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Social wellbeing in autistic adults

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Submitted in partial fulfilment of the requirements for the degree of
Doctorate in Clinical Psychology

School of Health and Wellbeing
College of Medical, Veterinary and Life Sciences
University of Glasgow

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Table of contents

List of Tables

List of Figures

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Chapter 1

How Are Social Relationships Associated with Wellbeing and Quality of Life in Autistic Adults? A Systematic Review of Quantitative Studies.

Prepared in accordance with the author requirements for Autism:
https://journals.sagepub.com/author-instructions/aut

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Abstract

This review sought to systematically examine research on how the quantity and qualities of social relationships are associated with wellbeing or quality of life (QoL) in autistic adults. Research eligible for inclusion in this review were published quantitative studies that reported data on participants aged 18+ years old who are autistic (diagnosed or self-identified) and included measures of wellbeing/QoL (with reference to Seligman's (2002) PERMA model of wellbeing or Schalock et. al.'s (2008) model of QoL) and measures of social relationships. Five research databases were searched on 22nd June 2025, using both keywords and database-specific subject headings: PsycINFO, CINAHL, Embase, CENTRAL, and PubMed. The quality of included studies was appraised using the QuADS tool (Harrison et. al., 2021). Eighteen studies were included and their findings narratively synthesised. Two studies explored associations between the number of social relationships autistic adults have and their wellbeing/QoL, neither of which reported a significant association between these variables. Seventeen studies reported data on associations between wellbeing/QoL and specific qualities of social relationships, with most of these observing positive associations between perceived social support and wellbeing/QoL. There were mixed findings among studies that examined relationship closeness or frequency of social contact and wellbeing/QoL.

Introduction

A diagnostic feature of Autism Spectrum Disorder is "persistent deficits in the ability to initiate and to sustain reciprocal social interaction and social communication" (World Health Organization, 2019/2021). Autistic individuals may experience difficulties navigating social relationships across the lifespan, particularly in the context of predominant neurotypical communication styles, experiences of bullying and exclusion, and sensory overload (Black et al., 2024). Kanner (1943) conceptualised autistic differences in social interaction as demonstrating indifference towards or lack of interest in relationships. However, qualitative research highlights that, similar to non-autistic individuals, autistic individuals do experience social relationships as a source of support and happiness (Black et al., 2024).

Nevertheless, autistic individuals may experience differences in the quantity and quality of social relationships when compared to non-autistic individuals. For example, a systematic review of research on friendship in autistic children and adolescents indicated that they tend to have fewer friends, with whom they have less frequent contact (Petrina et al., 2014). Measures of friendship quality, comprising factors such as closeness and companionship, tend to indicate that autistic children experience lower friendship quality, when compared to children who are not autistic (Petrina et al., 2014).

In general populations, research tends to demonstrate positive associations between social relationships and wellbeing. For example, a systematic review of studies exploring associations between friendship and wellbeing among adults indicates that the number and quality of friendships are positively associated with wellbeing (Pezirkianidis et al., 2023). According to Seligman's (2011) Wellbeing Theory, psychological wellbeing can be understood as a positive state of being that arises from positive emotion, engagement, positive relationships, meaning, and achievement (shortened to the acronym PERMA). Several theories aim to describe potential mechanisms underlying associations between wellbeing and social relationships. Baumeister and Leary (1995) proposed the 'need to belong' theory, in which relationships represent a basic human need that are necessary to enable positive psychological functioning. Similarly, Cohen and McKay's (1984) propose the 'buffering hypothesis', where access to interpersonal support during stressful life experiences can offer protection from resultant emotional distress and psychopathology. In the framework of Attachment Theory (Ainsworth, Blehar, Waters, & Wall, 1978; Bowlby, 1969), the quality of social relationships across development impacts an individuals' capacity to meet their own needs and regulate emotions, thus influencing health and wellbeing.

Psychological models of wellbeing often include relationships or connection with others as a key facet (e.g. ‘relatedness’ in Self-Determination Theory (Ryan and Deci, 2000) and ‘positive relationships’ in Seligman’s (2002) PERMA model). Quality of life can be conceptualised as the perceptions, behaviours, or conditions that give an indication of a person’s well-being, their social participation, and independence (Schalock, 2004; Schalock et al., 2008). In Schalock et al’s (2008) model of quality of life (QoL), social relationships are conceptualised as specific domain of QoL, alongside social inclusion, human rights, personal development, self-determination, and wellbeing.

It could be hypothesised that, if autistic individuals’ experience differences in social relationship quantity or quality, the nature of the association between relationships and wellbeing may also differ. However, a recent systematic review highlighted associations between loneliness and depression, anxiety, and suicidal ideation among autistic adults (Grace et al., 2022). Furthermore, synthesis of research on QoL in autistic adults suggests that autistic individuals tend to report poorer social dimensions of QoL than non-autistic individuals (Ayres et al., 2018).

This review intended to systematically identify and synthesise research to elucidate how the quantity and quality of social relationships is associated with autistic adults’ wellbeing and QoL. Studies which quantitatively measure any aspect of the quantity or quality of social relationships, and either overall wellbeing/QoL or non-relationship facets of wellbeing or QoL, will be included.

Review questions:

1. How is the quantity of social relationships associated with wellbeing and QoL in autistic adults?
2. What qualities of social relationships are associated with wellbeing and QoL in autistic adults?

Methods

Review criteria

This systematic review of quantitative studies was conducted and reported with reference to the Preferred Reporting Items for Systematic review and Meta-analyses (PRISMA; Page et al., 2021) 2020 guidelines. The protocol for this review was registered with PROSPERO (registration number: CRD42024598183) and updated to reflected changes in second reviewer involvement and the quality appraisal tool used.

Table 1: Study eligibility criteria with reference to PICOS elements

PICOS element	Inclusion criteria	Exclusion criteria
Participants	At least 18 years old AND autistic (either diagnosed or self-identified).	<18 years old AND/OR not autistic.
Intervention	N/A	N/A
Comparison	N/A	N/A
Outcomes	BOTH: a) included a measure of overall wellbeing OR overall QoL OR a non-relationship facet of Seligman's (2002) PERMA model of wellbeing (positive emotions, engagement, motivation, achievement) OR a non-relationship facet of Schalock's (2008) model of QoL (personal development, self-determination, rights) AND b) included a measure of the quantity of social relationship OR the quality of social relationships.	EITHER: a) did not include included a measure of overall wellbeing OR overall QoL OR a facet of Seligman's (2002) PERMA (positive emotions, engagement, motivation, achievement) OR a facet of Schalock's (2008) QoL (personal development, self-determination, rights) OR b) did not include a measure of the quantity of social relationship OR the quality of social relationships.
Study design	Published quantitative studies, including any of the following: a case study reporting quantitative data, or a longitudinal or cross-sectional observational study, or experimental study, or intervention study, or a mixed-methods study reporting quantitative data.	Unpublished quantitative studies, reviews, conference abstracts, and qualitative studies.

Study inclusion criteria with reference to PICOS elements are reported in Table 1. Seligman's (2002) PERMA model of wellbeing and Schalock's (2008) model of QoL were chosen over other models of wellbeing/QoL as frameworks for outcome criteria since they represent well-established theoretical models that are frequently applied in relevant research literature. Studies that included both autistic and non-autistic participants, or adult and child participants, were eligible for inclusion in the review only if they reported data for the autistic and adult participants separately. Only research published in English were eligible.

Search strategy

The following online research databases were searched, using both keywords and database-specific subject headings: PsycINFO, CINAHL, Embase, Cochrane Central Register of Controlled Trials (CENTRAL), and PubMed. The search was completed on 22nd June 2025. The search terms/strategy for each database are detailed in Appendix B.

Study selection

Search references were exported to EndNote and EndNote's duplicate reference removal tool was used. References were subsequently exported to Rayyan (https://www.rayyan.ai/) to identify remaining duplicate references. These duplicate references were individually checked by the first reviewer and were manually removed from EndNote.

References were exported into a Microsoft Excel spreadsheet and the first reviewer screened titles and abstracts to identify references which met the inclusion criteria. A second reviewer independently screened the titles and abstracts of a 10% sample of references. Agreement between the two reviewers was substantial (κ=0.75).

The first reviewer then read the full text for all references identified as potentially eligible through screening. The second reviewer independently reviewed the full text for a 20% sample of these references and agreement between reviewers was moderate (κ=0.58). Discordant decisions were then discussed and resolved.

Data extraction and synthesis

Data on study design, sample characteristics, definition/measure of Autism used, recruitment methods, measure(s) of social relationships, measure(s) of wellbeing/QoL, and tests of association (including effect sizes) were extracted from included studies by the first reviewer and entered into a Microsoft Excel spreadsheet. It was anticipated that the studies in this review would use a variety of methodologies and outcome measures, making meta-analysis of findings unrealistic. The findings were therefore narratively synthesised using guidance outlined by Popay et al. (2006). A preliminary synthesis was developed through tabulating study data and grouping related studies. Similarities and variation between included studies was examined, and appraisal of study quality was integrated into the synthesis.

Quality appraisal of studies

Due to the differing methodologies of included studies, the Quality Assessment with Diverse Studies (QuADS; Harrison et al., 2021) appraisal tool was used. Each study was rated against QuADS criteria, and reasons noted for each criterion rating. QuADS criteria ratings range from 0 (no mention of information relevant to the criteria) to 3 (thorough discussion/description of information relevant to the criteria). QuADS does not provide cut-off scores to indicate overall quality, rather the authors recommend providing a narrative account of criteria outcomes (Harrison et al., 2021). Consistent with recommended use, a sample of the included studies were independently appraised by another reviewer. The second reviewer appraised a 20% sample (N=4) and, since QuADS requires the application of reviewers' individual topic knowledge and judgement for scoring (Harrison et al., 2021), interpretation and scoring were discussed between reviewers to refine the application of criteria.

Results

Characteristics of included studies

Database searching was completed on 22nd June 2025. Figure 1 displays the full search and screening process. Eighteen studies met the eligibility criteria and were included in this review. Study characteristics are presented in Table 2.

All but one included study (Hedley et al., 2019) used cross-sectional data for the outcomes relevant to this review. Across all studies, data from 2,602 autistic adults were included. Overall mean age across the included studies (excluding one study that only reported median age) was 31.8 years, with half included studies reporting an average age of participants >30 years and half reporting an average age of participants <30 years. Across all included studies 69.6% of participants were male, with only 2 studies including a majority female sample and one study reporting an even gender distribution.

Across included studies, participants were recruited from the USA, England, the Netherlands, Australia, Japan, Taiwan, Belgium, China, and Spain. One study (Leader et al., 2021) did not provide any information to indicate participant location.

Regarding the definitions/measures of autism, two studies used diagnostic interview and/or structured observation, and one used a screening questionnaire. Hong et al. (2016) did not report the measure or definition of autism used. All other included studies (n=14) used disclosure of professional- or self-diagnosis.

Quality of studies

Quality assessment criteria ratings using QuADS are presented in Table 3.

Most studies adequately described the theoretical background and methods, and most studies gave a statement of the research aims, alongside a basic description of the study setting and participant sample. However, there often lacked justification of the sample population and recruitment methods with reference to the study aims. Methodological approaches appeared appropriate in most included studies, although the rationale provided for data collection tools was frequently minimal. Descriptions of data collection procedures, provision of recruitment data, and justification for chosen analytic methods often lacked detail.

Despite often lacking justification, the chosen methods of analysis appeared appropriate to study aims in most cases. Regarding the appropriateness of measures used, only one study used a measure of wellbeing or QoL specific to autistic populations (Charlton, McQuaid & Wallace, 2022), and five studies used novel or study-specific measures of social relationships (Craig, 1998; Forbes et al., 2023; Hong et al., 2016; Kamio, Inada & Koyama, 2013; Kidney, 2015).

Only three studies (Kidney, 2015; Liu et al., 2024; van den Heuvel et al., 2025) provided information to suggest meaningful involvement of stakeholders (e.g. autistic individuals, their relatives, relevant professionals, etc.) in the research design, procedure, and dissemination.

Question 1: How is the quantity of social relationships associated with wellbeing and quality of life in autistic adults?

Two of the included studies, Saldaña et al. (2009) and Mazurek (2014) reported data exploring associations between the number of social relationships autistic individuals have and their wellbeing or QoL. Mazurek (2014) reported no significant association between self-reported number of friends and life satisfaction, measured using the Satisfaction With Life

Scale (Diener et al., 1985). Similarly, Saldaña et al. (2009) found no significant association between parent-reported number of people in the autistic individual's social network and parent-reported quality of life, as measured using the Comprehensive Quality of Life Questionnaire (Cummins et al., 1997). Both studies scored poorly on the QuADS appraisal tool across criteria on providing justification for analytic method (scores of 0), provision of recruitment data (scores of 1), and the rationale for data collection tools (scores of 0 or 1).

Question 2: What qualities of social relationships are associated with wellbeing and quality of life in autistic adults?

Social support

The most frequently measured quality of social relationships was perceived social support. Despite the variation in sample characteristics, methods, and measures used across studies exploring perceived social support, all reported some significant, positive associations with wellbeing or QoL among autistic adults. No two studies used both the same measure of social support and the same measure of QoL/wellbeing, although most (n=7) examined QOL as opposed to wellbeing.

Three studies measured self-reported social support using the Multidimensional Perceived Social Support Scale (MSPSS; Zimet et al., 1988) and three used the Interpersonal Support Evaluation List-12 (ISEL-12; Cohen & Hoberman, 1983). Bishop-Fitzpatrick, Mazefsky and Eack (2017) and Renty & Roeyers (2006) observed moderate strengths of association (see Table 2) between ISEL-measured social support and QoL. Hedley et al. (2019) examined data at two time points, 12 months apart, pre- and post- a supported employment programme. They found moderate correlations between wellbeing at both time points and ISEL-measured social support at baseline. However, there was no significant correlation between wellbeing at baseline and social support after 12 months. These three studies scored 2-3 on QuADS criteria for theoretical background and presentation of research aims, but Bishop-Fitzpatrick, Mazefsky and Eack (2017) and Renty & Roeyers (2006) scored zero on criteria assessing descriptions of data collection procedures.

Strengths of association between MSPSS-measured social support and wellbeing/QOL ranged from small to large. Khanna et al. (2014) found small positive correlations between self-reported mental and physical health-related QoL (as measured using The Medical Outcomes Study Short-Form Health Survey version 2 (SF-12v2; Ware, Kosinski, & Keller, 1996)) and social support from family and friends. However, Leader et al. (2021) measured quality of life using the WHOQOL-BREF (Skevington, Lotfy & O'Connell, 2004) and did not find significant associations between self-reported physical health related QoL and social support, despite finding small positive associations for psychological and environmental-related quality of life, and a large positive association for social relationship-related QoL. Neither of these studies scored above 2 on any of the QuADS criteria. Both scored 1 on criteria assessing appropriateness of sampling methods and zero or one on criteria of providing a rationale for data collection tools.

Kamio et al. (2013) measured social support by asking autistic adults' support staff to rate the helpfulness of physical and psychological support offered by parents and siblings. They compared psychological and social relationship-related QoL, as measured using the Japanese version of the WHOQOL-BREF (Nakane, Tazaki, & Miyaoka, 1999; Tazaki and Nakane, 2007), between autistic adults whose parents and siblings were rated as helpful versus unhelpful. It was found that autistic adults whose mothers were perceived as helpful demonstrated significantly higher psychological and social relationship-related quality of life, whereas there were no significant differences associated with the helpfulness of fathers or siblings.

Closeness

Three studies examined associations between wellbeing/QoL and self- or other-reported relationship closeness. Mazurek (2014) found that life satisfaction did not predict outcomes on the Unidimensional Relationship Closeness Scale (Dibble, Levine, & Park, 2012), whereas Liu et al. (2024) observed that parents' ratings of their child's close friendships were moderately, positively correlated with life satisfaction. However, Mazurek (2014) used the Satisfaction with Life Scale (Diener et al., 1985) to assess self-reported life satisfaction and Liu et al. (2024) used the Cantril Ladder Scale (Cantril, 1965) to assess parent-reported life satisfaction.

Van den Heuvel et al. (2025) used cluster analysis of Close Persons Questionnaire responses to identify three groups: individuals with no close relationships, those with just a romantic partner (i.e. one close relationship), and those with multiple close relationships. They found that only the social relationship-related QoL, as measured using the WHOQOL-BREF, was significantly different between the groups.

Frequency of contact

Three studies described associations between frequency of contact with friends or peers and wellbeing/QoL. Forbes et al. (2023) found differences in the direction of association between WHOQOL-BREF domains of QoL and parent-reported frequency of contact with close friends or peers. Frequency of social contact was positively associated with environment and psychological domains of QoL, and negatively associated with social relationships and physical health domains. However, only correlation coefficients were reported, without any indication of statistical significance.

Two studies examined aspects of wellbeing. Craig (1998) found a small, positive correlation between self-reported number of hours spent with friends per week and outcomes on the Satisfaction with Life Scale (Diener et al., 1985). Kidney (2015) found no significant association between self-reported self-determination and frequency of contact with members of the autistic community online. This study used a novel, composite measure of self-determination and included majority female participants, whereas Craig's (1998) study sample was majority male.

Other qualities

Regarding negative qualities of social relationships, Hong et al. (2016) found no significant associations between frequency of bullying, and both self- and maternal-reported QoL.

Brooks (2014) reported data on the association between self-reported positive affect, an element of wellbeing, and outcomes on the Friendship Questionnaire (FQ). The Friendship Questionnaire was developed by Baron-Cohen et al. (2003) to quantify aspects of relationship differences assumed to be characteristic of Autism in the context of the extreme male-brain hypothesis. Higher scores on the FQ are supposed to indicate greater closeness and empathy within relationships, as well as greater interest in and perceived importance of social relationships. Brooks (2014) reported moderate, positive correlations between FQ scores and positive affect in their sample.

Figure 1: Flow diagram of search process

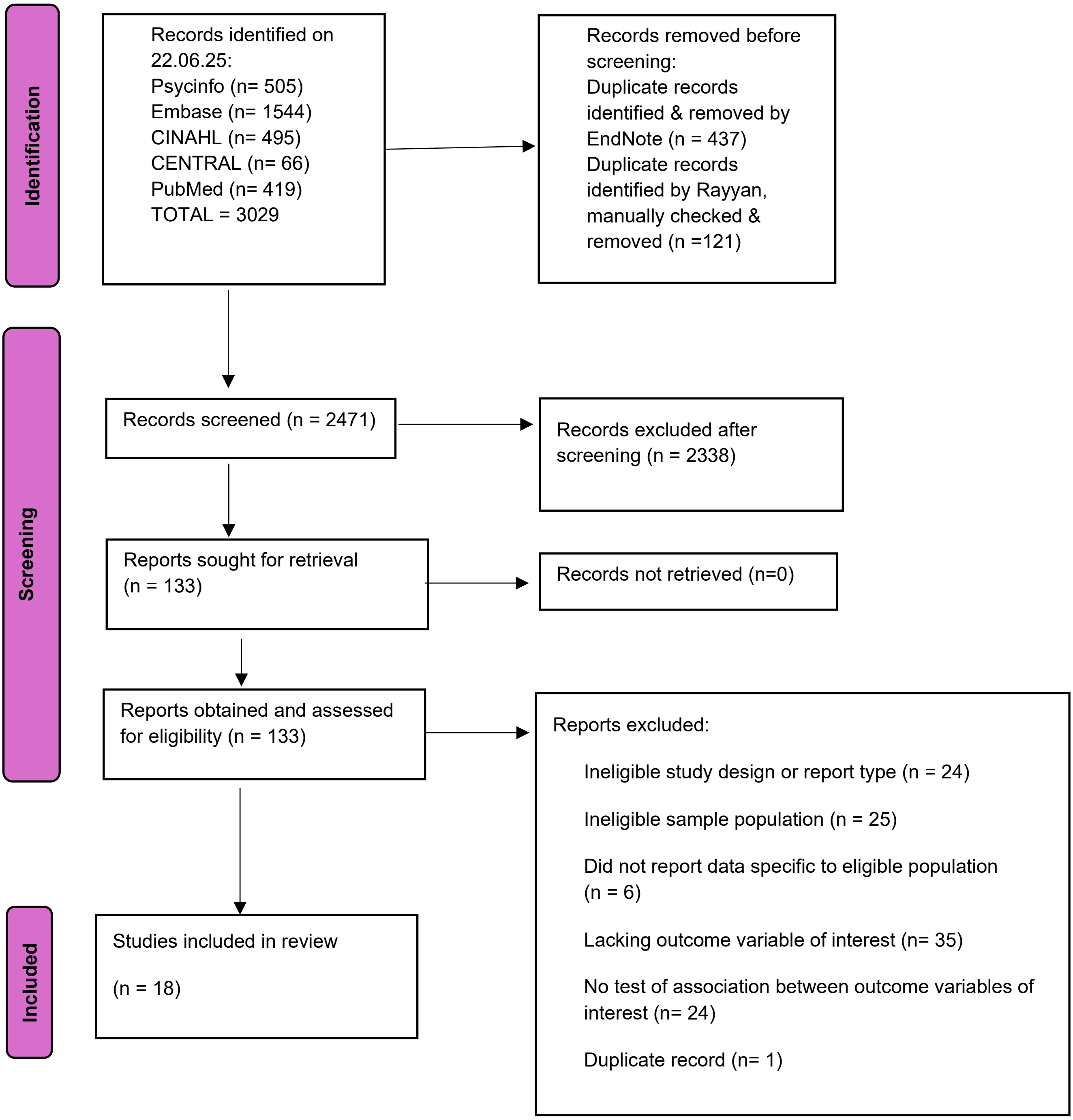

Table 2: Characteristics of included studies

Authors (year of publication)	Study design	Sample characteristics	Definition /measure of Autism	Measure(s) of quality/quantity of social relationships	Measure(s) of wellbeing/QoL	Main finding(s) regarding social relationships and wellbeing/QoL
Bishop-Fitzpatrick et al. (2017)	Intervention study (data relevant to this review was cross-sectional)	40 autistic participants without intellectual disability (mean age=24.2 years, 90% male) and 25 "typical community volunteers" matched for age (mean age=24.8 years), sex (84% male), race	Autism Diagnostic Observation Schedule (Lord et al., 2000) or Autism Diagnostic Interview-R (Lord et al., 1994)	Interpersonal Support Evaluation List (Cohen et al., 1983) – self-report	World Health Organization Quality of Life – Brief Version (WHOQOL-BREF; Skevington et al., 2004) – self-report	A significant, moderate, positive effect of social support on quality of life in autistic adults (β=0.42, SE= 0.09, *p*<0.01), when controlling for the effects of age, sex, IQ, and treatment exposure.
Brooks (2014)	Cross-sectional, observational design	56 autistic participants without intellectual disability (mean age = 26.3 years, 50% male) and their parents (n=56), and 56 "typically developing" adults (mean age=26.4 years, 50% male)	A parent-reported score of 19 or above on the Autism Spectrum Screening Questionnaire-Revised Extended Version (Kopp & Gillberg, 2011)	The Friendship Questionnaire (Baron-Cohen & Wheelwright, 2003) – self-report	The Positive And Negative Affect Schedule (Watson, Clark, & Tellegen, 1988) – self-report	A significant, moderate, positive correlation (*r*= 0.449, *p*<0.001) between friendship quality and positive affect among autistic adults.
Charlton, McQuaid & Wallace (2022)	Cross-sectional, observational design	388 autistic individuals aged 40+ years (mean age= 52.2 years, 41% male)	Self-disclosure of autism diagnosis	Duke Social Support Index (Koenig et al., 1993) – self-report	WHOQOL-BREF and the Autism-Specific Quality of Life measure (ASQOL; McConachie et al., 2018) – self-report	All quality-of-life components (physical, psychological, social relationships, environmental, and autism-specific) were significantly (*p*<.001) positively correlated with subjective social support (effect sizes ranging from small, *r*=0.23, to large, *r*=0.67)

Craig (1998)	Cross-sectional, observational design	42 autistic adults (mean age= 33.9 years, 76% male)	Diagnosis of autism or Asperger Syndrome without intellectual disability	Hours spent with friends per week – self-report	The Satisfaction with Life Scale (SWLS, Diener et al., 1985) – self-report	Number of hours spent with friends per week showed small, positive association with life satisfaction (r=0.35, p=.047).
Forbes et al. (2023)	Longitudinal, observational study (data relevant to this review was cross-sectional)	121 autistic adults (median age=23.0 years, 87.6% male)	Autism Diagnostic Observation Schedule calibrated severity score (Gotham et al., 2009), Autism Diagnostic Interview – Revised (ADI-R) (Lord et al., 1994), and interviews with teachers. Diagnosis made using ICD-10 criteria.	Frequency of contact with close friends or peers – parent-report.	WHOQOL-BREF – parent-report.	Small, positive correlation between contact with close friends or peers and environment (r=0.1) and psychological (r=0.12) domains of QoL. Small, negative correlation between contact with close friends or peers and social relationships (r=0.1) and physical health (r=0.02) domains of QoL. Statistical significance not indicated.
Hedley et al. (2019)	Intervention study, pre- & post- design (evaluating a supported employment program)	43 autistic adults (mean age=27.50 years, 90.7% male)	Letter from a medical doctor confirming autism diagnosis.	ISEL-12– self-report	Warwick-Edinburgh Mental Well-being Scale (WEMWBS; Tennant et al., 2007) – self-report	At pre- (r= 0.496, p<.01) and post-supported employment intervention (r= 0.615, p<.001) there was a significant, moderate, positive correlation between wellbeing and pre-intervention social support. There was no significant association between pre-intervention wellbeing and post-intervention social support (p >.05).
Hong et al. (2016)	Cross-sectional, observational design (but data used was from a larger longitudinal study)	60 autistic adults (mean age=32 years old, 76.7% male)	Not reported.	The experience of being bullied was measured by two questions: "Have you ever been teased or bullied?" and "(if yes) how often did this happen?" – self-report	WHOQOL-BREF – both self- and maternal-report	For self-reported QoL, frequency of bullying significantly predicted poorer QoL across all domains (physical, psychological, social relationships, and environmental). For parent-reported QoL, frequency of bullying significantly predicted poorer QoL across

						physical health and psychological health domains. Strength of association not reported.
Kamio et al. (2013)	Cross-sectional, observational design	154 autistic adults (mean age= 27.6 years, 79.9% male)	Autism diagnosis: Asperger syndrome, pervasive developmental disorders, high-functioning autism, autism, and pervasive developmental disorders not otherwise specified.	Family member (father, mother, sibling) helpfulness determined by responses to the question, ‘Regarding the physical and psychological support provided by his/her family member, do you think it is actually helpful for him/her?’ – service/facility staff-report	The six Items of the ‘psychological health’ domain and the three items of the ‘social relationships’ domain of the Japanese version of the WHOQOL-BREF (WHOQOL 26; Nakane et al., 1999; Tazaki and Nakane, 2007) were used – self-report	Participants whose mother was rated as ‘helpful’ reported significantly higher psychological QoL (cohen’s d= 1.1, p=<.001) and social relationships QoL (cohen’s d= 1.23, p=<.001) than participants whose mother was rated as ‘not helpful’. No significant differences in psychological or social relationships QoL between those with ‘helpful’ vs ‘unhelpful’ fathers or siblings.
Khanna et al. (2014)	Cross-sectional, observational design	291 autistic adults (mean age=30.8 years, 60.8% male)	Autism diagnosis: autistic disorder/classic autism, Asperge’’s syndrome, and pervasive developmental disorders not otherwise specified.	The 12-item Multidimensional Scale of Perceived Social Support (MSPSS; Zimet et al., 1988) – self-report	The Medical Outcomes Study Short-Form Health Survey version 2 (SF-12v2; Ware et al., 1996) – self-report	Physical health-related QoL was significantly positively correlated with their perceived adequacy of social support from family (r=0.24, p<0.01), friends (r=0.23, p<0.01), and significant other (r=0.20, p<0.01). A significant, positive correlation was also observed between mental health-related QoL and perceived adequacy of social support from family (r=0.18, p<0.01) and friends (r=0.25, p<0.01), but not significant other.
Kidney (2015)	Cross-sectional, observational design	151 autistic adults (mean age=37.1 years, 40.4% male) and 173 non-autistic adults who	Self-reported autism diagnosis or self-identification as autistic.	Self-reported involvement in the online autistic community: years of involvement	‘Self-determination’: composite of ‘shared emotional connection’ from the Sense of Community Index-2	Sense of community significantly, moderately. positively, correlated with self-determination (r=0.56, p<.01). A significant, weak

		self-identified as having another disability (mean age= 37.9 years, 38.2% male)		(number of years); sense of community (average of 18 items from the Sense of Community Index-2; Chavis, Lee, & Acosta, 2008); self-perceived importance of involvement; frequency of involvement.	and the domains of autonomy and competence domains in the Ryff Scales of Psychological Well-Being (Ryff, 1989) – self-report	positive correlation between perceived important of involvement and self-determination (r=0.32, p<.01). Years of involvement in online autistic community and frequency of involvement were not significant correlated with self-determination.
Leader et al. (2021)	Cross-sectional, observational design	107 autistic adults (mean age= 38.0 years, 70.1% male)	Autism diagnosis given by a licenced psychologist. All participants had to report a score greater than 6 on the AQ-10.	MSPSS– self-report	WHOQOL-BREF – self-report	Social support was positively associated with psychological QoL domain (β = .19, SE =.1, p=.04), social relationships QoL domain (β =.52, SE =.10, p<.001), and environmental QoL domain (β =.20, SE = .12, p=.03), but not physical health QoL domain.
Lin et al. (2025)	Cross-sectional, observational design	90 autistic adults (mean age= 26.9 years, 80.9% male) and 61 ‘typically developing controls’ (mean age= 28.6 years, 49.2% male)	Clinical diagnosis of Autism Spectrum Disorder according to the diagnostic criteria of DSM-5.	The Family APGAR Scale (Smilkstein et al., 1982) – self-report	WHOQOL-BREF. The measure was translated and culturally adapted into a Taiwanese version in Mandarin Chinese containing 28 items, including 26 standard items from the original WHOQOL-BREF and two Taiwanese-specific items – self-report	For autistic participants, overall QoL was significantly, moderately, positive correlated with perceived paternal support (r=0.47, p<.001) but not with perceived maternal support.
Liu et al. (2024)	Cross-sectional, observational design	208 autistic adults aged 18-30 years, 99 recruited in China (mean age = 22.7 years, 82.8% male) and 109 recruited in the Netherlands (mean	Participants in the Netherlands: a clinical diagnosis according to DSM-IV or DSM 5. Participants in China: clinical diagnosis of autism	Study-specific “friendship scale” (higher scores indicate more friends and closer friendships)- parent-report.	Life satisfaction measured with Cantril Ladder Scale (Cantril, 1965)–- parent report.	Parent-reported life satisfaction was significantly, positively correlated with parent-reported close friendships for participants in China (r=0.31, p<0.05). There was no significant correlation for

		age = 24.3 years, 67.0% male).	from psychiatrists, psychologists or paediatricians.			participants in the Netherlands.
Mazurek (2014)	Cross-sectional, observational design	108 autistic adults (mean age= 32.4 years, 52.8% male)	Diagnosis of autism: autism or autistic disorder, Asperger's Syndrome, or pervasive developmental disorder not otherwise specified.	Self-reported number of friends, having a best friend (yes vs no) and self-report Unidimensional Relationship Closeness Scale (Dibble et al., 2012)	SWLS – self-report	Self-reported number of friends, having a best friend and relationship closeness all did not significantly predict life satisfaction.
Renty et al. (2006)	Cross-sectional, observational design	58 autistic adults (mean age= 28.3 years, 74.1% male)	DSM-IV-TR criteria for autism, Asperger syndrome or pervasive developmental disorder not otherwise specified.	ISEL– self-report	Quality of Life Questionnaire (QOL.Q: Schalock and Keith, 1993) – self-report	Perceived informal social support demonstrated a significant, moderate, positive correlation with QoL (r=0.55, *p*< .001).
Saldaña et al. (2009)	Cross-sectional, observational design	74 autistic adults (mean age= 24.6 years, 85% male)	Clinical diagnosis of autism: autism Asperger syndrome, pervasive developmental disorders, or Autism Spectrum Disorders.	Families reported the number of people in the autistic individual's social network: one; two; three; four or more – parent-report	Comprehensive Quality of Life Questionnaire (Cummins et al., 1997) – parent-report	No significant correlation between family-reported size of social networks and QoL.
Tsermentseli (2022)	Cross-sectional, observational design	57 autistic adults (mean age= 31.1 years, 66.6% male), 60 'neurotypical control group' (mean age= 29.6 years, 53.3% male)	A letter from a general practitioner confirming Autism Spectrum Disorder diagnosis.	MSPSS – self-report	SWLS – self-report	For autistic participants, there was a significant, weak, positive correlation between perceived social support and life satisfaction (r=.42, *p*<.01).
van den Heuvel et al. (2025)	Cross-sectional, observational design	381 autistic adults between 30 and 90 years old (mean age= 52.3 years, 54.1% male)	Clinical diagnosis of autism: autism spectrum disorder according to the DSM-5 or autistic disorder, Asperger's disorder and	Close Person Questionnaire (CPQ; Stansfeld & Marmot, 1992)–- self-report	WHOQOL-BREF – self-report	Participants who reported no close relationships had significantly lower social domain of QoL than those who reported just a romantic partner (*p*<.001) and those who reported more than one

Pervasive Development Disorder Not Otherwise Specified according to DSM-IV	close relationship (*p*<.001; main effect eta squared 0.06, BF10= 1423.26). No significant differences were found for other quality of life domains.

Table 3: QuADS ratings

	Bishop-Fitzpatrick et al. (2017)	Brooks (2014)	Charlton McQuaid & Wallace (2023)	Craig (1998)	Forbes et al. (2023)	Hedley et al. (2019)	Hong et al. (2015)	Kamio et al. (2013)	Khanna et al. (2014)	Kidney (2015)	Leader et al. (2021)	Lin et al. (2024)	Liu et al. (2024)	Mazurek (2014)	Renty et al. (2006)	Saldaña et al. (2009)	Tsermen-tseli (2022)	van den Heuvel et al. (2025)
Criteria 1: Theory & conceptual underpinning	3	3	3	3	3	2	2	1	2	3	1	1	3	3	1	1	3	3
Criteria 2: Statement of research aim/s	3	2	3	2	3	3	2	2	2	3	2	2	3	1	2	2	3	2
Criteria 3: Description of setting and population	1	2	2	2	2	2	1	3	2	2	2	2	2	2	2	3	3	1
Criteria 4: Appropriate-ness of design	3	2	3	2	3	3	2	2	2	3	3	1	3	1	2	2	3	2
Criteria 5: Appropriate sampling	1	1	2	1	3	1	1	2	1	2	1	0	3	1	1	2	1	2
Criteria 6: Rationale for data collection tools	2	1	2	2	1	1	1	0	0	3	1	1	2	1	1	0	0	1
Criteria 7: Appropriate-ness of data collection tools	2	2	3	2	2	2	2	1	2	3	2	2	2	2	3	1	2	2
Criteria 8: Description of data collection procedure	0	3	1	3	0	3	3	3	1	2	2	0	1	2	0	2	0	2
Criteria 9: Recruitment data provided	1	2	2	0	1	3	3	3	3	3	1	2	0	1	1	1	1	1
Criteria 10: Justification for analytic method	3	0	1	2	3	1	0	1	0	3	1	2	0	0	2	0	1	2
Criteria 11: Appropriate-ness of analysis	3	2	3	2	3	3	2	3	2	3	2	3	3	1	3	2	3	3

Criteria 12: Consideration of research stakeholders	0	0	0	0	0	0	0	1	0	3	0	0	1	0	0	0	0	1
Criteria 13: Strengths and limitations discussed	2	1	3	2	2	2	2	2	2	3	2	2	2	3	3	1	2	3

Discussion

This review set out to systematically identify and synthesise the available research evidence on associations between social relationships and wellbeing/ QoL among autistic adults.

Eighteen studies met the review inclusion criteria. Two explored associations between the number of social relationships autistic adults have and their wellbeing/QoL. Neither reported significant associations between these variables. However, 17 studies reported data on associations between wellbeing/QoL and specific qualities of social relationships. Most examined perceived social support, where positive associations with wellbeing and QoL were observed across study designs, populations, and measures. Several studies examined relationship closeness and frequency of social contact, however, there were mixed findings regarding the associations between these relationship qualities and wellbeing/QoL.

The findings of this review are in keeping with the qualitative literature reviewed by Black et. al. (2024), where autistic individuals report experiencing social relationships as a source of support that contributes to their happiness. Similarly, among the general population, positive associations between adults' psychological wellbeing, and their number and quality of friendships are observed (Pezirkianidis et al., 2023).

The finding that social support, both self- and other-perceived, is positively associated with wellbeing and QoL is consistent with Cohen and McKay's (1984) hypothesis that social support might 'buffer' individuals from the negative psychological impact of adverse life experiences. While it was previously hypothesised that social relationships are less important to autistic individuals than the general population (Baron-Cohen et al., 2003), it appears that autistic adults' perception of the support they receive from social relationships is significantly associated with a variety of measures of positive life experience. Nonetheless, the findings of the studies in this review are specific to perceived social support, and so it is possible that individuals with higher wellbeing/QoL are more likely to view their relationships as supportive, or others (e.g. parents, carers) are more likely to perceive autistic individuals to receive greater social support if they appear to experience greater overall wellbeing/QoL. It cannot be inferred from the findings of this review whether it is the appraisal of social support or actual receipt of social support that is associated with wellbeing/QoL among autistic adults.

Although autistic individuals can find it difficult to form and maintain relationships in the context of current social norms (Black et. al., 2024), there has been limited exploration of how the number of relationships an autistic individual has might relate to their wellbeing and QoL. Lifespan research in the general population appears to support theories which suggest that maintenance of close social relationships, as opposed to total social network size, supports wellbeing with age (Bruine de Bruin, Parker & Strough, 2020). Autistic individuals may be able to access comparable wellbeing benefits from a few, close relationships. Nevertheless, more research is needed to better understand the associations between social relationship quantity and wellbeing in autistic adults.

It is a limitation of existing research that the mechanistic or causal relationships between social relationships and wellbeing/QoL variables are not elucidated. It is worth noting that common measures of overall wellbeing/QoL often include items on social relationships, which may be a confounding factor. Furthermore, it is possible that autistic individuals who have access to environments and resources which support their wellbeing might be better able to invest in social relationships and so benefit from greater social support. Much of the research included in this review has positioned autistic adults as beneficiaries of social investment from others, as opposed to equal contributors to social experiences and mutual support. Future research should aim to explore the mechanisms underlying associations between wellbeing/QoL and the relationship qualities identified by this review. Furthermore, research might explore autistic individuals' contributions to mutually supportive and valued social relationships.

Several limitations of this review may have impacted the resultant findings described. Only published research studies in the English language were included. The included studies demonstrated heterogeneity in population demographics, study setting, definitions of autism, and outcome measures. As a result, synthesis of findings was limited to broad comparisons, and thus interpretation of factors contributing to the observed similarities and differences across studies was limited. Nevertheless, the thorough search strategy and inclusion of diverse study settings, populations, and methods enabled observation of the scope and breadth of existing research on the topic. Quality appraisal of included studies provides context for the interpretation of findings described, although there was no formal method for weighting evidence and the limited research using directly comparable outcomes required all studies of variable quality to be considered to provide a meaningful synthesis of evidence relevant to the aims of the review.

The findings from this review offer implications for policy and practice aimed at improving wellbeing and QoL in autistic adults. The observed associations between autistic adults' perceptions of their social relationships and their wellbeing/QoL life points towards the importance of intervention targets and policy priorities which promote positive social lives for autistic individuals. In practice, this may involve social support and quality of relationships being modified and measured as outcomes from health and wellbeing interventions for autistic populations. Initiatives to improve the wellbeing of autistic employees or learners in occupational and educational settings might consider the importance of fostering supportive relationships between peers. The design of built environments could be shaped by accommodating and supporting autistic social engagement. To support these kinds of developments, future research should examine temporal associations between wellbeing/QoL and social relationships through longitudinal or intervention designs, which may provide evidence of causal mechanisms and specify intervention targets. Furthermore, there appears a need for research of higher quality in domains of validity, representativeness, and transparency with regards to sampling, recruitment, and measurement tool selection. This would also facilitate the development of a clearer picture of what social experiences meaningfully contribute to autistic wellbeing.

References

Ainsworth, M. D. S., Blehar, M., Waters, E., & Wall, S. (1978). *Patterns of Attachment: A psychological study of the Strange Situation.* Hillsdale, NJ: Lawrence Erlbaum.

Ayres, M., Parr, J. R., Rodgers, J., Mason, D., Avery, L., & Flynn, D. (2018). A systematic review of quality of life of adults on the autism spectrum. *Autism*, *22*(7), 774-783. https://doi.org/10.1177/1362361317714988

Baron-Cohen, S., & Wheelwright, S. (2003). The Friendship Questionnaire: An investigation of adults with Asperger syndrome or high-functioning autism, and normal sex differences. *Journal of Autism and Developmental Disorders*, *33*(5), 509-517.

Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, 117(3), 497–529. https://doi.org/10.1037/ 0033-2909.117.3.497

Bishop-Fitzpatrick, L., Mazefsky, C. A., & Eack, S. M. (2017). The combined impact of social support and perceived stress on quality of life in adults with autism spectrum disorder and without intellectual disability. *Autism*, *22*(6), 703-711. https://doi.org/10.1177/1362361317703090

Black, M. H., Kuzminski, R., Wang, J., Ang, J., Lee, C., Hafidzuddin, S., & McGarry, S. (2024). Experiences of friendships for individuals on the autism spectrum: A scoping review. *Review Journal of Autism and Developmental Disorders*, *11*(1), 184-209.

Bowlby, J. (1969). *Attachment and Loss* (No. 79). Random House.

Brooks, W. T. (2014). *Gender differences in social skills, peer relationships, and emotional correlates in adults with high functioning autism spectrum disorders*. The Ohio State University.

Bruine de Bruin, W., Parker, A. M., & Strough, J. (2020). Age differences in reported social networks and well-being. *Psychology and Aging*, *35*(2), 159.

Cantril, H. (1965). *The Pattern of Human Concerns*. New Brunswick, NJ: Rutgers University Press.

Charlton, R. A., McQuaid, G. A., & Wallace, G. L. (2022). Social support and links to quality of life among middle-aged and older autistic adults. *Autism*, *27*(1), 92-104. https://doi.org/10.1177/13623613221081917

Cohen, S., & Hoberman, H. (1983). Interpersonal support evaluation list (ISEL). *Journal of Applied Social Psycholology*, *58*, 304–309.

Cohen, S., & McKay, G. (1984). Social support, stress and the buffering hypothesis: A theoretical analysis. In *Handbook of Psychology and Health*, Volume IV (pp. 253-267). Routledge.

Craig, C. G. (1998). *Quality of life in high-functioning autistic adults: reconceptualizing outcome*. University of Southern California.

Cummins, R. A., McCabe, M. P., Romeo, Y., Reid, S., & Waters, L. (1997). An initial evaluation of the comprehensive quality of life scale--intellectual disability. *International Journal of Disability, Development and Education*, *44*(1), 7-19.

Diener, E. D., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of personality assessment*, *49*(1), 71-75.

Dibble, J. L., Levine, T. R., & Park, H. S. (2012). The Unidimensional Relationship Closeness Scale (URCS): reliability and validity evidence for a new measure of relationship closeness. *Psychological Assessment*, *24*(3), 565.

Forbes, G., Kent, R., Charman, T., Baird, G., Pickles, A., & Simonoff, E. (2023). How do autistic people fare in adult life and can we predict it from childhood? *Autism Research*, *16*(2), 458-473.

Grace, K., Remington, A., Lloyd-Evans, B., Davies, J., & Crane, L. (2022). Loneliness in autistic adults: A systematic review. *Autism*, *26*(8), 2117-2135.

Harrison, R., Jones, B., Gardner, P., & Lawton, R. (2021). Quality assessment with diverse studies (QuADS): an appraisal tool for methodological and reporting quality in systematic reviews of mixed-or multi-method studies. *BMC Health Services Research*, *21*, 1-20.

Hedley, D., Uljarević, M., Bury, S. M., & Dissanayake, C. (2019). Predictors of mental health and well-being in employed adults with autism spectrum disorder at 12-month follow-up. *Autism Research*, *12*(3), 482-494.

Hong, J., Bishop-Fitzpatrick, L., Smith, L. E., Greenberg, J. S., & Mailick, M. R. (2016). Factors associated with subjective quality of life of adults with autism spectrum disorder: Self-report versus maternal reports. *Journal of Autism and Developmental Disorders*, *46*, 1368-1378.

Kamio, Y., Inada, N., & Koyama, T. (2013). A nationwide survey on quality of life and associated factors of adults with high-functioning autism spectrum disorders. *Autism*, *17*(1), 15-26.

Kanner, L. (1943). Autistic Disturbances of Affective Contact. Nervous Child, 2.

Khanna, R., Jariwala-Parikh, K., West-Strum, D., & Mahabaleshwarkar, R. (2014). Health-related quality of life and its determinants among adults with autism. *Research in Autism Spectrum Disorders*, *8*(3), 157-167.

Kidney, C. A. (2015). *Rethinking Autism, Communication, and Community Involvement: Exploring Involvement in Online Communities, Communication Preference, Autistic Identity, and Self-Determination*. Portland State University.

Leader, G., Barrett, A., Ferrari, C., Casburn, M., Maher, L., Naughton, K., ... & Mannion, A. (2021). Quality of life, gastrointestinal symptoms, sleep problems, social support, and social functioning in adults with autism spectrum disorder. *Research in Developmental Disabilities*, *112*, 103915.

Lin, C. Y., Wu, Y. L., Chien, Y. L., & Gau, S. S. F. (2025). Quality of life and clinical correlates in cognitively-able autistic adults: A special focus on sensory characteristics and perceived parental support. *Journal of the Formosan Medical Association*, *124*(2), 157-163.

Liu, F., Begeer, S., Hoekstra, R. A., Wang, C., & Scheeren, A. M. (2024). Autistic adults in China and the Netherlands: Proxy-reported community integration and life satisfaction. *Autism*, *28*(12), 3186-3200.

Mazurek, M. O. (2014). Loneliness, friendship, and well-being in adults with autism spectrum disorders. *Autism*, *18*(3), 223-232.

Nakane, Y. (1999). WHOQOL-BREF survey of general population. *Iryo To Shakai*, *9*, 123-131.

Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., Shamseer, L., Tetzlaff, J. M., Akl, E. A., Brennan, S. E., Chou, R., Glanville, J., Grimshaw, J. M., Hróbjartsson, A., Lalu, M. M., Li, T., Loder, E. W., Mayo-Wilson, E., McDonald, S., & Moher, D. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *BMJ (clinical Research Ed.), 372*, n71.

Petrina, N., Carter, M., & Stephenson, J. (2014). The nature of friendship in children with autism spectrum disorders: A systematic review. *Research in Autism Spectrum Disorders*, *8*(2), 111-126.

Pezirkianidis, C., Galanaki, E., Raftopoulou, G., Moraitou, D., & Stalikas, A. (2023). Adult friendship and wellbeing: A systematic review with practical implications. *Frontiers in Psychology*, *14*, 1059057.

Popay, J., Roberts, H., Sowden, A., Petticrew, M., Arai, L., Rodgers, M., Britten, N., Roen, K., & Duffy, S. (2006). Guidance on the conduct of narrative synthesis in systematic reviews. *A product from the ESRC methods programme Version*, *1*(1), b92.

Renty, J. O., & Roeyers, H. (2006). Quality of life in high-functioning adults with autism spectrum disorder: The predictive value of disability and support characteristics. *Autism*, *10*(5), 511-524.

Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, *55*(1), 68.

Saldaña, D., Álvarez, R. M., Lobatón, S., Lopez, A. M., Moreno, M., & Rojano, M. (2009). Objective and subjective quality of life in adults with autism spectrum disorders in southern Spain. *Autism*, *13*(3), 303-316.

Seligman, M. E. (2002). Positive psychology, positive prevention, and positive therapy. *Handbook of Positive Psychology*, *2*(2002), 3-12.

Seligman, M. E. (2011). *Flourish: A visionary new understanding of happiness and well-being*. Simon and Schuster.

Schalock, R. L. (2004). The concept of quality of life: what we know and do not know. *Journal of Intellectual Disability Research*, *48*(3), 203-216.

Schalock, R. L., Bonham, G. S., & Verdugo, M. A. (2008). The conceptualization and measurement of quality of life: Implications for program planning and evaluation in the field of intellectual disabilities. *Evaluation and Program Planning, 31*(2), 181-190.

Skevington, S. M., Lotfy, M., & O'Connell, K. A. (2004). The World Health Organization's WHOQOL-BREF quality of life assessment: psychometric properties and results of the international field trial. A report from the WHOQOL group. *Quality of life Research*, *13*(2), 299-310.

Tazaki, M. and Nakane, Y. (2007) *WHOQOL26 Tebiki Kaiteiban.* Tokyo: Kaneko Shobo.

Tsermentseli, S. (2022). Self-esteem moderates the impact of perceived social support on the life satisfaction of adults with autism spectrum disorder. *Autism & Developmental Language Impairments*, *7*, 23969415221147430.

Ware, J. E., Kosinski, M., & Keller, S. D. (1996). A 12-Item Short-Form Health Survey: construction of scales and preliminary tests of reliability and validity. *Medical Care*, *34*(3), 220-233.

World Health Organization. (2019/2021). *International statistical classification of diseases and related health problems* (11th ed.).

van den Heuvel, R. M., Teunisse, J. P., Radhoe, T. A., van der Putten, W. J., Torenvliet, C., Wen, S., Wensing, M. & Geurts, H. M. (2025). Social network types in autistic adults and its associations with mastery, quality of life, and autism characteristics. *Journal of Autism and Developmental Disorders*, 1-12.

Zimet, G. D., Dahlem, N. W., Zimet, S. G., & Farley, G. K. (1988). The multidimensional scale of perceived social support. *Journal of Personality Assessment*, *52*(1), 30-41.

Chapter 2

Social Wellbeing in Autistic Adults: A Delphi Study.

Prepared in accordance with the author requirements for Autism
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Plain Language Summary

Title

Social Wellbeing in Autistic Adults: A Delphi Study.

Background

Little is known about autistic adults' experience of social wellbeing, or what individual, social, or environmental factors contribute and maintain it. It cannot be assumed that autistic adults' wellbeing will be the same as for others. Research shows that autistic people are more likely to experience mental illness, but are less likely to receive treatments that are effective for them. Through improving our understanding of social wellbeing in autistic adults, the findings of this study can be used to inform and improve health and wellbeing support for autistic individuals.

Aims and Questions

The aim of this study was to develop a shared understanding through developing consensus on what factors are important for social wellbeing in autistic adults. The research question was: what are the factors that autistic individuals experience as important for social wellbeing?

Methods

Participants: Two separate groups of participants were recruited for this study. The first group of 6 autistic adults participated in a workshop to create statements used at the start of the second part of the study. The second group of 13 autistic adults completed a series of surveys to collectively agree what is important for autistic social wellbeing.

Recruitment: Both groups of participants were recruited through the NHS Greater Glasgow and Clyde Adult Autism Team. People were asked by staff working in the Adult Autism Team if they would like to take part.

Consent: Participants completed a written form to give consent to take part in the study.

Design of study: The study used consensus-development methods, which are methods that gather individuals' opinions with the aim of reaching an overall agreement or identifying areas of disagreement.

Data collection: A workshop was used to collectively design a survey with autistic adults. A second group of autistic adults completed three surveys to agree factors important for social wellbeing.

Main findings and conclusions

A total of twelve factors identified as potentially relevant to social wellbeing in autistic adults were agreed to be ‘very important’ by participants surveyed. These included being listened to, people saying what they mean, being included, and having alone time, doing meaningful activities, being understood and accepted, interacting with other neurodivergent people, having individual needs met across settings. Nonetheless, multiple opinions were observed for items describing sensory needs and sharing interests or activities with others. The factors identified by participants indicate potential areas for change across therapeutic, occupational, and educational settings to facilitate autistic individuals’ participation and connection. Future research should explore potential mechanisms that can explain how or why the factors identified in this study relate to autistic adults’ wellbeing.

Abstract

Among autistic adults, satisfaction with one's social life has been demonstrated to positively predict overall wellbeing (Deserno et al., 2017). Nevertheless, autistic individuals' social wellbeing has yet to be comprehensively examined. This project used consensus methods to co-design study materials and identify factors important for social wellbeing. Nominal group technique was used in a workshop with a group of autistic adults to select 12 items for consideration in a subsequent Delphi. A separate group of autistic adults were recruited to the Delphi panel to reach a consensus on the factors important for autistic social wellbeing. Ten of the twelve initial items describing relevant factors reached a consensus rating of 'very important' for autistic social wellbeing by the Delphi participants. These included being listened to, people saying what they mean, being included, and having alone time, doing meaningful activities, being understood and accepted, interacting with other neurodivergent people, having individual needs met across settings. Nonetheless, plurality of opinion was observed for items describing sensory needs and sharing interests or activities with others. These findings indicate potential targets for services and interventions aimed at supporting autistic individuals' wellbeing through participation and connection.

Introduction

There is growing recognition that the mental health needs of autistic adults are often unmet through health services. For example, autistic adults are both under-represented in and experience poorer treatment outcomes from NHS England talking therapies services (El Baou et al., 2023). Mandy (2022) describes this phenomenon as the "autism mental health crisis paradox", where autistic individuals are more likely to experience mental illness but, paradoxically, are less likely to receive effective treatments.

Research indicates that mental health is often associated with social wellbeing (Van Lente et. al., 2012). Keyes (1998) defines social wellbeing as the degree of positive perception or evaluation of one's situation and functioning in community with others. Network analysis of the risk and success factors for wellbeing in autistic people found that social satisfaction and social contribution had the strongest direct associations with happiness (Deserno et al., 2017). Furthermore, autistic young adults' perception of their social integration and contribution is negatively correlated with depression symptoms (Richdale et al., 2023). There is evidence to suggest that, among autistic individuals, an association between autistic traits and depression symptoms is mediated by an individual's perception of their social contact (Schiltz et al., 2021). However, it is not the number of social contacts that relates to emotional wellbeing for autistic people, rather it is satisfaction with one's social life (Deserno et al., 2017). Research highlights societal non-acceptance of autism as a barrier to wellbeing for autistic people, which leads to experiences of bullying and isolation that may lead autistic individuals to 'mask' aspects of themselves (Cage et al., 2018; Cage & Troxell-Whitman, 2019). Furthermore, research indicates that unemployment is positively associated with loneliness in autistic adults (Grace et al., 2022), potentially suggesting that reduced opportunities for social contact through employment might play a role in autistic adults' wellbeing. Qualitative studies suggest that autistic individuals value authenticity, understanding, and acceptance in social interactions (Milton & Sims, 2016).

Although research has explored the relationship between loneliness and mental health generally (e.g. Mann et al., 2022), and loneliness among autistic adults (e.g. Grace et al., 2022), there has been little research exploring autistic individuals' social wellbeing. Cooper et al. (2024) reviewed findings from research studies exploring autistic young peoples' experiences of psychological wellbeing, from the perspective of autistic young people themselves, and their parents. One of the main themes described was a positive sense of self in the social world, including being socially accepted, connected, and feeling good about oneself. Keyes (1998) describes five factors of social wellbeing: social coherence (one's understanding of the social world); social actualisation (the sense that society controls its destiny); social integration (individuals' connection through norms and fondness for society); social contribution (the perception of one's social value); and social acceptance (accepting the good and bad in society). However, it cannot be assumed that conceptualisations and measures of social wellbeing based on general populations accurately reflect autistic peoples' experience. Research suggests that common measures of loneliness do not distinguish between aspects of loneliness and aspects of being autistic (Grace et al., 2023), since they conflate aloneness with loneliness, do not account for non-human relationships (e.g. with pets), and assume autistic individual's interpret survey items similarly to general populations. Developing an understanding of autistic peoples' social wellbeing, as opposed to just their experience of loneliness (i.e. lack of social wellbeing), has the potential to enable services to better support autistic peoples' mental health and quality of life. Most research on life outcomes for autistic people has focussed on normative, neurotypical-centric outcome domains, such as education, IQ, and social functioning (Deserno et al., 2017). However, research shows that self-acceptance of autistic identity and others' acceptance of autism, are positively associated with wellbeing (Cooper et al., 2023), thus suggesting that a continued 'deficit' focus is potentially harmful for the autistic community (Dinishak, 2022). For services across health, education, and social sectors to meaningfully promote autistic individuals' sense of positive identity and social wellbeing, they need a conceptualisation of what social wellbeing is for autistic individuals. Nevertheless, given the numerous barriers to social participation faced by autistic individuals (Ghanouni et al., 2019), any theory of autistic social wellbeing will be influenced and informed by the social challenges autistic people experience.

Conceptualising autistic social wellbeing involves identifying the contributing factors. Mandy (2022) asserts that we should not assume the mechanisms underlying mental health in autistic individuals are equivalent to mechanisms identified in general populations, and this may also apply to social wellbeing. Research highlights that scores on autism-trait measures are positively associated with loneliness as it is usually measured (Grace et al., 2022). It is often asserted that autism is associated with loneliness due to a 'social skills deficit', however, there is no strong evidence to support a causal link between loneliness and social skills, nor that social skill interventions decrease loneliness among autistic individuals (Grace et al., 2022). Gaining insight into the factors that may contribute to, maintain, and hinder social wellbeing for autistic people is necessary to identify targets for interventions to support autistic peoples' wellbeing.

A key limitation of much previous research on autism was little consideration of the interests and views of autistic people themselves (Pellicano et al., 2013). Meaningfully involving autistic people in the research process is important for ensuring research can inform changes in practice that have material, positive impacts on autistic peoples' lives (Fletcher-Watson et al., 2019). A recent study on the research priorities of autistic adults living in Scotland highlighted mental health and wellbeing as the number one research priority, including how best to define and understand positive autistic wellbeing (Cage et al., 2024).

This study used consensus-development methods with autistic adults as experts by experience to inform an understanding of autistic social wellbeing. Consensus-development methods were chosen based on the inclusion of participants as experts-by-experience and to reach a shared conceptualisation of social wellbeing. The information about autistic social wellbeing gathered in this project can be used to inform research, clinical practice, and social policy focused on improving health and wellbeing outcomes in this population.

The aim of this study was to use consensus-development methods to identify the factors (personal, social, environmental, or other) autistic adults experience as important for social wellbeing.

Methods

Design:

The study used consensus methods across a two stage-process: Stage 1) a workshop to specify survey items used in the second stage; Stage 2) a Delphi process to identify factors important for social wellbeing. The study was designed and has been reported with reference to the DELPHISTAR (Niederberger et al., 2024) reporting checklist (see Appendix C). The study was conducted by a team across the University of Glasgow and NHS Adult Autism Team, comprising two Clinical Psychologists, a Trainee Clinical Psychologist, and a Speech and Language Therapist. The study protocol can be found at https: https://osf.io/kqzxn.

Nominal group technique (Jones & Hunter, 1995; Tran et al., 2021) was used to structure a workshop to co-create the first-round survey items for a subsequent Delphi process. The Delphi process in this study was designed with reference to the 'classic' methodological process (Brady et al., 2016; Cuhls, 2023), using a separate group of autistic adults to develop a consensus-based understanding of social wellbeing.

Delphi was chosen as the method of addressing the aims of this research study since it enables the systematic collation of perspectives and priorities on topics where there is uncertainty or a lack of existing data, as is the case for social wellbeing in autistic adults. Delphi surveys can be delivered remotely and, as a result, participants can be given clear time and commitment expectations, which may be important to facilitate access to participation for some autistic individuals. Similarly, participants in the Delphi remain anonymous to one another, which can provide an accessible format to those autistic individuals who have specific needs to accommodate in-person, group interaction. Communication between participants is structured, with a pre-agreed response format. Responses are not required immediately, giving participants time to process new information and formulate their responses.

Setting:

The study took place within NHS Greater Glasgow and Clyde (NHS GGC) Adult Autism Team. This is where all participants (for both Stages 1 and 2) were identified and recruited, and where the Stage 1 workshop took place. The Stage 2 Delphi surveys were administered to participants online.

Participants:

The participant eligibility criteria for both study stages were: aged 18 years or above; have a diagnosis of Autism Spectrum Disorder; speak and read English; have access to an electronic device, on which they could access study materials.

For the Stage 1 workshop, six participants were recruited and participated in the workshop. Murphy et al. (1998) suggest that for consensus methods at least 6 participants enables adequate consensus reliability and for interactive groups above 12 participants offers diminishing returns.

For the Stage 2 Delphi process the aim was to recruit up to 20 autistic adults, as representatives of those with lived experience of autism. Brady et al. (2016) assert that the typical participant group for a Delphi study is 10-20 participants and Trevelyan and Robinson (2015) suggest that the heterogeneity of the group in a Delphi study is a determining factor for the sample size, with greater heterogeneity necessitating a larger group. Thirteen autistic adults consented and were invited to take part in every round of the Stage 2 Delphi.

Procedures:

This study received ethical approval from the NHS Health Research Authority Proportionate Review Sub-committee of the South Central Oxford A Research Committee on 24th April 2025. Recruitment for Stage 1 of the study preceded recruitment for Stage 2. Information about the study and participant eligibility criteria was shared with clinical staff from the participating NHS GGC service. Staff provided Participant Information Sheets and verbal information about the study to patients who met the inclusion criteria. Individuals interested in participating in the study were asked to contact the research team via email. Individuals who contacted the research team were given the opportunity to speak with the researcher and ask questions before deciding to participate. Written consent forms were completed by all participants after they confirmed that they had received and understood information about the study.

A flow chart of Stage 1 and Stage 2 procedures is presented in Figure 2.

Stage 1:

For the first phase of the study, participants took part in a single session workshop. The nominal group process outlined by Tran et al. (2021) was used as a basis to structure the workshop. The plan for the workshop was to follow a 6-step process: 1) introducing the study research questions, and the purpose and structure of the workshop; 2) individual generation of survey items and sharing all items in a 'round robin'; 3) the researcher providing a brief presentation on research literature relevant to social wellbeing; 4) a group discussion to review the statements and selecting 24 statements to be carried to the next stage (to minimise participant fatigue, while allowing a range of different statements to be ranked); 5) individual ranking of the importance of each item (on a scale of 1-9; with 1-3 indicating 'not essential', 4-6 'neutral', and 7-9 'essential'), and the results were shared with the group visually on an electronic screen; 6) re-ranking to continue until either ≥70% of participants rank 12 items as 'essential' or the end of the workshop (2.5 hours). However, due to time limitations on the day of the workshop and the richness of participant discussion, only steps 1 to 4 were completed at the workshop. To facilitate final item selection, additional feedback was sought individually from participants via email. The final set of 12 items were reviewed and agreed by all research team members.

Stage 2:

For the second phase of the study, a separate group of autistic adult participants were asked to complete three discrete and sequential surveys remotely on Qualtrics software (www.qualtrics.com/en-gb/). Participants were asked to complete each survey within two weeks.

The 12 items in the first-round Delphi survey were generated and selected during the Stage 1 workshop (see Figure 2). The aim of the first Delphi round was to assess the perceived importance of these 12 items for autistic social wellbeing, and this was achieved through requesting participants to rate the importance of each item using a five-point Likert scale (with a higher rating indicating greater perceived importance). The aim of the second Delphi round was to assess participant agreement and stability of response for each survey item. At the start of the second round, participants received feedback on the distribution of combined responses. This took the form of the median response and interquartile range for each item, as well as a graph of response frequencies for each item (Trevelyan & Robinson, 2015). Participant were invited to re-assess their own response for each item in view of all other members' responses. The aim of the third round was to assess the stability of responses to survey items on which participants did not have majority (>50%) agreement and to offer participants the opportunity to provide additional information or context via optional free-text response. Again, at the start of the third-round survey, participants received aggregated group response distributions from the previous survey.

To provide context for participants' experience and conceptualisation of social wellbeing, and therefore the context in which the conceptualisation of social wellbeing was explored during the Delphi process, Stage 2 participants were asked to rate their agreement with the statement "I am happy with my social life" on a five-point Likert scale from 'strongly disagree' to 'strongly agree'.

Data analysis:

Stage 1:

Nominal group technique involves data collection and analysis simultaneously. Survey items were generated, reviewed, and revised by participants during the workshop and subsequently via email. A summary of this process during the workshop can be seen in Figure 2.

Stage 2:

The median and IQR for responses to the single-item social wellbeing measure ("I am happy with my social life") were calculated. Based on the methods of Dajani, Sincoff, and Talley (1979), participant agreement and response stability for each item were assessed between the first and second, and second and third Delphi rounds. Stability of responses to an item between two rounds was assessed using Fisher's exact test. Fisher's exact test was used, as opposed to Chi-square test as recommended by Dajani et al. (1979), since greater than 20% of cells had expected frequencies of below five in the analyses at each Delphi round. The percentage of participants who rated each survey item similarly across Delphi rounds was examined. Although Delphi survey items are commonly removed from subsequent rounds once response stability or majority is observed (Dajani et al., 1979; Trevelyan & Robinson, 2015), the rationale for administering the survey items for all three rounds was discussed within the research team and it was agreed that re-administering items would not represent additional burden to participants, that this might demonstrate greater evidence of agreement/majority opinion, and that any participants who did not complete the previous round would have a chance to rate items again. Scatter plots of response distributions for all items were examined for the purpose of identifying bipolarity or plurality of opinion (Dajani et al., 1979). Participants' brief responses to the optional free-text item in the third Delphi round were summarised through the identification of key points in each response.

Results

Stage 1:

Six individuals participated in the Stage 1 workshop. Descriptive statistics on participant demographics are reported in Table 1. The 12 survey items selected through Stage 1 are presented in Table 2.

Stage 2:

Thirteen individuals consented to participate in Stage 2 and were sent the Delphi surveys. For each Delphi round, twelve participants completed the survey, although some participants completed one or two rounds as opposed to all three.

Stage 2 participants' median agreement rating – on a scale of 1-5, with higher scores indicating greater agreement – for the statement "I am happy with my social life" was 2.5, i.e. between 'somewhat disagree' and 'neither agree nor disagree' (interquartile range= 3).

Participants' response frequencies for each survey item across the three Delphi rounds are shown in Table 3. Comparing participants responses in the first and second Delphi rounds, a stable response majority was reached for 7 of the 12 items. Comparing responses between the second and third Delphi rounds, a stable response majority was observed for 10 of the 12 items. Response stability was indicated by an absence of significant association between participants' responses and the Delphi round (Fisher's exact test $p>.05$). At the third round, two items - "for my sensory needs to be met (e.g. low noise or low light)" and "finding people who share my interests and doing activities together" - demonstrated a stable plurality of responses (Fisher's exact test $p>.05$), spread across 'neither important nor unimportant', 'slightly important', and 'very important'.

Items stably rated as 'very important' across the second and third Delphi rounds (Fisher's exact test $p>.05$) were:

- to be listened to
- for people to say what they mean
- to have my needs met in my workplace/education setting, or community
- to do things I love and find meaningful
- being in control and knowing what to expect
- to be understood and accepted
- deep connections among a small group of people
- to be included and not alienated
- to have time alone when I need it

The item 'interacting with other neurodivergent people' was stably rated as 'neither important nor unimportant' across the second and third Delphi rounds (Fisher's exact test $p>.05$). Five of the 12 participants who completed the third Delphi survey gave a free-text response to provide additional or contextual information about autistic social wellbeing. One of these responses was not related to autistic social wellbeing or the content of the Delphi surveys. The remaining four participants provided 1-3 sentence responses, which mentioned:

- the role of supportive workplaces in promoting social wellbeing
- the importance of societal understanding and acceptance
- awareness of people's responses to autistic difference might impact social wellbeing
- accommodation needs are variable.

Table 4: Participant demographics

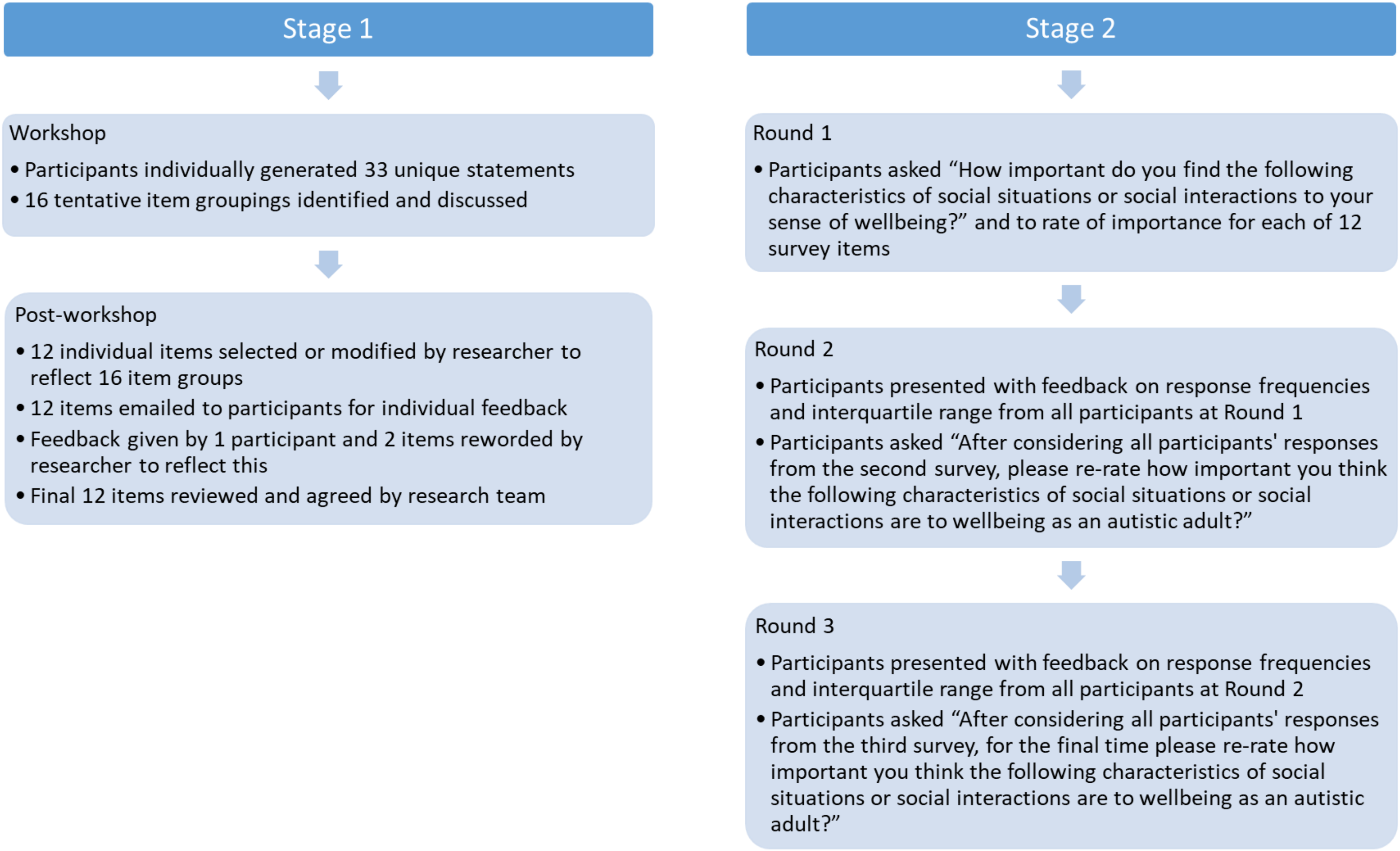
		Mean/percentage
Stage 1 (n=6)	Age	40.00 years (standard deviation = 18.61)
		16.67% not reported
	Ethnicity	83.33% White
		16.67% not reported
	Gender identity	50% female
		50% male
	Sexuality	50% heterosexual
		33.33% bisexual or pansexual
		16.67% not reported
	Additional disabilities	66.67% none
		33.33% one to three
		0% four or more
	Self-report of current mental health condition(s)	33.3% none
		50.00% anxiety disorder(s)
		66.67% depressive disorder(s)
		16.67% other(s)

	Self-report of historic mental health condition(s)	16.67% none
		66.67% anxiety disorder(s)
		83.33% depressive disorder(s)
		0% other(s)
	Employment*	83.33% in employment
		33.33% seeking employment
Stage 2 (n=13)	Age	38.25 years (standard deviation = 12.63)
		7.69% not reported
	Ethnicity	7.69% Asian, Scottish Asian, or British Asian
		15.38% Mixed or multiple ethic group
		76.92% White
	Gender identity	69.23% female
		23.08% male
		7.69% non-binary
	Sexuality	46.15% heterosexual
		30.77% homosexual

	15.38% bisexual
Additional disabilities	46.15% none
	23.08% one
	15.38% two to three
	15.38% four or more
Self-report of current mental health condition(s)	30.77% none
	53.85% anxiety disorder(s)
	46.15% depressive disorder(s)
	15.48% other(s)
Self-report of historic mental health condition(s)	38.46% none
	53.85% anxiety disorder(s)
	53.85% depressive disorder(s)
	7.69% other(s)
Employment*	38.46% in employment
	30.77% in education
	7.69% retired
	15.38% seeking employment

*percentages do not sum to 100% because participants could select multiple options

Figure 2: Flow chart of study procedures



Stage 1

Workshop

- Participants individually generated 33 unique statements
- 16 tentative item groupings identified and discussed

Post-workshop

- 12 individual items selected or modified by researcher to reflect 16 item groups
- 12 items emailed to participants for individual feedback
- Feedback given by 1 participant and 2 items reworded by researcher to reflect this
- Final 12 items reviewed and agreed by research team

Stage 2

Round 1

- Participants asked “How important do you find the following characteristics of social situations or social interactions to your sense of wellbeing?” and to rate of importance for each of 12 survey items

Round 2

- Participants presented with feedback on response frequencies and interquartile range from all participants at Round 1
- Participants asked “After considering all participants' responses from the second survey, please re-rate how important you think the following characteristics of social situations or social interactions are to wellbeing as an autistic adult?”

Round 3

- Participants presented with feedback on response frequencies and interquartile range from all participants at Round 2
- Participants asked “After considering all participants' responses from the third survey, for the final time please re-rate how important you think the following characteristics of social situations or social interactions are to wellbeing as an autistic adult?”

Table 5: Delphi survey items and participant response percentages at each round

Survey items	Round 1					Round 2					Round 3				
	V.U.	S.U.	N	S.I.	V.I.	V.U.	S.U.	N	S.I.	V.I.	V.U.	S.U.	N	S.I.	V.I.
To be listened to	8.33	0.00	0.00	16.67	75	0.00	0.00	0.00	0.00	100.00*	0	0	0	16.67	83.33*
For people to say what they mean	8.33	0.00	0.00	0.00	91.67	0.00	0.00	0.00	0.00	100.00*	0	0	0	0	100*
For my sensory needs to be met (e.g. low noise or low light)	8.33	0.00	8.33	41.67	41.67	0.00	0.00	8.33	50.00	41.67	0	0	8.33	50.00	41.67
Finding people who share my interests and doing activities together	16.67	0.00	25.00	33.33	25.00	0.00	0.00	33.33	41.67	25.00	0	0	33.33	41.67	25.00
Interacting with other neurodivergent people	16.67	0.00	50.00	8.33	25.00	8.33	8.33	41.67	33.33	8.33	0	8.33	58.33*	16.67	16.67
To have my needs met in my workplace/education setting, or community	8.33	0.00	8.33	25.00	58.33	0.00	0.00	0.00	33.33	66.67*	0	0	0	33.33	66.67*
To do things I love and find meaningful	8.33	0.00	0.00	33.33	58.33	0.00	0.00	0.00	16.67	83.33*	0	0	0	8.33	91.67*

Being in control and knowing what to expect	8.33	0.00	0.00	41.67	50.00	0.00	0.00	0.00	25.00	75.00*	0	0	0	33.33	66.67*
To be understood and accepted	8.33	0.00	0.00	33.33	58.33	0.00	0.00	8.33	33.33	58.33*	0	0	16.67	16.67	66.67*
Deep connections among a small group of people	8.33	8.33	16.67	8.33	58.33	0.00	8.33	8.33	33.33	50.00	0	8.33	16.67	16.67	58.33*
To be included and not alienated	8.33	0.00	16.67	16.67	58.33	0.00	0.00	0.00	50.00	50.00	0	0	8.33	33.33	58.33*
To have time alone when I need it	8.33	0.00	0.00	0.00	91.67	0.00	0.00	0.00	0.00	100.00*	0	0	0	0	100.00*

** indicates responses where a stable majority had been reached between two Delphi rounds (Fisher's exact test <.05). N.B. V.U. = very unimportant, S.U. = slightly unimportant, N = neither important nor unimportant, S.I. = slightly important, V.I. = very important.*

Discussion

Study findings and implications

This study used consensus-development methods to identity factors that participants perceive to be important for social wellbeing in autistic adults.

In Stage 1 of the study, the items generated highlighted social and relationship factors, such as being accepted, having shared interests with others, and interaction with neurodivergent individuals. Similar themes of social acceptance, positive social identity, and the importance of interests were also highlighted in the Cooper et al. (2024) meta-synthesis of qualitative research on young peoples' and parents' perspectives of autistic wellbeing. There is evidence to suggest that greater social identification with other autistic people (i.e. identifying as being within the same social group) may be associated with wellbeing among autistic adults (Maitland et. al., 2021). Identifying with other neurodivergent individuals may facilitate experiences of belonging and acceptance, and so promote a positive social identity that is supportive of wellbeing. One of the key positive outcomes of autism diagnosis highlighted in the SHAPE study of autistic adults' experiences of specialist services was a reduction in feelings of isolation due to increased awareness of others' having similar life experiences (Beresford et. al., 2020).

In Stage 1, sensory factors, and experiences of control and predictability, were also identified as relevant to social wellbeing. This suggests that characteristics of autism other than social differences, such as sensory experiences and preferences for routine or predictability, may have an impact on social situations for autistic individuals. As such, increasing the availability of and accessibility to reliable, sensory-supportive environments may be a target for services and professionals aiming to improve wellbeing and increase positive social experiences among autistic adults.

The majority opinion of participants in Stage 2 was that most proposed factors were important for autistic social wellbeing. These included aspects of others' social communication, such as clarity, attention, and understanding. Interventions to support autistic individuals' social participation have often focussed on improving their 'social skills' by increasing, for example, turn-taking and normative topics in conversation (Kransy et. al., 2003). However, the opinion of participants in this study suggests that how other people communicate with them, as opposed to how they communicate themselves, is important to their sense of wellbeing. An implication of this might be that services or professionals supporting autistic adults could consider the provision of information or training to others in the autistic individuals' social network as a means of improving their sense of connection, inclusion, and wellbeing.

Environmental and procedural adaptations (i.e. the 'where' and 'how' of activities) to support autistic adults in occupational settings are often necessary but not received (Buckland, 2024), despite evidence indicative of a link between employment and overall wellbeing (Modini et. al., 2016). As expressed by participants in this study, experiences in the workplace are distinctly important for social wellbeing, and so it appears important for employers and educational settings to consider accommodations and adaptations that will be supportive of social acceptance and inclusion for autistic individuals in these settings. Furthermore, the agreement of participants in the importance of knowing what to expect suggests that this may also be an important consideration for employers and educators with regards to supporting autistic individuals in work or educational contexts where social engagement is embedded. For example, it would likely be helpful for expectations to be clear and mutually agreed in advance, such as in a detailed job plan or daily agenda.

Plurality of opinion among participants in the Delphi was observed for the importance of sensory needs being met and sharing interests or activities with social partners. It is possible that the plurality of response to these items indicates differences in participants' individual experience of the impact of these factors on their social wellbeing. As one participant in the Delphi process noted, individual needs may vary across situations and context. In addition, the impact of these factors may also vary over time for any given individual. For example, research suggests that sensory over- and under-responsivity can increase, decrease, or remain stable for autistic individuals over time (Ben-Sasson et. al., 2019). However, the observed lack of majority opinion regarding the importance of shared interests and sensory needs may reflect a more central importance of the other Delphi items to social wellbeing, such as acceptance and inclusion. Research has highlighted that connection to autistic community is positively associated with autistic individuals' wellbeing (Cage et al., 2022) and key elements of friendship for autistic people include shared understanding and values (Gillespie-Smith et al., 2024). Nonetheless, it is not possible to directly infer the relative or comparative importance of factors relevant to social wellbeing identified in this study.

Linking the findings of this study to Keyes (1998) model of social wellbeing, it appears that autistic adults do place importance on a sense of social acceptance and integration across social contexts. The participants in this study did not raise the importance of social contribution, which is a distinct element of Keyes' model. Nevertheless, it is likely that by addressing the factors identified in this study, social wellbeing may be experienced by autistic adults through more opportunity to contribute socially. A common thread across the factors identified in this study appears to be how autistic adults feel and experience social interactions, as opposed to how many friends or social contacts they have. This might suggest that increasing social opportunities alone may not offer benefit to wellbeing, unless these opportunities facilitate autistic adults' felt sense of inclusion and connection. Furthermore, a key factor for social wellbeing raised by participants in this study that is not featured in Keyes' model is the importance of time alone. This suggests that a balance may need to be struck between opportunities for positive social experience and opportunities for solitude. An implication for professionals supporting autistic adults is awareness that increasing social contact without planning or accounting for sufficient time alone may be a barrier, or possibly detrimental, to autistic individuals' wellbeing.

Study strengths

One of the strengths of this study was the involvement of autistic adults in the selection of initial items for consideration in the Delphi. Initial Delphi survey items are often generated through literature review and/or centred around existing theoretical frameworks (Trevelyan & Robinson, 2015). The absence of existing theoretical frameworks for social wellbeing in autistic adults made the latter unfeasible. However, the involvement of autistic individuals in a workshop to generate initial Delphi items in this study resulted in the inclusion of ideas and concepts that were pertinent to participants and not constrained by the limited existing research in this area. In the context of the lack of relevant empirical data on this topic, the methods used in this study facilitated the meaningful involvement of autistic individuals in shaping the focus of the Delphi and the resultant information relating to experiences of social wellbeing.

A further key strength of this study was the focus on autistic wellbeing, as opposed to a deficit or pathology focus. A survey of autistic adults in Scotland highlighted that a key research priority for this group was developing our definitions and understandings of autistic wellbeing (Cage et al., 2024). Through the identification of factors viewed as important for social wellbeing among autistic adults, the findings of this study can be used to inform the development of conceptual models of autistic wellbeing. It is a strength of this study that participants were not given nor constrained by an existing definition or model of social wellbeing, developed from data on the general population. This enabled the factors identified as important for social wellbeing in this study to be grounded in autistic adults lived experiences, which may have been overlooked by existing theories of wellbeing. The findings of this study offer a starting point for future the elucidation of mechanisms by which autistic individuals' wellbeing might be improved through psychological interventions and occupational or educational adjustments. Furthermore, existing research on social relationships and wellbeing among autistic adults has primarily focussed on the social supports that autistic individuals receive (Lewis-Smith et al., 2025). However, with a better understanding of autistic wellbeing, services across health, education, and social sectors can work to create inclusive environments that enhance the value and support autistic individuals offer as social contributors.

Study limitations

The implications of this study's findings are limited by the use of consensus-development methods. The participant group was small and likely demographically biased, e.g. all participants had accessed specialist health services and had the education or literacy skills to enable their participation. As a result, the findings of this study are limited in generalisability to the time, setting, and participant group included. Further research is needed to evaluate whether the consensus opinion of this group regarding the factors relevant to social wellbeing may be held and experienced by other members of the autistic community. The decision to not to structure the identification of factors important to autistic adults social wellbeing around an existing definition or theory may have influenced perceptions of factor importance between individuals in this study, who may have operationalised or experienced social wellbeing differently. Furthermore, potential conceptual heterogeneity limits how the findings of this study might be compared to the wider literature on social aspects of wellbeing.

The use of closed-ended questions and Likert scale responses in the Delphi surveys may have been challenging or unhelpful for some participants. Research suggests that some autistic individuals may engage with meta-cognitive and value-based decision-making tasks differently than individuals with other neurotypes (van der Plass et. al., 2023), although there is a small but growing body of research using Delphi methods that meaningfully and successfully involve autistic participants (Crowson et. al., 2024; Nicolaidis et. al., 2025; Tibber et. al., 2025). Nonetheless, the Delphi surveys used in this study did not allow for the examination of contextual information or additional factors that participants may have wanted to provide. For example, there was no systematic investigation of when, where, and for whom the factors potentially relevant for social wellbeing might apply. In addition, the reliability of items and scales used is not known. Nevertheless, participants did have the opportunity to provide some contextual or additional information in an open-ended question in the final survey.

Key takeaways and future directions

This study highlights several factors that a group of autistic adults agreed are important to consider in relation to social wellbeing. The areas of consideration raised by participants in this study indicate potential targets for occupational, systemic, or societal adaptation and change to support autistic peoples' wellbeing. These may include increasing predictability and control in social environments, increasing opportunities for connection between neurodivergent individuals, and building in space and time for autistic individuals to be alone. Furthermore, the factors highlighted by participants can inform the focus of interventions to support autistic individuals' wellbeing, for example, by supporting individuals and the relational systems around them to increase access to social experiences that facilitate feelings of acceptance, inclusion, and meaning. Nevertheless, participants in this study raised the importance of considering individual and context-specific needs. Future research should explore potential mechanisms that can explain how or why the factors identified in this study relate to autistic adults' wellbeing.

References

Ben-Sasson, A., Gal, E., Fluss, R., Katz-Zetler, N., & Cermak, S. A. (2019). Update of a meta-analysis of sensory symptoms in ASD: A new decade of research. *Journal of Autism and Developmental Disorders*, *49*(12), 4974–4996.

Beresford, B. A., Mukherjee, S. K. M., Mayhew, E. T., Park, A. L., Stuttard, L., Allgar, V. L., & Knapp, M. (2020). Evaluating specialist autism teams' provision of care and support for autistic adults without learning disabilities: The SHAPE mixed-methods study. *Health Services and Delivery Research*, No. 8.48.

Brady, S. R. (2016). The Delphi method. In L. A. Jason & D. S. Glenwick (Eds.), *Handbook of Methodological Approaches to Community-Based Research: Qualitative, Quantitative, and Mixed Methods* (pp. 61–67). Oxford University Press.

Buckland, R. (2024). *The Buckland Review of Autism Employment: Report and recommendations*. Department of Work and Pensions: London, UK.

Cage, E., Cranney, R., & Botha, M. (2022). Brief report: Does autistic community connectedness moderate the relationship between masking and wellbeing? *Autism in Adulthood*, *4*(3), 247–253.

Cage, E., Crompton, C. J., Dantas, S., Strachan, K., Birch, R., Robinson, M., Morgan-Appel, S., MacKenzie-Nash, C., Gallagher, A., & Botha, M. (2024). What are the autism research priorities of autistic adults in Scotland? *Autism*, *28*(9), 2179-2190. https://doi.org/10.1177/13623613231222656.

Cage, E., Di Monaco, J., & Newell, V. (2018). Experiences of autism acceptance and mental health in autistic adults. *Journal of Autism and Developmental Disorders*, *48*, 473–484.

Cage, E., & Troxell-Whitman, Z. (2019). Understanding the reasons, contexts and costs of camouflaging for autistic adults. *Journal of Autism and Developmental Disorders*, *49*(5), 1899–1911.

Cooper, K., Kumarendran, S., & Barona, M. (2024). A systematic review and meta-synthesis on perspectives of autistic young people and their parents on psychological well-being. *Clinical Psychology Review*, *109*, 102411.

Cooper, K., Russell, A. J., Lei, J., & Smith, L. G. (2023). The impact of a positive autism identity and autistic community solidarity on social anxiety and mental health in autistic young people. *Autism*, *27*(3), 848–857.

Cuhls, K. (2023). The Delphi Method: An Introduction. In: Niederberger, M., Renn, O. (eds) Delphi Methods In *The Social And Health Sciences*. Springer, Wiesbaden. https://doi.org/10.1007/978-3-658-38862-1_1

Crowson, S., Poole, D., Scargill, K., & Freeth, M. (2024). Understanding the post-diagnostic support priorities of autistic adults in the United Kingdom: A co-produced modified Delphi study. *Autism*, *28*(4), 854–865.

Dajani, J. S., Sincoff, M. Z., & Talley, W. K. (1979). Stability and agreement criteria for the termination of Delphi studies. *Technological Forecasting and Social Change*, *13*(1), 83–90.

Deserno, M. K., Borsboom, D., Begeer, S., & Geurts, H. M. (2017). Multicausal systems ask for multicausal approaches: A network perspective on subjective well-being in individuals with autism spectrum disorder. *Autism*, *21*(8), 960–971.

Dinishak, J. (2022). The deficit view and its critics. *Disability Studies Quarterly*, *36*(4).

El Baou, C., Bell, G., Saunders, R., Buckman, J. E. J., Mandy, W., Dagnan, D., O'Nions, E., Pender, R., Clements, H., Pilling, S., Richards, M., John, A., & Stott, J. (2023). Effectiveness of primary care psychological therapy services for treating depression and anxiety in autistic adults in England: A retrospective, matched, observational cohort study of national health-care records. *The Lancet Psychiatry*, *10*(12), 944–954.

Fletcher-Watson, S., Adams, J., Brook, K., Charman, T., Crane, L., Cusack, J., Leekam, S., Milton, D., Parr, J. R., & Pellicano, E. (2019). Making the future together: Shaping autism research through meaningful participation. *Autism*, *23*(4), 943–953.

Ghanouni, P., Jarus, T., Zwicker, J. G., Lucyshyn, J., Chauhan, S., & Moir, C. (2019). Perceived barriers and existing challenges in participation of children with autism spectrum disorders. *Journal of Autism and Developmental Disorders*, *49*, 3136–3145.

Gillespie-Smith, K., Mair, A. P. A., Alabtullatif, A., Pain, H., & McConachie, D. (2024). A spectrum of understanding: A qualitative exploration of autistic adults' understandings and perceptions of friendship(s). *Autism in Adulthood*, *6*(4), 438–450.

Grace, K., Remington, A., Davies, J., & Crane, L. (2023). Evaluating measures to assess loneliness in autistic adults. *Autism*, *28*(8), 1959-1971. https://doi.org/10.1177/13623613231217056

Grace, K., Remington, A., Lloyd-Evans, B., Davies, J., & Crane, L. (2022). Loneliness in autistic adults: A systematic review. *Autism*, *26*(8), 2117–2135.

Jones, J., & Hunter, D. (1995). Consensus methods for medical and health services research. *BMJ*, 311(7001), 376.

Keyes, C. L. M. (1998). Social well-being. *Social Psychology Quarterly*, *61*(2), 121–140.

Krasny, L., Williams, B. J., Provencal, S., & Ozonoff, S. (2003). Social skills interventions for the autism spectrum: Essential ingredients and a model curriculum. *Child and Adolescent Psychiatric Clinics*, *12*(1), 107–122.

Lewis-Smith, I., Kirk, J., Katakis, P., & McLeod, H. J. (2025). How are social relationships associated with wellbeing and quality of life in autistic adults? A systematic review of quantitative studies [Unpublished manuscript]. University of Glasgow.

Maitland, C. A., Rhodes, S., O'Hare, A., & Stewart, M. E. (2021). Social identities and mental well-being in autistic adults. *Autism*, *25*(6), 1771–1783.

Mandy, W. (2022). Six ideas about how to address the autism mental health crisis. *Autism*, *26*(2), 289-292. https://doi.org/10.1177/13623613211067928

Mann, F., Wang, J., Pearce, E., Ma, R., Schlief, M., Lloyd-Evans, B., Ikhtabi, S., & Johnson, S. (2022). Loneliness and the onset of new mental health problems in the general population. *Social Psychiatry and Psychiatric Epidemiology*, *57*(11), 2161-2178.

Milton, D., & Sims, T. (2016). How is a sense of well-being and belonging constructed in the accounts of autistic adults? *Disability & Society*, *31*(4), 520-534. https://doi.org/10.1080/09687599.2016.1186529

Modini, M., Joyce, S., Mykletun, A., Christensen, H., Bryant, R. A., Mitchell, P. B., & Harvey, S. B. (2016). The mental health benefits of employment: Results of a systematic meta-review. *Australasian Psychiatry*, *24*(4), 331-336.

Murphy, M., Black, N., Lamping, D., McKee, C., Sanderson, C., Askham, J., & Marteau, T. (1998). Consensus development methods, and their use in clinical guideline development. *Health Technology Assessment* (Winchester, England), *2*(3), i-88.

Nicolaidis, C., Scharer, M., Raymaker, D. M., Vera, J., Edwards, T., Moura, I., Baker-Ericzén, M., Maslak, J., Yang, L.-Q., Kripke-Ludwig, R., Kapp, S. K., Joyce, A., & Wallington, A. (2025). Consensus on high-priority outcomes to be used in the evaluation of services for autistic adults: Results from a "CBPR-Nested Delphi Process". *Autism*, *29*(8), 1959-1972. https://doi.org/10.1177/13623613251322082

Niederberger M, Schifano J, Deckert S, Hirt J, Homberg A, Köberich S, et al. (2024) Delphi studies in social and health sciences—Recommendations for an interdisciplinary standardized reporting (DELPHISTAR). Results of a Delphi study. *PLoS ONE, 19*(8): e0304651. https://doi.org/10.1371/journal.pone.0304651

Pellicano, L., Dinsmore, A., & Charman, T. (2013). *A future made together: shaping autism research in the UK*. UCL Institute of Education. http://crae.ioe.ac.uk/post/64979963005/a-future-made-together

Richdale, A. L., Chetcuti, L., Hayward, S. M., Abdullahi, I., Morris, E. M., & Lawson, L. P. (2023). The impact of sleep quality, fatigue and social well-being on depressive symptomatology in autistic older adolescents and young adults. *Autism Research*, *16*(4), 817-830.

Schiltz, H. K., McVey, A. J., Dolan Wozniak, B., Haendel, A. D., Stanley, R., Arias, A., Gordon, N., & Van Hecke, A. V. (2021). The role of loneliness as a mediator between autism features and mental health among autistic young adults. *Autism*, *25*(2), 545-555. https://doi.org/10.1177/1362361320967789

Tibber, M. S., Rose, K., Mandy, W., Pellicano, E., & Pavlopoulou, G. (2025). Autistic Adults' Priorities for Social Media and Mental Health Research: A Coproduced Delphi Consensus Study. *Autism in Adulthood.*

Tran, C., Wood, T. J., & Humphrey-Murto, S. (2021). Consensus Group Methodology in Health Professions Education Research: The Nominal Group Technique. *Academic Medicine*, *96*(7).

Trevelyan, E. G., & Robinson, P. N. (2015). Delphi methodology in health research: how to do it? *European Journal of Integrative Medicine*, *7*(4), 423-428. https://doi.org/10.1016/j.eujim.2015.07.002

van der Plas, E., Mason, D., & Happé, F. (2023). Decision-making in autism: A narrative review. *Autism*, *27*(6), 1532-1546. https://doi.org/10.1177/13623613221148010

Van Lente, E., Barry, M. M., Molcho, M., Morgan, K., Watson, D., Harrington, J., & McGee, H. (2012). Measuring population mental health and social well-being. *International Journal of Public Health*, *57*(2), 421-430.

Appendices

Systematic review appendices

Appendix A: PRISMA reporting checklist

Section and Topic	Item #	Checklist item	Location where item is reported
TITLE			
Title	1	Identify the report as a systematic review.	Page 10
ABSTRACT			
Abstract	2	See the PRISMA 2020 for Abstracts checklist.	Page 11
INTRODUCTION			
Rationale	3	Describe the rationale for the review in the context of existing knowledge.	Pages 12-13
Objectives	4	Provide an explicit statement of the objective(s) or question(s) the review addresses.	Page 13
METHODS			
Eligibility criteria	5	Specify the inclusion and exclusion criteria for the review and how studies were grouped for the syntheses.	Page 14
Information sources	6	Specify all databases, registers, websites, organisations, reference lists and other sources searched or consulted to identify studies. Specify the date when each source was last searched or consulted.	Page 15
Search strategy	7	Present the full search strategies for all databases, registers and websites, including any filters and limits used.	Page 15 and Appendix A
Selection process	8	Specify the methods used to decide whether a study met the inclusion criteria of the review, including how many reviewers screened each record and each report retrieved, whether they worked independently, and if applicable, details of automation tools used in the process.	Pages 14-16
Data collection process	9	Specify the methods used to collect data from reports, including how many reviewers collected data from each report, whether they worked independently, any processes for obtaining or confirming data from study investigators, and if applicable, details of automation tools used in the process.	Page 15
Data items	10a	List and define all outcomes for which data were sought. Specify whether all results that were compatible with each outcome domain in each study were sought (e.g. for all measures, time points, analyses), and if not, the methods used to decide which results to collect.	Page 15
	10b	List and define all other variables for which data were sought (e.g. participant and intervention characteristics, funding sources). Describe any assumptions made about any missing or unclear information.	Page 15
Study risk of bias assessment	11	Specify the methods used to assess risk of bias in the included studies, including details of the tool(s) used, how many reviewers assessed each study and whether they worked independently, and if applicable, details of automation tools used in the process.	Page 16

Section and Topic	Item #	Checklist item	Location where item is reported
Effect measures	12	Specify for each outcome the effect measure(s) (e.g. risk ratio, mean difference) used in the synthesis or presentation of results.	Page 15
Synthesis methods	13a	Describe the processes used to decide which studies were eligible for each synthesis (e.g. tabulating the study intervention characteristics and comparing against the planned groups for each synthesis (item #5)).	Page 15
	13b	Describe any methods required to prepare the data for presentation or synthesis, such as handling of missing summary statistics, or data conversions.	N/A
	13c	Describe any methods used to tabulate or visually display results of individual studies and syntheses.	Page 16
	13d	Describe any methods used to synthesize results and provide a rationale for the choice(s). If meta-analysis was performed, describe the model(s), method(s) to identify the presence and extent of statistical heterogeneity, and software package(s) used.	Page 15-16
	13e	Describe any methods used to explore possible causes of heterogeneity among study results (e.g. subgroup analysis, meta-regression).	N/A
	13f	Describe any sensitivity analyses conducted to assess robustness of the synthesized results.	Not conducted
Reporting bias assessment	14	Describe any methods used to assess risk of bias due to missing results in a synthesis (arising from reporting biases).	Not conducted
Certainty assessment	15	Describe any methods used to assess certainty (or confidence) in the body of evidence for an outcome.	Not conducted
RESULTS			
Study selection	16a	Describe the results of the search and selection process, from the number of records identified in the search to the number of studies included in the review, ideally using a flow diagram.	Page 21
	16b	Cite studies that might appear to meet the inclusion criteria, but which were excluded, and explain why they were excluded.	Page 21
Study characteristics	17	Cite each included study and present its characteristics.	Pages 22-27
Risk of bias in studies	18	Present assessments of risk of bias for each included study.	Pages 28-29
Results of individual studies	19	For all outcomes, present, for each study: (a) summary statistics for each group (where appropriate) and (b) an effect estimate and its precision (e.g. confidence/credible interval), ideally using structured tables or plots.	Pages 22-27
Results of syntheses	20a	For each synthesis, briefly summarise the characteristics and risk of bias among contributing studies.	Pages 16-20
	20b	Present results of all statistical syntheses conducted. If meta-analysis was done, present for each the summary estimate and its precision (e.g. confidence/credible interval) and measures of statistical heterogeneity. If comparing groups, describe the direction of the effect.	Not conducted
	20c	Present results of all investigations of possible causes of heterogeneity among study results.	Not conducted
	20d	Present results of all sensitivity analyses conducted to assess the robustness of the synthesized results.	Not

Section and Topic	Item #	Checklist item	Location where item is reported
			conducted
Reporting biases	21	Present assessments of risk of bias due to missing results (arising from reporting biases) for each synthesis assessed.	Not conducted
Certainty of evidence	22	Present assessments of certainty (or confidence) in the body of evidence for each outcome assessed.	Not conducted
DISCUSSION			
Discussion	23a	Provide a general interpretation of the results in the context of other evidence.	Pages 30-32
	23b	Discuss any limitations of the evidence included in the review.	Pages 30-32
	23c	Discuss any limitations of the review processes used.	Pages 30-32
	23d	Discuss implications of the results for practice, policy, and future research.	Pages 30-32
OTHER INFORMATION			
Registration and protocol	24a	Provide registration information for the review, including register name and registration number, or state that the review was not registered.	Page 13-14
	24b	Indicate where the review protocol can be accessed, or state that a protocol was not prepared.	Page 13-14
	24c	Describe and explain any amendments to information provided at registration or in the protocol.	Page 13-14
Support	25	Describe sources of financial or non-financial support for the review, and the role of the funders or sponsors in the review.	Page 10
Competing interests	26	Declare any competing interests of review authors.	N/A
Availability of data, code and other materials	27	Report which of the following are publicly available and where they can be found: template data collection forms; data extracted from included studies; data used for all analyses; analytic code; any other materials used in the review.	N/A

From: Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. BMJ 2021;372:n71. doi: 10.1136/bmj.n71.

Appendix B: search strategy

APA PsycINFO Ovid

1	autism spectrum disorders/
2	Neurodevelopmental disorders/
3	Neurodiversity/
4	(pervasive-developmental-disorder or pervasive-developmental-disorders).tw.
5	(PDD or PDDs or ASD or ASDs).tw.
6	(autism or autistic or asperger or apsergers or kanner or kanners).tw.
7	emerging adulthood/
8	middle adulthood/
9	adult development/
10	(adult or adults or adulthood).tw.
11	exp well being/
12	exp positive emotions/
13	psychological engagement/
14	"flow (consciousness state)"/
15	intrinsic motivation/
16	meaningfulness/
17	exp quality of life/
18	self-determination/
19	human rights/
20	achievement/
21	(wellbeing or SWB or positive-emotion or positive-emotions or engagement or accomplishment or accomplished or independence or personal-development or self-determination or human-rights or quality-of-life or QoL).tw.
22	(meaning or purpose).m_titl.
23	exp interpersonal relationships/
24	social networks/
25	social support/
26	relationship quality/

27	friendship/
28	family/
29	couples/
30	relationship satisfaction/
31	(friend or friends or friendship or peer or peers).tw.
32	(spouse or spouses or wife or wives or husband or husbands or partner or partners or couple or couples).tw.
33	social media/
34	(social-media or Instagram or facebook or twitter).tw.
35	online social networks/
36	online community/
37	1 or 2 or 3 or 4 or 5 or 6
38	7 or 8 or 9 or 10
39	11 or 12 or 13 or 14 or 15 or 16 or 17 or 18 or 19 or 20 or 21 or 22
40	23 or 24 or 25 or 26 or 27 or 28 or 29 or 30 or 31 or 32 or 33 or 34 or 35 or 36
41	37 and 38 and 39 and 40

CINAHL

S37	S10 AND S14 AND S23 AND S36
S36	S24 OR S25 OR S26 OR S27 OR S28 OR S29 OR S30 OR S31 OR S32 OR S33 OR S34 OR S35
S35	TI (social media or Instagram or facebook or twitter) OR AB (social media or Instagram or facebook or twitter)
S34	TI (spouse or spouses or wife or wives or husband or husbands or partner or partners or couple or couples) OR AB (spouse or spouses or wife or wives or husband or husbands or partner or partners or couple or couples)
S33	TI (friend or friends or friendship or peer or peers) OR AB (friend or friends or friendship or peer or peers)
S32	(MH "Twitter")
S31	(MH "Facebook")
S30	(MH "Social Media")
S29	(MH "Support, Social")

S28	(MH "Community Networks")
S27	(MH "Social Networks")
S26	(MH “Family”)
S25	(MH "Friendship")
S24	(MH "Interpersonal Relations+")
S23	S15 OR S16 OR S17 OR S18 OR S19 OR S20 OR S21 OR S22
S22	TI (wellbeing or SWB or positive emotion or positive emotions or engagement or meaning or purpose or accomplishment or accomplished or independence or personal development or self-determination or human rights or quality of life or QoL) OR AB (wellbeing or SWB or positive emotion or positive emotions or engagement or accomplishment or accomplished or independence or personal development or self-determination or human rights or quality of life or QoL)
S21	(MH “Achievement”)
S20	(MH “Human Rights”)
S19	(MH “Motivation”)
S18	(MH "Personal Growth")
S17	(MH "Life Purpose")
S16	(MH "Quality of Life")
S15	(MH "Psychological Well-Being")
S14	S11 OR S12 OR S13
S13	TI (adult or adults or adulthood) or AB (adult or adults or adulthood)
S12	(MH "Young Adult")
S11	(MH "Adult")
S10	S1 OR S2 OR S3 OR S4 OR S5 OR S6 OR S7 OR S8 OR S9
S9	TI (PDD or PDDs or ASD or ASDs) OR AB (PDD or PDDs or ASD or ASDs)
S8	TI (pervasive developmental disorder or pervasive developmental disorders) OR AB (pervasive developmental disorder or pervasive developmental disorders)
S7	TI (autism or autistic or asperger or aspergers or kanner or kanners) or AB (autism or autistic or asperger or aspergers or kanner or kanners)
S6	(MH "Pervasive Developmental Disorder-Not Otherwise Specified")

S5	(MH "Neurodiversity")
S4	(MH "Child Development Disorders, Pervasive+")
S3	(MH "Developmental Disabilities")
S2	(MH "Asperger Syndrome")
S1	(MH "Autism Spectrum Disorder")

Embase Ovid

1	autism/
2	asperger syndrome/
3	"pervasive developmental disorder not otherwise specified"/
4	neurodiversity/
5	(pervasive-developmental-disorder or pervasive-developmental-disorders).tw.
6	(PDD or PDDs or ASD or ASDs).tw.
7	(autism or autistic or asperger or apsergers or kanner or kanners).tw.
8	adulthood/
9	young adulthood/
10	adult/
11	(adult or adults or adulthood).tw.
12	exp psychological well-being/
13	exp emotional well-being/
14	engagement/
15	intrinsic motivation/
16	meaning-making/
17	independence/
18	exp "quality of life"/
19	personal autonomy/
20	human rights/
21	achievement/

22	(wellbeing or SWB or positive-emotion or positive-emotions or engagement or accomplishment or accomplished or independence or personal-development or self-determination or human-rights or quality-of-life or QoL).tw.
23	(meaning or purpose).m_titl.
24	exp human relation/
25	friendship/
26	social network/
27	online social network/
28	social support/
29	family/
30	social media/
31	online social network/
32	(friend or friends or friendship or peer or peers).tw.
33	(spouse or spouses or wife or wives or husband or husbands or partner or partners or couple or couples).tw.
34	(social-media or Instagram or facebook or twitter).tw.
35	1 or 2 or 3 or 4 or 5 or 6 or 7
36	8 or 9 or 10 or 11
37	12 or 13 or 14 or 15 or 16 or 17 or 18 or 19 or 20 or 21 or 22 or 23
38	24 or 25 or 26 or 27 or 28 or 29 or 30 or 31 or 32 or 33 or 34
39	35 and 36 and 37 and 38

CENTRAL

#1 MeSH descriptor: [Child Development Disorders, Pervasive] this term only

#2 MeSH descriptor: [Neurodevelopmental Disorders] this term only

#3 MeSH descriptor: [Developmental Disabilities] this term only

#4 MeSH descriptor: [Autistic Disorder] explode all trees

#5 (autism or autistic or asperger or aspergers or kanner or kanners):ti,ab

#6 (PDD OR PDDs OR ASD OR ASDs):ti,ab

#7 (#1 or #2 or #3 or #4 or #5 or #6)

#8 MeSH descriptor: [Adult] explode all trees

#9 MeSH descriptor: [Middle Aged] this term only

#10 MeSH descriptor: [Young Adult] this term only

#11 (adult or adults or adulthood):ti,ab

#12 (#8 or #9 or #10 or #11)

#13 MeSH descriptor: [Quality of Life] explode all trees

#14 MeSH descriptor: [Psychological Well-Being] explode all trees

#15 MeSH descriptor: [Motivation] this term only

#16 MeSH descriptor: [Personal Autonomy] this term only

#17 MeSH descriptor: [Human Rights] this term only

#18 MeSH descriptor: [Achievement] this term only

#19 (wellbeing or SWB or positive emotion or positive emotions or engagement or meaning or purpose or accomplishment or accomplished or independence or personal development or self-determination or human rights or quality of life or QoL):ti

#20 (wellbeing or SWB or positive emotion or positive emotions or engagement or accomplishment or accomplished or independence or personal development or self-determination or human rights or quality of life or QoL):ab

#21 (#13 or #14 or #15 or #16 or #17 or #18 or #19 or #20)

#22 MeSH descriptor: [Interpersonal Relations] explode all trees

#23 MeSH descriptor: [Social Networking] explode all trees

#24 MeSH descriptor: [Social Support] explode all trees

#25 MeSH descriptor: [Family] this term only

#26 MeSH descriptor: [Friends] this term only

#27 MeSH descriptor: [Online Social Networking] this term only

#28 MeSH descriptor: [Social Media] this term only

#29 (friend or friends or friendship or peer or peers):ti,ab

#30 (spouse or spouses or wife or wives or husband or husbands or partner or partners or couple or couples):ti,ab

#31 (peer or peers):ti,ab

#32 (social media or Instagram or facebook or twitter):ti,ab

#33 (#22 or #23 or #25 or #27 or #29 or #30 or #31 or #32)

#34 (#7 and #12 and #21 and #33)

PubMed

("Autistic Disorder"[Mesh] OR “Autism Spectrum Disorder"[Mesh] OR "neurodevelopmental disorders"[MeSH Terms] OR "Child Development Disorders, Pervasive"[Mesh] OR "Asperger Syndrome"[Mesh] OR "Developmental Disabilities"[Mesh] or “autism”[Title/Abstract] or “autistic”[Title/Abstract] “asperger”[Title/Abstract] or “aspergers”[Title/Abstract] or “kanner”[Title/Abstract] or “kanners”[Title/Abstract] or “pervasive developmental disorder”[Title/Abstract] or “pervasive developmental disorders”[Title/Abstract] or “PDD”[Title/Abstract] or “PDDS”[Title/Abstract] or “ASD”[Title/Abstract] or “ASDs”[Title/Abstract]) AND ("Young Adult"[Mesh] OR "Adult"[Mesh] or “adult”[Title/Abstract] or “adults”[Title/Abstract] or “adulthood”[Title/Abstract]) AND ("Psychological Well-Being"[Mesh] or "Quality of Life"[Mesh] or “personal autonomy”[Mesh] or “motivation”[Mesh] or "Human Rights"[Mesh] or “Achievement” [Mesh] or “wellbeing”[Title/Abstract] or “swb”[Title/Abstract] or “positive emotion”[Title/Abstract] or “positive emotions”[Title/Abstract] or “engagement”[Title/Abstract] or “meaning”[Title] or “purpose”[Title] or “accomplishment”[Title/Abstract] or “accomplished”[Title/Abstract] or “independence”[Title/Abstract] or “personal development”[Title/Abstract] or “self-determination”[Title/Abstract] or “human rights”[Title/Abstract] or “quality of life”[Title/Abstract] or “qol”[Title/Abstract]) AND ("Interpersonal Relations"[Mesh] or “Social support”[Mesh] or “social networking”[Mesh] or “social media”[Mesh] or “friends”[mesh] or “family”[mesh] or “friend”[Title/Abstract] or “friends”[Title/Abstract] or “friendship”[Title/Abstract] or “peer”[Title/Abstract] or “peers”[Title/Abstract] or “spouse”[Title/Abstract] or “spouses”[Title/Abstract] or “wife”[Title/Abstract] or “wives”[Title/Abstract] or “husband”[Title/Abstract] or “husbands”[Title/Abstract] or “partner”[Title/Abstract] or “partners”[Title/Abstract] or “couple”[Title/Abstract] or “couples”[Title/Abstract] or “social media”[Title/Abstract] or “instagram”[Title/Abstract] or “facebook”[Title/Abstract] or “twitter”[Title/Abstract])

Major Research Project appendices

Appendix C: DELPHISTAR reporting checklist

Topic	Section	Item	Checklist Item	Item reported: yes/no	Location where item is reported
I Title and Abstract		1	Identification as a Delphi study in the title	Yes	Page 36
		2	Identification as a Delphi study in the abstract	Yes	Page 39
		3	Structured abstract	No – journal specifies unstructured abstract	
II Context	Formal	4	Information about the sources of funding	Yes	Page 36
		5	Information about the team of authors and/or researchers (e.g., discipline, institution)	Yes	Page 42
		6	Information about method consulting	No – not applicable	
		7	Information about the project background	Yes	Pages 40-42
		8	Information about the study protocol	Yes	Page 42
	Content	9	Justification of the chosen method (Delphi) to answer the research question	Yes	Page 43
		10	Aim of the Delphi study (e.g., consensus, forecasting)	Yes	Page 42-43
III Method	Body & Integration of knowledge	11	Identification and elucidation of relevant expertise, spheres of experience, and perspectives (e.g., theory, practice, affected groups, disciplines)	Yes	Pages 43
		12	Handling of knowledge, expertise and perspectives which are missing or have been deliberately not integrated	Yes	Pages 57
		13	Basic definition of expert[1]	Yes	Page 42
	Delphi variant and modifications	14	Identification of the type of Delphi variant and potential modifications (e.g., classic Delphi, real-time Delphi, group Delphi)	Yes	Page 42-43
		15	Justification of the Delphi variant and modifications, including during the Delphi study, if applicable	Yes	Page 46
	Sample of experts	16	Selection criteria for the experts (per round, per expert group if applicable)	Yes	Page 43-44
		17	Identification of the experts	Yes	Page 43
		18	Information about recruiting and any subsequent recruiting of experts	Yes	Pages 43-44

Topic	Section	Item	Checklist Item	Item reported: yes/no	Location where item is reported
	Survey	19	Elucidation of the content development for the questionnaire[2]	Yes	Page 51
		20	Description of the questionnaire (content and structure)	Yes	Pages 52-53
	Delphi rounds	21	Number of Delphi rounds	Yes	Page 45
		22	Information about the aims of the individual Delphi rounds	Yes	Pages 45
		23	Disclosure and justification of the criterion for discontinuation	Yes	Pages 45-46
	Feedback	24	Information about what data was reported back per round	Yes	Page 45
		25	Information on how the results of the previous Delphi round were fed back to the experts surveyed (e.g., via frequencies, mean values, measures of dispersion, listing of comments)	Yes	Page 45
		26	Information on whether feedback was differentiated by specific groups (e.g., by field of expertise, institutional affiliation)	No - not applicable	
		27	Information about how dissent and unclear results were handled	Yes	Page 46
	Data analysis	28	Disclosure of the quantitative and qualitative analytical strategy	Yes	Pages 46
		29	Definition and measurement of consensus	Yes	Page 46
		30	Information on group-specific analysis or weighting of experts (e.g., theory vs. practice, discipline-specific analysis)	No – not applicable	
IV Results	**Delphi process**	31	Illustration of the Delphi study (e.g., in a flow chart)	Yes	Page 51
		32	Information about special aspects during the Delphi study (e.g., deviations from the intended approach with justification)	Yes	Page 46
		33	Number of experts per round (both invited and participating)	Yes	Page 46
	Results	34	Presentation of the results for each Delphi round and the final results	Yes	Pages 52-53

Topic	Section	Item	Checklist Item	Item reported: yes/no	Location where item is reported
V Discussion	**Quality of findings**	35	Highlighting the findings from the Delphi study	Yes	Pages 54-58
		36	Validity of the results (e.g., transferability of the findings)	Yes	Pages 54-58
		37	Reliability of the results (e.g., split half, inter-rater reliability)	Yes	Pages 54-58
		38	Reflection on potential limitations (e.g., number of experts, response bias)	Yes	Pages 54-58

Appendix D: Final approved MRP proposal

Uploaded to Open Science Framework: https://osf.io/kqzxn

Appendix E: MRP ethics and R&D approval letters

Coordinator/administrator: Euan Rennie
Telephone Number:
E-Mail: euan.rennie@nhs.scot Website: https://www.nhsggc.org.uk/aboutus/professional-support-sites/research-innovation

Research & Innovation
Gartnavel Royal Hospital
Admin Building, Level 2
1055 Great Western Road Glasgow, G12 0XH Scotland, UK

07/05/2025

Dr Iona Lewis-Smith
Trainee Clinical Psychologist
NHS Greater Glasgow & Clyde

NHS GG&C Board Approval

Dear Dr Iona Lewis-Smith

Study Title:	Developing a theory of social wellbeing in autistic adults.
Principal Investigator:	Dr Iona Lewis-Smith
GG&C HB site	NHS Greater Glasgow and Clyde
Sponsor	University of Glasgow
R&I reference:	UGN25PH123
REC reference:	25/SC/0141
Protocol no: (including version and date)	V1 07/03/2025

I am pleased to confirm that Greater Glasgow & Clyde Health Board is now able to grant **Approval** for the above study.

Conditions of Approval

1. **For Clinical Trials** as defined by the Medicines for Human Use Clinical Trial Regulations, 2004
    a. During the life span of the study GGHB requires the following information relating to this site
        i. Notification of any potential serious breaches.
        j. ii. Notification of any regulatory inspections.

It is your responsibility to ensure that all staff involved in the study at this site have the appropriate GCP training according to the GGHB GCP policy (www.nhsggc.org.uk/content/default.asp?page=s1411), evidence of such training to be filed in the site file. Researchers must follow NHS GG&C local policies, including incident reporting.

2. **For all studies** the following information is required during their lifespan.
    a. First study participant should be recruited within 30 days of approval date.
    b. Recruitment Numbers on a monthly basis
    c. Any change to local research team staff should be notified to R&I team
    d. Any amendments – Substantial or Non Substantial

a. Notification of Trial/study end including final recruitment figures
b. Final Report & Copies of Publications/Abstracts
c. You must work in accordance with the current NHS GG&C COVID19 guidelines and principles.

Please add this approval to your study file as this letter may be subject to audit and monitoring.

Your personal information will be held on a secure national web-based NHS database.

I wish you every success with this research study

Yours sincerely,

Euan Rennie
Senior Research Administrator

CC: Sinead Traynor

Health Research
Authority

South Central - Oxford A Research Ethics Committee
Ground Floor
Temple Quay House
2 The Square
Bristol
BS1 6PN

Telephone: 0207 104 8241

<u>Please note</u>: This is the favourable opinion of the REC only and does not allow you to start your study at NHS sites in England until you receive HRA Approval

25 April 2025

Professor Hamish McLeod
Clarice Pears Building
90 Byres Road
G12 8TB

Dear Professor McLeod

Study title:	**Developing a theory of social wellbeing in autistic adults.**
REC reference:	**25/SC/0141**
Protocol number:	**350690**
IRAS project ID:	**350690**

The Proportionate Review Sub-committee of the South Central - Oxford A Research Ethics Committee reviewed the above application on 24 April 2025.

Ethical Opinion

On behalf of the Research Ethics Committee (REC), the sub-committee gave a favourable ethical opinion of the above research on the basis described in the application form, protocol and supporting documentation, subject to the conditions specified below.

Good Practice Principles and Responsibilities

The UK Policy Framework for Health and Social Care Research sets out principles of good practice in the management and conduct of health and social care research. It also outlines the responsibilities of individuals and organisations, including those related to the four elements of research transparency:

1. registering research studies
2. reporting results
3. informing participants
4. sharing study data and tissue

Conditions of the Favourable Opinion

The REC favourable opinion is subject to the following conditions being met prior to the start of the study.

Confirmation of Capacity and Capability (in England, Northern Ireland and Wales) or NHS management permission (in Scotland) should be sought from all NHS organisations involved in the study in accordance with NHS research governance arrangements. Each NHS organisation must confirm through the signing of agreements and/or other documents that it has given permission for the research to proceed (except where explicitly specified otherwise).

Guidance on applying for HRA and HCRW Approval (England and Wales)/ NHS permission for research is available in the Integrated Research Application System.

For non-NHS sites, site management permission should be obtained in accordance with the procedures of the relevant host organisation.

Sponsors are not required to notify the Committee of management permissions from host organisations.

Registration of Clinical Trials

All research should be registered in a publicly accessible database and we expect all researchers, research sponsors and others to meet this fundamental best practice standard.

It is a condition of the REC favourable opinion that **all clinical trials are registered** on a public registry before the first participant is recruited and no later than six weeks after. For this purpose, ‘clinical trials’ are defined as:

- clinical trial of an investigational medicinal product
- clinical investigation or other study of a medical device
- combined trial of an investigational medicinal product and an investigational medical device
- other clinical trial to study a novel intervention or randomised clinical trial to compare interventions in clinical practice.

A 'public registry' means any registry on the WHO list of primary registries or the ICMJE list of registries provided the registry facilitates public access to information about the UK trial.

If you have not already included registration details in your IRAS application form you should notify the REC of the registration details as soon as possible.

Publication of Your Research Summary

We will publish your research summary for the above study on the research summaries section of our website, together with your contact details, no earlier than three months from the date of this favourable opinion letter. Where a deferral is agreed, a minimum research summary will still be published in the research summaries database. At the end of the deferral period, we will publish the full research summary.

Should you wish to provide a substitute contact point, make a request to defer, or require further information, please visit: Research summaries - Health Research Authority (hra.nhs.uk)

It is the responsibility of the sponsor to ensure that all the conditions are complied with before the start of the study or its initiation at a particular site (as applicable).

After ethical review: Reporting requirements

The attached document "After ethical review – guidance for researchers" gives detailed guidance on reporting requirements for studies with a favourable opinion, including:

- Notifying substantial amendments
- Adding new sites and investigators
- Notification of serious breaches of the protocol
- Progress and safety reports
- Notifying the end of the study, including early termination of the study
- Final report
- Reporting results

The latest guidance on these topics can be found at https://www.hra.nhs.uk/approvals-amendments/managing-your-approval/.

Ethical Review of Research Sites

The favourable opinion applies to all NHS sites taking part in the study, subject to management permission being obtained from the NHS/HSC R&D office prior to the start of the study (see "Conditions of the favourable opinion").

Approved Documents

The documents reviewed and approved were:

Document	*Version*	*Date*
Evidence of Sponsor insurance or indemnity (non NHS Sponsors only) [Evidence of sponsor insurance/indemnity]		28 June 2024
IRAS Application Form [IRAS_Form_11042025]		11 April 2025
Non-validated questionnaire [Workshop response booklet V1]	1	07 March 2025
Participant consent form [Consent form V1]	1	07 March 2025

Participant information sheet (PIS) [Information sheet V1]	1	20 January 2025
Research protocol or project proposal [Study protocol V1]	1	07 March 2025
Summary CV for Chief Investigator (CI) [Chief Investigator CV]		16 December 2024
Summary CV for student [IRAS CV student]		15 November 2024
Summary CV for supervisor (student research)		16 December 2024

Membership of the Proportionate Review Sub-Committee

The members of the Sub-Committee who took part in the review are listed on the attached sheet.

Statement of Compliance

The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

User Feedback

The Health Research Authority is continually striving to provide a high quality service to all applicants and sponsors. You are invited to give your view of the service you have received and the application procedure. If you wish to make your views known please use the feedback form available on the HRA website:
http://www.hra.nhs.uk/about-the-hra/governance/quality-assurance/

HRA Learning

We are pleased to welcome researchers and research staff to our HRA Learning Events and online learning opportunities– see details at:
https://www.hra.nhs.uk/planning-and-improving-research/learning/

With the Committee’s best wishes for the success of this project.

IRAS project ID: 350690	**Please quote this number on all correspondence**

Yours sincerely

PP
Mr Chris Turnock Chair

Email: oxforda.rec@hra.nhs.uk

Enclosures: List of names and professions of members who took part in the review
After ethical review – guidance for researchers

Copy to: Mrs Sinead Traynor

South Central - Oxford A Research Ethics Committee

Attendance at PRS Sub-Committee of the REC meeting on 24 April 2025

Committee Members:

Name	*Profession*	*Present*	*Notes*
Mr Arnold Rust	Consultant Clinical Scientist - Radiation Protection Advisor	Yes	
Mrs Sonia Simons	Account Director	Yes	
Mr Chris Turnock	Retired Nurse	Yes	Meeting Chair.

Also in Attendance:

Name	*Position (or reason for attending)*
Miss Georgina Bartlett	Approvals Administrator
Mrs Charlotte Reed	Approvals Administrator

Appendix F: Participant information sheet, consent form, and study materials

Uploaded to Open Science Framework: https://osf.io/kqzxn

Appendix G: Records of data analysis plan and process

Uploaded to Open Science Framework: https://osf.io/kqzxn

Appendix H: Data availability statement

Personal data is stored until the end of the study, prior to submitting the End of Study Form when it is permanently erased. Anonymous questionnaire data and pseudo-anonymised demographic data will be stored on the University of Glasgow's Enlighten Research Data repository for 10 years from the last date of access.

Appendix I: Reflexivity statement

I was drawn to the topic of this research project because I am an autistic adult, and through my clinical training I was aware that most of the existing research on autism has focussed on ‘deficits’. Furthermore, many intervention studies have aimed to identify ways to change autistic peoples’ behaviour to suit neurotypical norms, e.g. social skills training. Through this project, I wanted to draw focus towards the possibility, and reality, that wellbeing can be experienced as an autistic person and that we can make society a place where autistic people can thrive. There is an enduring misconception that autistic people don’t desire relationships and reciprocal connection, and this misconception has hindered research on autistic perspectives of social relationships. My awareness of this historical context motivated my interest in autistic experiences of wellbeing, including what autistic people value in social relationships and the richness of autistic social connection. I have first-hand experience of the mismatch between neurotypical expectations of what constitutes social wellbeing, and what social wellbeing looks like for myself and my neurodivergent friends. However, I am acutely aware of the heterogeneity of autistic individuals’ experiences and preferences. The aim and methods of this research project focussed on constructing and disseminating a consensus-based understanding of autistic individuals’ experiences of social wellbeing. I was aware of that my own experience as an autistic person does not represent the experiences of others, and that I hold many privileges in relation to my socioeconomic background (affluent middle class), ethnicity (white British), access to education (post-graduate degree) and occupation (employed full-time). I aimed to thoughtfully and meaningfully involve autistic people in research about their experiences. I was mindful that stakeholder involvement in research projects can, however unintentionally, be tokenistic and superficial. I aimed to approach the co-production elements of this project with an open-mind, and respond flexibly to the perspectives, priorities, and needs of the participants in this study.