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Teamwork and decision-making in forensic inpatient settings in Scotland.

Sophie Jolly, B.A. (Hons), MSc

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

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

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Foreword

The project originally proposed for the Major Research Project (MRP; Chapter 2) became unfeasible due to a change in the research team. The current project was developed as a result.

The COVID-19 pandemic affected recruitment strategies for the Major Research Project (MRP; Chapter 2). Data collection had originally planned to take place electronically to reduce unnecessary contact and risk. However, the aftermath of the pandemic had an impact on staffing levels across the forensic estate which resulted in appropriate adaptations being made in the context of reduced restrictions and risk. This consisted of a wave of paper-based surveys between March and May 2022 to increase the participation of ward-based staff. The planned sample size was achieved. There were no significant changes to the nature of the data collected from participants recruited.

Chapter 1 Systematic Review

A systematic review of staff experiences of multidisciplinary working and team decision making in forensic inpatient settings

Sophie Jolly*

***Correspondence Address:**

Mental Health and Wellbeing University of Glasgow
Gartnavel Royal Hospital
1055 Great Western Road
Glasgow
G12 0XH
Email:

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ABSTRACT

Aim: To examine the literature on staff experiences of multidisciplinary teamworking in forensic inpatient settings.

Background: The provision of multidisciplinary care for forensic patients is specified in key standards of care and guidelines for practice. Despite this, little is known about optimal multidisciplinary team (MDT) functioning in forensic inpatient settings. There is a need for a review of studies examining staff experiences of MDT functioning and decision-making. This will provide insight into barriers and facilitators to effective teamwork.

Data sources: Four electronic databases were searched (MEDLINE, Embase, CINAHL and PsychInfo). Reference lists and forwards-backwards citations of eligible studies were searched.

Review methods: A narrative synthesis of qualitative and mixed methods studies was conducted.

Results: Seven studies exploring staff experiences of teamworking in forensic inpatient settings were identified. Five were qualitative and two were mixed method. Study quality was varied. Information on team structure was available from four studies. Narrative themes on team structure, teamworking and power imbalances were identified. Few papers investigated how effective teamwork was achieved in practice, with little emphasis on how best to promote and facilitate effective teamwork. Instead, studies reported common barriers to effective teamworking, including: communication difficulties, lack of role clarity, divided loyalties between teams and professional identity, power imbalances and practical issues.

Conclusions: Effective teamworking in forensic settings is under-researched and outcomes predominantly focus on problems and barriers. More information is required to understand how to improve team-coordinated care in these settings. The quality of the available literature is varied.

Keywords: forensic inpatient, mental health, multidisciplinary, teamworking, systematic review.

INTRODUCTION

Forensic mental health (FMH) services provide care for individuals deemed a significant risk to themselves and/or others (Markham, 2021). The importance of 'high-quality' or 'effective' multidisciplinary teams (MDTs) in forensic inpatient settings is emphasised throughout various policy documents, including NICE (2009), the Risk Management Authority (RMA, 2016) and the Mental Welfare Commission (2017). Policy and guidance documents acknowledge that for multidisciplinary care to be effective, it requires a range of features (e.g., a mix of team member skills and knowledge, clear roles, effective communication). Organisational processes to ensure multidisciplinary input from pre-admission to discharge are also essential, such as the Care Programme Approach (CPA; Haines et al., 2018).

Factors relating to the provision of high-quality multidisciplinary care are complex and multifaceted. This is particularly pertinent in forensic mental health (FMH) settings (Markham, 2021). Caring for vulnerable and challenging patients in a complicated and fragmented work environment, with a litigious and risk-oriented milieu, can be anxiety-provoking (Menzies-Lyth, 1988). Therefore, it is hardly surprising that working with different disciplinary perspectives, where integration of therapeutic and custodial goals is limited, can result in role confusion and tension. Power structures inherent in team dynamics due to medical-legal frameworks can maintain power struggles and interpersonal tensions. A lack of role clarity and misunderstanding the roles of other disciplines' undoubtedly impacts professional integration amongst teams (Haines, 2018; Livingston et al., 2013). However, the practical understanding of, and evidence for, establishing effective teamwork remains limited, especially in FMH settings. This review aimed to provide insight into barriers and facilitators of effective MDT working, and to understand the "how" of teamworking, from multidisciplinary staff perspectives' in FMH.

The Importance of the MDT in Addressing Complex Needs

FMH inpatients experience complex mental health problems. In comparison to general adult mental health patients, they are more likely to have disadvantaged socioeconomic backgrounds, poor physical health, and adverse child rearing experiences (ACEs), including experience of institutional care (Stinson et al., 2016).

They often present with a range of comorbidities, some of which are linked to their offending risk (e.g., neurodevelopmental disorder, learning/intellectual disability (LD/ID), substance misuse and/or personality disorder; Markham, 2018). Low, medium, and high levels of security currently exist to manage risk; each of which provide matched physical, procedural and relational security measures (Crichton, 2009). Relational security, linked to staffing, staff-to-patient ratios and therapeutic milieu, emphasises the provision of MDTs with the right range of skills (Kennedy, 2022).

Delivering care for individuals with various complex needs requires a range of skills (Markham, 2021). Standards for secure services state that MDTs should provide a range of therapeutic interventions and treatment approaches (Georgiou et al., 2019). Typical MDTs comprise psychiatry (Responsible Medical Officer (RMO) or Responsible Clinician (RC)), nursing, psychology, occupational therapy (OT) and social work, following recommendations from the Department of Health's "Planning for the Future" strategy (1984). Additional team members may be included for a broader mix of skills and services (e.g., dietetics, pharmacy, speech and language therapy (SLT)). There is limited national guidance on objectives, structure and processes of MDT meetings (Nic a Bhaire et al., 2016). Therefore, MDT content and format is often determined locally (West et al., 2012). It is noted that considering structural features of FMH care systems in isolation provides limited insight into the dynamic and multifaceted nature of team processes and how to best achieve effective teamwork.

Defining 'Effective' Teamwork

The literature highlights the importance of various factors for effective teamwork. However, there is limited evidence on how these components of a team are defined and measured (Glabsy & Lester, 2004).

Theoretical Frameworks

Several theoretical frameworks and models of effective teamworking have been suggested. Øvretveit (1996) proposed five dimensions that can be used to evaluate the effectiveness of a team: professional integration; resource management according to client needs; membership issues; client and team interactions; team management processes. An alternative theoretical model proposed by Anderson and West (1998)

conceptualised team climate in healthcare organisations across four facets: vision, participative safety, task orientation, and support for innovation. This model led to the development of the Team Climate Inventory (Anderson & West, 1998). West (2012) has since postulated that the effectiveness of a team can be measured along two dimensions of team functioning: team reflexivity (ability to review objectives, strategies and processes; valuing different perspectives) and social reflexivity (promote member well-being; effective communication; shared workload; sustainable social climate). According to West (2012) too much emphasis in one dimension can impact efficiency.

On the other hand, McLoughlin and Geller (2010) created a framework for effective team treatment planning in mental health based on three integral components: team structure (membership, leadership, role clarity); meeting content (structure and documentation); planning processes (frequency and nature of meetings). This framework focused specifically on treatment planning and gave more weight to practical factors. Research defining and evaluating an effective MDT in practice is limited and theoretical models are largely descriptive; not capturing the multi-faceted and dynamic nature of teamworking.

Characteristics of Effective Teams

Authors agree that teams require basic conditions to function effectively. West (2012) argued this included: transformational leadership; stable membership; appropriate size and balanced skill set; clear purpose and shared goals; as well as an absence of undermining behaviours (West, 2012). Goal directedness, communication, effective conflict resolution and role definition continue to be referenced throughout the literature (Roncaglia, 2018). Good information systems for communication within teams have also been proposed, such as using a single electronic record (Nancarrow et al., 2013). Interventions designed to improve MDT working tend to focus on specific activities such as: adding systems to improve sharing patient files (Schmalenberg et al., 2005) or meeting style or frequency (Borrill et al., 2000). However, how these attributes are defined and measured in the literature is varied and the evidence is largely prescriptive.

Team structure and stability have been explored to an extent in other healthcare fields. For example, a Scottish study in orthopaedics demonstrated that team composition

and staffing levels impacted styles of teamworking (Vallis & Tierney, 1999). Although a criticism of this study is that style of teamworking was not robustly measured or operationalisation. Small teams were linked with increased participation in two English primary care studies and shared goals were associated with team effectiveness as measured by the Team Climate Inventory (West & Poulton, 1997; Poulton & West, 1999). A recent systematic review of the functions of MDT meetings in community mental health (Nic a Bháird et al., 2016) argued the research on how multidisciplinary collaboration can be achieved in practice is limited. The authors concluded there is a need for a “clearer understanding of MDT functioning” across mental health services (Nic a Bháird et al., 2016, p.69). In summary, these attributes are undoubtedly important, however are predominantly emphasised in theory. The analysis of how these processes work in practice and produce favourable outputs, such as effective decision-making, patient and public safety, support recovery, are limited.

Conflict in MDTs

MDT working is a complex process with potential for considerable conflict (Burrow, 1999). The dual role of patient team member and professional group member can often result in conflict between practices and cultures (Onyett et al., 1997). The dynamic nature of tasks and roles, resource and time constraints, interpersonal and hierarchical relationships, and multiple stakeholders (patients, family, the public, Scottish Government) may be considered representative of a complex adaptive system rather than an easily deductible concept (Nancarrow et al., 2013). This makes the operational reality somewhat contradictory to proposed theoretical functioning and positive expectations (Orovwuje, 2008).

From a systems perspective, it is postulated that relational dynamics can become mirrored at different levels within an institution (Moylan, 2003). This can result in the distress and defences of the client group being inadvertently repeated across the wider system (e.g., a forensic institution may become suspicious; Skynner, 1989). Observational research amongst nursing staff in a general adult hospital described patterns of projection of responsibility up the hierarchy and reciprocal projection of irresponsibility and incompetence down in the hierarchy (Menzie-Lyth, 1988). The Fallon Inquiry into the Personality Disorder unit at Ashworth Hospital (Fallon et al.,

1999) highlighted these processes; describing staff and patients becoming caught in a toxic dynamic; leading to serious breaches of security.

Research in general adult inpatient settings highlight professional rivalries and hierarchical relationships as key areas of difficulty in teamworking (Jones, 2006). The Sainsbury Centre for Mental Health (2000) study of community mental health teams in England and Wales found staff reported the most common sources of conflicts as lack of mutual respect; poor leadership; power struggles; poorly defined roles/role confusion; feeling undervalued; professional bullying. A review of staff perspectives of providing multidisciplinary care for forensic inpatients could shed light on the barriers to effective teamwork in tertiary, forensic inpatient services (Haines et al., 2018).

Facilitating Effective Teamwork

Guzzo and Shea (1992) suggested that effective teamwork can be facilitated by ensuring challenging and achievable goals, opportunity for feedback and evaluation, and in-built systemic processes that allow for work-based rewards that are applied with high visibility. Similarly, Hudson et al., (1997) postulated four broad principles could strengthen collaboration: shared vision and purpose; role and task clarity; accountability and feedback; and, incentives/rewards for fulfilment of responsibilities.

Glasby and Lester (2004) reviewed research on inter-agency partnership working in primary care. They argued the literature was predominantly descriptive (good practice examples) or prescriptive (advising professionals to be collaborative; Glasby & Lester, 2004). The authors claimed the literature did so without necessarily citing evidence (Glasby & Lester, 2004). Nonetheless, several possible solutions to overcome barriers to inter-agency working were suggested. These included: clear processes and procedures (McDermott & Reid, 1999); a main power holder (e.g., consultant psychiatrist; Peck & Norman, 1999); and, leadership that promoted accountability and novel approaches (Sainsbury Centre for Mental Health, 2000). Forensic psychiatrists have argued that providing expert medical and clinical leadership is essential to their role in the MDT (Mason et al., 2002). Evidence on the impact of this tends to be anecdotal or prescriptive (Kennedy, 2022).

Structural change and service re-design factors were also identified to assist facilitate effective working (e.g., shared offices: Cook et al., 2001; shared multidisciplinary records: Yates & Deakes, 1998). However, as noted above, how these suggestions are operationalised, measured, and then shown to impact quality of care warrants more exploration (Glasby & Lester, 2004). A review of staff experiences of MDT working in forensic inpatient settings could provide further insight into potential facilitators for teamworking in these environments.

Literature Reviews

Despite all of the foregoing theoretical and empirical studies, there are currently no reviews exploring staff experiences of MDT functioning and decision-making in forensic inpatient settings. A search of the Cochrane Library generated one result for a community mental health review of MDT decision-making and several literature reviews of teamwork in other health settings. The findings of which have been outlined and referenced throughout the background section for this review. No results were found for forensic mental health inpatient settings. A search of PROSPERO also returned no ongoing reviews in this area.

Purpose of Review

This systematic review focuses on forensic inpatient staffs' experiences multidisciplinary working and decision-making so that the processes involved can be specified and better understood.

METHOD

Search Strategy: A preliminary ‘scoping review’ was conducted to determine the value of undertaking a full systematic review of this topic (Daudt et al., 2013). Once feasibility was confirmed, the review question, search strategy structure and key search terms were developed in consultation with a librarian. Search strategy sensitivity was evaluated by its ability to detect key papers.

The search was carried out in April 2022. Eligible studies were identified following a systematic search using keyword search terms of four databases (MEDLINE, Embase, CINAHL and PsychInfo) accessed via OVID and EBSCOHost search engines. Reference lists and forward-backwards citations of eligible studies were searched. Electronic searches were documented for transparency.

A standardised systematic search of the literature was informed by the Population Exposure Outcome (PEO) structure recommended for both quantitative systematic reviews and adapted for qualitative searches (Bettany-Saltikov, 2016).

Table 1: PEO Search Strategy (Adapted from Bettany-Saltikov, 2016)

P	Population Setting	Multidisciplinary team-members Forensic inpatient
E	Exposure to condition, intervention, procedure/process or service	Teamworking/decision-making
O	Outcomes or themes	Experiences/perspectives

Review Question: What are the experiences (O) of multidisciplinary team members (P) of teamworking and decision-making (E) in forensic inpatient settings (P)?

Search Terms: Databases were searched using key terms for the four key components: ‘multidisciplinary team’, ‘forensic inpatient’, ‘teamworking’ and ‘decision-making’. Key words and indexing terms following search terms (MeSH and thesaurus

terms) were used as subject headings and title, abstract or full text terms, which varied between databases. Within each component the Boolean operator OR was used to group terms and components were combined with AND (see Appendix 1.1, p.98).

Eligibility Criteria: Inclusion criteria were applied to guarantee relevancy and specificity (see Appendix 1.2, p.108 for full screening form).

Table 2: Eligibility Criteria

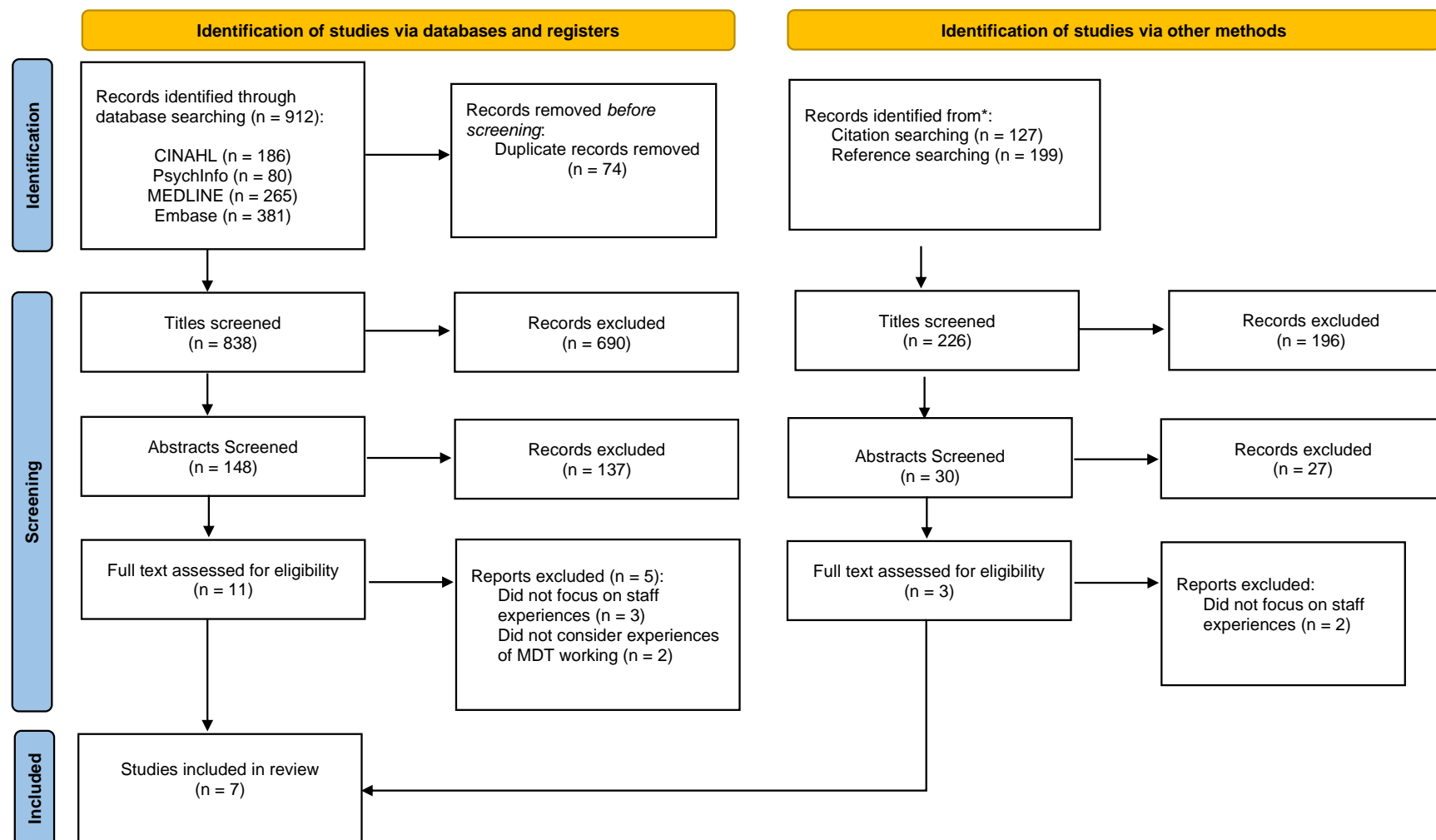
Inclusion criteria	Exclusion criteria
Research was published in English	Participants were clients/patients
Studies were conducted in the UK or a developed, high-income Western country	Participants were community-based/not inpatient
Research was based in a forensic inpatient setting	Sample was general adult mental health staff/not forensic staff
Research investigated staff experiences or perspectives on multidisciplinary teamworking and decision-making	The paper did not focus on staff experience of MDT working and decision-making
	Research focused on children or adolescents
	Paper was a case example, review, or conference abstract

Data Selection: The search yielded a total of 912 results (see Figure 1). Records were downloaded into reference management software (EndNote) and uploaded to Rayyan to systematically apply inclusion and exclusion criteria. Stage one screened and resolved 118 potential duplicate records; 74 records were removed at this stage. At stage two, 838 titles were screened by the primary researcher; 690 were excluded. To ensure eligible papers were not overlooked, broad synonyms and associated terms

were used at this stage. An independent reviewer (Trainee Clinical Psychologist) screened 10% of the titles (90 records) for inclusion/exclusion criteria. There were no disparities between reviewers.

At stage three, 148 abstracts were obtained for further screening; 137 were excluded. The same independent review process occurred and 20% of the abstracts (30 records) were screened. Two conflicts were discussed and resolved. Eleven full articles were obtained for in-depth assessment of eligibility at stage four; six of which met inclusion criteria. Reason for exclusion was documented (Appendix 1.3, p.112). Hand searches of reference lists and citation searches from final papers identified one additional eligible paper. Seven studies were included in the review.

Figure 1: PRISMA Flowchart



*via Google Scholar

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. For more information, visit: <http://www.prisma-statement.org/>

Data Extraction: The JBI QARI Data Extraction Tool for Qualitative Research was used as a template to standardise data extraction from each article (Appendix 1.5, p.115). Some additional fields were added to the template to ensure all information relevant to the review question was extracted. Descriptive data was collated into Table 3 to provide a summary of each article.

Quality Appraisal: Both the Mixed Methods Appraisal Tool (MMAT) Version 2018 and the JBI Critical Appraisal Checklist for Qualitative Research were used to provide in-depth appraisal of the studies. Studies were then assessed for risk of bias across three domains (selection bias, information bias, reporting bias) and given an overall estimate of bias risk using a traffic light system (see Figure 2).

A sample of 4 studies (57%) were independently reviewed, with an interrater agreement of 97.5%. Discrepancies were resolved by discussion. The risk of bias ratings for the 4 selected studies were discussed and agreed with the independent reviewer. Quality rating was not used to exclude studies; the potential impact of study quality was considered as part of the synthesis.

Data Synthesis: Due to the diversity of study designs and stage of development of the literature, a narrative synthesis approach was adopted (Mays et al., 2005). According to Pope and Mays (2007) narrative synthesis systematically and transparently collates research findings to provide an overview of existing knowledge and generate new insights. Extracted data was collated and integrated to develop a single narrative synthesis as described by Pope and Mays (2007). The material was synthesised through reading and interpreting key themes. Areas of conceptual commonality and diversity were identified and themes were refined to link the results to the review question.

RESULTS

Study Characteristics: Table 3 summarises the characteristics of the seven included papers. Studies explored staff's experiences of teamworking in forensic inpatient settings; five were qualitative and two were mixed methods. Six studies were conducted in the UK and one took place in Canada. Five of the UK studies took place in medium secure units (MSUs). The sixth recruited across low, medium and high secure settings and prison healthcare teams (Whyte & Brooker, 2001). The Canadian study took place in a forensic hospital with nine various high, medium, and low secure units (Livingston et al., 2013).

One paper directly examined team structure in a MSU specifically for individuals with LD (Kumar & Parkinson, 2001). This study also reported team member ratings of barriers to effective teamworking. Another two referenced team structure indirectly via staff narratives but largely focused on staff experiences of teamworking (Livingston et al., 2013; Shaw et al., 2007). Haines et al., (2018) summarised MDT meetings including structure, discipline mix and process in more detail as well as exploring staff narratives on teamwork. McRae (2013) specifically examined staff experiences related to decision-making around admission for a male personality disorder (PD) ward in a MSU. The sixth UK study used a mixed methods design to explore staff's experiences of team functioning and cohesion across low, medium, and high secure settings, as well as prison healthcare (Whyte & Brooker (2001). Finally, Mason et al., (2002) explored multidisciplinary staff experiences of role conflict and ethical codes of reference in a MSU.

Table 3: Characteristics of Included Studies

Author (Year)		Sample	Methodology <i>Design</i> <i>Data Collection</i> <i>Method of Analysis</i>	Main Findings Key Themes Additional Findings
Setting (Country)	Main Focus			
Haines, Perkins, Evan & MacCabe (2018)		N=20 staff Chairs=3 (senior nurse/independent from MDT) Psychiatry=4 Psychology=4 Social worker=1 OT=2 Nursing=6 N=3 patients	<i>Design:</i> Qualitative <i>Data Collection:</i> Semi-structured interviews Non-participant observations Document analysis <i>Method of Analysis:</i> Grounded theory and ethnography	Key Themes: <ol style="list-style-type: none"> 1. Professional roles and responsibilities 2. Attitudes towards risk and the management of disagreement 3. Hearing the voice of the service user Additional Findings: 19 meetings were observed. MDT process and forum was summarised (including chair, attendance, duration etc.)
MSU (UK)	MDT functioning and decision-making			
Kumar & Parkinson (2001)		N=59 • Senior managers • Nursing • Medical • Specialist staff (psychologist, psychotherapist, nurse therapists) • Behavioural nurse therapists • SLT • OT	<i>Design:</i> Mixed Methods <i>Data Collection:</i> Interview <i>Method of Analysis:</i> Descriptive statistics, Chi-Square Test	Key Findings Four most relevant difficulties with interprofessional working: <ol style="list-style-type: none"> 1. communication difficulties 2. lack of professional integration 3. lack of resources 4. professionals' personal characteristics/attributes.
MSU for LD (UK)	MDT structure and teamworking			

Livingston, Nijdam-Jones & P.E.E.R.¹ (2013)		N=16 staff	<i>Design:</i> Qualitative	Key Themes <ol style="list-style-type: none"> 1. It's all about the patient: Involving patients; 2. Other professionals at the table: Including other professionals; 3. Onward and upward: Progressing through the hospital; 4. Know me for who I am: Understanding the patient; 5. Keep me in the loop: Sharing information with patients; 6. To trust or not to trust: Openness, honesty, and trust.
Canada, 190 bed hospital 9 low, medium & high secure units	Perspectives of treatment planning	Nursing=4 Psychiatry=2 Social work=2 Case management=2 Psychosocial programs=6 N=29 patients	<i>Data Collection:</i> Interviews <i>Method of Analysis:</i> Thematic analysis	
Mason, Williams & Vivian-Byrne (2002)		N=77 staff N=12 groups	<i>Design:</i> Qualitative	Key Findings 3 areas of conflict or tension were noted. These areas were conceptualised by authors as 'dilemmas'. <ol style="list-style-type: none"> 1. Personal clinical practice versus team/group responsibility. 2. Local policies versus national policies. 3. Informal (peer review) versus formal reference points (e.g., specific legislative Acts/previous official inquiries).
MSU (UK)	MDT working and ethical codes	3 clinical teams 9 disciplinary groups: <ul style="list-style-type: none"> • Psychiatry • Psychology • Nursing • CFMH Nursing • Social Work • Occupational Therapy • Probation • Academic department 	<i>Data Collection:</i> Two Questionnaires (one for groups and one for individuals) <i>Method of Analysis:</i> Thematic Analysis / Complex Heuristic Analysis	

¹ Team P.E.E.R. (Patients Empowered and Engaged as Researchers). Forensic Psychiatric Services Commission, British Columbia, Canada.

		• Administration		
McRae (2013)		N=12	<i>Design:</i> Qualitative	Key Themes 1. Pre-admission assessment: the operation of exclusion criteria 2. The pre-admission meeting: collaborative decision-making? 3. The informal context to admissions i.) Formal changes to pre-admission assessment ii.) The 'bed situation' iii.) The limitations of exclusionary criteria iv.) Group strategies, individual consequences
MSU; male Personality Disorder (PD) ward (UK, England)	MDT decision-making admitting offenders with antisocial personality disorder (ASPD)	Psychiatry=2 Psychology=2 Nursing=6 OT=2	<i>Data Collection:</i> Primary - semi-structured interviews Secondary - analysis of 34 patient medical records Supplementary - "field notes" <i>Method of Analysis:</i> Thematic Content Analysis	
Shaw, Heyman, Reynolds, Davies & Godin (2007)		N=44 Staff	<i>Design:</i> Qualitative <i>Data Collection:</i> Primary - Interviews	Key Themes: 1. The impact of medical power; tension and collaboration between disciplines; 2. Dynamics of marginality, blame and retreat; 3. Achievement of multi-professional collaboration through diplomatic work; 4. Peripheral position of patients.
MSU (UK)	Staff and patient perspectives of MDT Teamwork	General managers=2 Qualified nurses=19* Unqualified nurses=7 Psychology=3 OT=3 Social workers=3 Psychiatry=6 *3 Community based	Supplementary - 2 case conferences observed MDT workshop: findings were discussed with Unit staff. <i>Method of Analysis:</i> Grounded Theory	

		N=10 Patients		Overall, staff portrayed multidisciplinary collaboration as a problematic and fragile process.
Whyte & Brooker (2001)		N=244 participants	<i>Design:</i> Mixed Method	<p>Key Themes</p> <ol style="list-style-type: none"> 1. Teams provide a number of functions for professional members 2. Teams value client engagement 3. Teams from different security levels have different needs 4. Teams recognise their own knowledge and skill deficit 5. Teams value learning about being a team <p>Additional Findings</p> <p>Quantitative: Medical group role clarity was significantly higher than support group. Medical staff had greater team role clarity than therapy staff. Medical and nursing staff greater team identity than support staff. Staff in high security had greater team role clarity than low secure and greater team identity than all settings. Respondents over 45years old had greater team role clarity.</p>
LSU, MSU, HSU, Prison Healthcare (UK)	MDT working and sources of conflict	Nursing=112 Therapy=59 (Social work, CP, OT, Pharmacy) Support staff =37 Medical (doctors and consultant psychiatrists)=25 Focus groups with 20 clinical teams: Prison healthcare teams=4 Low secure teams=6 Medium secure teams=5 High secure teams=5	<i>Data Collection:</i> Focus Group Interviews Questionnaire: • TMQ (Onyett et al., 1997) • Open-ended questions • Modified Maslach Burnout Inventory <i>Method of Analysis:</i> Quantitative: Descriptive Statistics (mean scores) Differences between groups Qualitative: Thematic Content Analysis	





























Quality Appraisal:

The JBI and MMAT were used to evaluate study quality across each paper (see Appendix 1.5.4, p.119). Information from both tools guided assessment of risk of bias across three domains: selection bias (e.g., sampling method, representativeness), information bias (e.g., methodology, measurement) and reporting bias (data to support conclusions). Studies were then rated for overall risk of bias based on a traffic light system (see Figure 2). Four papers were considered low risk of bias, two raised some concerns and one was considered high risk of bias.

A common issue was the limited acknowledgement of potential researcher influence on the study. Only one paper clearly stated the researcher's cultural and theoretical orientation (Livingston et al., 2013) and only two attempted to explore the influence of the researcher on the study (Whyte & Brooker, 2001; Haines et al., 2018). Similarly, in most papers it was difficult to ascertain whether or not the researchers were based at the research sites. Ethical considerations, such as informed consent or minimising power imbalances, were not always clear. One paper made no reference to ethical issues and it is unclear whether approval was sought (Kumar & Parkinson, 2001). Two papers were noted to have limited data illustrations to support their conclusions. Whilst this may be indicative of adherence to word limits for publications, it indicates potential reporting bias.

Two studies described the sampling procedure with clear rationale; one purposive sampling, the other convenience sampling. Whyte and Brooker (2001) did not explicitly reference approach, however purposive sampling was apparent given range of disciplines and research sites. In the remaining four papers, sampling methodology was not always clear or justified, particularly in relation to the research question and analytic approach. Two papers did not elaborate on the number of participants from each discipline; therefore, it was difficult to make a judgement on representativeness of the sample. Livingston et al., (2013) noted overrepresentation from therapeutic programme staff and was the only study to comment on sample representation from an ethnicity perspective; stating the sample was not ethnically diverse compared to the overall composition of staff members. The overall quality of included studies was varied, with concerns of overall risk of bias noted in three of the seven studies.

Figure 2: Risk of Bias

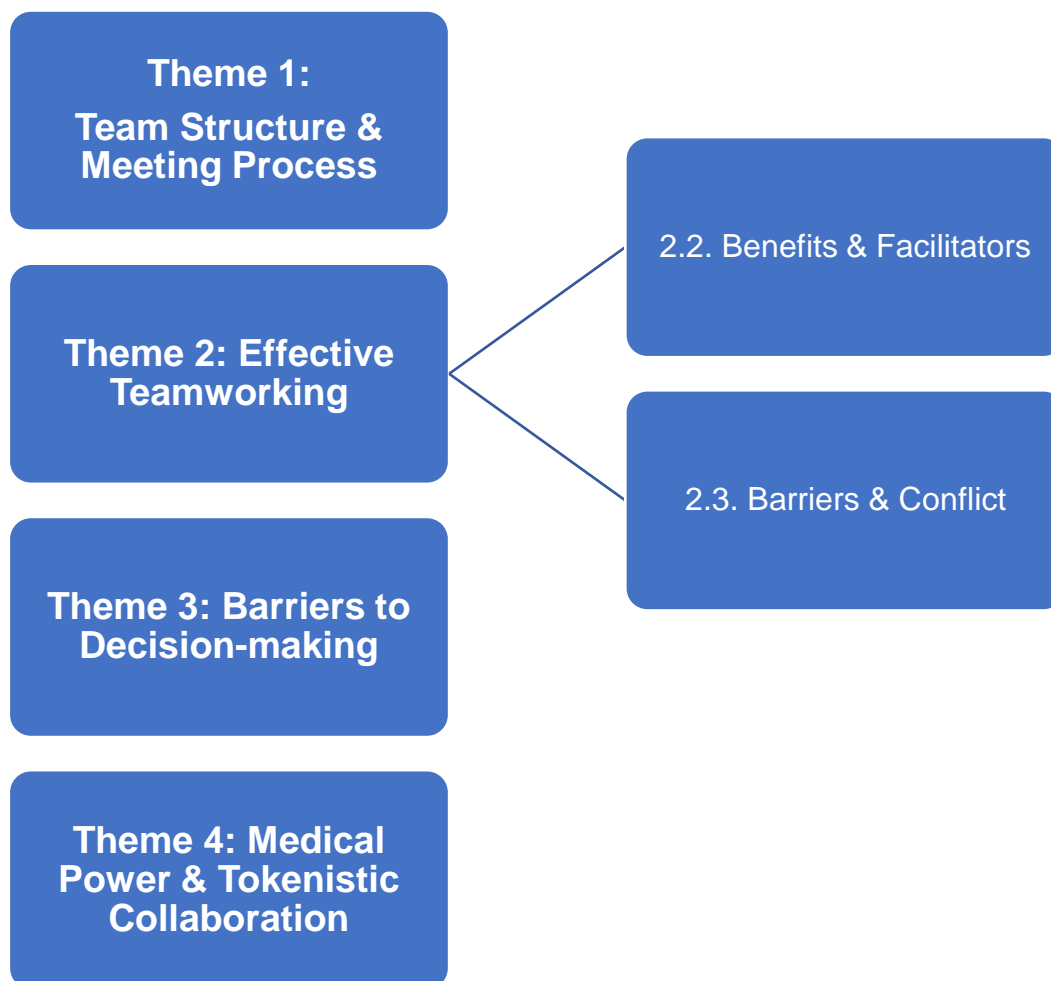
	Risk of Bias Domains			
	Domain 1: <i>Selection Bias</i>	Domain 2: <i>Information Bias</i>	Domain 3: <i>Reporting Bias</i>	Overall
<i>Kumar 2001</i>				
<i>Whyte 2001</i>				
<i>Mason 2002</i>				
<i>Shaw 2007</i>				
<i>Livingston 2013</i>				
<i>McRae 2013</i>				
<i>Haines 2018</i>				

Index Key:

Low risk	
Some concerns	
High risk	

Narrative Synthesis:

Figure 3: Narrative Themes



Theme 1: Team Structure & Meeting Process

Four papers made reference to team structure and meeting processes. Kumar and Parkinson (2001) described two MDTs known as clinical management teams (CMT) and a hospital-wide coordination team (CT) with a managerial role. The CMTs had 17 to 20 'core' members: 70% nursing, 20% medical and 10% psychology. There was no representation from SLT or OT who received referrals from the CMT. A more integrated team structure, representative of the Department of Health's "Planning for the Future" strategy (1984), was outlined in Livingston et al., (2013) and Haines et al., (2018). Professionals included psychiatry, nursing, social work, OT, psychology and,

at times, a ward manager and admin support. Service user attendance at meetings was standard practice in several studies (Haines et al., 2018; Livingston et al., 2013; Shaw et al., 2007).

Meeting chairs varied across studies: senior nurse, independent from the ward (Haines et al., 2018), patient RC/psychiatrist (Livingston et al., (2013), or disciplines took turns to chair meetings (Shaw et al., 2007). Meeting frequency, duration and attendance were documented in Haines et al., (2018). MDT meetings were weekly; approximately 4-hours, and attendance was not mandatory. Individual case discussions ranged from 16 minutes to 60 minutes. McRae (2013) made reference to pre-admission decision being 'tagged onto' ward rounds in comparison to previous pre-admission decision meetings that lasted 1-2 hours. Livingston et al., (2013) stated meeting length varied dependent on purpose and the approach adopted by the psychiatrist.

Theme 2: Effective Teamworking

2.1 Benefits & Facilitators

Benefits of effective teamwork were referenced in staff narratives across several studies. Peer support was cited in Whyte and Brooker (2001) and sharing responsibility for decisions and the burden of care was referenced in Haines et al., (2018). The potential for different disciplines to contribute to a deeper understanding of patients was also discussed (Livingston et al., 2013).

Facilitators of effective teamworking and collaboration were noted briefly in papers Shaw et al., (2007) and Livingston et al., (2013). They noted communication and role clarity as key in ensuring collaborative practice:

“For me, you can’t beat a stable multidisciplinary team... if there’s honesty and respect there, there’s the ability to challenge...” (social worker, Shaw et al., (2007), p.11)

Studies indicated that effective collaboration was achieved by allowing team members to share specialist knowledge which was facilitated by a shared goal (Livingston et al.,

2013). Role clarity and a clear shared goal was reiterated in staff narratives on admission decision-making in McRae (2013).

Overall, few papers investigated how effective MDT working was achieved in practice. Instead, studies reported on challenges in achieving effective collaboration.

2.2 Barriers & Conflict

MDT tensions and professional conflict were the highest ranked source of pressure according to staff across secure settings in the Whyte and Brooker (2001) study. They reported such tensions arose in response to communication issues between disciplines, a lack of respect or knowledge from other staff, or the attitudes of other staff. Kumar and Parkinson's (2001) quantitative results found that staff reported communication difficulties, lack of professional integration and personal characteristics/attributes of professionals as the most common difficulties with teamworking.

Several papers reported that team effectiveness was hindered by a lack of clarity regarding people's roles and responsibilities (Haines, 2018; Livingston et al., 2013). Some staff narratives emphasised role tensions as a source of conflict in teamworking. Psychology and social work staff narratives highlighted frustrations around other disciplines misunderstanding their roles (Haines et al., 2018). The perception of having divided loyalties between the team and professional identity was also noted in other studies (Haines, 2018; Mason et al., 2002). Systemic barriers were referenced; some of which were framed as sources of stress for individual professions that had a secondary impact on interprofessional relationships. This included resources issues, such as low staffing, workload pressure, and low morale (Whyte & Brooker, 2001).

Theme 3: Barriers to Decision-Making:

Communication difficulties and concerns around professional safety within the team were highlighted as barriers to collaborative decision-making. For example, some staff cited a fear of having their opinions judged by other disciplines as a barrier to open

discussions in team meetings (Livingston et al., 2013). Staff narratives in Shaw et al., (2007) described a blame culture and anxieties around professional responsibility and decision-making were emphasised by psychiatrists in Haines et al., (2018). Observational evidence from Haines et al., (2018) noted non-verbal disagreements in meetings in the form of eye-rolling; shaking heads and looking around the room to gauge reactions of others.

Whyte and Brooker (2001) highlighted the tensions that arise from the dual purpose of providing therapy and custody when working in forensic settings. The perception of goal conflict was referenced in other studies in relation to divided loyalties between the team and professional identity (Haines, 2018; Shaw et al., 2007). For example, Mason et al., (2002) found that staff frequently cited tensions between the values and practice of their own professional discipline. This conflict in relation to both systemic factors (therapy versus custody) as well as professional identities (patient care team versus professional identity) undoubtedly impacts the processes in which teams make decisions. However, this was not explicitly defined or measured in studies.

Practical and pragmatic barriers to team decision-making were also mentioned across studies. For example, a lack of agreed policies led to tensions during decision-making processes, such as admission criteria, which staff believed undermined collaboration (Mason et al., 2002; McRae, 2013). Attendance at meetings where clinical decisions were discussed was impacted by meeting scheduling (Livingston et al., 2013) and room location and/or size (Haines et al., 2018). Finally, staff in the study by Livingston et al., (2013) noted patient documentation, known in this setting as “the integrated treatment plan”, could be adapted to encourage the inclusion of multiple disciplinary perspectives in decision-making around treatment planning.

Theme 4: Medical Power & Tokenistic Collaboration

Studies depicted a competitive environment with struggles for executive control or power (Shaw et al., 2007). Hierarchies within teams tended to portray psychiatry as the dominant power; described as outranking other domains of potential power (e.g., age, seniority, expertise, familiarity with patient) (Haines et al., 2018; Shaw et al., 2007). Some psychiatrists acknowledged this power imbalance; describing the

concept as MDT working as “skewed” given their legal responsibilities (Haines et al., 2018).

Friction between the (legal) authority of psychiatry versus the authority of nursing front-line working was noted as an area of tension (McRae, 2013). Other team members tended to view nursing opinion as the most heavily weighted after psychiatry (Haines et al., 2018). Psychiatry described nursing as the ‘next level’ deciding factor in cases of team disagreement given their front-line roles (McRae, 2013). Despite this, nursing staff tended to report feeling that they were not valued or listened to (Mason et al., 2002; McRae, 2013, Haines, 2018). Feelings of being dismissed by psychiatry were noted by both OT and psychology professionals (Shaw et al., 2007). Collaboration between OT and nursing was viewed more positively in staff narratives throughout Shaw et al., (2007).

Medical power was seen by other professionals as a barrier to effective collaboration (McRae, 2013). Collaboration was commonly described as “tokenistic” given psychiatry’s decision-making power (Livingston et al., 2013), with some staff describing the sharing of ideas in meetings as “lip service” (Haines et al., 2018). However, personality of RC’s (psychiatrists) was described as influential in the amount other disciplines contributed to team discussions (Haines et al., 2018).

DISCUSSION

Main Findings

This narrative review examined literature on staff experiences of MDT working and decision-making in forensic inpatient environments. Consistent with patterns observed in other healthcare areas (Glasby & Lester, 2004), studies tended to be descriptive. Despite the known difficulties in MDT decision-making, no study explicitly examined these issues. Additionally, given MDT meetings last approximately several hours per week, multidisciplinary activities occurring out with formal meetings are not well-studied or characterised by the available literature.

No study directly asked participants what they perceived the functions of MDT meetings to be. Instead, most highlighted barriers to effective teamwork as outlined by staff narratives. These included communication issues, limited professional integration, limited role clarity, and role tensions. Key factors that staff claimed facilitated teamworking were role clarity, a shared goal and purpose, and effective communication. These factors are outlined in theoretical frameworks (Øvretveit, 1996; West, 2012). However, few explicit examples of effective teamworking across studies were given.

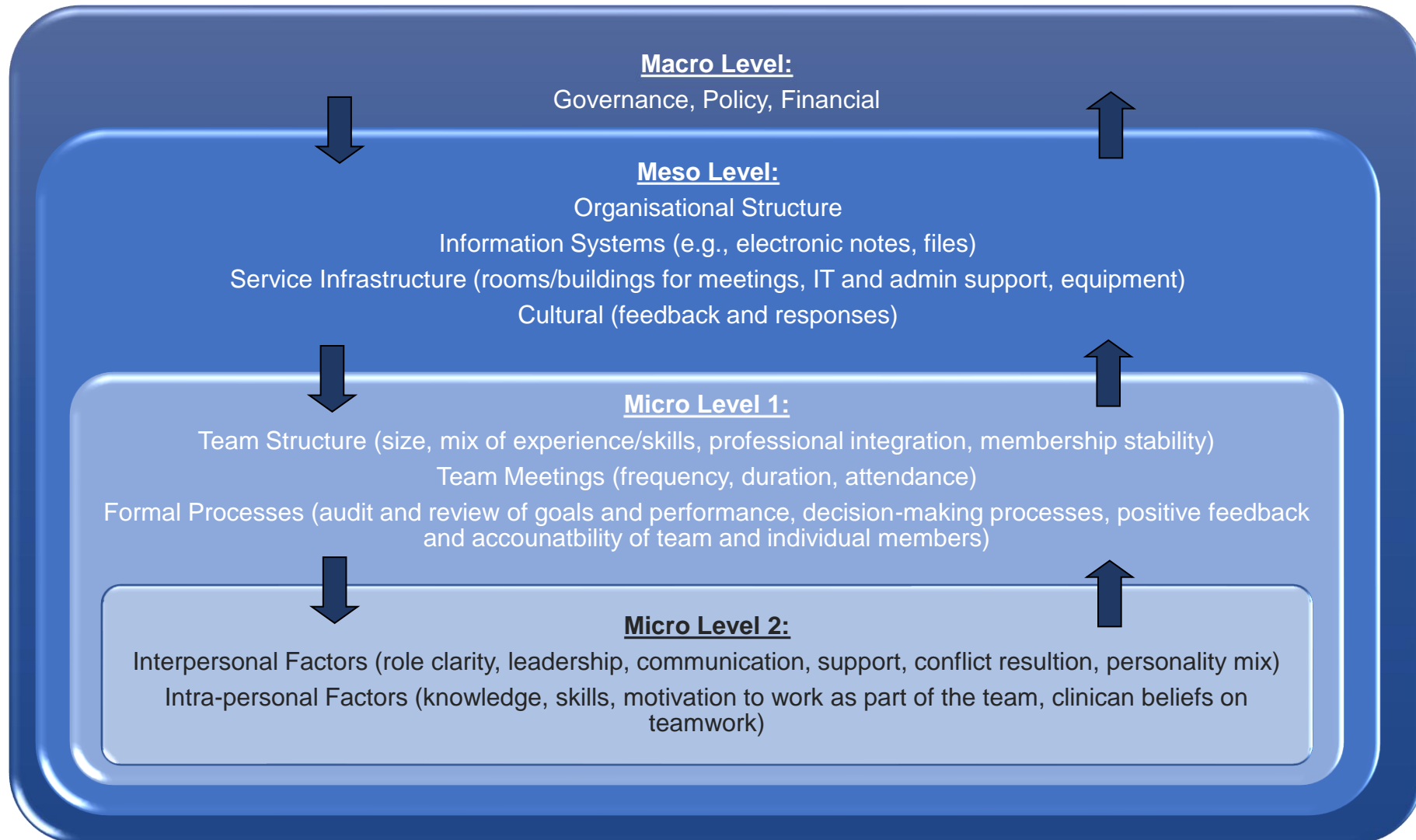
Wider Context

The barriers and facilitators referenced throughout included studies reflected those identified in theoretical frameworks and other healthcare fields. Some studies alluded to the importance of interactional systemic factors, such as micro-factors (e.g., team structure; meeting frequency and duration) and meso-factors (e.g., service infrastructure; room availability). However, wider systemic interactions were not explicitly studied. Given the adaptive nature of teamworking, it is important to consider how contextual factors influence team performance and decision-making (e.g., admission, diagnosis, treatment planning). This is particularly relevant when considering the impact of changes in teams over time.

It is not possible to understand the effectiveness of a team without considering the interactive and dynamic features of teamworking within social and organisational systems at different levels. For example, understanding intrapersonal influences on

teamworking, such as clinician beliefs around power, is not meaningful without considering additional micro-level factors (team composition), meso-factors (organisational structure and culture) and macro-level structures (medical-legal frameworks) in existence that uphold authority positions. Considering factors identified in the current narrative synthesis, alongside the wider literature, the following diagrammatic representation of micro- to macro-level influences on teamworking is proposed (see Figure 4).

Figure 4: Micro-Macro Interactive Teamworking Framework



This framework may provide a means of exploring these interactions and levels of potential influence and changes (e.g., changing information systems versus changing clinician beliefs and motivation about teamworking) over time.

Review Strengths

This is the first review to synthesise research on staff experiences of multidisciplinary teamworking in forensic inpatient settings. The broad focus enabled staff perspectives of barriers to effective teamwork to be explored and understood in the context of wider theoretical frameworks. Rigorous quality appraisal and data extraction methods minimised risk of bias. An inclusive and transparent search strategy in line with PRISMA (2020) guidelines allowed for a thorough evaluation of the robustness of the literature in this area.

Review Limitations

Given the limited range of settings, small number of studies and different methodologies, the generalisability of study findings may be limited. Five studies were small-scale projects, focused on one to three teams within one unit. Only two studies included participants from low and high secure settings; making it difficult to ascertain an effect of security level on teamworking. It was also noted that one study focused solely on a ward for men diagnosed with personality disorders, and another specifically on an MSU for LD. The role of specific populations on capacity for effective teamwork was not explicitly explored within this review. The quality of the literature was variable. Most studies did not report the impact of researcher relationship on the data or data interpretation. Sampling method was not clear or linked to the analytical approach, raising questions on the generalisability of findings across participant groups and settings. Additionally, studies that referenced good or effective teamworking were largely descriptive and did not give concrete or practical examples of effective teamworking or decision making.

Several limitations of the current review itself are noted. Firstly, due to limited resource capacity for translating, studies were excluded if they were not published in English. Secondly, the researcher's pre-existing knowledge may have impacted theme development. However, the use of a data extraction tool and a predetermined review

question minimised this risk. Finally, representation of Haines et al., (2018) paper may be considered disproportionate, although this is considered appropriate given the study's methodological strengths and breadth of results.

Future Research

The current review highlighted a paucity of research on staff experiences of MDT working in forensic inpatient environments. Different levels of analysis are needed for future research. Firstly, at a systems level, research into MDTs structure, operational processes of meetings, team decision-making policies and processes, and the extent to which this varies between teams/services is needed in FMH. Secondly, at a team level it would be useful for research to directly examine and compare teams considered to be effective/high-functioning and ineffective/poor-functioning.

Thirdly, at a professional level, staff views on the purpose of MDT working, the purpose and functions of MDT meetings, as well as team task proficiency would allow for a better understanding of goal development and goal conflict within teams in FMH. A more in-depth exploration of staff perceptions of both their own and other team members' roles within the MDT would provide meaningful insight into the significance of role clarity and scope for interventions to improve this. Further exploration of leadership styles of RC's and impact on team dynamics would be useful. Finally, considerations of specific populations of patient groups (e.g., LD, PD, female) would allow for consideration of the above factors in the context of specific care needs and wider systems.

Implications for Practice

Facilitators of effective MDT working identified within this review included role clarity, a shared goal and purpose, and effective communication. These may be strengthened via reflective practice amongst teams, as well as encouraging a reflective, non-defensive communication style amongst team members. This may be modelled from a top-down approach within systems via managerial and leadership styles and policies and procedures. Further research, in line with the above recommendations, would allow for specific guidance on practice.

Conclusions

Effective teamworking in forensic settings is under-researched and outcomes predominantly focus on problems and barriers. More information is required to understand how to improve team-coordinated care in these settings. The quality of the available literature is varied. Clearly defined roles at a systems level could minimise communication difficulties, as well as power struggles. Further research at different systems levels is needed to fully operationalise effective teamworking in FMH inpatient settings.

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Chapter 2 Major Research Project

**“I can tell you like John”: Exploring staff attitudes and the impact of language
in Scottish forensic mental health services.**

Sophie Jolly*

***Correspondence Address:**

Mental Health and Wellbeing University of Glasgow

Gartnavel Royal Hospital

1055 Great Western Road

Glasgow

G12 0XH

Email:

Conflict of Interest: None

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Word Count: 9006 (including references)

PLAIN LANGUAGE SUMMARY

Title: “I can tell you like John”: Exploring staff attitudes and the impact of language in Scottish forensic mental health services.

Background: Working in forensic mental health hospitals can be challenging. When staff are under pressure this can impact their well-being (sometimes called burnout). This can influence how they take in information about patients and how they interact with patients. Improved understanding about common staff attitudes and burnout in these environments is needed. It is also important to understand more about staff opinions on their work, the patients they work with and the environment of forensic hospitals. This will allow for a better understanding of what impacts the quality of care delivered in these settings and how we might improve this.

Research with other patient groups has found that the way information is written can impact staff opinions when they read about patients. There is no research on this in forensic services.

Aims: This study explored staff opinions on their work and their patients, as well as how burnt-out they felt. It also looked at whether written language in patient documentation can impact staff attitudes and decision-making about a hypothetical person using the service (named “John”).

Methods: Staff working in forensic inpatient settings in Scotland were asked to complete a survey on their experiences and attitudes. The start of the survey asked for background information about their age, gender, job type, the service they worked in. Part of the survey included a questionnaire from previous research on therapeutic attitudes. Staff were also asked to rate how burnt-out they felt on a scale of 1 to 5.

Staff then read a hypothetical case study and rated how strongly they agree or disagree (on a scale of 1 to 5) with different opinions and treatment options for the case. One group read a case study that described the patient using compassionate language. The other group read a case study using ‘standard’ language.

Main Findings: The results showed staff were generally positive about their work with forensic patients, although some staff had lower levels of work satisfaction and motivation. Levels of burnout were relatively high across the sample and

organisations should take action to address this. This was help improve staff ability to provide patients with high quality care. Despite levels of burnout, staff did describe some positive coping strategies. Staff who read the case vignette using compassionate language were more cautious about sharing details of a trauma disclosure than those exposed to the standard language condition. There were no other differences between groups. The use of compassionate language appeared to result in a more measured response from staff. Future research should consider the role of language in real-world interactions and team decision-making.

Word Count: 429 words

ABSTRACT

Background: Forensic mental health (FMH) settings are complex work environments. Compassionate care provision can be impeded by various factors (e.g., staff attitudes and burnout; the way patient experiences are contextualised). Language has been found to influence hypothetical decision-making in other settings. The impact of written language in clinical communications (e.g., case notes, reports) is not well-understood and the implications of compassionate language have not been explored.

Methods: A mixed-methods design collected survey data on therapeutic attitudes and burnout from (N=130) NHS professionals working across low, medium, and high security in Scotland. A sub-sample (N=28) answered additional open-ended questions on their work experiences. All participants were then presented with one of two case vignettes (“compassionate” or “standard” language) and asked questions on care planning, teamworking, and relatability/empathy.

Results: Content analysis revealed themes around clinical complexity, barriers to compassionate care, systemic stressors, and staff resilience. Quantitative data indicated the majority of the sample experienced occasional burnout and staff held moderately-high positive attitudes towards their work. Between-group analyses found staff exposed to the compassionate language vignette were more cautious about sharing details of a trauma disclosure than the standard language group. There were no other differences between groups.

Conclusion: The use of compassionate language resulted in a more measured response related to managing a trauma disclosure. Future research should consider the role of language in real-world interactions and team decision-making. Systemic interventions are required to improve staff resilience and reduce risk of burnout to improve high-quality patient care.

INTRODUCTION

Forensic mental health (FMH) inpatient settings are complex, high-cost/low-volume services with a dual focus: 1. Care and treatment; and 2. Public-safety and risk-reduction (Völlm et al., 2016). This raises multiple clinical, legal, and ethical issues. The quality of care and treatment in such settings may be affected by systemic, team, practitioner and patient factors. In particular, the way in which patient experiences are framed and communicated can impact the levels of stress and burnout experienced by staff and the quality of patient engagement (Seppänen et al., 2018). Improved understanding of these patterns could lead to targeted interventions and better care quality.

Power Imbalances and Care Quality

On a macro-level, the interface with the wider legal system, particularly the use of legal detention, results in inherent power imbalances in FMH settings (Wittouck & Vander-Beken, 2019). Stigma is often mediated by power imbalances (Link & Phelan 2001) and can increase structural discrimination in healthcare settings (Thornicroft, 2008). Legal proceedings also rely on terminology, diagnostic labels, and standardised language. Such terms or labels become normalised in everyday practice for FMH clinicians and policy makers. This can reinforce power imbalances and often conflicts with efforts to destigmatise and empower FMH patients towards recovery (Willis, 2018).

National policy and structural difficulties, such as limited availability of beds in less secure environments, also influence care and treatment (Livingston et al., 2012). Research exploring staff perspectives found that most viewed FMH systems as inflexible and imposing contradictory demands resulting in contradictory care provision (Völlm et al., 2016). Examples of contradictory demands and value systems include balancing public and patient protection; promoting recovery and 'normality' alongside incarceration and restriction; and, providing therapy whilst endorsing emotional suppression (Markham, 2021; Völlm et al., 2016). Ethical issues relating to the provision of treatment were also raised, with staff describing pressure to provide treatment regardless of effectiveness or potential harm (Völlm et al., 2016).

Therapeutic Milieu and Risk Management

The importance of ward climate in treatment efficacy is not a new concept (World Health Organization, 1953) and is pivotal in understanding the impact of FMH systems on a meso-level (Moos, 1989). A growing literature in FMH settings has demonstrated that positive ward climate (therapeutic milieu) can produce more positive therapeutic outcomes (de Vries et al., 2018). Examples include greater staff and patient satisfaction (Bressington et al., 2011) and increased motivation for, and responsiveness to, therapy (Beazley & Gudjonsson, 2011).

However, the litigious, risk-oriented milieu in FMH settings creates fundamental challenges to providing an inclusive, collaborative, and egalitarian service (Livingston et al., 2012). The use of legal detention complicates attempts to facilitate meaningful engagement and long-term patients can become passive recipients in their care (Livingston et al., 2012). Enforcing physical and procedural measures, such as searching patients and ensuring a locked environment, undoubtedly impacts therapeutic relationships and ultimately the milieu (Oates et al., 2020). For some patients, the experience of being detained and the secure environment itself can be traumatic; on top of histories of interpersonal trauma and trauma related to their own offending (Markham, 2021).

In the context of legal responsibilities, professional motivation to protect oneself from blame can drive decision-making; at times resulting in disproportionately risk-averse practice (Markham, 2021). As safety is considered the first priority, it tends to trump everything else in matters of clinical debate or discussion; anxieties are felt by both staff and patients (Shelton, 2009; Marshall et al., 2019). Perceptions of safety have been found to be impacted by a range of factors such as experience, training, teamwork and staffing profile, including gender ratios (Kumpula et al., 2021).

Staff Burnout and Compassion Fatigue

Compassion fatigue (CF) and burnout may be considered by-products of delivering care in FMH systems. The use of coercive measures and exposure to traumatic information can increase risks of burnout and CF (Gustafsson, & Salzmann-Erikson, 2016). Whilst the risks for FMH professionals are not well-documented, recent

research by Rodrigues et al., (2020) found forensic staff were more exposed to potentially traumatic events, such as patient aggression, (74%) compared to non-forensic inpatient staff (66%). They were also twice as likely to meet the criteria for PTSD (Rodrigues et al., 2020). FMH research has also highlighted links between burnout risk and staff age (Berry & Robertson, 2019); ward atmosphere (Berry & Robertson, 2019); and intensity and frequency of physical aggression (de Looff et al., 2018). However, the research is heterogeneous, site-specific, and of limited generalisability (Oates et al., 2020).

Literature with non-FMH populations has demonstrated links with reduced quality of service provision, higher job turnover and sickness, self-report of low morale and physical exhaustion (Maslach et al., 2001; Maslach & Leiter, 2016). This is important for retention and workforce sustainability, particularly for front-line nursing staff (Oates et al., 2020). Some authors have suggested that the negative effects of stress at work may be counteracted by high levels of resilience and incentives (Howard, 2008). However, literature on protective factors is limited. Staff burnout has significant implications for FMH professionals, their clients and larger institutions.

Defining Complexity

Forensic inpatients are often described as “especially complex” owing to various presentations, with multiple clinical and risk-related needs (Logan, 2017). However, defining clinical complexity has been problematic in the wider literature (Schaink et al., 2012). Rankin and Regan (2004) argued that complexity implies both breadth (interrelated multiple needs) and depth (severity or intensity of needs), as well as adaptations to standard care. However, clinical complexity cannot be easily distinguished from wider structural factors and context.

Murray and El-Leithy’s (2022) recent book on complexity in post-traumatic stress disorder highlighted difficulties operationalising the concept of complexity. They argued that this term is often used as a substitute for describing clinical features such as severity, chronicity, and risk (Murray & El-Leithy, 2022). Barton et al., (2017) also suggested the term “complex” can be used post-therapy to explain lack of treatment efficacy.

In FMH, the term “clinical complexity” can be used as a means of displacing responsibility of wider meso- and macro-level systemic factors onto micro-level (patients, staff) (Völlm et al., 2016). Hence, “complexity” can become a justification for the provision of less compassionate and/or less effective care.

Bias and Heuristics

Cognitive bias has been researched for decades (Kahneman et al., 1982); although the impact on behaviour continues to be an area of debate. Attributional theories have highlighted the interplay between emotion, motivation and behaviour (Weiner, 1985). Research in physical healthcare settings depicts a complex picture, with some medical decisions impacted and others not (Chapman et al., 2013). It may be postulated that mediating and moderating factors account for variability in findings (Zestcott et al., 2016).

Theories of cognitive neuroscience, cognitive psychology, and social cognition argue there are two types of cognitive processing, known as the dual-processing framework (Neal et al., 2018). System 1 processing occurs automatically and implicitly, whilst System 2 processing is reflective, effortful and explicit (Neal & Grisso, 2014). Evans (2011) has argued that dual-processes of cognition are not mutually exclusive; suggesting a more interactive approach. Nonetheless, the role of implicit processing is an important consideration for patient care as heuristics (mental short-cuts) are systematically susceptible to error (Kahneman & Klein, 2009). This is particularly relevant in FMH settings where staff are subject to a number of stressors, including concerns around safety and risk. Under these conditions of stress, less reflective and automatic processing may dominate, to the detriment of well-attuned patient care.

The Impact of Language

As discussed above, the use of potentially pejorative labels and emotionally loaded terms are normalised in FMH services. Language can influence cognitive bias, heuristics, attitudes, and patient care (Zestcott et al., 2016). Prominent heuristics include representativeness (Kahneman & Tversky, 1972), availability (Tversky & Kahneman, 1973), anchoring (Tversky & Kahneman, 1974), and affect (Slovic et al., 2007). Factors that may influence cognitive bias in FMH systems include

cognitive/mental load, perceived threat, exposure to traumatic material (from patients and documented offending history), and everyday language that perpetuates bias. This includes language in formal and informal team interactions and patient documentation.

Research into word valence in medical contexts has demonstrated how stigmatising language in patient documentation can increase negative attitudes towards patients and impact prescribing behaviours (Goddu et al., 2018). Similarly, fragmentary language has been associated with misinterpreting patient experiences or events, increasing the likelihood of patient safety and care being compromised (Jefferies et al., 2011). Patient care records are a key communication tool between MDT members and various healthcare providers (Martin & Stanford, 2020); a vital aspect of patient care in FMH. Patients may also request access to their case notes.

Language and Bias in FMH

Language and bias have an increased impact in FMH settings with higher prevalence of incidence of aggression and vicarious trauma exposure (Martin et al., 2020). Research investigating the documentation of aggressive incidents using discourse analysis found that FMH nursing staff tended to over-emphasise personal factors in patient behaviours whilst underplaying wider situational factors, in a way in which the authors concluded may be stereotyping (Berring et al., 2015). This reinforces the hypotheses that classing patients as complex may contribute to the displacement of responsibility of wider meso- and macro-level systemic factors onto patients in an attempt to increase perception of control (Völlm et al., 2016).

In 2010, Lammie et al., conducted research into forensic nursing and healthcare assistant staff attitudes in FMH settings in Scotland with a particular focus on stigma. The study used two questionnaires: one qualitative on examples of anti-discriminatory and discriminatory attitudes and practice; and one quantitative questionnaire - Corrigan's Attribution Questionnaire 27 (AQ-27; Corrigan et al., 2003). The AQ-27 presents a case vignette about a fictitious patient with schizophrenia with a broad range of stigmatizing themes ('Harry'; 'hears voices'; recent history of violent behaviour). The AQ-27 indexes staff attitudes across nine stigma constructs (responsibility, anger, fear, help, pity, danger, coercion, segregation, avoidance).

Lammie et al., (2010) found that staff generally had more positive responses than negative, except on beliefs about recovery, and male staff reported higher scores on the blame construct and younger practitioners had higher fear scores. This exploratory study provides useful insights into the use of stigmatising language in staff responses to a fictitious case vignette. However, it did not consider the implications or differences in responses when compassion focused language is utilised.

Current Study Aims

The current study aimed to explore staff's perception of complexity, perceived barriers to compassionate care, burnout, and therapeutic attitudes. It also aimed to explore whether using compassionate language in comparison to standard terminology (which may be considered more stigmatising) had an impact on staff's attitudes and hypothetical decision-making about common clinical situations.

Research Questions

- 1.) How do staff define the characteristics of complex cases and how these patients' needs are met?
- 2.) How do staff perceive barriers to compassionate care and their level of agency in changing FMH systems?
- 3.) What common therapeutic attitudes are held by staff in FMH settings?
- 4.) Does language in patient documentation impact staff's understanding and interpretation of needs, decisions around care-planning and MDT working?

METHOD

Ethical Approval

Ethical approval was granted by the University of Glasgow's MVLS ethics committee on 05/08/21 (REF: 200200161; Appendix 2.1.1, p.122). Followed by managerial approval at both NHS GG&C (REF: GN21MH359; Appendix 2.1.2, p.123) and NHS The State Hospital Research and Development departments (Appendix 2.1.3, p.124). Informed consent was provided by all participants. All recorded information was held and stored in accordance with the General Data Protection Regulation (GDPR).

Design

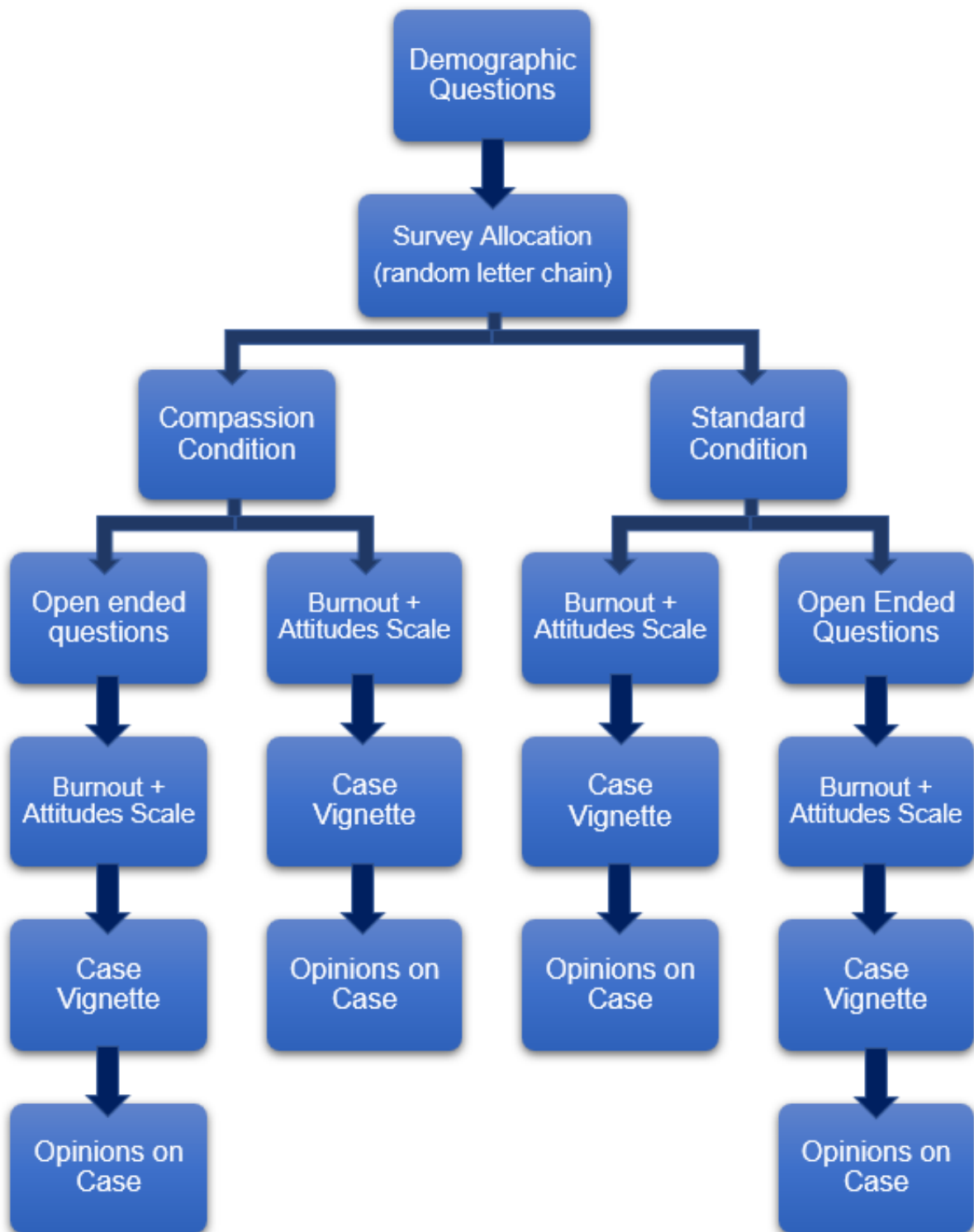
The study used a mixed-method design with three distinct parts. Part 1 included three exploratory, open-ended questions (RQ's 1 + 2). Part 2 explored therapeutic attitudes using an adapted measure (RQ3) and a single-item measure of burnout used in previous research (Rohland et al., 2004). Part 3 used two clinical case vignettes varied by style of language to test clinician responses to compassionate versus non-compassionate case descriptions (RQ4).

Recruitment and Procedure

Participants were approached by email which included a link to the electronic survey. Demographic data on age, gender, job title/discipline, years of experience, service were collected. To randomise vignette exposure, participants were asked to choose one of four random letter chains (e.g., SZDXFC) which allocated participants to one of four survey strains (see Figure 1 below). Two strains comprised the compassionate language group (e.g., compassionate vignette with open-ended questions; compassionate vignette without open-ended questions) and two strains made up the

standard language group (e.g., standard vignette with open-ended questions; standard vignette without open-ended questions). Following ethical approval of minor amendments, 25 paper-based surveys were distributed at low secure sites to increase participation, of which nine were completed.

Figure 1: Survey Map



Data Collection and Measures

Qualitative Data

A randomly selected sub-sample of participants answered three additional open-ended questions around case complexity, barriers to compassionate care and how their work impacted their life.

Burnout

Staff were asked to rate their level of self-reported burnout using a single-item measure that is a time efficient alternative to administering the Maslach Burnout Inventory (MBI; Maslach et al., 1986). A validation study with physicians indicates this single-item has good concordance with the emotional exhaustion domain of MBI ($r=0.64$, $p>0.001$; Rohland et al., 2004).

Therapeutic Attitudes

The Alcohol and Alcohol Problems Perception Questionnaire (AAPPQ; Cartwright, 1980) measures therapeutic and counter-therapeutic attitudes in staff working with individuals with difficulties with alcohol. It has been adapted for research with staff working with psychosis (McLeod et al., 2002).

The Drug and Drug Problems Perception Questionnaire (DDPPQ; Watson, Maclaren and Kerr, 2007) is a shortened and adapted version that has been validated with medical staff, clinical psychologists, occupational therapists and nurses across generic mental health, forensic psychiatry and alcohol and drug services (Watson, Maclaren & Kerr, 2007).

For this study, the DDPPQ was adapted for staff working with FMH inpatients. It consisted of 17 items across 5 subscales related to Adequacy, Legitimacy, Motivation,

Work Satisfaction and a single-item related to Empathy (see Appendix 2.2, p.127). A reliability analysis performed using Cronbach's alpha indicated acceptable internal reliability and consistency: Adequacy, $\alpha=0.92$; Legitimacy, $\alpha=0.75$; Motivation, $\alpha=0.73$ and Work satisfaction, $\alpha=0.91$.

Case Vignette

Written case vignettes were used as an analogue of the central role that clinical records play as a communication tool for MDT and multi-agency working in FMH. Written reports also carry significant implications for patients with annual Tribunals and/or Scottish Government reviews.

Adapted case vignettes were developed using the AQ-27 guidance in Lammie et al., (2010) and research by Goddu et al., (2018). Both vignettes were: 3 paragraphs in length; described the same individual; described the same scenario (a trauma disclosure). As The State Hospital no longer operates a women's service, the case was based on a male patient.

Participants were randomly allocated to one of two groups based on the selection of a random letter chain in the survey. Group 1 were presented with a case vignette using compassionate language; Group 2's case used standard language. Participants were then asked to rate their level of agreement/disagreement with 11 statements using a 5-point Likert scale (Strongly Agree to Strongly Disagree). The statements related to opinions on empathy/relatability; perceived obstacles to care and treatment; MDT working; response to trauma disclosure (e.g., "I think John's case is complex", "The details of John's disclosure should be shared with staff in his team"; Appendix 2.2, p.128).

Analysis

Qualitative Data

Written responses were collated into qualitative software (NVivo 11). Thematic content analysis (Morse & Field, 1996) was conducted using three main phases (preparation, organising, and reporting). Using an inductive approach, line-by-line analysis of transcripts was performed to produce discrete codes. Each code was given an operational definition. These were then collapsed based on conceptual similarities to provide a set of preliminary broader meta-codes. The categories were then clustered and refined into overarching themes. Each theme represented the sentiments of several participants. Potential for bias was accounted for by monitoring and challenging assumptions using a reflective diary (Appendix 2.2, p.130) and use of supervision for reflective discussions on the analysis process.

Quantitative Data

Descriptive and exploratory statistical analyses were completed using SPSS Version 27 (IBM Statistics, 2020). Descriptive data was checked for assumptions to guide appropriate analyses of differences and relationships in the data. Descriptive statistics were used to show sample demographics, as well as reported burnout and therapeutic attitudes. Non-parametric omnibus tests explored comparison of burnout and therapeutic attitudes across settings and job roles. A single between-groups analysis explored the main effect across language conditions. Post-hoc testing determined the direction of significant effects.

RESULTS

Overall Sample Demographics

A total of 130 participants completed the survey. A *priori* power analysis between-group design for the main effect of language was carried out using G*Power 3.1.9.2 (Faul et al., 2007). Adopting a standard alpha level=.05 (two-tailed) and Cohen's $d = 0.5$ (medium) it estimated a sample size of $n=128$ would produce power $(1-\beta) = 0.8$. Based on available information it is estimated there are approximately 1,100 staff employed across the three study sites; around 60% of which are clinical staff (Scottish Government, 2021). Therefore, 130 participants out of a possible 660 eligible participants gives a response rate of 19.7%.

Table 1: Sample Demographics

Characteristics	Responses N=130 n (%)
Age	
19-29	28 (21.5)
30-39	33 (25.4)
40-49	42 (32.3)
50+	27 (20.8)
Gender	
Female	93 (71.5)
Male	31 (23.8)
Prefer not to Answer / Not listed	6 (4.6)
Level of Security	
Low	50 (38.5)
Medium	40 (30.8)
High	40 (30.8)

Job Type:	
Healthcare Assistant	26 (20)
Nurse	55 (42.3)
OT	11 (8.5)
Clinical Psychologist	12 (9.2)
Psychiatrist	5 (3.8)
Psychiatry Trainee	3 (2.3)
Assistant / Trainee Psychologist	7 (5.4)
Other	11 (8.5)
Years of Experience	
Less than 1 year	5 (3.8)
1-3years	18 (13.8)
3-5years	22 (16.9)
5-10years	18 (13.8)
10-20years	40 (30.8)
20+years	27 (20.8)

Participants were clinical staff across three forensic inpatient sites (The State Hospital (high); Rowanbank Clinic (medium); Leverndale (low)). The majority of the sample were female (71.5%); 23.8% were male and 4.6% responded with either 'prefer not to answer' or 'not listed'. These responses were amalgamated to reduce the potential identification of participants.

The majority of the sample were ward-based clinicians (Nursing=42.3%, Healthcare Assistants=20%). Clinical Psychology made up 9.2% of the sample; an additional 5.4% were Assistant or Trainee Psychologists. Occupational Therapy comprised 8.5% of the sample and Psychiatry (including Psychiatry Trainees) made up 6.1% of the sample. The remaining 8.5% was made up of 'Other' which included SLT and integrated social workers. The years of experience in forensic mental health varied although the majority had 5+ years of experience (65.4%).

Part 1: Content Thematic Analysis

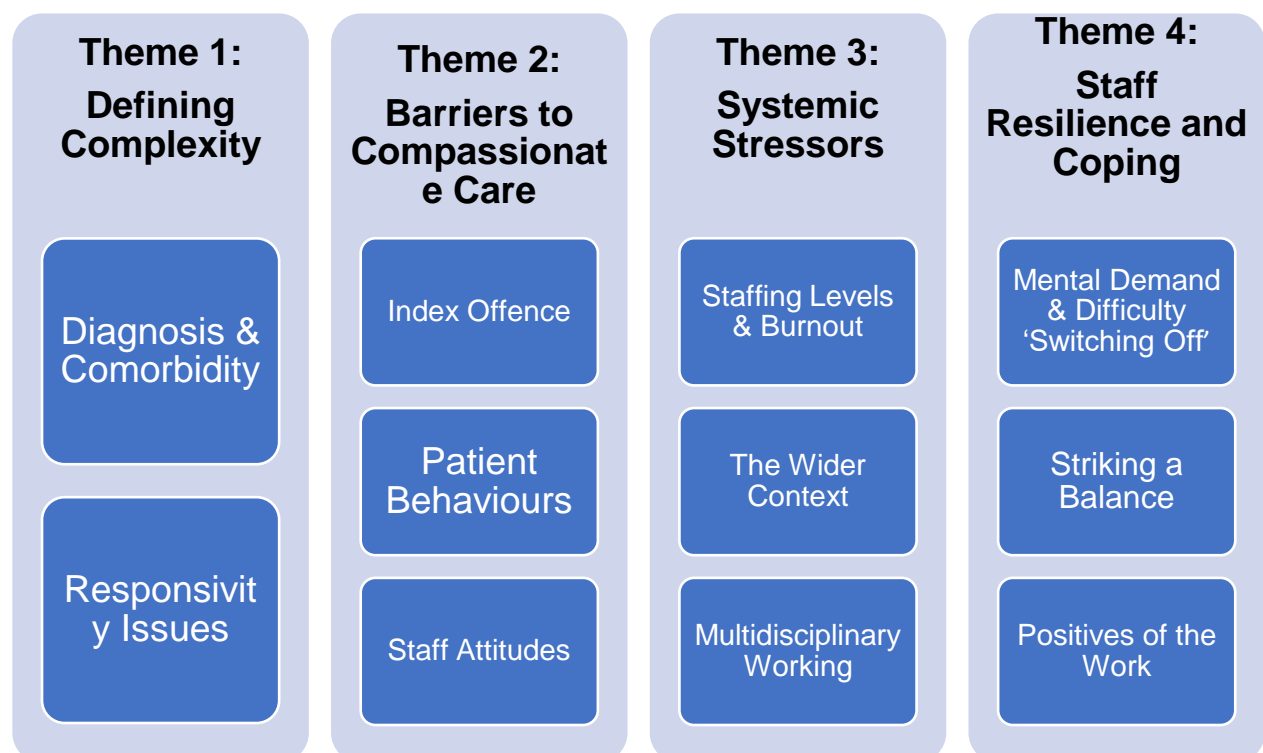
A sub-sample of 28 participants also answered three open-ended questions which were analysed using content thematic analysis. An overview of this sample's demographics is provided in Table 2 below. Of note the responses were largely from female participants.

Table 2: Qualitative Sample Demographics

Characteristics	Responses N=28 n (%)
Age	
19-29	8 (28.5)
30-39	7 (25)
40-49	6 (21.4)
50+	7 (25)
Gender	
Female	22 (78.6)
Male	5 (17.9)
Prefer not to Answer / Not listed	1 (3.5)
Level of Security	
Low	13 (46.4)
Medium	9 (32.2)
High	6 (21.4)
Job Type:	
Healthcare Assistant	4 (14.2)
Nurse	12 (42.8)
OT	1 (3.5)
Clinical Psychologist	5 (17.9)
Psychiatrist	1 (3.5)
Psychiatry Trainee	0 (0)
Assistant / Trainee Psychologist	3 (10.7)
Other	2 (7.1)
Years of Experience	
Less than 1 year	0 (0)
1-3years	4 (14.2)
3-5years	5 (17.9)
5-10years	6 (21.4)
10-20years	9 (32.2)
20+years	4 (14.2)

From the transcripts four superordinate and eleven subordinate themes emerged from the data as summarised in Figure 2. Themes are presented with narrative summaries and supplementary tabular data (Table 3), including examples and reference to frequency and percentages (see Appendix 2.3, p.131). Extracts have the participant number in parentheses (e.g., p1=participant 1).

Figure 2: Themes and Subordinate Themes



1. Defining Complexity

1.1. Diagnosis and Comorbidity

The most common reasons given to explain complexity related to patient co-morbidity or having multiple diagnoses (89%), including the presence of personality disorder or “personality structure” (p6) (75%) and a history of alcohol or substance misuse (21%).

“Neurodevelopmental disorder” (p20), cognitive difficulties or learning disability were considered by a smaller proportion of staff (14%). Less commonly noted was diagnostic uncertainty.

Of note, the terms “schizophrenia”, “psychosis” or “psychotic illness” were less readily used by staff (25%). However, reference to treatment resistant illness was common (as noted below) and the presence of psychotic symptoms tended to be implied where references to ‘dual’ or ‘multiple’ diagnoses were made. Staff also highlighted intensity of mental health as crucial in considering case complexity:

“The intensity of their mental health problems and current distress. Also, any additional cognitive difficulties, personality traits or trauma experiences. Finally, their risk profile, in terms of risk to self and others” (p11)

“Significant trauma histories including abuse...” (p17), “ACEs” (p12) and “attachment difficulties” (p20) were referred to throughout staff responses (25%). Some staff also referenced patients’ background, history or ongoing “relational and interpersonal difficulties” (p7).

Physical health issues were only referenced once despite the high level of difficulties faced by this patient group. Similarly, a lack of personal support network was highlighted on one occasion.

1.2 Responsivity Issues

Staff defined patient complexity within a framework of adapting standard care or treatment owing to limitations in responsivity. Some staff referenced a history or presence of “treatment resistant illness” (p1; 39%) which appeared to relate more to a

medical model of intervention. Other staff explored the role of insight as a mediating factor for engagement and subsequent responsivity:

“Intensity and duration of mental health symptoms, fixed delusions, paranoia etc... that make it difficult for them to accept and or understand their mental illness” (p21)

The reduction of risk and “diversity of offending behaviour” (p6) was also referenced in relation to responsivity. Again, insight into risk was referenced as a mediating factor. One staff member summarised the interplay between these factors:

“Complexity of presentation in terms of mental disorder, background history, types of risk presented and how the presentation affects responsivity to interventions” (p14).

2. Barriers to Compassionate Care

This theme communicated staff opinions on key factors that can impede the delivery of compassionate care and treatment in forensic inpatient environments (see Table 3). Patient behaviours were the most frequently cited barrier to compassionate care. Limited engagement was also noted. Some staff linked exposure to aggressive behaviours and boundary concerns with staff burnout. Staff attitudes were referenced by 42.8% of the sample as a barrier to delivering compassionate care. Some responses often indicated a link between attitudinal issues and burnout; describing staff as more ‘cynical’. However, this was not always the case and some suggested outdated attitudes or ways of interpreting patient behaviours remained pertinent. For example, one participant responded “non-movement of attitude/values/understanding of specific offending behaviours/MH dx or trauma following update of evidence base”

(p7) in relation to impeded compassionate care provision. Finally, the nature of index offences, patient remorse and staff emotive responses were noted as potential barriers to compassion.

3. Systemic Stressors

This theme highlighted stressors experienced by staff related their services and the wider system. Of note, 60% of the staff referenced limited or inconsistent staffing in relation to stressors (see Table 3 for examples). A lack of social support, especially from supervisors, limited supervision and a lack of appreciation were noted by several participants. Friction or conflict with teams was noted as a source of stress by 21% of staff.

4. Staff Resilience and Coping

This theme covered both strain and rewards related to working in forensic inpatient settings. Staff noted the level of mental demand associated with their role which can make it difficult to switch off after leaving work, particularly at times of increased stress and disturbance on the wards. Although staff also referenced the importance of balance and managing stress to prevent burnout. Interestingly, one staff member referenced the increased use of telecommunications in the context of adjustment post-pandemic as a barrier to 'shutting off' from work. A key feature of the data highlighted in this theme was reference to work satisfaction and sources of reward within the work (see Table 3).

Table 3: Themes and Frequencies

Major theme (subthemes)	Examples	n (%)*
<i>1. Defining Complexity</i>		
1.1 <i>Diagnosis & Comorbidity</i>	Behavioural issues, multiple diagnosis (personality disorder + schizophrenia). Physical health issues (p25) Significant trauma histories including abuse and adverse child rearing, substance abuse...(p17) ...personality and attachment difficulties...severe mental disorder with multiple co-morbidity and one or more neurodevelopmental disorder (p20)	28 (100%)
1.2 <i>Responsivity Issues</i>	Treatment resistant illness (p1) Lack of insight leading to difficulty cooperating or working with the clinical team (p24)	18 (64%)
<i>2. Barriers to Compassionate Care</i>		
2.1 <i>Index Offence</i>	Circumstance of offence...the nature of offence was their children or vulnerable people involved...A lack of remorse (p.2)	10 (35%)
2.2 <i>Patient Behaviours</i>	Behaviour they display...Violence and aggression (p15) Working with patients who demonstrate boundary-testing behaviours (p13)	24 (85%)
2.3 <i>Staff Attitudes</i>	Perceptions of patient behaviours (p11) The behaviours / attitudes of patients and staff (p27)	12 (42.8%)
<i>3. Systemic Stressors</i>		

3.1 <i>Staffing Levels & Burn Out</i>	Pressures on staff, inconsistency in staffing on wards (p15) Low staffing numbers affect opportunities to undertake 1:1 discussions, engage in meaningful activities etc, also leads to burnout and high sickness...(p24)	17 (60%)
3.2 <i>The Wider Context</i>	Existence of toxic culture (at times) (p6) Historical associations with a Penitentiary thinking style passed down to new staff (p22)	12 (48%)
3.3 <i>Multidisciplinary Working</i>	Frictions in the team (p28) MDT input, different views, opinions, legal responsibilities/restrictions (p27)	6 (21%)
4. Staff Resilience & Coping		
4.1 <i>Mental Demand & Difficulty 'Switching Off'</i>	If there is a particularly stressful day it can be difficult to "switch off", and return to personal life (p11) The use of various social media introduced during COVID for people working from home can be intrusive and prevents shutting off from work completely (p21)	10 (35%)
4.2 <i>Striking a Balance</i>	Have ways of ensuring that work does not interfere with life to prevent burnout (p17) Important to have good work/life balance eg knowing what works for you to manage stress (p22)	5 (17.8%)
4.3 <i>Positives of the Work</i>	However, it also provides me with confidence and self-esteem in recognising that I can make a difference to patient's lives. I also feel grateful that I have been privileged enough to do the work that I do, and I often feel appreciated by patients and staff teams (p11)	6 (21%)

*n=number of participants that referenced this subtheme

Part 2: Quantitative Analysis

Descriptive statistics for the following analyses can be found in Appendix 2.3, p.141-144.

Burnout

The majority of the sample reported occasional burnout (median score=2). Nursing was the only discipline with a median score of 3 (Definite Burnout). Healthcare assistants, nurses, qualified clinical psychologists and psychiatrists all reported responses across the spectrum of burnout (1=no burnout; 5=complete burnout).

Table 4: Burnout Across Sample

	N	%
No Burnout	7	5.4%
Occasional Burnout	68	52.3%
Definite Burnout	34	26.2%
Prolonged Burnout	9	6.9%
Complete Burnout	12	9.2%

A Kruskal-Wallis test found no significant differences in reported burnout across services, $H(2)=2.15$, $p=.341$, or across disciplines, $H(7)=8.96$, $p=.255$.

Therapeutic Attitudes

All participants completed the 17-item adapted DDPPQ measure to assess therapeutic attitudes across five scales (Adequacy; Legitimacy; Motivation; Work Satisfaction; Empathy: see Appendix 2.2, p.127 for scale description). Subscale scores were calculated for individual participants. Scores ranged from 1 (positive attitude) to 5 (negative attitude); lower score indicates a positive attitude.

Table 5: Therapeutic Attitudes Across Sample

Subscale	Median	Range (min-max)
Adequacy	1.4	2.17 (1-3.17)
Legitimacy	1.6	2.33 (1-3.33)
Motivation	1.5	3.5 (1-4.5)
Work Satisfaction	2	4 (1-5)
Empathy	2	2 (1-3)

The results show that overall staff responded with a moderately-high degree of empathy towards forensic inpatients. Staff reported high levels of adequacy attitudes; perceiving their knowledge and skills for working with forensic inpatients as strong. Scores on the legitimacy subscale were also high, indicating a general consensus amongst participants that they feel they have the right to work with forensic inpatients. Work satisfaction was also moderately-high although had a wider range of responses, with some staff reporting lower levels of work satisfaction. Therapeutic motivation also varied across responses, indicating positive attitudes on average but with some staff reporting lower motivation.

Variations Across Services

A Kruskal-Wallis test found no significant differences in therapeutic attitudes on the Adequacy, Legitimacy, Motivation and Empathy subscales between security levels. However, significant differences were found between security levels on the Work Satisfaction subscale, $H(2)=12.6$, $p=.002$, $d=0.63$ (*medium*). Pairwise comparisons using adjusted Bonferroni correction for multiple tests indicated that whilst the median subscale score was the same across all levels of security (2=agree), there was a narrower range of views in high security. Responses in high security ranged between Strongly Agree and Undecided, in comparison to the spectrum of responses (Strongly Agree to Strongly Disagree) in low and medium security.

Variations Across Job Type

No significant differences in therapeutic attitudes on the Motivation, Work Satisfaction and Empathy subscales were found between disciplines using a Kruskal-Wallis test. However, significant differences were found on the Adequacy ($H(2)=22.25$, $p=.002$, $d=0.89$ (large)) and Legitimacy ($H(7)=18.7$, $p=.009$, $d=0.8$ (large)) subscales. Pairwise comparisons using adjusted Bonferroni correction for multiple tests indicated Clinical Psychology scored significantly higher than Other on the Adequacy subscale ($p=.029$) and significantly higher than Healthcare Assistants on the Legitimacy subscale ($p=.017$). Therefore, Clinical Psychologists reported higher positive attitudes related to their knowledge and skills compared to the Other group, and higher on items measuring their right to work with FMH patients and ask questions about mental health and risk compared to Healthcare Assistants.

Case Vignette Groups

Seventy-one participants were allocated to the Compassionate Language condition (54.6%) and 59 were allocated to the Standard Language group (45.4%). Preliminary analysis indicated that both the Compassionate Language and Standard Language groups were equally matched in relation to age, gender, job type, years of experience, service (i.e. level of security) and self-reported burnout. The results of the Kolmogorov-Smirnov tests were **not significant** ($p>.05$) suggesting the data is normally distributed.

Opinions on Case²

Overall, most of the staff reported feeling a level of empathy for the case (86%) and agreed they would be happy to work as part of his MDT (93.8%). Seventy-eight percent believed the case was 'complex' and 82.3% believed the clinical team should be wary of potential splitting.

² Based on responses to Likert Statements in Table 6 on next page

Table 6: Case Responses

Statement	Strongly Agree N (%)	Agree N (%)	Undecided N (%)	Disagree N (%)	Strongly Disagree N (%)
The details of John's disclosure should be shared with staff in his team.	30(23.1)	70(53.8)	20(15.4)	8(6.2)	0
John's care team should be wary of team splitting.	41(31.5)	66(50.8)	12(9.2)	10(7.7)	1(0.8)
This disclosure is important.	75(57.7)	53(40.8)	2(1.5)	0	0
This disclosure should inform John's care and treatment.	50(38.5)	68(52.3)	10(7.7)	2(1.5)	0
I feel empathy for John.	41(31.5)	71(54.6)	16(12.3)	1(0.8)	1(0.8)
John's aggression will impact his care and treatment significantly.	18(13.8)	74(56.9)	12(9.2)	24(18.5)	2(1.5)
John's disclosure should not be shared with his team.	1(0.8)	17(13.1)	26(20)	57(43.8)	29(22.3)
I think John's case is complex.	27(20.8)	75(57.7)	16(12.3)	11(8.5)	1(0.8)
John's mental health will impact his care and treatment significantly.	24(18.5)	72(55.4)	12(9.2)	17(13.1)	5(3.8)
I would be happy to work as part of John's MDT.	51(39.2)	71(54.6)	7(5.4)	1(0.8)	0
John's trauma will impact his care and treatment significantly.	34(26.2)	73(56.2)	11(8.5)	11(8.5)	1(0.8)

Comparison of Group Decision

There were no significant differences between groups on responses related to empathy, work motivation or opinions on complexity. However, there was a significant difference between the compassionate language group and standard language group on hypothetical decision making related to sharing the details of the trauma disclosure.

A Mann-Whitney U Test revealed a significant difference in decisions on sharing trauma disclosure between the compassionate group (grouped median=2.29, range=4, n=71) and the standard language group (grouped median=1.69, range=4, n=59; $U = 1237.5$, $z = -4.4$, $p < .001$, $d=0.75$). These responses suggest that staff in the compassion language condition were more likely to respond 'undecided' than staff in the standard language group. This pattern was repeated when presented with the same hypothetical decision reverse scored: compassionate language group (grouped median=3.53, range=3, n=71) and the standard language group (grouped median=4, range=4, n=59; $U = 1449.5$, $z = -3.19$, $p = .001$, $d=0.54$). The magnitude of the differences in grouped medians was medium/large.

DISCUSSION

This study explored staff's perception of complexity (RQ1) and barriers to compassionate care (RQ2), staff burnout and therapeutic attitudes (RQ3), as well as investigating whether the use of compassionate language impacted staff's attitudes and hypothetical decision-making (RQ4). Results indicated that staff focused on patient characteristics when considering the term complexity, whilst wider systemic factors were considered more broadly in relation to barriers to compassionate care delivery (RQ's 1+2). Content analysis themes emphasised individual patient factors, team functioning and wider systemic issues than staff agency (RQ2). Therapeutic were generally positive (RQ3). Language was found to impact hypothetical/planned behaviour (RQ4).

Defining Complexity

The tendency for complexity to be used as a synonym for other factors (e.g., severity, chronicity and co-morbidities; Barron et al., 2017) was evident throughout staff responses. Specifically, in relation to treatment resistant psychosis and personality disorder. Patterns of classifying patients as complex as a means of displacing wider meso- and macro-level issues onto patients was implicit in subtheme 1.1, where limited engagement was contextualised as a patient-driven issue (Völlm et al., 2016). This raises issues around treatment efficacy and accountability of care providers. Interestingly, wider socioeconomic factors were rarely acknowledged. Whilst some staff referenced the role of trauma and ACEs in patient complexity, no staff cited specific structural disadvantages in relation to class, ethnicity or financial deprivation. Authors in other healthcare specialities have argued clinical complexity moves beyond comorbidity of medical conditions and must consider socio-economic, cultural, behavioural and environmental factors (Murray & El-Leithy, 2022). This is particularly important in the context of providing compassionate care in a fragmented system given the level of deprivation and stigma experienced by this patient group.

Attitudes & Burnout

The majority of the sample reported no or only occasional burnout (57%). However, higher rates were reported by 43%, with 16% reporting complete or prolonged burnout.

In the context of potential workforce sustainability and care implications, 43% is considered substantial. Despite high levels of burnout, staff reported generally positive therapeutic attitudes. This is consistent with previous research in FMH in Scotland (Lammie et al., 2010). It is noteworthy that the sample was self-selecting, meaning staff experiencing higher rates of burnout and/or staff who hold less favourable attitudes may have been less likely to participate.

The risks and protective factors associated with burnout in FMH professionals are not well-documented. This research found that staff commonly reported stress related to staffing levels, organisational culture and teamworking, as well as working with challenging patient behaviours. It also highlighted how staff referenced support from peers and management as fundamental in facilitating coping with the demands of their work. Given the level of burnout noted, workforce sustainability agendas focused on increasing incentives and policies to ensure the acknowledgement of good practice would foster increased work satisfaction, potentially buffer burnout risk, and enable increased compassionate care.

FMH staff are often subject to scrutiny from the public, politicians, other healthcare professionals and patients which can drive anxieties around blame and responsibility (Wittouck & Vander-Beken, 2019). Specifically, safety concerns can increase risk-averse practice and ultimately impact therapeutic milieu (Oats et al., 2020) and attempts to promote recovery (Markham, 2021). Concerns around safety were reported by staff in this study, in line with previous research (Völlm et al., 2016). Risk-averse tendencies were evident in staff responses around disclosure management and concerns related to team splitting. Notably, whilst a significant difference between groups was observed, the majority of the overall sample advocated the details of the trauma disclosure to be shared with the team.

Impact of Language

The way patient experiences are framed can impact staff perceptions and, in turn, patient care. Previous research has found the impact of attitudes and cognitive bias on behaviour is variable. It has been suggested different factors, such as affect, may mediate or moderate the relationship (Zestcott et al., 2016). Affect, such as fear and stigma, have been suggested as strong influential factors on information processing

(Markham, 2021). Results from the present study indicated that language in clinical documentation did impact hypothetical decision-making. Compassionate language appeared to increase the likelihood of staff adopting a more thoughtful approach to sensitive areas of patient care (e.g., trauma disclosure).

Openness and responsiveness to patients requires a reflective stance. Affect related to safety concerns, both physical and professional, coupled with a level of burnout, may impact reflective capacity. This research found staff reported emotive responses in relation to safety but also in response to patient index offences. It may be argued that under conditions of stress and burnout, implicit, less reflective and automatic cognitive processing tend to dominate planned behaviour and decision-making. Staff concerns around safety and risk in FMH settings likely increase the likelihood of bias and errors, particularly if opportunities for reflective cognitive processes are limited (system 2; Neal & Grisso, 2014). It is postulated that the role of compassionate language may have reduced negative affect heuristics (Slovic et al., 2007); resulting in reduction of perceived threat and a decreased anxiety response around safety in comparison to standard language. Therefore, staff were less likely to perceive 'John' as threatening and implicit processing was reduced when considering his care. Alternatively, compassionate language may have increased empathetic responding. Although groups did not significantly differ on responses related to empathy, the use of a single-item measure may have increased social desirability, thus impacting results.

Study Strengths & Limitations

This study has a number of notable strengths. Firstly, it was a large-scale project across FMH inpatient settings in the West of Scotland. As such, it gave an insight into staff attitudes and burnout rates across this population. Secondly, effect sizes and sample size indicate strong statistical power; signifying reliable and meaningful results (see Appendix 2.3, p.145). Thirdly, the study used a robust experimental design that offered a plausible analogue of a real-world process (i.e., how clinicians react to different ways of presenting clinical information). Furthermore, the results did demonstrate that language had an impact on hypothetical/planned behaviour; evidence language may mediate therapeutic and counter-therapeutic attitudes and possibly behaviour toward patients. Although it is noted that the study did not examine whether the behavioural intention (e.g., John's disclosure should not be shared with his team) would link to actual behaviour. This could be explored further in future research. Finally, a mixed methodology allowed for a balance of breadth and depth of results in a novel research area and content analysis allowed for a range of perspectives to be represented.

In terms of study limitations, it is noted that the sample was self-selecting within the targeted population. The response rate was low; although within the expected range. Additionally, data on participant race/ethnicity was not collected. Therefore, the resulting sample may not be entirely representative of the clinical workforce. However, the maximum variation sample, recruiting a range of professionals, as well as the inclusion of 'hard to reach' groups in FMH research (e.g., healthcare assistants and ward-based nurses), increased the representativeness of the sample.

Methodological limitations are also noted. The DDPPQ was adapted for use with forensic professionals despite being originally developed for use with alcohol and drug populations. However, conducting inter-reliability analysis using Cronbach's alpha indicated the five subscales represent distinct factors and items indicate face validity. The adapted DDPPQ did not consider staff attitudes around safety and anxieties of working with forensic inpatients. These factors have been explored in other research (Lammie et al., 2010) and it would be useful to further explore the potential interplay between language, affect and hypothetical decision-making. Furthermore, empathy

measures in both the DDPPQ and opinions on the case were single-item measures. Whilst this was considered appropriate to increase the feasibility of the study and encourage participation, responding may have been impacted by social desirability. Therefore, future research may benefit from incorporating more multifaceted measures of empathetic responding. Finally, there was no manipulation check in the randomisation of the current study. This was in order to reduce social desirability in responding however, as a result, it is not clear how the staff viewed the “compassionate” language vignette.

Research Implications

Attribution theories rely on an element of subjectivity when describing how attributions are formed (Weiner, 1985) and evidence into the impact of bias and heuristics as reliable indicators for decision-making and clinical practice is varied. Therefore, it is possible that participants would consider different factors if they were personally involved in the situation described in the vignette. Further research regarding language, attitudes and actual clinical practice is warranted to better understand this phenomenon and real-world interaction. As discussed above, considering the interplay of affect and staff views on safety within work, alongside a more multi-dimensional measure of empathy may allow for more in-depth exploration of the impact of language. It would also be beneficial to consider the above in the context of teamworking and decision-making as practitioners’ opinions may vary following team discussion. This would be more reflective of real-world practice.

Clinical Implications

The commonly held assertion that forensic services are highly stressful working environments resulting in burnout was supported by this study despite the self-selecting sample. However, the free-response answers suggested the presence of protective factors against burnout and positives that professionals in FMH settings take from their job. Therefore, it may be argued that systemic interventions that enhance work satisfaction and prevent burnout are important. Policies around limits to overtime, post-incident debriefing, reflective practice and clinical supervision may help foster protective factors against burnout. Notably, the use of reflective practice can become problematic in the context of high clinical activity and stress, particularly

for ward-based staff. Effective multidisciplinary teamworking and social climate may allow for continued buffering burnout risk at such times. Reward-based incentives, as well as general positive reinforcement for good work, should also be considered to allow for increased intrinsic motivation and satisfaction at work.

Considerations around language in clinical documentation appears important for clinical practice. However, the extent to which language can impact perceptions, planned behaviours and real-world decision-making is not yet understood. Future research into the real-world impact of compassionate language would be useful to guide specific recommendations on implications for clinical practice. Nonetheless, an increased cognisance of the manner in which forensic inpatients lives and stories are described in documentation could improve the way professionals formulate patient difficulties and their reflective capacity when delivering care.

Conclusions

The findings suggest that in challenging work environments, staff attitudes are broadly positive. The use of compassionate language appeared to result in a more reflective or measured response from staff in relation to the management of a trauma disclosure. However, it is noted that there were no significant differences between groups on responses related to empathy, work motivation or opinions on complexity. Further research is needed to explore the role of language in real-world interactions and team decision-making. Clinical complexity remains a poorly defined concept and further clarification on this concept in FMH is needed. A high proportion of the sample reported a level of burnout from their work. Despite this, staff highlighted coping strategies. Further research into protective and resilience factors is needed. Systemic interventions are required to enhance and foster resilience and reduce risks of burnout in order to improve high-quality patient care.

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Appendices

Systematic Review (Chapter 1): Supplementary Appendices

Appendix 1.1: Database Search Terms & Results

Search Terms by Database

CINAHL – EBSCO	
1	(MH "Multidisciplinary Care Team") OR (MH "Research, Interdisciplinary") OR (MH "Teamwork")
2	TX mdt OR TX multidisciplinary OR TX multi-disciplinary OR interdisciplinary
3 [MDT Component]	S1 OR S2
4	(MH "Mentally Ill Offenders") OR (MH "Hospitals, Psychiatric") OR (MH "Psychiatric Nursing")
5	AB secure unit OR AB psychiatric secure OR AB security OR AB forensic mental health
6 [ForInp Component]	S4 OR S5
7	TX ethical decision making OR TX (decision making or decision-making or decision making process or decision-making process) OR TX clinical decision making OR TX care plan* OR TX treatment plan*
8	TI teamwork OR TI team work* OR TI team functioning
9	AB teamwork OR AB team work* OR AB team functioning
10 [TW Component]	S7 OR S8 OR S9
11 [Experience Component]	TX (perspectives or views or perceptions or attitudes or opinion or understanding or experience) OR TX staff OR view*
12 [whole search]	S3 AND S6 AND S10 AND S11
13	Limit 12 to English Language

CINAHL - EBSCO


 Searching: CINAHL | [Change Databases](#)
 Suggest Subject Terms

Select a Field (optional) -

AND - Select a Field (optional) -

AND - Select a Field (optional) -

[Basic Search](#) | [Advanced Search](#) | [Search History](#)



Search History/Alerts


[Print Search History](#) | [Refresh Searches](#) | [Retrieve Alerts](#) | [Save Searches / Alerts](#)

<input type="checkbox"/> Select / deselect all <input type="button" value="Search with AND"/> <input type="button" value="Search with OR"/> <input type="button" value="Delete Searches"/> <input type="button" value="Refresh Search Results"/>			
Search ID #	Search Terms	Search Options	Actions
<input type="checkbox"/> 013	<input checked="" type="checkbox"/> S3 AND S6 AND S10 AND S11	Expanders - Apply equivalent subjects Narrow by Language: - english Search mode - Boolean/Phrase	View Results (166) View Details Print
<input type="checkbox"/> 012	<input checked="" type="checkbox"/> S3 AND S6 AND S10 AND S11	Expanders - Apply equivalent subjects Search mode - Boolean/Phrase	View Results (221) View Details Print
<input type="checkbox"/> 011	<input checked="" type="checkbox"/> TX (perspectives or views or perceptions or attitudes or opinion or understanding or experience) OR TX staff OR view*	Expanders - Apply equivalent subjects Search mode - Boolean/Phrase	View Results (1,405,940) View Details Print
<input type="checkbox"/> 010	<input checked="" type="checkbox"/> S7 OR S8 OR S9	Expanders - Apply equivalent subjects Search mode - Boolean/Phrase	View Results (364,410) View Details Print
<input type="checkbox"/> 09	<input checked="" type="checkbox"/> AB teamwork OR AB team work* OR AB team functioning	Expanders - Apply equivalent subjects Search mode - Boolean/Phrase	View Results (16,132) View Details Print
<input type="checkbox"/> 08	<input checked="" type="checkbox"/> TI teamwork OR TI team work* OR TI team functioning	Expanders - Apply equivalent subjects Search mode - Boolean/Phrase	View Results (3,742) View Details Print
<input type="checkbox"/> 07	<input checked="" type="checkbox"/> TX ethical decision making OR TX (decision making or decision making or decision making process or decision making process) OR TX clinical decision making OR TX care plan* OR TX treatment plan*	Expanders - Apply equivalent subjects Search mode - Boolean/Phrase	View Results (350,020) View Details Print
<input type="checkbox"/> 06	<input checked="" type="checkbox"/> S4 OR S5	Expanders - Apply equivalent subjects Search mode - Boolean/Phrase	View Results (44,665) View Details Print
<input type="checkbox"/> 05	<input checked="" type="checkbox"/> AB secure unit OR AB psychiatric secure OR AB security OR AB forensic mental health	Expanders - Apply equivalent subjects Search mode - Boolean/Phrase	View Results (19,042) View Details Print
<input type="checkbox"/> 04	<input checked="" type="checkbox"/> (MH "Mentally Ill Offenders") OR (MH "Hospital, Psychiatric") OR (MH "Psychiatric Nursing")	Expanders - Apply equivalent subjects Search mode - Boolean/Phrase	View Results (25,859) View Details Print
<input type="checkbox"/> 03	<input checked="" type="checkbox"/> S1 OR S2	Expanders - Apply equivalent subjects Search mode - Boolean/Phrase	View Results (122,032) View Details Print
<input type="checkbox"/> 02	<input checked="" type="checkbox"/> TX mtl OR TX multidisciplinary OR TX multi-disciplinary OR interdisciplinary	Expanders - Apply equivalent subjects Search mode - Boolean/Phrase	View Results (103,888) View Details Print
<input type="checkbox"/> 01	<input checked="" type="checkbox"/> (MH "Multidisciplinary Care Team") OR (MH "Research, Interdisciplinary") OR (MH "Teamwork")	Expanders - Apply equivalent subjects Search mode - Boolean/Phrase	View Results (84,545) View Details Print


Embase – OVID	
1	(multidisciplinary or multi-disciplinary or multidisc* or team or multi-disc* or interdisc* or interprofessional or MDT).mp.
2	Patient Care Team/
3	Interdisciplinary Communication/ or Interdisciplinary Research/
4 [MDT Component]	1 or 2 or 3
5	(forensic secur* or secure psych* or forensic inpatient or secure unit or security or secure hospital or medium secur* or low secur* or high secur* or regional secur* or regional unit or special hospital or state hospital or MSU or LSU or RSU).mp.
6	forensic mental health.mp. or Forensic Psychiatry/
7	[Inpatients/px [Psychology]]
8 [ForInp Component]	5 or 6 or 7
9	(teamwork* or team-work* or team function* or team meeting* or decision* or decision making or decision-making or ethical or clinical or patient care or care plan* or treatment plan*).mp.
10	Nursing, Team/ or Patient Care Team/
11	Decision Making/
12	Patient Care Planning/ or care plan.mp.
13 [TW Component]	9 or 10 or 11 or 12
14	(perspective* or attitude* or experience* or belie* or understanding or view* or process).mp.
15	("semi-structured" or semistructured or unstructured or informal or "in-depth" or indepth or "face-to-face" or structured or discussion* or questionnaire*).mp.
16	staff.mp.
17	14 and 16
18	15 and 16
19 [Exp Component]	17 or 18

20 [whole search]	4 and 8 and 13 and 19
21 [whole search]	limit 20 to english language







Embase – OVID

Ovid® My Account [Ovid Personal Account Queries](#)  Help [Feedback](#) Logged in as Sophie Joly [Logout](#)

[Search](#) [Journals](#) [Books](#) [Multimedia](#) [My Workspace](#) [Radiology Learning from ACR](#) [What's New](#)

▼ Search History (21) [View Saved](#) 

<input type="checkbox"/>	# ▲	Searches	Results	Type	Actions	Annotations
<input type="checkbox"/>	1	(multidisciplinary or multi-disciplinary or multidisc* or team or multi-disc* or interdis* or interprofessional or MDT).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]	486370	Advanced	Display Results More ▼	<input type="checkbox"/>
<input type="checkbox"/>	2	Patient Care Team/	247552	Advanced	Display Results More ▼	<input type="checkbox"/>
<input type="checkbox"/>	3	Interdisciplinary Communication/ or Interdisciplinary Research/	17698	Advanced	Display Results More ▼	<input type="checkbox"/>
<input type="checkbox"/>	4	1 or 2 or 3	683845	Advanced	Display Results More ▼	<input type="checkbox"/>
<input type="checkbox"/>	5	(forensic secur* or secure psych* or forensic inpatient or secure unit or security or secure hospital or medium secur* or low secur* or high secur* or regional secur* or regional unit or special hospital or state hospital or MSU or LSU or RSU).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]	99212	Advanced	Display Results More ▼	<input type="checkbox"/>
<input type="checkbox"/>	6	forensic mental health.mp. or Forensic Psychiatry/	14656	Advanced	Display Results More ▼	<input type="checkbox"/>
<input type="checkbox"/>	7	[(inpatients/px [Psychology])]	0	Advanced	Save More ▼	<input type="checkbox"/>
<input type="checkbox"/>	8	5 or 6 or 7	112907	Advanced	Display Results More ▼	<input type="checkbox"/>
<input type="checkbox"/>	9	(teamwork* or team-work* or team function* or team meeting* or decision* or decision making or decision-making or ethical or clinical or patient care or care plan* or treatment plan*).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]	13476411	Advanced	Display Results More ▼	<input type="checkbox"/>
<input type="checkbox"/>	10	Nursing, Team/ or Patient Care Team/	247938	Advanced	Display Results More ▼	<input type="checkbox"/>
<input type="checkbox"/>	11	Decision Making/	283143	Advanced	Display Results More ▼	<input type="checkbox"/>
<input type="checkbox"/>	12	Patient Care Planning/ or care plan.mp.	38431	Advanced	Display Results More ▼	<input type="checkbox"/>
<input type="checkbox"/>	13	9 or 10 or 11 or 12	13476576	Advanced	Display Results More ▼	<input type="checkbox"/>
<input type="checkbox"/>	14	(perspective* or attitude* or experience* or belie* or understanding or view* or process).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]	6299099	Advanced	Display Results More ▼	<input type="checkbox"/>
<input type="checkbox"/>	15	("semi-structured" or semistructured or unstructured or informal or "in-depth" or indepth or "face-to-face" or structured or discussion* or questionnaire*).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]	2133770	Advanced	Display Results More ▼	<input type="checkbox"/>
<input type="checkbox"/>	16	staff.mp.	344626	Advanced	Display Results More ▼	<input type="checkbox"/>
<input type="checkbox"/>	17	14 and 16	148975	Advanced	Display Results More ▼	<input type="checkbox"/>
<input type="checkbox"/>	18	15 and 16	89228	Advanced	Display Results More ▼	<input type="checkbox"/>
<input type="checkbox"/>	19	17 or 18	182241	Advanced	Display Results More ▼	<input type="checkbox"/>
<input type="checkbox"/>	20	4 and 8 and 13 and 19	415	Advanced	Display Results More ▼	<input type="checkbox"/>
<input type="checkbox"/>	21	limit 20 to english language	381	Advanced	Display Results More ▼	<input type="checkbox"/>

MEDLINE – EBSCO	
1	(MH "Patient Care Team") OR (MH "Interdisciplinary Communication") OR (MH "Interdisciplinary Research")
2	TX MDT OR TX “multidisciplinary team” OR TX “multi-disciplinary team”
3 [MDT Component]	S1 OR S2
4	(MH "Inpatients") OR (MH "Forensic Nursing") OR (MH "Forensic Psychology") OR (MH "Forensic Psychiatry")
5	TX forensic secur* or secure psych* or forensic inpatient or secure unit or security or secure hospital or medium secur* or low secur* or high secur* or regional secur* or regional unit or special hospital or state hospital or MSU or LSU or RSU or mentally ill offenders
6 [ForInp Component]	S4 OR S5
7	(MH "Patient Care Team") OR "team work"
8	(MH "Decision Making") OR (MH "Clinical Decision-Making")
9	TX teamwork* or team-work* or team function* or team meeting* or decision* or decision making or decision-making or ethical or clinical or patient care or care plan* or treatment plan*
10 [TW Component]	S7 OR S8 OR S9
11	TX "semi-structured" or semistructured or unstructured or informal or "in-depth" or indepth or "face-to-face" or structured or discussion* or questionnaire*).
12	TX perspective* or attitude* or experience* or belie* or understanding or view* or process
13	TX staff
14	S11 AND S13
15	S12 AND S13
16 [Exp Component]	S14 OR S15
17 [whole search]	S3 AND S6 AND S10 AND S16

18

Limit 17 to English

MEDLINE - EBSCO


[Searching MEDLINE](#) | [Change Database](#)
[Suggested Subject Terms](#)


 AND -
 AND -

Search History/alerts

View Search History		Database Selection		Database Alerts		Show Search Alert / Alerts		Database Search Results		
Select / deselect all		Search with AND	Search with OR	Delete Searches						
ID	SEARCHES	SEARCH TERMS	SEARCH OPTIONS	Actions						
<input type="checkbox"/>	S19	IS AND SR AND S10 AND S18	Expanders - Apply relevant subjects Narrow by Language - English Search mode - Blockand/Trunc	View Details	View Details	View Details	View Details	View Details	View Details	
<input type="checkbox"/>	S18	IS AND SR AND S10 AND S18	Expanders - Apply relevant subjects Search mode - Blockand/Trunc	View Details	View Details	View Details	View Details	View Details	View Details	
<input type="checkbox"/>	S17	IS AND SR AND S10 AND S18	Expanders - Apply relevant subjects Search mode - Blockand/Trunc	View Details	View Details	View Details	View Details	View Details	View Details	
<input type="checkbox"/>	S16	S14 OR S15	Expanders - Apply relevant subjects Search mode - Blockand/Trunc	View Details	View Details	View Details	View Details	View Details	View Details	
<input type="checkbox"/>	S15	S11 AND S12	Expanders - Apply relevant subjects Search mode - Blockand/Trunc	View Details	View Details	View Details	View Details	View Details	View Details	
<input type="checkbox"/>	S14	S11 AND S13	Expanders - Apply relevant subjects Search mode - Blockand/Trunc	View Details	View Details	View Details	View Details	View Details	View Details	
<input type="checkbox"/>	S13	TX and	Expanders - Apply relevant subjects Search mode - Blockand/Trunc	View Details	View Details	View Details	View Details	View Details	View Details	
<input type="checkbox"/>	S12	TX perspective* or attitude* or experience* or belief* or understanding* or view* or process	Expanders - Apply relevant subjects Search mode - Blockand/Trunc	View Details	View Details	View Details	View Details	View Details	View Details	
<input type="checkbox"/>	S11	TX "semi-structured" or semi-structured or unstructured or informal or "interview" or in-depth or "face-to-face" or structured or discussion* or questionnaire*	Expanders - Apply relevant subjects Search mode - Blockand/Trunc	View Details	View Details	View Details	View Details	View Details	View Details	
<input type="checkbox"/>	S10	S7 OR S6 OR S9	Expanders - Apply relevant subjects Search mode - Blockand/Trunc	View Details	View Details	View Details	View Details	View Details	View Details	
<input type="checkbox"/>	S9	TX "best-practice" or "best-practices" or "best practice" or "best practice" or decision-making or decision-making or ethical or clinical or patient care or case plan* or treatment plan*	Expanders - Apply relevant subjects Search mode - Blockand/Trunc	View Details	View Details	View Details	View Details	View Details	View Details	
<input type="checkbox"/>	S8	IM "Decision Making" OR (IM "Clinical Decision-Making")	Expanders - Apply relevant subjects Search mode - Blockand/Trunc	View Details	View Details	View Details	View Details	View Details	View Details	
<input type="checkbox"/>	S7	IM "Patient Care Team" OR "team work"	Expanders - Apply relevant subjects Search mode - Blockand/Trunc	View Details	View Details	View Details	View Details	View Details	View Details	
<input type="checkbox"/>	S6	S4 OR S5	Expanders - Apply relevant subjects Search mode - Blockand/Trunc	View Details	View Details	View Details	View Details	View Details	View Details	
<input type="checkbox"/>	S5	TX forensic securo* or secure psych* or forensic inpatient or secure unit or secure hospital or medium securo* or low securo* or high securo* or regional securo* or regional unit or regional hospital or state hospital or MSU or LSU or HSU or monthly 8 offenders	Expanders - Apply relevant subjects Search mode - Blockand/Trunc	View Details	View Details	View Details	View Details	View Details	View Details	
<input type="checkbox"/>	S4	IM "Spedding" OR (IM "Forensic Nursing") OR (IM "Forensic Psychology") OR (IM "Forensic Psychiatry")	Expanders - Apply relevant subjects Search mode - Blockand/Trunc	View Details	View Details	View Details	View Details	View Details	View Details	
<input type="checkbox"/>	S3	S1 OR S2	Expanders - Apply relevant subjects Search mode - Blockand/Trunc	View Details	View Details	View Details	View Details	View Details	View Details	
<input type="checkbox"/>	S2	TX MDI OR TX "multidisciplinary team" OR TX "multi-disciplinary team"	Expanders - Apply relevant subjects Search mode - Blockand/Trunc	View Details	View Details	View Details	View Details	View Details	View Details	
<input type="checkbox"/>	S1	IM "Patient Care Team" OR (IM "Interdisciplinary Communication") OR (IM "Interdisciplinary Research")	Expanders - Apply relevant subjects Search mode - Blockand/Trunc	View Details	View Details	View Details	View Details	View Details	View Details	

PSYCHINFO – EBSCO	
1	TX multidisciplinary OR TX mdt OR TX multi-disciplinary OR TX interdisciplinary OR TX team*
2	DE "Interdisciplinary Treatment Approach" OR DE "Interdisciplinary Research"
3	DE "Teams"
4 [MDT Component]	S1 OR S2 OR S3
5	TX forensic mental health OR TX secure unit OR TX psychiatric unit OR TX forensic nursing OR TX forensic inpatients OR TX forensic hospital OR TX mentally ill offenders
6	DE "Forensic Psychology" OR DE "Forensic Psychiatry" OR DE "Psychiatric Units"
7 [ForInp Component]	S5 OR S6
8	DE "Treatment Planning" OR DE "Transition Planning" OR DE "Discharge Planning" OR DE "Patient Centered Care"
9	TX teamwork OR TX team working OR TX team functioning OR TX decision making OR TX decision-making OR TX care plan* OR TX treatment plan*
10 [TW Component]	S8 OR S9
11 [Experience Component]	TX (perspective* or view* or perception* or attitude* or opinion* or understanding or experience* or discussion*) AND TX (staff or clinician or professional)
12 [whole search]	S4 AND S7 AND S10 AND S11
13	Limit 12 to English Language

PSYCHINFO Search History


 Searching: [APA PsycInfo](#) | [Choose Databases](#)
 Suggest Subject Terms

select a Field (optional) -

AND select a Field (optional) -

AND select a Field (optional) -

[Basic Search](#) | [Advanced Search](#) | [Search History](#)

Search History/Alerts

[Print Search History](#) | [Retrieve Searches](#) | [Retrieve Alerts](#) | [Save Searches / Alerts](#)

Select / deselect all | | | |

Search ID#	Search Terms	Search Options	Actions
<input type="checkbox"/> S13	<input type="button" value="X"/> S4 AND S7 AND S10 AND S11	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase Narrow by Language: - english Search modes - Boolean/Phrase	View Results (60) View Details Edit
<input type="checkbox"/> S12	<input type="button" value="X"/> S4 AND S7 AND S10 AND S11	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	View Results (127) View Details Edit
<input type="checkbox"/> S11	<input type="button" value="X"/> TX (perspective* or view* or perception* or attitude* or opinion* or understanding or experience* or discussion*) AND TX (staff or clinician or professional)	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	View Results (679,306) View Details Edit
<input type="checkbox"/> S10	<input type="button" value="X"/> S8 OR S9	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	View Results (189,028) View Details Edit
<input type="checkbox"/> S9	<input type="button" value="X"/> TX teamwork OR TX team working OR TX team functioning OR TX decision making OR TX decision-making OR TX care plan* OR TX treatment plan*	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	View Results (167,911) View Details Edit
<input type="checkbox"/> S8	<input type="button" value="X"/> DE "Treatment Planning" OR DE "Transition Planning" OR DE "Discharge Planning" OR DE "Patient Centered Care"	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	View Results (8,255) View Details Edit
<input type="checkbox"/> S7	<input type="button" value="X"/> S5 OR S6	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	View Results (30,304) View Details Edit
<input type="checkbox"/> S6	<input type="button" value="X"/> DE "Forensic Psychology" OR DE "Forensic Psychiatry" OR DE "Psychiatric Units"	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	View Results (14,736) View Details Edit
<input type="checkbox"/> S5	<input type="button" value="X"/> TX forensic mental health OR TX secure unit OR TX psychiatric unit OR TX forensic nursing OR TX forensic inpatients OR forensic hospital OR TX mentally ill offenders	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	View Results (21,005) View Details Edit
<input type="checkbox"/> S4	<input type="button" value="X"/> S1 OR S2 OR S3	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	View Results (186,476) View Details Edit
<input type="checkbox"/> S3	<input type="button" value="X"/> DE "Teams"	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	View Results (13,259) View Details Edit
<input type="checkbox"/> S2	<input type="button" value="X"/> DE "Interdisciplinary Treatment Approach" OR DE "Interdisciplinary Research"	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	View Results (11,227) View Details Edit
<input type="checkbox"/> S1	<input type="button" value="X"/> TX multidisciplinary OR TX mdt OR TX multi-disciplinary OR TX interdisciplinary OR TX team*	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	View Results (186,476) View Details Edit

Appendix 1.2: Article Screening & Selection Procedure

Review Background

Review title: Experiences of multi-disciplinary working and team decision making in forensic inpatient settings: a systematic review.

Review question: What are the experiences (O) of multidisciplinary team members (P) of teamworking and decision-making (E) in a forensic inpatient setting (P)?

Inclusion criteria

P	Affected population Setting	Multidisciplinary team members / Staff based in a forensic inpatient setting
E	Exposure to condition, intervention, procedure/process or service	Team working / decision-making
O	Outcomes or themes	Experiences / perspectives

Additional notes:

Empirical study.

Published in English.

Conducted within the UK or a Western culture.

Any methodology to investigate staff experiences or perspectives on multidisciplinary team working and decision making.

Exclusion criteria

- i) participants are clients/patients
- ii) the focus of the paper is not about the experience of MDT working and decision-making
- iii) the sample is general adult mental health staff (not forensic staff)
- iv) participants are community-based (not inpatient)
- v) the study focuses on children or adolescents
- vi) the paper is a case example, a review, editorial or conference abstract.

Screening Form

<u>Stage 2: Title, Citation and Keyword (Topics) Screen</u>
<p>1. Does the title use English? a. Yes: continue screening b. No: stop screening</p> <p>2. Do the title, citation and/or keywords indicate that this is NOT an empirical paper (e.g., <i>editorial, protocol, conference abstract, posters, thesis/dissertation, policy document, letter</i>)? a. Yes: stop screening b. No/unclear: continue screening</p> <p>3. Do the title, citation and/or keywords indicate the research is interested in patient outcome (e.g., <i>patient aggression, absconding, treatment engagement or efficiency</i>)? a. Yes: stop screening b. No/unclear: continue screening</p> <p>4. Does the title or citation indicate that the study does NOT involve staff in forensic inpatient settings (e.g., <i>community, prison, acute inpatient</i>)? a. Yes: stop screening b. No/unclear: continue screening</p> <p>5. Does the title indicate that study population does NOT include staff members? a. Yes: stop screening b. No/unclear: continue screening</p> <p>6. Does the title indicate that study does NOT consider team work/functioning? a. Yes: stop screening b. No/unclear: continue screening</p>
<p>Include: <i>Articles considering staff experiences of team working in secure inpatient contexts to be included.</i> <i>If unclear using inclusion and exclusion terms below, use judgement to determine whether appropriate for abstract screening or to be excluded</i></p>
<p>Title contains:</p> <ul style="list-style-type: none">• Multidisciplinary / multi-disciplinary / interdisciplinary• Multidisciplinary team / MDT• Team / team work / team working / team meeting / team meetings• Staff perspective / experience• Forensic mental health / forensic setting / forensic inpatient• Secure hospital / secure unit / secure environment• Low secure / low security / medium secure / medium security / high secure / high security / special hospital• Decision / decision-making / decision making / decision-making process• Assessment / admission / admitting / treatment / treatment planning / discharge / leave / seclusion

Exclude:

- Conference abstract / poster / book / book review / non-empirical study
- Adolescents / adolescence / child / children / youth / juvenile
- Animals / dogs / canines / veterinary
- Community setting / CMHT / Substance misuse / opioids / methadone / acute inpatient / emergency department
- Prison / jail / correctional facility / custodial
- Predictive validity / construct validity / psychometric properties / predicting aggression
- Self-harm / suicide
- Sexual Assault Victims / Sexual Assault Nurse Examiners / SANE
- Jurors / mock jurors / judicial
- ***ONLY***Service users / Patient perspective / patient experience – include if title also references staff perspective/ experience etc
- *Unrelated disciplines* – e.g., oncology, dentistry, police surgeons, forensic radiographer, forensic scientist

Stage 3: Abstract Screen

Explores staff perspectives / experiences of working in an MDT in forensic secure settings. If unclear, move to stage 4.

Criteria	Y	N	Unclear	Notes
Article characteristics				
Is the study published in English?		E		
Is the study one of the following? <i>Editorials, literature reviews, systematic reviews, meta-analyses, protocols, conference abstracts, posters, theses and dissertations, methodological and epidemiological studies and letters.</i>		E		
Participants				
Does it involve humans?		E		
Does it involve children (under 16 years of age)?	E			
Does it include staff working in forensic inpatient settings?		E		
Intervention/Exposure				
Does it focus on staff experiences/perspectives of MDT working?		E		
Topics				
<i>Topics section has exclusion criteria/terms</i>		E		

Stage 4: Full Text

Explores staff perspectives / experiences of working in an MDT in forensic secure settings	Clear Y – Include
--	-------------------

Explores staff perspectives / experiences of working in an MDT in forensic secure settings	Clear N - Exclude
--	-------------------

Second review numbers:

Stage 2: Titles – 10% = 90

Stage 3: Abstracts – 20% = 30

Appendix 1.3: Article Selection

Full Text Screened List: Reason for Exclusion/Inclusion

Barr, L., Wynaden, D., & Heslop, K. (2019). Promoting positive and safe care in forensic mental health inpatient settings: Evaluating critical factors that assist nurses to reduce the use of restrictive practices. <i>International journal of mental health nursing</i> , 28(4), 888-898.	N Ward-level team-work not MDT
Fichtner, C. G., Hardy, D., Patel, M., Stout, C. E., Simpatico, T. A., Dove, H., ... & Giffort, D. W. (2001). A self-assessment program for multidisciplinary mental health teams. <i>Psychiatric Services</i> , 52(10), 1352-1357.	N Wrong outcome / pre + post-training comparison
Haines, A., Perkins, E., Evans, E. A., & McCabe, R. (2018). Multidisciplinary team functioning and decision making within forensic mental health.	Y Some themes re: team working
Khan, Z., Chidambaram, A., Thomson, M., & Hurst, C. (2019). An exploration of MDT views on key factors to consider when determining a service users required level of security. <i>Journal of Forensic Practice</i> .	N Factors considered when making a decision/not staff experience
Kumar, A., & Parkinson, G. M. (2001). Relationship between team structure and interprofessional working at a medium secure unit for people with learning disabilities in the United Kingdom.	Y
Leese, M., & Fraser, K. (2019). Exploring multi-disciplinary team meetings on a personality-disorder ward within a forensic setting. <i>Mental Health Review Journal</i> .	N Patients experience not staff
Livingston, J. D., Nijdam-Jones, A., & Team, P. E. E. R. (2013). Perceptions of treatment planning in a forensic mental health hospital: A qualitative, participatory action research study.	Y
Marshall, L. A., Adams, E. A., & Stuckey, M. I. (2019). Relationships, experience, and support: staff perception of safety in a forensic mental health facility. <i>The Journal of Forensic Psychiatry & Psychology</i> , 30(5), 824-835.	N Only focused on frontline staff – not MDT
Mason, T., Williams, R., & Vivian-Byrne, S. (2002). Multi-disciplinary working in a forensic mental health setting: ethical codes of reference.	Y

McRae, L. (2013). Admitting offenders with antisocial personality disorder to a medium secure unit: a qualitative examination of multidisciplinary team decision-making.	Y
Whyte, L., & Brooker, C. (2001). Working with a multidisciplinary team in secure psychiatric environments.	Y

Reference / Citation Search Results

<u>Author</u>	<u>Year</u>	<u>Title</u>	<u>Found in Citation Search (Paper)</u>
Shaw, Heyman, Reynolds, Davies & Godin	2007	Multidisciplinary Teamwork in a UK Regional Secure Mental Health Unit a Matter for Negotiation?	<i>Mason T, Williams R, Vivian-Byrne S (2002). Multi-disciplinary working in a forensic mental health setting: ethical codes of reference.</i> <i>Whyte L, Brooker C (2001). Working with a multidisciplinary team in secure psychiatric environments.</i>

<u>Author</u>	<u>Year</u>	<u>Title</u>	<u>Found in Reference List (Paper)</u>
Shaw, Heyman, Reynolds, Davies & Godin	2007	Multidisciplinary Teamwork in a UK Regional Secure Mental Health Unit a Matter for Negotiation?	<i>Livingston, Nijdam-Jones & P.E.E.R. (2013). Perceptions of Treatment Planning in a Forensic Mental Health Hospital: A Qualitative, Participatory Action Research Study</i> <i>Haines, Perkins, Evan & MacCabe (2018). Multidisciplinary team functioning and decision making within forensic mental health</i>

Appendix 1.4: Search Strategy Sensitivity

<u>Author</u>	<u>Found in Search</u>			
	<u>CINAHL</u>	<u>PSYCHINFO</u>	<u>MEDLINE</u>	<u>Embase</u>
Kumar & Parkinson (2001)				
Whyte & Brooker (2001)				
Mason, Williams & Vivian-Byrne (2002)				
Livingston, Nijdam-Jones & P.E.E.R. (2013)				
McRae (2013)				
Haines, Perkins, Evan & MacCabe (2018)				

Appendix 1.5: Data Extraction & Quality Appraisal

1.5.1: JBI QARI Data Extraction Form for Interpretative and Critical Research

Reviewer	Date
Author	Year
Journal	Record number

Study description

Methodology

Method / Data Collection

Setting

Participants / Sampling

Data analysis

Results

Themes

Authors' conclusions

Comments

Complete YES/NO

1.5.2: JBI Critical Appraisal Checklist for Qualitative Research

Reviewer _____

Date _____

Author _____ Year _____ Record Number _____

	Yes	No	Unclear	Not applicable
1. Is there congruity between the stated philosophical perspective and the research methodology?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Is there congruity between the research methodology and the research question or objectives?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Is there congruity between the research methodology and the methods used to collect data?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Is there congruity between the research methodology and the representation and analysis of data?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Is there congruity between the research methodology and the interpretation of results?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Is there a statement locating the researcher culturally or theoretically?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Is the influence of the researcher on the research, and vice-versa, addressed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Are participants, and their voices, adequately represented?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Is the research ethical according to current criteria or, for recent studies, and is there evidence of ethical approval by an appropriate body?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Do the conclusions drawn in the research report flow from the analysis, or interpretation, of the data?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments

1.5.3: Mixed Methods Appraisal Tool (MMAT), version 2018

Category of study designs	Methodological quality criteria	Responses			
		Yes	No	Can't tell	Comments
Screening questions (for all types)	S1. Are there clear research questions?				
	S2. Do the collected data allow to address the research questions?				
	<i>Further appraisal may not be feasible or appropriate when the answer is 'No' or 'Can't tell' to one or both screening questions.</i>				
1. Qualitative	1.1. Is the qualitative approach appropriate to answer the research question?				
	1.2. Are the qualitative data collection methods adequate to address the research question?				
	1.3. Are the findings adequately derived from the data?				
	1.4. Is the interpretation of results sufficiently substantiated by data?				
	1.5. Is there coherence between qualitative data sources, collection, analysis and interpretation?				
2. Quantitative randomized controlled trials	2.1. Is randomization appropriately performed?				
	2.2. Are the groups comparable at baseline?				
	2.3. Are there complete outcome data?				
	2.4. Are outcome assessors blinded to the intervention provided?				
	2.5. Did the participants adhere to the assigned intervention?				
3. Quantitative non-randomized	3.1. Are the participants representative of the target population?				
	3.2. Are measurements appropriate regarding both the outcome and intervention (or exposure)?				
	3.3. Are there complete outcome data?				
	3.4. Are the confounders accounted for in the design and analysis?				
	3.5. During the study period, is the intervention administered (or exposure occurred) as intended?				
4. Quantitative descriptive	4.1. Is the sampling strategy relevant to address the research question?				
	4.2. Is the sample representative of the target population?				

	4.3. Are the measurements appropriate?				
	4.4. Is the risk of nonresponse bias low?				
	4.5. Is the statistical analysis appropriate to answer the research question?				
5. Mixed methods	5.1. Is there an adequate rationale for using a mixed methods design to address the research question?				
	5.2. Are the different components of the study effectively integrated to answer the research question?				
	5.3. Are the outputs of the integration of qualitative and quantitative components adequately interpreted?				
	5.4. Are divergences and inconsistencies between quantitative and qualitative results adequately addressed?				
	5.5. Do the different components of the study adhere to the quality criteria of each tradition of the methods involved?				

Hong QN, Pluye P, Fàbregues S, Bartlett G, Boardman F, Cargo M, Dagenais P, Gagnon M-P, Griffiths F, Nicolau B, O’Cathain A, Rousseau M-C, Vedel I. Mixed Methods Appraisal Tool (MMAT), version 2018. Registration of Copyright (#1148552), Canadian Intellectual Property Office, Industry Canada.

1.5.4: Quality Appraisal Results

		<u>Study</u>						
		<i>Kumar 2001</i>	<i>Whyte 2001</i>	<i>Mason 2002</i>	<i>Shaw 2007</i>	<i>Livingston 2013</i>	<i>McRae 2013</i>	<i>Haines 2018</i>
<u>Tools & Questions</u>								
JBI Checklist	1	NA	Y	Y	Y	Y	Y	Y
	2	Y	Y	Y	Y	Y	Y	Y
	3	N	Y	Y	Y	Y	Y	Y
	4	N	Y	Y	Y	Y	Y	Y
	5	N	Y	Y	Y	Y	Y	Y
	6	N	CT	CT	CT	Y	CT	N
	7	N	Y	N	N	CT	N	Y
	8	N	Y	N	Y	Y	Y	Y
	9	N	Y	CT	Y	Y	Y	Y
	10	N	Y	Y	Y	Y	Y	Y
MMAT Screen Qs	1	CT	Y	Y	Y	Y	Y	Y
	2	N	Y	Y	Y	Y	Y	Y
MMAT QualQs	1	Y	Y	Y	Y	Y	Y	Y
	2	CT	Y	Y	Y	Y	Y	Y
	3	CT	Y	CT	Y	Y	Y	Y
	4	N	Y	CT	Y	Y	Y	Y
	5	N	Y	CT	Y	Y	Y	Y
MMAT QuantRCT	1-5	NA	NA	NA	NA	NA	NA	NA
MMAT Quant non- random	1-5	NA	NA	NA	NA	NA	NA	NA
MMAT Quant Descript	1	Y	Y	NA	NA	NA	NA	NA
	2	Y	Y	NA	NA	NA	NA	NA
	3	Y	Y	NA	NA	NA	NA	NA

	4	CT	Y	NA	NA	NA	NA	NA
	5	N	Y	NA	NA	NA	NA	NA
MMAT MixedMethod	1	CT	Y	NA	NA	NA	NA	CT
	2	N	Y	NA	NA	NA	NA	Y
	3	N	Y	NA	NA	NA	NA	NA
	4	CT	Y	NA	NA	NA	NA	NA
	5	N	Y	NA	NA	NA	NA	NA

Response Key:

Yes	Y
No	N
Can't tell	CT
Not-applicable	NA

Major Research Project (MRP) (Chapter 2): Supplementary Appendices

2.1.4: Participant Information Sheet

The participant information sheet can be accessed online at: <https://osf.io/an2p5>

Appendix 2.2: Data Collection

2.2.1: Adapted DDPPQ Subscales:

Role Security – Adequacy and Legitimacy:

- Adequacy refers to the way workers felt about the adequacy of their knowledge and skills in working with these clients (e.g., “I feel I have a working knowledge of forensic mental health”)
- Legitimacy refers to the extent to which they felt that they had the right to work with clients of this nature (e.g., “I feel I can appropriately advise my patients about mental health and risk)

Therapeutic Commitment – Motivation and Work Satisfaction:

- Motivation and commitment (e.g., “I want to work with forensic inpatients”)
- Work satisfaction (e.g., “In general, you can get satisfaction from working with forensic inpatients”).

Single-item measure of Empathy: “In general, I feel I can understand people with mental illness who also offend.”

2.2.2: Opinion Statements on the Case:

1. The details of John's disclosure should be shared with staff in his team.
2. John's care team should be wary of team splitting.
3. This disclosure is important.
4. This disclosure should inform John's care and treatment.
5. I feel empathy for John.
6. John's aggression will impact his care and treatment significantly.
7. John's disclosure should not be shared with his team.
8. I think John's case is complex.
9. John's mental health will impact his care and treatment significantly.
10. I would be happy to work as part of John's MDT.
11. John's trauma will impact his care and treatment significantly.

2.2.3: Full Survey [Online]: <https://osf.io/gm5h3>

2.2.4: Reflective Diary Excerpt [Online]: <https://osf.io/8nrtf>

Appendix 2.3: Supplementary Data

2.3.1: Content Analysis

Major theme (subthemes)	Examples	n (%)
<i>1. Defining Complexity</i>		
<i>1.1 Diagnosis & Comorbidity</i>	<p>Multiple identified care needs...Co-morbidity (p26)</p> <p>Multiple diagnoses (p12)</p> <p>Co-morbidities (p10)</p> <p>Significant trauma histories including abuse and adverse child rearing, substance abuse, significant mental health issues (p17)</p> <p>Temperamental problems, personality and attachment difficulties (the two do not need to be synonymous)...severe mental disorder with multiple co-morbidity and one or more neurodevelopmental disorder (p20)</p> <p>Family involvement that is not supportive or absent. Presence of co-morbidities (p2)</p> <p>Challenging behaviour by and personality traits in patients (p24)</p> <p>Behavioural issues, multiple diagnosis (personality disorder + schizophrenia). Physical health issues (p25)</p>	<p>28</p> <p>(100%)</p>

	The intensity of their mental health problems and current distress. Also, any additional cognitive difficulties, personality traits or trauma experiences. Finally, their risk profile, in terms of risk to self and others (p11)	
<i>1.2 Responsivity Issues</i>	<p>Treatment resistant illness (p1)</p> <p>Hx of treatment resistance (p13)</p> <p>Intensity and duration of mental health symptoms, fixed delusions, paranoia etc... that make it difficult for them to accept and or understand their mental illness (p21)</p> <p>Lack of insight leading to difficulty cooperating or working with the clinical team (p24)</p> <p>Understanding of risk and risk factors (p13)</p> <p>Complexity of presentation in terms of mental disorder, background history, types of risk presented and how the presentation affects responsivity to interventions (p14).</p>	<p>18</p> <p>(64%)</p>

Major theme (subthemes)	Examples	n (%)
<i>2. Barriers to Compassionate Care</i>		
<i>2.1 Index Offence</i>	<p>I personally do not feel that I have barriers to compassionate care however index offences can be emotive for some people (p26)</p> <p>Circumstance of offence...the nature of offence was their children or vulnerable people involved...A lack of remorse (p.2)</p> <p>Judging patients on their index offence (p18)</p>	<p>10 (35%)</p>
<i>2.2 Patient Behaviours</i>	<p>Behaviour they display...Violence and aggression (p15)</p> <p>Verbal abuse...violence (p27)</p> <p>Working with patients who demonstrate boundary-testing behaviours (p13)</p> <p>Attachment and trauma issues that impact on therapeutic relationships (p9)</p> <p>Challenging behaviour by and personality traits in patients...lack of insight leading to difficulty cooperating or working with the clinical team (p24)</p> <p>Lack of consistent engagement by patient with care and treatment/staff/rehab/SUS (p23)</p>	<p>24 (85%)</p>

<p><i>2.3 Staff Attitudes</i></p>	<p>Some staff feeling unsafe and putting focus on risk rather than on patient needs. Some staff being emotionally exhausted or having had to develop resilience to the extent that they become desensitised to the patient's circumstance. It can also lead to cynicism in viewing everything the patient does/what would otherwise be reasonable requests as an attempt to circumvent rules or security (p10)</p> <p>Perceptions of patient behaviours (p11)</p> <p>The behaviours / attitudes of patients and staff (p27)</p> <p>Multiple reasons such as staff burn out or if the patient you are caring for is abusive towards staff verbally and physically it can be difficult to deliver compassionate care (p5)</p> <p>Non-movement of attitude/values/understanding of specific offending behaviours/MH dx or trauma following update of evidence base (p7)</p>	<p>12 (42.8%)</p>
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Major theme (subthemes)	Examples	n (%)
<i>3. Systemic Stressors</i>		
<p><i>3.1 Staffing Levels & Burn Out</i></p>	<p>Staff burn-out...Staff shortages (p8)</p> <p>Staff burnout and overall culture (p10)</p> <p>Pressures on staff, inconsistency in staffing on wards (p15)</p> <p>Higher stress levels in light of ongoing COVID-19 restrictions and staffing crisis (p12)</p> <p>Not enough staff / staff being stressed (p20)</p> <p>Lack of empathy, burnout, stress, lack of therapeutic relationships (p28)</p> <p>Low staffing numbers affect opportunities to undertake 1:1 discussions, engage in meaningful activities etc, also leads to burnout and high sickness absence and greater opportunity for patients to subvert security (p24)</p> <p>At times it can be challenging due to the environment I work - having to be more adaptable and flexible in role in particular when staffing levels are low and/or crisis point. (p8)</p>	<p>17 (60%)</p>

<p>3.2 <i>The Wider Context</i></p>	<p>Existence of toxic culture (at times) (p6)</p> <p>It can be hard not to let negativity and a risk-focused culture impact on life outside work... the culture of having to think about everything in such detail and everything being analysed and discussed so much when working with Forensic patients (p9)</p> <p>Historical associations with a Penitentiary thinking style passed down to new staff (p22)</p> <p>Incivility in the NHS among staff groups and lack of devolved power structures to front line staff (p21)</p> <p>Possibly over-familiarity, nursing a patient for too long (p25)</p> <p>The lack of support or the speed of support from within is where work stress is most impactable (p1)</p> <p>However, contextual factors such as service context are particularly relevant... Lack of supervision for all disciplines (p14)</p> <p>Lack of appreciation and support from nursing management (p3)</p> <p>Time at work (specifically time at desk) COVID-19 restrictions meaning I cannot discharge full duties Bureaucracy (p6)</p>	<p>12</p> <p>(48%)</p>
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<p><i>3.3 Multidisciplinary Working</i></p>	<p>Frictions in the team (p28)</p> <p>The challenges...the clinical team face in order to progress them (p16)</p> <p>MDT input, different views, opinions, legal responsibilities/restrictions (p27)</p> <p>lack of cohesion/communication within the MDT team (p3)</p> <p>MDT disagreement (p6)</p> <p>...differing opinions between team members or patient/family as to risk (p9)</p>	<p>6</p> <p>(21%)</p>
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Major theme (subthemes)	Examples	n (%)
<i>4. Staff Resilience & Coping</i>		
<p><i>4.1 Mental Demand & Difficulty 'Switching Off'</i></p>	<p>Mostly able to separate the two but sometimes incidents can follow you home (p10)</p> <p>If there is a particularly stressful day it can be difficult to "switch off", and return to personal life (p11)</p> <p>It is difficult to maintain work-life balance due to high demands (p14)</p> <p>Can take home stress from a challenging day. Violence and aggressive situations can leave you drained (p15)</p> <p>At times it is difficult not to go home and worry about colleagues and patients when the ward is very acute (p16)</p> <p>The use of various social media introduced during COVID for people working from home can be intrusive and prevents shutting off from work completely (p21)</p> <p>As it is stressful and involves a great deal of complex decision making, it can have a big impact (p24)</p> <p>Make it difficult to switch off at times and relax when home. Its demanding mentality (p4)</p>	<p>10 (35%)</p>

<p><i>4.2 Striking a Balance</i></p>	<p>I feel I can leave work at work. It doesn't have an impact on my private life. Occasionally if there is enhanced observations in place it may bring work to my mind before returns from off days. (p25)</p> <p>Have ways of ensuring that work does not interfere with life to prevent burnout (p17)</p> <p>I think I am very good at leaving my work at work and try not to let it have an impact on my personal life (p5)</p> <p>I have developed a good work / life balance over the years (p26)</p> <p>Important to have good work/life balance eg knowing what works for you to manage stress (p22)</p>	<p>5 (17.8%)</p>
<p><i>4.3 Positives of the Work</i></p>	<p>Can give sense of reward (p6)</p> <p>I have been involved in and witnessed staff responding to a great deal of challenging behaviour and violence and aggression while maintaining compassion for the patient (p24)</p> <p>However, it also provides me with confidence and self-esteem in recognising that I can make a difference to patient's lives. I also feel grateful that I have been privileged enough to do the work that I do, and I often feel appreciated by patients and staff teams (p11)</p>	<p>6 (21%)</p>

	<p>I experience satisfaction in my new job and have a good work/life balance. Therefore, it contributes positively (p18)</p> <p>Despite this I have a very supportive senior charge nurse and colleagues (p23)</p>	
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2.3.2: Descriptive Statistics

Burnout Across Job Type

Job Type	Median	Range
HCA	2	1-5
Nurse	3	1-5
OT	2	2-3
Clinical Psychology	2	1-5
Psychiatrist	2	1-5
Psychiatry Trainee	2	2
Assistant/Trainee Psychologist	2	2-3
Other	2	2-5

Burnout Across Services

Service	Median	Range
Low Security	2	1-5
Medium Security	2	1-5
High Security	2	1-5

Therapeutic Attitudes Across Job Type

Job Type	Attitude Subscale	Median	Range
HCA	Adequacy	2	1-2.4
	Legitimacy	2	1-2.8
	Motivation	2	1-3.5
	Work Satisfaction	2	1-4
	Empathy	2	1-3
Nurse	Adequacy	1.2	1-2.4
	Legitimacy	1.5	1-3.3
	Motivation	1.5	4.5
	Work Satisfaction	2	1-5
	Empathy	2	1-2
OT	Adequacy	1.66	1-2
	Legitimacy	1.8	1-2.2
	Motivation	1.5	1-3
	Work Satisfaction	2	1-3
	Empathy	2	1-2
Clinical Psychology	Adequacy	1.2	1-1.8
	Legitimacy	1.2	1-2.2
	Motivation	1.5	1-2.5
	Work Satisfaction	2	1-2.5
	Empathy	2	1-2
Psychiatrist	Adequacy	1	1-2
	Legitimacy	1.5	1-2.8
	Motivation	1.5	1-4
	Work Satisfaction	2	1-5
	Empathy	2	1-3
Psychiatry Trainee	Adequacy	1.8	1.2-2
	Legitimacy	1.2	1.2-1.6
	Motivation	1	1-1.5
	Work Satisfaction	1	1-2
	Empathy	2	1-3
Assistant/Trainee Psychologist	Adequacy	1.5	1-2.2
	Legitimacy	1.6	1.44-2
	Motivation	1.5	1.5-2
	Work Satisfaction	2	1.5-2.5
	Empathy	2	1-2
Other	Adequacy	2	1-2.5
	Legitimacy	1.6	1-2.8

	Motivation	2	1-2
	Work Satisfaction	2	1-2.5
	Empathy	2	1-3

Therapeutic Attitudes Across Services

Service	Attitude Subscale	Median	Range
Low Security	Adequacy	1.4	1-3.25
	Legitimacy	1.8	1-3.33
	Motivation	2	1-4.5
	Work Satisfaction	2	1-5
	Empathy	2	1-3
Medium Security	Adequacy	1.2	1-3.16
	Legitimacy	1.44	1-2.5
	Motivation	2	1-3
	Work Satisfaction	2	1-5
	Empathy	2	1-3
High Security	Adequacy	1.8	1-2.5
	Legitimacy	1.66	1-2.8
	Motivation	1.5	1-3
	Work Satisfaction	2	1-3
	Empathy	2	1-3

Case Responses and Opinions

Statement	Compassionate Language	Standard Language
	Median(range)	Median(range)
The details of John's disclosure should be shared with staff in his team.	2 (1-5)	2 (1-5)
John's care team should be wary of team splitting.	2 (1-5)	2 (1-4)
This disclosure is important.	1 (1-3)	1 (1-2)
This disclosure should inform John's care and treatment.	2 (1-4)	2 (1-3)

I feel empathy for John.	2 (1-3)	2 (1-5)
John's aggression will impact his care and treatment significantly.	2 (1-5)	2 (1-5)
John's disclosure should not be shared with his team. <i>*reverse-scored</i>	2 (1-4)	2 (1-5)
I think John's case is complex.	2 (1-4)	2 (1-5)
John's mental health will impact his care and treatment significantly.	2 (1-5)	2 (1-5)
I would be happy to work as part of John's MDT.	2 (1-4)	2 (1-3)
John's trauma will impact his care and treatment significantly.	2 (1-5)	2 (1-4)

2.3.3: Effect Sizes and Power Calculation

Analysis	Cohen's d	Effect Size	Power
<u>Kruskai-Wallis</u>			
Work satisfaction across services	0.63	Medium	.99
Adequacy across job type	0.89	Large	.93
Legitimacy across job type	0.802	Large	.98
<u>Mann-Whitney U</u>			
Disclosure Share 1	0.75	Medium/Large	.98
Disclosure Share 2 (reversed)	0.54	Medium	.84

Appendix 2.4 [Online]: MRP Proposal

The proposal for the Major Research Project can be accessed online at:
<https://osf.io/9r45g>