, subject to the following conditions

- Project end date as stipulated in original application.
- Ethical approval from Rajankul Institute – this should be submitted to MVLS ethics for our files.
- DPO approval of DPIA.
- The data should be held securely for a period of ten years after the completion of the research project, or for longer if specified by the research funder or sponsor, in accordance with the University's Code of Good Practice in Research:
(http://www.gla.ac.uk/media/media_227599_en.pdf)
- The research should be carried out only on the sites, and/or groups defined in the application.
- Any proposed changes in the protocol should be submitted for reassessment, except when it is necessary to change the protocol to eliminate hazard to the subjects or where the change involves only the administrative aspects of the project. The Ethics Committee should be informed of any such changes.
- For projects requiring the use of an online questionnaire, the University has an Online Surveys account for research. To request access, see the University's application procedure at <https://www.gla.ac.uk/research/strategy/ourpolicies/useofonlinesurveystoolforresearch/>.
- You should submit a short end of study report within 3 months of completion.

Yours sincerely

Dr Terry Quinn

Terry Quinn
FWSO, FESO, MD, FRCP, BSc (hons), MBChB (hons)
Reader / Honorary Consultant

College of Medicine, Veterinary & Life Sciences
School of Cardiovascular and Metabolic Health
terry.quinn@glasgow.gla.ac.uk

The University of Glasgow, charity number SC004401

Appendix S: Ethical approval from Rajanukul Institute (Study 3)



กรมสุขภาพจิต
สถาบันราชานุกูล

COA No. 02/2567

คณะกรรมการพิจารณาจริยธรรมการวิจัยในมนุษย์ สถาบันราชานุกูล
กรมสุขภาพจิต กระทรวงสาธารณสุข
ที่อยู่ 4737 ถนนดินแดง แขวงดินแดง เขตดินแดง กรุงเทพมหานคร 10400

เอกสารรับรองโครงการวิจัย

คณะกรรมการพิจารณาจริยธรรมการวิจัยในมนุษย์ สถาบันราชานุกูล ดำเนินการให้การรับรองโครงการวิจัยตามแนวทางหลักจริยธรรมการวิจัยในมนุษย์ที่เป็นมาตรฐานสากลได้แก่ Declaration of Helsinki, The Belmont Report, CIOMS Guideline และ International Conference on Harmonization in Good Clinical Practice หรือ ICH-GCP

ชื่อโครงการ : ความยืดหยุ่นทางจิตใจในการดาของวัยรุ่นที่มีความบกพร่องทางสติปัญญาในสถาบันราชานุกูล ประเทศไทย

รหัสโครงการ : RI.IRB 011/2566_Ful

ผู้วิจัยหลัก : นายวัฒนา เตจาคำ

สังกัดหน่วยงาน : มหาวิทยาลัยกลาสโกว์ สหราชอาณาจักร

วิธีทบทวน : แบบเต็มชุด (Full Board Review)

รายงานความก้าวหน้า : ส่งรายงานความก้าวหน้าอย่างน้อย 1 ครั้ง/ปี หรือส่งรายงานฉบับสมบูรณ์หากดำเนินโครงการเสร็จสิ้นก่อน 1 ปี

เอกสารที่รับรอง :

1. แบบเสนอโครงการวิจัย	ฉบับแก้ไขครั้งที่ 1 วันที่ 26 กุมภาพันธ์ 2567
2. เอกสารข้อมูลคำอธิบายสำหรับอาสาสมัครผู้รับการวิจัย	ฉบับแก้ไขครั้งที่ 1 วันที่ 26 กุมภาพันธ์ 2567
3. เอกสารแสดงความยินยอมเข้าร่วมโครงการวิจัย สำหรับผู้แทนโดยชอบธรรม/ผู้ปกครอง	ฉบับวันที่ 8 ธันวาคม 2566
4. เครื่องมืองานวิจัย	ฉบับแก้ไขครั้งที่ 1 วันที่ 26 กุมภาพันธ์ 2567
5. ประวัตินักวิจัยหลัก	ฉบับวันที่ 8 ธันวาคม 2566
6. เอกสารระบาสัมพันธ์เชิงอาสาศาสมัครเข้าร่วมวิจัย	ฉบับวันที่ 8 ธันวาคม 2566

ลงนาม

(นายบวรเสรี จุฑา)

รองประธานคณะกรรมการพิจารณาจริยธรรมการวิจัยในมนุษย์

ลงนาม

(นางนพวรรณ ศรีวงศ์พานิช)

ผู้อำนวยการสถาบันราชานุกูล

วันที่รับรอง : 11 มีนาคม 2567

วันที่หมดอายุ : 12 มีนาคม 2568

ทั้งนี้ การรับรองนี้มีเงื่อนไขดังที่ระบุไว้ด้านหลังทุกข้อ (ดูด้านหลังของเอกสารรับรองโครงการวิจัย)

Appendix T: DPO approval of PDIA (Study 2 and 3)



Data Protection Impact Assessment (DPIA)

Data Protection Impact Assessment: List of Requirements

Before submitting your DPIA template to the DP Office, please ensure that you have completed and addressed all relevant points below. **The DP Office will not review your DPIA unless you can demonstrate engagement with or reference to the checklist and its attending documents and requirements.**

Are your data [anonymous](#)?

Yes ☐

No ☒

If you are claiming that your data are **anonymous**, are there any potential data linkages that would allow someone to identify your data subjects? Note that simply removing a name does not constitute anonymisation. Have you considered the impact of other identifiers e.g. you are studying individuals with an uncommon medical condition and working with gender, age, and location data or other factors that narrow your population and could lead to identification (i.e. the 'mosaic' or 'jigsaw' effect)?

Are your data [pseudonymous](#)?

Yes ☒

No ☐

If you hold an identifier key(s) that would allow you or another party to identify your masked data then it is pseudonymous and therefore must be treated as personal data.

Is the University a [data controller or a data processor](#) for this project?

Data controller ☒

Data processor ☐

Will you require third parties (outwith UofG) to assist you in gathering, storing, accessing, or translating or transcribing the data?

Yes ☐

Explain:

No ☒

Do you have a [data sharing agreement](#) in place?

Yes ☐

No ☒

If you do not have an agreement, but you require one, complete the [Questionnaire for Data Processing Involving Third Parties](#) and return to the [Contracts Team](#).

Have you completed a [privacy notice](#) to inform data subjects on the intended use of their personal data? (If you answer "yes", please attach for review.)

Yes ☒

No ☐

Have you completed the University's online [Data Protection](#) and/or [Information Security](#) trainings? (These trainings are mandatory for all staff; the full project team should complete both training modules)

Yes ☒

If yes, please indicate dates of completion for all colleagues: 17 December 2021

No ☐

Have you completed a [research data management plan](#) and reviewed the [DMP and DPIA Workflow chart](#)?

Yes ☒

No ☐

If no, please explain why you do not require a data management plan.

Have you applied for, or received ethical approval?

Yes ☒ We submitted on 26 July 2023 and we are waiting for approval. The lead reviewer suggest the project and DPIA should be reviewed and approved by the Data Protection Office

No ☐

Consider the following ways to reduce potential risk and demonstrate practical compliance:

- pseudonymisation
- [data minimisation](#)
- storage limitation
- access restrictions
- detailed data flow modelling
- technical solutions (e.g. encryption)
- organisational measures (e.g. policies, procedures and workflows to comply with GDPR requirements)

Project Overview	
Project Name:	Study 2: Resilience in mothers of adolescents with intellectual disabilities in Rajanukul Institute Thailand Study 3: Exploring resilience in mothers of adolescents with intellectual disabilities in Rajanukul Institute Thailand: A Qualitative Study
Brief description of the Project:	Resilience in mothers of adolescents with Intellectual disabilities (IDs) is associated with various factors. However, research into the role of factors in these relationships is limited. This absence of research leaves vital gaps in our understanding of why some mothers facing adversity manage to function well and come out stronger while others do not. The purpose of this study is to explore the factors that might influence resilience in mothers of adolescents with IDs who received mental health services in Rajanukul Institute Thailand.
Project Owner: Name, designation and email address	Principal Investigator: Mr Wattana Tejakum, email: w.tejakum.1@research.gla.ac.uk Supervisors: - Dr Maria Truesdale, email: maria.truesdale@glasgow.ac.uk - Prof Deborah Cairns, email: deborah.cairns@glasgow.ac.uk
Project Manager: Name, designation and email address	Principal Investigator: Mr Wattana Tejakum, email: w.tejakum.1@research.gla.ac.uk Supervisors: - Dr Maria Truesdale, email: maria.truesdale@glasgow.ac.uk - Prof Deborah Cairns, email: deborah.cairns@glasgow.ac.uk
External project partners, if any:	NA
Summarise identified need for DPIA:	A DPIA is required because the study involves collecting personal data from the participants, including special category data.
Timing of the Project: Start/end dates, duration as applicable	1 st January 2024 to 1 st April 2024
Date template completed:	1 st submitting to ethics review was 26 July 2023
Date submitted to the Data Protection Office:	25 September 2023 and revised version 07 December 2023

Describe the processing activities

Describe the nature and purpose of the processing:

- **What is the source of the data?**

Study 2: This study will require participants to answer a series of survey questions regarding mother's stressors, protective factors, and mother's resilience. The recruitment method is through an advertisement poster which will be displayed at Rajanukul Institute in Thailand. Participants will see an advert inviting them to participate in the study 2. The advert includes information about the study's purpose and contact details for potential participants to reach out to the researcher.

Study 3: This study will require participants to answer a series of interview questions regarding mother's resilience. The recruitment method is through an advertisement poster which will be displayed at Rajanukul Institute in Thailand. Participants will see an advert inviting them to participate in the study 3. The advert includes information about the study's purpose and contact details for potential participants to reach out to the researcher.

- **How will you collect data?**

Study 2: These surveys are administered in-person using a paper-based format. This means that participants will physically receive a printed copy of the survey, and they will provide their responses using pen on the paper survey instrument.

The surveys will be a one session ranging from 45-60 minutes.

Study 3: These interview questions are administered in-person or phone call depends on how suitable for the participants. The method for recording the interviews is using a dedicated audio recording device with encryption. Additionally, the researcher plans to manually create transcripts from the interviews.

The interviews questions will be a one session ranging from 45-60 minutes.

- **How will you use the data?**

Study 2: The data analysis of the study will be conducted by using the descriptive and inferential statistics.

The descriptive and inferential statistics are quantitative data analysis techniques that use the numerical and graphical methods, to summarize and to describe the characteristics and the distributions, and to evaluate the proposed hypothetical model, using path analysis (SEM) in order to examine the direct and indirect effects of predictors of resilience.

Study 3: The data analysis of the study will be conducted by using the thematic analysis.

The qualitative study involved conducting in-depth interviews, which allowed the researcher to elicit the mothers' perspectives and experiences in their own words, and to probe for more details and clarifications when needed. The qualitative data will be analysed using thematic analysis, which is a flexible and systematic method for identifying, organizing, and reporting patterns and meanings in the data.

- **How will you store the data?**

Study 2 (Survey-Based):

- Completed paper-based surveys including consent form and privacy notice will be securely stored in a designated and locked filing cabinet within the researcher's controlled office space at Boromarajonani College of Nursing, Bangkok, Thailand 10400, where the

researcher has been working there. The researcher will scan the surveys and store them using a secure and encrypted password on the researcher's laptop and then transfer the data internationally on the researcher's OneDrive account provided by the University of Glasgow with a secure and encrypted password.

Study 3 (Interview-Based):

- Consent form and privacy notice will be securely stored in a designated and locked filing cabinet within the research's controlled office space at Boromarajonani College of Nursing, Bangkok, Thailand 10400, where the researcher has been working there. Encrypted audio recordings and transcripts manually generated from the interviews will be stored them using a secure and encrypted password on the researcher's laptop and then transfer the data internationally on the researcher's OneDrive account provided by the University of Glasgow with a secure and encrypted password.

• **How will you delete the data?**

After the data is successfully uploaded to the researcher's OneDrive account provided by the University of Glasgow, the paper-based records (survey data, consent form, privacy notice) will be securely destroyed by the researcher, using document shredder within the research's controlled office space at Boromarajonani College of Nursing, Bangkok, Thailand 10400, where the researcher has been working there.

Audio recordings will be deleted once the transcription has been made and verified.

Upon completion of the project, all data (including scanned files, audio transcript) will be securely deleted from the researcher's laptop and the researcher's OneDrive account provided by the University of Glasgow.

• **Will you be sharing data with anyone (within the University or external to the University)?**

No

• **What measures do you take to ensure [data processors](#) comply? Do you have a [data sharing agreement](#) drafted?**

N/A

• **What types of processing identified as likely [high risk](#) are involved?**

Special category data will be collected i.e., health, religion.

• **What do you want to achieve?**

The research team aims to publish the results of the study in reputable scientific journals and share the findings with the broader research community.

• **What is the intended effect on participants or users?**

There are no direct or immediate intended benefits to participants. However, participants will help us to understand the factors that influence resilience better and may also contribute towards improved resilience interventions for future generations facing similar challenges.

• **What are the benefits of the processing for you or the University, and more broadly?**

1. The research serves as a crucial component of the PhD program, contributing to academic knowledge and demonstrating the researcher's expertise in the field of resilience in mothers of adolescents with ID.

2. The process of designing, conducting and analysing the research enhances the researcher's skills in data collection, analysis and critical thinking.
3. The research contributes to the university's reputation for research excellence and innovation in the field of resilience in mothers of adolescents with ID.
4. The research addresses gaps in scientific understanding, contributing valuable insights to the broader academic community and potentially influencing future research.

Describe the scope and context of the processing:

- **What is the nature of the data, and does it include [special category](#) or criminal offence data?**
There is a general demographic information about participant such as age, marital status, religion, education level, health problem, challenging behaviour, financial status, dependant family member, number of people living in household. The surveys will not collect participants' name. The focus is on collecting demographic and specific information related to the research objectives without directly identifying individuals.

- **How many individuals are affected by your planned processing?**

Study 2:

Approximately 173 mothers raising adolescents with IDs will be invited to participate in this study. Once we reach the desired number of participants, recruitment will be closed.

Types of data collected for each stage:

Survey invite: Name will be collected in the consent form to ensure that participants fully understand the purpose of collecting specific information and how their data will be handled. Their name and other identifiers will be replaced with a pseudonym, meaning that only the research team will be able to identify them from it during analysis.

Completion surveys: Name will not be collected in this stage. At the end of the surveys, participants will be asked if they are interested in taking part in Study 3 (qualitative study) of this PhD project. If interested, they will be required to provide contact details for the researcher to schedule a meeting for an interview.

Study 3:

Approximately 10 mothers raising adolescents with IDs will be invited to participate in this study. Once we reach the desired number of participants, recruitment will be closed.

Types of data collected for each stage:

Interview invite: Name will be collected in the consent form to ensure that participants fully understand the purpose of collecting specific information and how their data will be handled. Their name and other identifiers will be replaced with a pseudonym, meaning that only the research team will be able to identify them from it during analysis.

Interview: Name and contact details will not be collected in this stage.

- **What is the nature of your relationship with the individuals whose data you will process?**

Study 2: The sampling of the study was the purposive sampling. This is a non-probability sampling technique that selects the participants based on the specific criteria and characteristics that are relevant and appropriate for the study. We do not have any special relationship with participants.

Study 3: 10 participants (or until the data saturation occurred) who had completed the questionnaire in the quantitative study (study 2) and willing to participate in the qualitative study (study 3).

- **How much control will they have over what you do with their data?**

They can request access to the information we process about them before the collecting data process finishes. If at collecting data point, they believe that the information, we process relating to them is incorrect, they can request to see this information and may in some instances request to have it restricted, corrected or erased. Once their data is completely collected and included in the final dataset, it becomes irreversible, and data withdrawal is not possible. However, if they want to withdraw from the study after, all the necessary data have already been collected. In this case, the relevant data collected up to that point will be retained and used pseudonymously for the remainder of the study.

- **Does your processing include children or other vulnerable groups?**

We do not include children.

- **What geographical area does it cover?**

The study will be conducted in Rajanukul Institute Thailand (Din Daeng, Bangkok 10400).

- **Are there concerns over this type of processing generally or more specifically regarding information security ? If yes, have you contacted [Information Security](#) for advice?**

No.

- **Does the project involve the use or development of new technology? If yes, have you contacted [IT Services](#) for advice?**

The project use NVivo program which already downloaded from the IT Services.

- **Are there any current issues of public concern that you should factor in?**

N/A

- **Are you signed up to any approved code of conduct or certification scheme (once any have been approved)?**

The researcher will submit an ethics application in Rajanukul Institute Thailand after the researcher has been approved from ethical considerations in the University of Glasgow. As a requirement from Rajanukul Institute where the researcher will collect the data.

- **Do you have [stakeholders](#), either within the University or external, that you must consult with regarding this intended processing? If yes, who are they?**

We now only collect data from Rajanukul Institute: A child and adolescent psychiatric tertiary care in Bangkok Thailand.

The researcher consults them for permission to collect data from their place. The Institute suggested to have Ethic approved from the University of Glasgow before submitting the ethic application to Rajanukul Institute.

- **Describe when and how you will seek these stakeholders' views – or justify why it's not appropriate to do so.**

N/A

- **Do you need to involve anyone else within your organisation?**

No

- **Do you need to ask your [data processors](#) to assist with consultation?**

N/A

- **Do you plan to consult information security experts, or any other experts?**

No.

Ensuring basic compliance

Describe how you will uphold the [data protection principles](#):

- **What is your [lawful basis for processing](#)?**

For personal data: Article 6 (1)(e): "processing is necessary for performance of a task carried out in the public interest"

For special category data: Article 9 (2)(j): "processing is necessary for archiving purposes in the public interest, scientific or historical research purposes..."

- **What information will you give to individuals about the project, e.g. *privacy notice, participant information sheet etc.***

Participant information sheet and privacy notice. This will be provided in the local language (Thai version).

- **How will you help to [support their rights](#)?**

They can request access to the information we process about them before the collecting data process finishes. If at collecting data point, they believe that the information, we process relating to them is incorrect, they can request to see this information and may in some instances request to have it restricted, corrected or erased. Once their data is completely collected and included in the final dataset, it becomes irreversible, and data withdrawal is not possible. However, if they want to withdraw from the study after, all the necessary data have already been collected. In this case, the relevant data collected up to that point will be retained and used pseudonymously for the remainder of the study.

- **How will you prevent [function creep](#)?**

The research team will conduct regular supervisory meetings once a month to review and discuss the ongoing data collection and analysis processes.

- **How will you ensure data quality and [data minimisation](#)?**

We will only need data specific to our mentioned purposes, which have been discussed and agreed with the supervisory team. Any data inadvertently collected outside of this (e.g. offered by participants during interview) will be discarded.

- **How will the data be kept up to date, if necessary?**

N/A

- **How long will you [keep the data](#)?**

After the data is successfully uploaded to the researcher's OneDrive account provided by the University of Glasgow, the paper-based records (survey data, consent form, privacy notice) will be securely destroyed by the researcher, using document shredder within the research's controlled office space at Boromarajonani College of Nursing, Bangkok, Thailand 10400, where the researcher has been working there.

Audio recordings will be deleted once the transcription has been made and verified.

Upon completion of the project, the data including scanned files, audio transcript will be securely deleted from the researcher's laptop and the researcher's OneDrive account provided by the University of Glasgow. The study outputs will be retained for 10 years as per the University of Glasgow research data policy. See more details about Research Data Management (RDM) on retention of research data: <https://www.gla.ac.uk/myglasgow/openresearch/researchdatamanagement/>

- **How will the retention be reinforced?**

Limit access to data that is scheduled for deletion. Only the researcher team have the ability to delete data. The study outputs will be retained for 10 years as per the University of Glasgow research data

policy. If the researcher leaves the University before the 10 years retention is over. This responsibility will fall to Dr. Maria Truesdale and Professor Deborah Cairns who are the researcher's supervisors and they have the ability to delete the data.

- **How will the data be kept securely, both during the project and after completion?**

The data will be restricted accessible, only to the research team (principal researcher and supervisors)
 During the project: Any data in paper form including consent form and surveys will be collected in Thailand and then digitise and save to the researcher's encrypted laptop and the researcher's OneDrive account provided by the University of Glasgow. Paper copies will then be securely destroyed. The method for recording the interviews is using a dedicated audio recording device with encryption. Audio recordings will be deleted once the transcription has been made and verified. Additionally, the researcher plans to manually create transcripts from the interviews which as above will be stored on the researcher's laptop and the researcher's OneDrive account. Participants' name and other identifiers will be replaced with a pseudonym, meaning that only the research team will be able to identify them from it during analysis.
 After completion: The data (including scanned files, audio transcript) will be securely deleted from the researcher's laptop and the researcher's OneDrive account. The study outputs will be retained for 10 years as per the University of Glasgow research data policy.

- **Will you be sharing data internationally, e.g. sending it to or receiving it from an organisation abroad, or using an international service/platform to process your data?**
 No

Identify and assess risks and measures to reduce risk

Describe the source of risk and nature of potential impact on individuals. Include associated compliance and corporate risks as necessary.	Likelihood of harm +	Severity of harm =	Overall risk	Options to reduce or eliminate risk	Residual risk (after reduction)
	(Remote, possible or probable)	(Minimal, significant or severe)	(Low, medium or high)		(Low, medium or high)
1. The data collected might be accessed by unauthorised persons.	Possible	Significant	Medium	1. Save the data on the researcher's OneDrive account provided by the University of Glasgow with an encrypted password, and restricted access to research team only.	Low
2. Participants may not fully understand how their data will be used.	Possible	Significant	Medium	2. Providing clear information about the research purpose, data collection, the methods used, and how long the data will be retained in Thai language.	Low
3. Sharing personal experiences may bring about emotional or psychological discomfort.	Probable	Significant	High	3. Giving the right to decline to answer any questions or to withdraw from the study if the participants feel uncomfortable at any point. The researcher also provide contact details of organisations who could provide support for the participants if they are feeling down.	Medium

Data Protection & FOI Office recommendations

DP & FOI Office advice provided:	Angharad Stockwell, Information Compliance & RM Specialist	DP & FOI Office should advise on compliance and measures to reduce risk
Summary of DP & FOI advice: Advice provided has generally been around requesting further detail on the researcher's approach to data protection compliance in most areas i.e. fleshing out the DPIA so all necessary detail is captured. Generally, the approach is satisfactory however.		

Sign off and record outcomes

(To be completed by the PI/Project Lead)

Mitigation measures and residual risks approved by (<i>sign & date</i>): Wattana Tejakum 13 December 2023	Notes: • All mitigation measures must be integrated back into the project, with a documented date and responsibility for completion. • The ICO must be consulted if high risks are identified and cannot be mitigated. • If the DP & FOI Office advice is overruled, an explanation must be provided.

This DPIA will be kept under review by:	Wattana Tejakum	A copy of the most recent version should be sent to the DP & FOI Office and retained in the IAR* by the PI/Project Lead.

*The University's Information Asset Register (IAR) is a repository for all data protection compliance documents, e.g. privacy notices, DPIAs etc. You can access the IAR (using VPN or remote staff desktop) here: <https://www.gla.ac.uk/myglasgow/dpfooffice/gdpr/onlineinformationassetregister/>.

