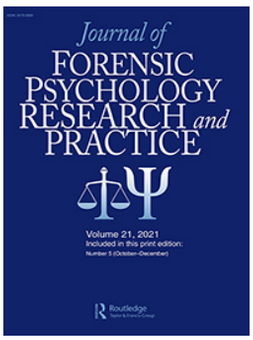
A systematic mixed studies review and framework synthesis of mental health professionals' experiences of violence risk assessment and management in forensic mental health settings



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A Systematic Mixed Studies Review and Framework Synthesis of Mental Health Professionals' Experiences of Violence Risk Assessment and Management in Forensic Mental Health Settings

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ABSTRACT

Violence risk assessment and management is at the forefront of the work of mental health professionals in forensic mental health settings. Staff working in these settings are presented with many challenges. This review explores how mental health professionals working in forensic mental health settings experience the violence risk assessment and management process. A systematic mixed studies review utilizing PRISMA guidelines was conducted. Sixteen studies were identified for inclusion. Data from qualitative, quantitative, and mixed-methods studies were analyzed together using a data-based convergent synthesis design. Using a best-fit framework synthesis approach, existing data was built upon to allow for a comprehensive qualitative overview of mental health professionals' experiences. The themes which emerged were: *The Patient as a Person; The Caring Relationship; Multidisciplinary Working*; and *Reliance on Clinical Intuition*. Results, clinical implications, and future research directions are discussed.

KEYWORDS

Risk assessment; risk management; forensic mental health; mental health professional

Introduction

Violence risk assessment and management in forensic mental health

Forensic mental health (FMH) services are provided for individuals who are deemed to pose a risk to others, where that risk is usually related to a mental disorder (Joint Commissioning Panel for Mental Health, 2013). Violence risk assessment and management is at the forefront of the work of FMH services (Markham, 2020). The process involves assessing a person's risk for future violent behavior or recidivism and leads to treatment and management plans with the goal of reducing the possibility of these behaviors occurring (Richardson, 2009). However, this is not the only task of FMH professionals, as of equal importance is providing recovery-oriented care for the individual. Thus, FMH services can be seen as having a dual role, balancing the care of the

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individual and the safety of the public (Van Den Brink et al., 2015). Both elements are necessary for FMH services to function optimally (Mann et al., 2014).

Challenges of violence risk assessment and management in FMH

Balancing the dual role

Professionals are faced with the dual task of having to balance public safety with service user care (Kelly et al., 2002; Nyman et al., 2020). Tensions can play out between FMH services and other organizations with differing priorities. FMH services have an ethical duty to balance recovery-oriented care with risk, whereas other bodies, such as government departments, are required to balance public safety with service user rights (Markham, 2018). FMH professionals operating under this dilemma need to manage the apparent disconnect between risk management and recovery focused care, while avoiding becoming engrossed in political, institutional, or social pressures (Markham, 2018).

The challenge of balancing this dual role may be further complicated by the public perception of individuals with mental illness as being more dangerous (Witt & Nee, 2013). In the research, individuals with mental illness have been found to engage in a greater amount of self-harming and suicide behaviors, however evidence of increased violence toward others is weak at best (Halle et al., 2020; Short et al., 2012; Stuart, 2003). Despite the contested evidence, research continues to demonstrate a public perception that those with mental illness are more prone to engage in violence (Corrigan et al., 2003; Feldman & Crandall, 2007; Van Kesteren, 2009). It has been suggested that this assumption of public fear may drive anxiety amongst health professionals, leading to disproportionate risk aversion in services, defensive practice and limited positive risk taking (Markham, 2018).

This culture of risk aversion appears to be supported in the literature (Garcia-Retamero & Galesic, 2012; Woodall, 2014). The stakes are seen as high in FMH services. Errors in judgment may lead to serious incidents and result in severe criticisms of professionals and services. Langan and Lindow (2004) reported that staff are less likely to be blamed for imposing restrictions on a person's life, compared to taking positive risks to support the person to move toward a better quality of life. Similarly, mental health professionals in Brown and Calnan's (2013) study reported feeling vulnerable, monitored, and pressured by society. This led to decreased willingness to take positive risks, despite staff acknowledging that these were essential to move service users forward.

Despite the apparent paradox, bridging the concepts of risk and care is essential for both the recovery of the service user and effective risk management. There is a danger that services can become overly focused on managing risk factors (Markham, 2018). This can lead to service users engaging in

compliant behaviors and avoiding expressing dissatisfaction to self-manage their own risk status (Dixon, 2012; Reynolds et al., 2014; Shingler et al., 2020). Thus, a preoccupation with risk may ultimately serve to enhance risk rather than reduce it (Markham, 2018) and lead to detriments in meeting the mental health needs of service users (Brown & Calnan, 2013).

Risk assessment methods and tools

Historically, risk assessments tended to be based on unstructured estimates of risk informed by intuitive clinical experience. These were often anecdotal and unstandardized, whereby clinicians could decide which factors to consider and how much weight to attribute to them. The current consensus in the research is that this method lacks reliability, validity, and transparency (Levin, 2019). These criticisms gave rise to the actuarial risk assessment approach which initially focused on static predictors of violence, such as gender or acute psychiatric symptoms (Trenoweth, 2003). However, there was concern that a sole focus on static factors and risk prediction rather than risk management interventions is not useful for clinicians for care planning and goes against the concept of recovery-oriented care. These perceived limitations led to the development of the structured professional judgment (SPJ) approach (Markham, 2020).

SPJ can be seen as a merging of the unstructured clinical judgment and actuarial approaches. It integrates empirically supported risk factors with clinical judgment to produce a final risk judgment about potential for future violence (Chaimowitz et al., 2020). The Historical Clinical Risk Management (HCR-20) instrument (Douglas et al., 2013) is the most widely used SPJ tool. Much research supports the psychometric properties of the HCR-20 in terms of inter-rater reliability and predictive validity for future violence (e.g., Doyle et al., 2014). The HCR-20 has however been criticized on the basis that it does not adequately inform the daily management and treatment of risk (Ireland et al., 2016; Ogloff & Daffern, 2006) and fails to pay sufficient attention to protective factors or give any guidance on how to formally identify protective factors (Judges et al., 2016).

Despite the development of the actuarial and SPJ methods of violence risk assessment and management, it is reported that unstructured clinical assessments of violence risk remain common in FMH services (Lantta et al., 2015; Levin, 2019; Nicholls et al., 2006, 2016; Nielsen et al., 2015; Singh et al., 2011). The exact reasons for the continued use of unstructured assessments of risk remain unclear. Some research has suggested it may be due to formal risk assessment tools being too time consuming, or the possibility that they may threaten professional expertise (Kroppan et al., 2011). Lantta et al. (2015) cited other possible explanations, including staff being unclear what instrument to use, and ineffective multidisciplinary communication about the purpose and content of risk assessment and management plans.

The challenges of using these tools can be further tested by the sheltered nature of many FMH settings. Clinicians are expected to assess the likelihood of a person's potential for violence following discharge in an environment designed to prevent such events (Markham, 2018), and where service users may be motivated to engage in compliant behaviors to lessen their restrictions or progress toward discharge (Dixon, 2012; Reynolds et al., 2014). These challenges may undermine the validity or the evidence within the risk assessment.

Collaboration

The UK Department of Health advises that the risk assessment and management process should center on joint decision-making between service users and clinicians. This should involve shared purpose and values where the staff member involves the service user in each step of the process and gives the person opportunities to play a lead role in identifying risks and deciding the level of support they need to minimize these risks (Department of Health, 2009).

The positive impacts of collaboration are well recognized in the literature (e.g., Markham, 2020; Ray & Simpson, 2019; Söderberg et al., 2020). For example, collaboration can provide insight into service user views and understanding of their risk. This can support risk estimates and prediction and shed light on warning signs which are not easily observable to staff (Ray & Simpson, 2019; Vazire & Mehl, 2008). Collaboration can further service users' understanding of why interventions are necessary (Kumar & Simpson, 2005) and may lead service users to take increased accountability for their own recovery (Kroner, 2012). It may support service users to feel empowered, which can in turn improve therapeutic relationships and reduce risk (Dixon, 2012; Hamann et al., 2003).

The concept of collaboration and shared decision making in FMH can be seen as particularly complex due to the restrictive and involuntary nature of these settings (Söderberg et al., 2020). Despite the evidenced benefits, the research suggests that service user participation in violence risk assessment and management is not always sought (Dixon, 2012; Eidhammer et al., 2014; Nyman et al., 2020; Schroder et al., 2016). Failing to collaborate with service users on their own risk assessments goes against the core principles of the recovery approach and may lead to inaccurate assessments (Eidhammer et al., 2014). A lack of collaboration can also foster a sense of mistrust toward health professionals (Shingler et al., 2020). Thus, it is pertinent that service users are involved, and not seen as passive recipients of the process.

It has been suggested that a key barrier to collaborative risk assessment and management centers on professionals being conflicted by the dilemma of managing care and risk, and wanting to avoid challenging conversations due to concerns about damaging the therapeutic relationship (Levin,

2019). Risk assessments can be seen to have a negative impact on the formation and development of therapeutic relationships (Nyman et al., 2020). Under involuntary circumstances, professionals are faced with the challenging task of attempting to create an environment where service users view risk assessment and management as a core element of their recovery and see relationships with staff as a key part of this (Rusbridge et al., 2018). The research indicates that staff are open to including service users in risk assessments (Langan, 2008), however this does not appear to be translating to practice (Dixon, 2012; Eidhammer et al., 2014; Nyman et al., 2020; Schroder et al., 2016).

Collaboration in the context of FMH is clearly a complex matter, and the extent to which this occurs is unclear, though based on the available literature, appears to be suboptimal. Nonetheless, in line with the literature, there is a duty to support collaboration and a balancing act is required (Söderberg et al., 2020).

Aim

This overview of the literature has highlighted some of the challenges FMH professionals may experience when attempting to assess and manage risk of violence in FMH settings. This includes the inherent difficulties of balancing service user care and public safety, issues with risk assessment tools in practice, and barriers to meaningful collaboration. Given the increasing emphasis on violence risk assessment and management in recent years, there has been a growing interest in the literature regarding FMH professionals' experiences of this process. FMH professionals play a core role in the assessment and management of risk in these settings. Thus, consolidating our understanding of their perspectives is essential. This will add to our understanding of the topic and has the potential to both improve quality of care and safeguard the individual and the public, as well as guide future research in the area. To the researcher's knowledge, no systematic review on this topic has been conducted. This review aims to provide a comprehensive, representative, and unbiased synthesis of the current literature on the topic.

Method

A protocol for this review can be found on the PROSPERO database (CRD42020203566). Prior to beginning this review, a search of Prospero, Cochrane Library, Google Scholar, Psych INFO, EMBASE and Medline databases was conducted to ensure that there was no existing review on this topic. None were identified.

Rationale for mixed studies review

The need to extend the scope of systematic reviews to include studies with different designs has been emphasized in the research (Hong & Pluye, 2019). Given the limited research on the topic, a systematic mixed studies review (SMSR) was deemed appropriate to capture all potentially relevant studies. A SMRS was deemed appropriate to deduce the maximum available information from the available literature to provide a detailed and thorough understanding of mental health professionals' experiences. The recommendations outlined by Hong et al. (2017) for conducting and reporting SMSRs were utilized in conducting this review.

Design

Data from qualitative, quantitative, and mixed-methods studies were analyzed together using a data-based convergent synthesis design. This type of design suits broad or descriptive review questions, such as what is known about a particular topic and as such was deemed appropriate (Hong et al., 2017). Extracted data from all studies were synthesized using framework synthesis, a qualitative synthesis method.

Search strategy

The search was conducted over the following databases: MEDLINE, PsycINFO, EMBASE, CINAHL and ProQuest Thesis and Dissertations Global. The SPIDER (Sample, Phenomenon of Interest, Design, Evaluation, Research Type) tool was used to support the development of search terms (Cooke et al., 2012). This tool was designed using the PICO (population, intervention, comparison, and outcomes) tool and was created to support the development of search strategies in qualitative and mixed methods studies. The databases and search strategy were chosen in consultation with a specialist librarian.

The final search terms used across all databases were:

Terms relating to sample: "psychiatr* nurs*" or "forensic nurs*" or "forensic psycholog*" or "forensic psychiatr*" or "mental health* prof*" or "mental health* worker*" or "mental health* service*" or "mental health* unit*"

AND

Terms relating to the phenomenon of interest: "risk assess*" or "risk manag*" or "forensic risk*" or "psychiatr* risk*"

AND

Terms relating to the evaluation: experienc* or perception* or attitud* or reflect* or opinion* or explor* or perspectiv*

All databases were searched from the date of their inception to July 27th, 2020.

Eligibility criteria

The authors of the review identified studies regarding mental health professionals' experiences of the violence risk assessment and management process in FMH settings. Full inclusion and exclusion criteria are outlined in Table 1.

Study selection

The process of study selection is outlined in Figure 1 according to the Preferred Reporting Items for Systematic Reviews (PRISMA) protocol (Moher et al., 2009). The inter-rater reliability was calculated for each stage of screening using Cohen's Kappa. If the Kappa value was less than 0.60 at any point (McHugh, 2012), discrepancies were resolved by reaching consensus amongst first and second authors about how the inclusion criteria should be applied, and relevant studies were rescreened to ensure an adequate Kappa level was achieved. In the event the first two authors could not reach agreement regarding a study's inclusion, it was agreed that the third study author would be consulted.

Title and abstract screening

Once the studies yielded by the database searches (n = 3,804) had duplicates (n = 1,245) removed, the remaining studies (n = 2,559) were uploaded to Covidence Systematic Review Management Software (available at https://www.covidence.org/). Using study title and abstract, the first author used the criteria outlined in Table 1 to decide whether to include studies for full-text screening. When it was unclear if inclusion criteria were met, the study was included in the interest of inclusivity. A 20% title and abstract screen (n = 512) was conducted by the second author.

Table 1. Inclusion and exclusion criteria.

(1) Research linked to mental health professionals' experiences of violence risk assessment and management of adults (18+) in FMH settings was included. Studies focusing solely on risk to self were excluded.
(2) Where studies referred to more than one setting, the study was included if results pertaining to the FMH setting could be separated, or if the FMH setting represented a clear majority of the sample.
(3) Where studies included more than one perspective, the study was included if the results pertaining to mental health professionals' experiences could be separated, or if mental health professionals represented a clear majority of the sample.
(4) Only studies written in English were included.
(5) Studies with qualitative, quantitative and mixed methods designs were included.
(6) Studies published up to the date of study extraction (July 27th, 2020) were included.
(7) Peer reviewed studies and gray literature (e.g., unpublished doctoral dissertations) were eligible for inclusion. Reviews of other studies and books chapters were excluded.

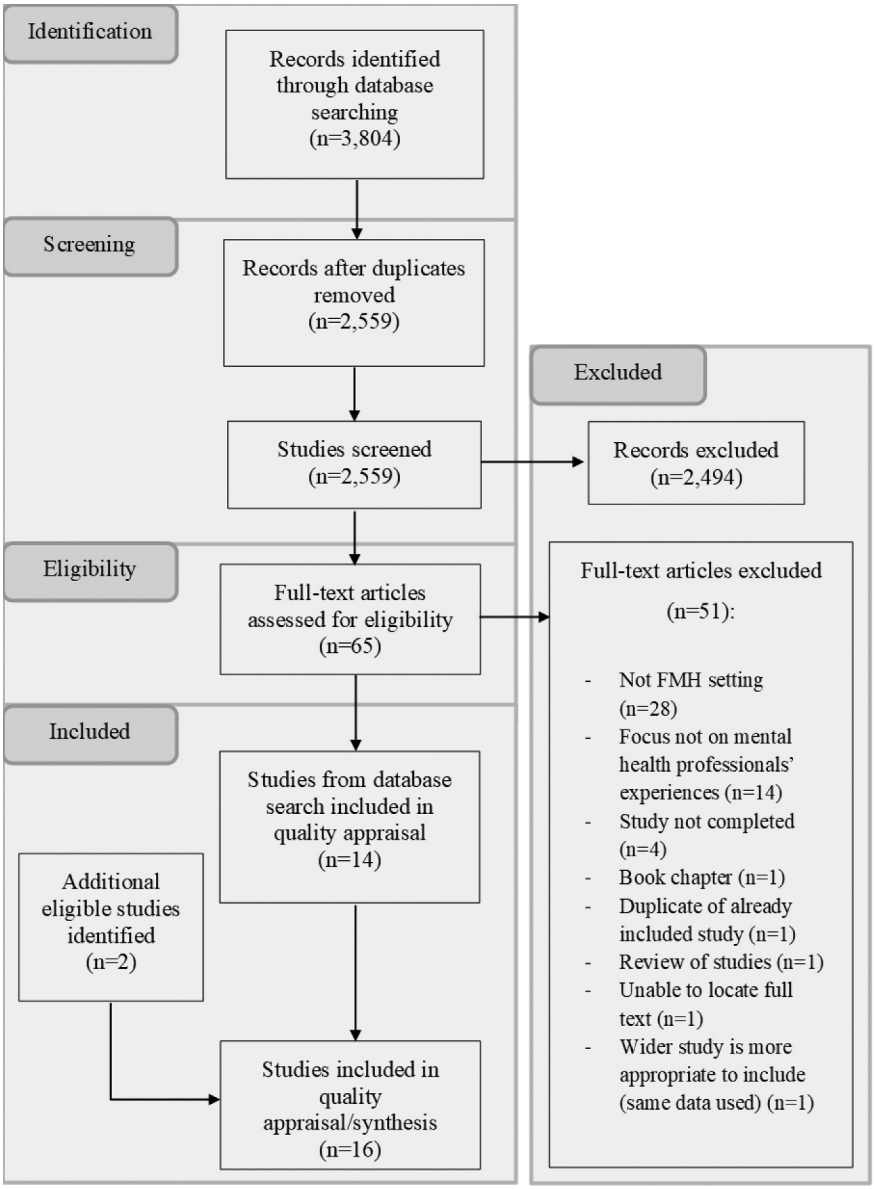

Figure 1. PRISMA flowchart (Moher et al., 2009).

Full-text screening

Following exclusions by title and abstract, the remaining full-text articles (n = 65) were screened by the first author and a 20% screen (n = 13) was conducted by the second author. Following the full-text screen, 14 studies were deemed suitable for inclusion in the review. Reasons for exclusion of 51 articles are listed in Figure 1.

Additional searches

To ensure all relevant articles were identified, manual searches of reference lists of included studies were conducted, as well as contacting authors of published studies in the topic area. One additional study was identified from a reference list of an included study, and one additional study was identified via Google Scholar.

Quality assessment

As studies with diverse methods were included in this review, the Mixed Methods Appraisal Tool (MMAT; Hong et al., 2018), a critical appraisal tool designed for use in systematic reviews which include quantitative, qualitative, and mixed method studies was used. The MMAT tool has been validated and shown acceptable reliability (Crowe & Sheppard, 2011). The tool assesses areas such as suitability of measures, sampling methods, and researcher bias (Hong et al., 2018). For the purposes of this review, where only one element of a mixed methods study was relevant to the review aim, the MMAT assessed the quality of the whole study (i.e., qualitative and quantitative elements of the study were assessed).

The first author completed a quality assessment for 100% of the included studies, with a 20% check by the second author (n = 4). Bearing in mind the novel nature of the review question, and as recommended by Hong et al. (2018) and Carroll et al. (2011) no studies were excluded based on methodological issues. However, studies which presented with quality issues are highlighted in the results and discussion sections.

Data extraction

Data for synthesis was extracted from the results sections of included studies as per the process outlined by Carroll et al. (2013). For the qualitative data, this consisted of verbatim quotes, or other reported findings which were clearly substantiated by the study data. For quantitative data, this involved extracting verbal summaries of the results. Data extraction was conducted by the first author for 100% of included studies, and a 10% (n = 2) extraction check was performed by the second author.

Framework synthesis

A data-based convergent synthesis design was used, where qualitative and quantitative results were analyzed using the same synthesis method. In the case of this review, a qualitative evidence synthesis was utilized. Although there are many options for qualitative synthesis (such as thematic synthesis or narrative synthesis), a 'best fit' framework synthesis (Carroll et al., 2011, 2013) was identified as the most suitable method. Framework synthesis offers

a means of integrating quantitative and qualitative data (Booth & Carroll, 2015). It is based on framework analysis and allows for a new theoretical model based upon a preexisting framework (Carroll et al., 2013). Importantly, the original framework does not need to account for all the data, hence the term 'best fit.' It can be used as a starting point from which to build upon. It allows researchers to do high quality research within a shorter timeframe, enabling rapid interpretation and synthesis of information into a coherent output (Shaw et al., 2020). It can be seen as both deductive and inductive. It maps data from identified studies onto pre-identified themes, concepts, or theories, and is then revised to incorporate any uncoded data resulting in a final framework which includes both original and new themes (Shaw et al., 2020).

The framework synthesis followed the process outlined by Carroll et al. (2011), (2013)). A familiarization process was followed initially, whereby the researcher became immersed in the data to understand the range of views and experiences represented in the literature. Informed by the familiarization process, the researcher identified a suitable framework. The authors recognized that the categories outlined by Nyman et al. (2020) were reflected in many of the other studies in the review. Therefore, the Nyman et al. (2020) categories (see, Table 6) were deemed an appropriate framework from which to begin to conceptualize mental health professionals' experiences and were used as an a priori framework to allow the organization of the data from the other studies (Carroll et al., 2011, 2013).

The extracted results were then reviewed and coded line-by-line, comparing the data with the a priori framework. The author identified categories in the framework which were supported by other review papers. As has been discussed in the research (Noyes et al., 2020), framework synthesis can present the risk of simplistically forcing data into a framework. The suggestions of Carroll et al. (2011), (2013)) were followed to avoid this potential pitfall. When the data did not match the a priori framework, additional themes were created via a secondary thematic analysis, as outlined by Braun and Clarke (2006). This led to the final framework which can be seen in Table 7.

Results

Included studies

Sixteen studies met the inclusion criteria (see, Figure 1). An overview of included studies can be found in Table 2. The studies were from the UK (n = 9), Sweden (n = 3), Norway (n = 1), Finland (n = 1), the Netherlands (n = 1) and Scotland/Ireland (n = 1). The studies were conducted across a range of FMH settings, including low, medium, and high secure FMH units. One study was carried out in a female FMH unit (Allen & Beech, 2010) and another

Table 2. Summary of included studies.

Author, Year, Location	Relevant Study Aims	Setting Participants Sample Size	Relevant Methods & Analysis	Relevant Key Findings
Allen and Beech (2010) UK	Examined how nursing staff make judgments about service users' level of risk.	FMH service for women Nursing *n* = 17	Qualitative: Semi-structured interviews Qualitative template analysis approach	Nursing staff took a range of factors into account when making risk judgments. Primary Categories: Patient history, Patient current presentation, Staff and patient relationship
Cordingley and Ryan (2009) UK	To understand forensic occupational therapists' perspectives on risk assessments.	Various FMH settings (low security, medium security & young offenders' institute) Occupational Therapists *n* = 8	Qualitative: Focus Groups Long table approach	Themes: Risk perceptions and interpretations, Fundamental information, Risk behaviors and occupations, Environment
Daffern et al. (2009) England, UK	To measure the clinical utility of a risk management tool.	Inpatient forensic psychiatric unit Nursing *n* = 16	Quantitative: Staff Survey Descriptive Statistics	Nurses did not feel that the risk assessment tool was helpful. Nurses tended not to use it, and preferred unaided clinical judgment.
De Vogel and de Ruiter (2004) Netherlands	To examine the relationship between clinicians' feelings toward service users and their risk judgments.	Inpatient forensic psychiatric setting Clinical Psychologists, Psychotherapists, Nursing, Social work *n* = 44	Quantitative: Analyzing Feeling Word Checklist subscales scores and the HCR-20 total scores/risk judgments Pearson product moment correlations	Feelings of clinicians toward service users were associated with risk judgments. The feeling of being controlled and manipulated was related to higher HCR-20 total scores. Positive feelings toward patients were related to lower risk judgments.
Doyle et al. (2008) England, UK	To evaluate the practical utility and face validity of a new risk assessment tool.	A medium secure FMH service Nursing *n* = 11	Mixed Methods: Staff Questionnaire Descriptive statistics and thematic analysis	Themes: Knowing the individual, Uncertainty about timeframes, Concerns in the absence of overt behavior, Concerns about subjectivity and interpretation, The START as a helpful framework for organizing information
Heyman et al. (2002) England, UK	To explore professionals' accounts of risk management.	Low/Medium secure FMH hospital for offenders with learning disabilities Psychiatrists, Clinical Psychologists, Nurses, Social Worker, Occupational Therapists *n* = 13	Qualitative: Interviews Grounded theory approach	Themes: The Past, Past and Present Professionals felt past offending was the only tangible grip on future offending. Staff highlighted differing views of risk status between differing professions. Staff suggested they base risk assessments on personal knowledge of the service user.

(*Continued*)

Table 2. (Continued).

Author, Year, Location	Relevant Study Aims	Setting Participants Sample Size	Relevant Methods & Analysis	Relevant Key Findings
Heyman et al. (2004) England, UK	To explore mental health professionals' views about risk management.	Medium/low secure FMH Unit Managers, Doctors, Nurses, Psychologists, Social Workers, Occupational Therapists *n* = 43	Qualitative: Interviews Thematic analysis	Themes: The ideal-typical risk escalator, Organizational processes, Patient self-management of their risk status, Multi-professional collaboration
Kroppan et al. (2011) Norway	To describe and analyze the implementation process of the Short-Term Assessment of Risk and Treatability.	High secure hospital Nursing, Psychology, Psychiatry *n* = 43 (questionnaire) *n* = 8 (interviews)	Mixed Methods: Questionnaire and semi-structured interviews Descriptive statistics and comparative case analysis	Questionnaire: Majority agreed risk assessment gave adequate support to support security/release decisions. Majority agreed risk assessment contributed significantly to a more systematic process. Interviews: Staff used risk assessments to establish a fuller picture of service users' state, but this had little impact on security/release decisions. Staff tended to use clinical intuition in risk decisions. Risk assessment was seen to facilitate MDT working.
Langan (2008) England, UK	To explore how mental health professionals assessed risk to others and the extent to which they involved service users.	Two psychiatric hospitals Psychiatry, Nursing, Social work, Psychology, Occupational Therapy *n* = 46	Qualitative: Semi-structured interviews Framework analysis	Key themes: Openness in discussing risk with service users, Professional practice in involving service users in risk assessment, Agreement between service users and professionals about risk
Lantta et al. (2015) Finland	To consider nurses' perspectives of the clinical utility and implementation process of a structured violence risk assessment procedure.	Acute FMH unit Nursing and Clinical Directors *n* = 36 in total (across all units, unable to decipher how many were from forensic unit)	Qualitative: oral feedback, meetings, and written feedback Analysis method not specified	Staff stated that the risk assessment was quick to complete, promoted sharing of information, and increased number of discussions about risk. Staff expressed frustration about the timing/logistics of the assessment and questioned the need for any routine structured risk assessment.
Levin et al. (2018) Sweden	To identify the barriers and facilitators of a structured instrument for assessment of short-term risk.	Forensic psychiatric inpatient clinic Nursing, Psychiatry, Social work, Psychology, Occupational Therapy *n* = 18	Qualitative: Focus groups Qualitative content analysis	Categories (each with sub-categories relating to the facilitators and barriers): Characteristics of the implementation object, Characteristics of the context, Characteristics of the users

(*Continued*)

Table 2. (Continued).

Author, Year, Location	Relevant Study Aims	Setting Participants Sample Size	Relevant Methods & Analysis	Relevant Key Findings
Nyman et al. (2020) Sweden	To explore mental health nurses' experiences of risk assessments within their care planning and risk management	Inpatient forensic psychiatric units Nursing staff $n = 15$	Qualitative: Focus Groups Qualitative content analysis (deductive approach)	Categories: The patient as a person, The caring relationship, Documentation of risk assessments clarifies the nurses' role in inter-professional teamwork and facilitates agreement
Olsson and Kristiansen (2017) Sweden	To describe the experiences of forensic nurses with inpatient risk assessment processes.	Maximum-security forensic clinic Nursing staff $n = 15$	Qualitative: Semi-structured interviews Qualitative latent content analysis	Themes: Experiencing a professionalization of the risk assessment approach, Experiencing the risk assessment as being a contra caring praxis
Richardson (2009) England, UK	To investigate clinical team member use and perception of a risk assessment tool (HCR-20).	High secure hospital Nursing, Psychology, OT, Psychiatry, Social Work, Medical Staff $n = 45$ (pilot phase) $n = 87$ (implementation phase)	Mixed Methods: Observations, Unstructured interviews, survey "Qualitative analysis" and descriptive statistics	Staff reported that the risk assessment assisted the team to document and make decisions, and that the system had improved MDT working. Staff indicated that completing risk assessments puts a significant strain on clinical resources.
Trenoweth (2003) England, UK	To understand how mental health nurses make risk assessments in situations where there is a perceived likelihood of imminent violence.	Secure mental health setting Nursing $n = 10$	Qualitative: interviews Grounded theory	Categories: Knowing the patient, Tuning in, Nurse–patient relationships
Walker et al. (2019) Scotland and Ireland	To explore the utility of a forensic nursing risk assessment tool.	Three FMH services of differing levels of security (high, medium and low) Nursing, Occupational Therapy, Psychology, Medical Staff, Social Work staff $n = 272$	Mixed Methods: Staff questionnaire Thematic analysis	Theme: Production and delivery of information (with three subthemes: comprehension, confidence to apply the tool in practice and contribution)

in a secure FMH hospital for offenders with learning disabilities (Heyman et al., 2002). Mental health professionals in the studies included those from nursing, psychiatry, psychology, occupational therapy, and social work.

The majority of the included studies were qualitative (n = 10), while the remainder were quantitative (n = 2) and mixed methods (n = 4). Methods of data collection in the qualitative studies included interviews (n = 6) and focus groups (n = 3). One study collected data via oral feedback, meetings, and written feedback (Lantta et al., 2015). The mixed methods and quantitative studies included methods such as questionnaires, observations, surveys, and unstructured interviews.

Inter-rater reliability

Title and abstract screen

Cohen's Kappa was calculated for the 20% of titles and abstracts (n = 512) screened by the first and second authors to account for the probability of agreement based on chance alone. The Kappa value calculated (κ = .280) indicated fair agreement. McHugh (2012) suggested that 80% agreement is recommended, with any kappa lower than .60 indicating inadequate agreement. As such, the reasons for disagreement were discussed by the first two authors. Areas of disagreement included; whether to include studies focusing on absconding, and studies which were ambiguous as to the type of mental health setting. Following discussion, the criteria for inclusion were more clearly operationalized. For example, studies where the type of mental health setting was unclear were included in the interest of inclusivity. These studies were then rescreened by the first two authors, and the kappa value calculated (κ = .935) indicated almost perfect agreement.

Full-text screen

Cohen's Kappa was calculated for the 20% of full text studies (n = 13) screened by the first and second authors. The Kappa value calculated indicated almost perfect agreement (κ = .857).

Quality ratings

Cohen's Kappa was calculated for the 20% of included studies (n = 4) quality appraised by the first and second authors to account for the probability of agreement based on chance alone. The inter-rater reliability of the quality assessment ratings indicated perfect agreement between raters (κ = 1.00).

Quality appraisal

The methodological quality of the studies in the review varied according to the MMAT appraisal tool as can be seen in Tables 3, 4 and 5. Hong et al. (2018) advises against the use of a scoring system based on the premise that presenting a single number or percentage is not informative, as it does not provide detail regarding what aspect of the study is problematic. However, the authors of the tool have provided scoring criteria which can be used alongside a more in-depth overview of quality ratings which was used in this review. In the case of mixed methods studies, the percentage score relates to the lowest scoring element of the study.

The quality of the studies was judged to be acceptable overall. In particular, the qualitative studies were deemed to be of high quality, with nine out of 10 qualitative studies meeting all the MMAT criteria. Of the two quantitative studies included in the review, one presented with minor quality issues (De Vogel & de Ruiter, 2004). However, only a small amount of data was extracted from this study as most of the data did not correspond to the aims of the review. Three of the four mixed method studies did not meet all the MMAT criteria. In one study (Doyle et al., 2008) it was unclear what type of analysis was used and there was a lack of clarity on whether the findings were substantiated as no extracts were provided. The other two mixed methods studies which did not meet the criteria presented with issues such as failure to discuss divergences between qualitative and quantitative findings (Kroppan et al., 2011) and failure to provide a rationale for the mixed method design or explain in sufficient detail how the qualitative element of the study was carried out (Richardson, 2009).

Framework synthesis

The categories outlined by Nyman et al. (2020) were reflected in many of the other studies in the review, and therefore were deemed an appropriate framework from which to conceptualize mental health professionals' experiences of violence risk assessment and management in FMH settings. The Nyman et al. (2020) categories (see, Table 6) were used as an a priori framework which allowed organization of the remainder of the findings using a best-fit framework synthesis approach (Carroll et al., 2011, 2013).

Updated framework

The first category in the a priori framework '*The patient as a person*' and its' subcategories *'Opportunities to confirm the patient as a person'* and '*Barriers to confirming the patient as a person*,' were largely substantiated by the other review studies and no alterations made to the titles. Notably, time pressure was identified as a further barrier which was not discussed in the original

Table 3. Qualitative studies MMAT ratings.

	Author									
Qualitative Criteria	Allen & Beech (2010)	Cordingley and Ryan (2009)	Heyman et al. (2002)	Heyman et al. (2004)	Langan (2008)	Lantta et al. (2015)	Levin et al. (2018)	Nyman et al. (2020)	Olsson and Kristiansen (2017)	Trenoweth (2003)
Qualitative approach appropriate?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Qualitative data collection methods adequate?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Findings adequately derived from the data?	Yes	Yes	Yes	Yes	Yes	Can't tell	Yes	Yes	Yes	Yes
Interpretation of results sufficiently substantiated by data?	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
Coherence between qualitative data sources, collection, analysis and interpretation?	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
Quality score	100%	100%	100%	100%	100%	40%	100%	100%	100%	100%
Comments						Some analyses methods not specified. No extracts.				

Table 4. Quantitative studies MMAT ratings.

	Author	
Quantitative Criteria	Daffern et al. (2009)	De Vogel and de Ruiter (2004)
Sampling strategy relevant?	Yes	Can't tell
Sample representative of the target population?	Yes	Yes
Measurements appropriate?	Yes	Yes
Statistical analysis appropriate?	Yes	Yes
Risk of nonresponse bias low?	Yes	Can't tell
Quality score	100%	60%
Comments		Unclear how service users were approached and sampled from the pool of available participants. Unclear whether service users who were not included constituted those who would have been more difficult to rate.

framework. The a priori framework referred to how the absence of relatives of the service user in the risk assessment and management process can make gaining a full understanding of the person more difficult. However, this barrier was not supported by the other review studies.

The second category '*The caring relationship*' had three subcategories which can be seen in Table 6. The third subcategory '*The impact of the patients' reactions*' was renamed to '*Level of patient involvement in risk assessment*' to better encapsulate the content of the theme, which centered on mental health professionals' views about how involved service users were in their risk assessments. While this subtheme was evident in only two of the review studies (Langan, 2008; Nyman et al., 2020) it was deemed appropriate to be a subtheme given the richness of the data within the studies.

The third category in the a priori framework *'Documentation of risk assessments clarifies the nurses'* role in inter-professional teamwork and facilitates agreement' was renamed to *'Multidisciplinary working*.' The original title placed specific emphasis on nursing, however data from the synthesis highlighted the importance of all multidisciplinary team (MDT) members in the process. As such, the overarching theme title of '*Multidisciplinary working*' allowed for a more comprehensive overview of the content of the theme. A new subtheme was added to this category by following the process of secondary thematic analysis (Braun & Clarke, 2006). This new subtheme, '*Contrasting views of different disciplines*,' accounted for challenges associated with varying viewpoints of differing disciplines described across the review studies (Cordingley & Ryan, 2009; Heyman et al., 2002, 2004; Levin et al., 2018; Olsson & Kristiansen, 2017). The subcategory '*Documentation supports team communication'* was relabeled to *'Documentation and team communication'* as data from the synthesis highlighted

Table 5. Mixed methods studies MMAT ratings.

	Author			
MMAT Criteria	Doyle et al. (2008)	Kroppan et al. (2011)	Richardson (2009)	Walker et al. (2019)
Mixed Methods				
Clear rationale for mixed methods study?	No	Yes	No	Yes
Components of the study effectively integrated?	Yes	Yes	Yes	Yes
Outputs of the integration of qualitative and quantitative components adequately interpreted?	Yes	Yes	No	Yes
Divergences and inconsistencies between quantitative and qualitative results adequately addressed?	Yes	No	Yes	Yes
Different components of the study adhere to the quality criteria of each tradition of the methods involved?	No	Yes	No	Yes
Qualitative				
Qualitative approach appropriate?	Yes	Yes	Yes	Yes
Qualitative data collection methods adequate?	Yes	Yes	Yes	Yes
Findings adequately derived from the data?	No	Yes	No	Yes
Interpretation of results sufficiently substantiated by data?	No	Yes	No	Yes
Coherence between qualitative data sources, collection, analysis and interpretation?	Yes	Yes	No	Yes
Quantitative				
Sampling strategy relevant?	Yes	Yes	Yes	Yes
Sample representative of the target population?	Yes	Yes	Yes	Yes
Measurements appropriate?	Yes	Yes	Yes	Yes
Risk of nonresponse bias low?	Can't tell	Can't tell	Yes	Yes
Statistical analysis appropriate?	Yes	Yes	Yes	Yes
Quality score	60%	80%	40%	100%
Comments	Unclear what type of qualitative data analysis was used. No extracts to substantiate findings. Quantitative findings not relevant to the review.	Divergence between qualitative and quantitative findings not discussed.	No rationale for mixed methods. No explanation of how observations or interviews were carried out. Unclear what type of qualitative analysis was used.	Quantitative findings not relevant to the review

Table 6. A priori framework (Nyman et al., 2020).

Categories	Subcategories
The patient as a person	Opportunities to confirm the patient as a person
	Barriers to confirming the patient as a person
The caring relationship	Creating a trusting lasting relationship
	Balancing between caring and restricting actions challenge the relationship
	The impact of the patients' reactions
Documentation of risk assessments clarifies the nurses' role in inter-professional teamwork and facilitates agreement	Documentation as support for argumentation and transparency
	Documentation supports team communication

that documentation both supported (Nyman et al., 2020; Richardson, 2009; Walker et al., 2019) and inhibited (Heyman et al., 2004; Nyman et al., 2020; Walker et al., 2019) team communication. Hence a broader title was appropriate.

Perhaps the most significant amendment to the a priori framework from the synthesis was the addition of a new theme,'*Reliance on clinical intuition*,' which was apparent in nine of the review studies. This theme had two subthemes *'Gut feeling*' and *'Reluctance in using structured risk assessments*.' Mental health professionals across these studies discussed how they did not use risk assessments, and often based assessments on their gut feelings. Although this was not identified in the a priori framework, given that many of the review studies identified this as a salient factor in their datasets, it was deemed appropriate to include this new theme and relating subthemes in the framework. An updated framework following the framework synthesis can be seen in Table 7.

Themes

Four themes and ten subthemes were identified following the framework synthesis.

The patient as a person

The first theme discusses how risk assessments can serve as both an opportunity and a barrier when considering service users' individual needs and resources.

Opportunities to confirm the patient as a person

Mental health professionals described the difficulties of maintaining an objective stance in day-to-day risk decisions (Kroppan et al., 2011; Nyman et al., 2020; Olsson & Kristiansen, 2017). Staff appeared to feel a sense of containment in using risk assessment tools, "*before it was more random. . .now it is more scientific and secure*" (Olsson & Kristiansen, 2017, p. 58) where subjective

Table 7. Updated themes following framework synthesis.

Theme	Subtheme	Evidenced in
The patient as a person	Opportunities to confirm the patient as a person	Doyle et al. (2008); Kroppan et al. (2011); Levin et al. (2018); Nyman et al. (2020); Olsson and Kristiansen (2017); Trenoweth (2003)
	Barriers to confirm the patient as a person	Allen & Beech (2010); Heyman et al. (2002); Heyman et al. (2004); Levin et al. (2018); Nyman et al. (2020)
The caring relationship	Creating a lasting trusting relationship	Allen & Beech (2010; De Vogel and de Ruiter (2004); Langan (2008); Levin et al. (2018); Nyman et al. (2020)
	Balancing between caring and restricting actions challenge the relationship	Cordingley and Ryan (2009); Heyman et al. (2004); Olsson and Kristiansen (2017); Kroppan et al. (2011); Nyman et al. (2020)
	Level of patient involvement in risk assessment [a]	Langan (2008); Nyman et al. (2020)
Multidisciplinary working [a]	Risk assessment supports argumentation and transparency	Doyle et al. (2008); Kroppan et al. (2011); Levin et al. (2018); Nyman et al. (2020); Richardson (2009)
	Contrasting views of different disciplines [b]	Cordingley and Ryan (2009); Heyman et al. (2002); Heyman et al. (2004); Levin et al. (2018); Olsson and Kristiansen (2017); Walker et al. (2019)
	Documentation and team communication[a]	Cordingley and Ryan (2009); Heyman et al. (2004); Kroppan et al. (2011); Lantta et al. (2015); Levin et al. (2018); Nyman et al. (2020); Olsson and Kristiansen (2017; Richardson (2009); Walker et al. (2019)
Reliance on clinical intuition[b]	Gut feeling [b]	Daffern et al. (2009); Heyman et al. (2002); Kroppan et al. (2011); Langan (2008); Levin et al. (2018); Olsson and Kristiansen (2017)
	Reluctance in using structured risk assessments [b]	Daffern et al. (2009); Doyle et al. (2008); Lantta et al. (2015); Levin et al. (2018); Olsson and Kristiansen (2017; Richardson (2009)

Note. [a] indicates a reworded theme; [b] indicates a new theme or subtheme

evaluations of service users by staff were minimized. However, staff felt that risk assessments were often unable to grasp the "*whole picture*" (Nyman et al., 2020, p. 106) of the service user and were overly focused on problems or risks (Levin et al., 2018; Nyman et al., 2020). As a result, professionals placed significant emphasis on the importance of getting to know the person and focusing on their resources or protective factors to achieve a rounded understanding of the service user (Allen & Beech, 2010; Doyle et al., 2008; Kroppan et al., 2011; Levin et al., 2018; Nyman et al., 2020; Olsson & Kristiansen, 2017).

> So you have to try not to problematize so much, instead focus on the good and the positive. Then it is very easy sometimes, to take the easy way out and just enumerate everything the patient can't do. But I think that the result will be better if it is reversed. (Nyman et al., 2020, p. 107)

By following a patient-centered approach and emphasizing the importance of resources it was felt that a more nuanced overview of the service user was achieved.

Barriers to confirm the patient as a person

Professionals described several barriers to getting to know the service user and focusing on their individual needs and resources. Staff spoke about the challenges of knowing the details of a person's past, particularly when significant

violence was involved (Heyman et al., 2002; Nyman et al., 2020). Staff were concerned this could have a negative impact on the quality of care they provide, "it is very difficult and it happens easily that we just see the negative, and we take away their resources. We just see the problems and then maybe think a little bit square" (Nyman et al., 2020, p. 107). Another barrier to supporting the service users' individual needs centered on the sheltered environment of FMH settings (Allen & Beech, 2010; Doyle et al., 2008; Heyman et al., 2004; Nyman et al., 2020). Professionals were often unsure of their risk judgments, due to the lack of occurrence of common risk situations in a hospital environment, "at the moment I think what it is, is that she is actually in a secure place where she is being monitored and her range of movement is restricted, that's a factor but I'm not sure when she goes out there, how will she react?" (Allen & Beech, 2010, p. 11). The lack of attention to protective factors and overt focus on risk and past events emerged as an additional barrier (Levin et al., 2018; Nyman et al., 2020). Staff found it difficult to gain support from colleagues and perceived that risk assessments were excessively skewed toward risk, "when you mention these protective factors you feel that the others don't listen, you don't get any response from the rest of the care team" (Levin et al., 2018, p. 211).

Time pressure was identified as a challenge in certain studies (Levin et al., 2018; Richardson, 2009), though this was not discussed in the a priori framework. Staff felt that the requirement to complete risk assessments put strain on already stretched clinical resources, making it difficult to keep up with other responsibilities, "yes, but it's [time] not easy to find, even if you are entitled to, it's a strain on the ward" (Levin et al., 2018, p. 215). Staff were concerned about making inaccurate judgments by rushing assessments, "it feels like we don't have the time to consider all the information about the patient, unless you are bloody well prepared" (Levin et al., 2018, p. 211).

The caring relationship

This theme centers on the importance staff placed on establishing a caring relationship with the service user and encompassed three subthemes.

Creating a lasting trusting relationship

Staff spoke about the importance of establishing a lasting and trusting relationship with service users. Key elements of this included ensuring that the service user was well informed and prepared before attending important meetings and viewing the service user as a core part of risk assessment and management discussions. Professionals noted that one of the key factors which facilitated risk discussions was the quality of the relationship, "*for me it's about the relationship that we have and a relationship takes time to work out and build*

on. And the service user has to have a sense that their interests are what we have at heart" (Langan, 2008, p. 476). Some staff felt that these risk discussions themselves had improved the quality of their relationships.

> I think he was a bit shocked at what I'd said on the risk assessment form. But I went through it with him and he did agree that was how other people might see him. I think that it's interesting that, since we did that risk assessment, he's been much better with us … You know I sometimes think it may have improved his relationship with us. (Langan, 2008, p. 476)

This positive therapeutic alliance was seen as crucial, particularly in more challenging risk discussions such as refusing privileges, "the relationship, since we have built it up so well, it will manage the bumps. Sure, they can get grumpy and irritated but it will soon be over" (Nyman et al., 2020, p. 108).

Balancing between caring and restricting actions challenge the relationship

Staff discussed the dilemma of balancing the treatment and care of an individual, with carrying out and enforcing restrictions, and the challenges this can place on the therapeutic relationship (Cordingley & Ryan, 2009; Heyman et al., 2004; Kroppan et al., 2011; Nyman et al., 2020; Olsson & Kristiansen, 2017). Staff struggled to understand how they can be both, "*are we here to care or to guard?*" (Nyman et al., 2020, p. 108). Staff discussed the dilemma of balancing the caring relationship, and what may be best for the service user, with safety, "*for an OT it's the weighing up … do you allow somebody to have the game 'word search' in their cell, because if they don't they smack their head against the wall constantly*" (Cordingley & Ryan, 2009, p. 536). Staff felt that talking about risk assessment and management plans with service users could damage the relationship, noting it felt contradictory and went against the concept of caring (Olsson & Kristiansen, 2017). This was even more challenging when certain staff (mainly nursing) were not adequately involved in the assessment process. Staff expressed frustration about having to deliver decisions "*made by the team*" (Nyman et al., 2020, p. 108) based on discussions they were not part of.

Level of patient involvement in risk assessment

This subtheme relates to mental health professionals' experiences about how involved service users were in their risk assessments. Many participants in Langan's (2008) study could not be invited to the study as they had not been informed that risk assessments had been completed. They were unaware that professionals believed they posed a risk to others, "we may not be as open about our risk assessments as we need to be in order to refer them to the project" (Langan, 2008, p. 475). Risk assessments were often conducted "behind closed doors" (Langan, 2008, p. 477). Staff recalled instances where service users had become irritated and rejected the idea of any risk. In some instances, they informed the service user of the risk assessment verbally but

did not feel comfortable providing a physical copy. One professional spoke about how the risk information sent to the service user differed to that of their file (Langan, 2008). Mental health professionals appeared to understand the potential drawbacks of not including service users in their own risk assessments, "it's very disempowering for professionals to simply carry out a risk assessment if you're not involving the service user in it. But I don't know how much they are involved in it" (Langan, 2008, p. 475). Staff expressed desires to be more open with service users, however, as discussed, there were concerns about damaging the relationship. Professionals felt that transparency about risk assessment and management could support service users to enhance their understanding of risk, facilitate collaborative decision making, and ultimately better manage risk, "I'm quite open to change and including the person more in it, rather than it just being professionals talking about the risks" (Langan, 2008, p. 477).

Multidisciplinary working

This theme describes professional views of risk assessments as decision making aids, as well as how risk assessments can both support and inhibit MDT communication.

Risk assessment supports argumentation and transparency

A key finding in this subtheme centered on how staff felt that risk assessment documents can serve as a line of reasoning to aid decision making (Kroppan et al., 2011; Levin et al., 2018; Nyman et al., 2020; Richardson, 2009). Risk assessments were seen to facilitate having more "difficult" (Nyman et al., 2020, p. 108) conversations with service users, e.g., about privileges. Having the document available was found to be particularly helpful when there was disagreement among staff (Levin et al., 2018). The risk assessment document was also perceived as valuable for explaining and communicating with external parties, such as in legal proceedings, "I think it's good with the necessity to document, that we have considered the risks and have documented that, that's a documentation we can use in court" (Levin et al., 2018, p. 213).

Mental health professionals viewed the risk assessment process as a tool which enhanced transparency for both service users and the care team. It was agreed that the documentation served as a helpful way to organize information, communicate knowledge, and aid consensus. It allowed for a common view to be established about how best to manage risk and care needs, which was then reflected in the care plan (Doyle et al., 2008; Levin et al., 2018; Nyman et al., 2020).

Contrasting views of different disciplines

This subtheme describes the challenges differing views within the MDT presented to adequately assess and manage a service user's risk (Cordingley & Ryan, 2009; Heyman et al., 2002, 2004; Levin et al., 2018; Olsson & Kristiansen, 2017).

> It's difficult, because you have someone on the ward who's doing really well, and you know that they are smashing and that, progressing, and they're compliant and really want to progress. And you might say something to the consultant, who doesn't really see them that often. And they'll say: 'Oh, no, we've got to tread really carefully with this chap because of this, that and the other in his past, and he's done this and this and the Home Office is really reluctant to' . . . I sometimes think if it was left up to the nursing staff, we'd . . . probably take more of a risk . . . because you get to know them so well, working with them. (Heyman et al., 2002, p. 39)

A situation was described where the risk assessment team considered a service user to be high risk, yet against advice, the nursing staff decided to take him out of the secure setting, "we dared to do what we did, and took the patient out for a walk . . . we got some fresh air and discussed the problem. The patient got rid of some of his negative energy and the incident ended positively" (Olsson & Kristiansen, 2017, p. 59). Staff noted that differing disciplines can perceive risks differently and discussed how a blame culture can appear between professional groups. This often meant that a tight procedure bound approach was taken, "the protocols and everything are quite rigid, and there is also the blame culture. The nature of nursing is that if you do something wrong, you are blamed" (Heyman et al., 2004, p. 322).

Documentation and team communication

The risk assessment documents were found to both support and inhibit team communication. In many ways, being part of the process increased professionals' feelings of being part of the team and the sense of making a positive contribution, "I feel as though we have something useful to report at long last" (Walker et al., 2019, p. 134). Staff described how risk assessments were conducted with multiple MDT members. Effective MDT collaboration was seen by mental health professionals to be at the core of effective risk assessment and management, "you can't beat a stable multidisciplinary team . . . professionals from various backgrounds, nursing, education, therapy, psychology, all coming from different viewpoints. And if there's honesty and respect there, there's the ability to challenge" (Heyman et al., 2004, p. 321). MDT collaboration allowed for effective information sharing and provided an opportunity to discuss service users' needs in a structured way, while considering multiple views and opinions. This ultimately led to a common view of service user needs and appropriate ways of treating these (Heyman et al., 2004; Kroppan et al., 2011; Lantta et al., 2015; Levin et al., 2018; Nyman et al., 2020). Levin et al. (2018) reported on how no individual mental health professionals

were exposed to accusations of subjectivity, as the assessments were decided by the whole care team, "to have discussed it [the risk assessment] with everybody else and that's important – to have had a mutual communication and shared the information and come to an agreement about conclusions and understanding of what you have seen" (Levin et al., 2018, p. 213).

However, achieving multi-professional collaboration was found to be a significant challenge across some studies (Heyman et al., 2004; Nyman et al., 2020; Walker et al., 2019). Staff expressed frustration, *"probably, what is lacking is the lack of communication among disciplines"* (Heyman et al., 2004, p. 321) and *"half the time it seems that nobody even listens to our feedback at the MDT"* (Walker et al., 2019, p. 134). Several issues were identified when staff were not involved in the process of risk assessment. There was still an expectation to be well informed, there was confusion over why certain decisions were made, and some staff felt left out (Nyman et al., 2020; Walker et al., 2019). In these cases, staff did not regard the risk assessments as important, had significant gaps in their knowledge, and were often unable to relay the correct information to the service user. This hindered service user participation and effective implementation of the risk management strategies (Nyman et al., 2020).

> If you receive a risk assessment [conducted by another member of the care team], well, [it says] "this is what we concluded. These are the risk factors and protective factors we have identified," then you don't really . . . well, what did they mean by this, and what were they thinking here? And the patients maybe don't have a clue at all. I think it is better when it is close to you and when I have been participating and involved in writing the document, more or less. Or at least been participating in the discussion. (Nyman et al., 2020, p. 108)

Some staff felt that risk assessments were not consistent, often due to being conducted by different professionals, and noted that there were often discrepancies between the results of the assessment and the decisions made. It was clear certain staff felt that risk assessments were not useful, and seen as something to be stored away and not actively utilized in day-to-day practice, "even if the patient is considered to be a high-risk patient, he/she still can get permission to leave [the high-security forensic unit] . . . you don't use the assessments; they just put them in the bottom drawer" (Olsson & Kristiansen, 2017, p. 59).

Reliance on clinical intuition

This theme discusses staff preferences for using their own gut feelings or unstructured clinical judgments to make decisions. Some staff appeared to be reluctant to use formal structured risk assessments altogether.

Gut feeling

A key finding across many studies was that staff did not follow formal risk assessment procedures and instead based their assessments on their gut feelings (Daffern et al., 2009; Heyman et al., 2002; Kroppan et al., 2011; Langan, 2008; Levin et al., 2018; Olsson & Kristiansen, 2017). Many staff members felt that clinical judgment was superior to structured risk assessments, "I see my own clinical judgment as being more reliable" (Daffern et al., 2009, p. 674). Staff appeared to rely heavily on their own clinical experience to make decisions and were confident in their ability to assess risk in this way. Staff noted that daily assessments of service users, based on their appearance and current behavior provided the basis for decision making, "I haven't seen him for a fortnight, say, but it's the way they say 'good morning' to you? as simple as that … Experience and gut feeling and common sense" (Heyman et al., 2002, p. 40). In some cases, staff carried out their own informal assessments, and went against the content of the risk assessment (Olsson & Kristiansen, 2017). Langan (2008) reported that over half of professionals interviewed used what they described as "individually generated mental checklists" (Langan, 2008, p. 477). Some staff spoke about how risk assessments were only for those who did not know the service users well.

> The specific question about HCR 20 … well, I don´t think that I give it much thought when I'm working with them [the patients] … It is more a case of … my feeling is that it is more for others who haven´t met the person in question. Yes, they want everything in black and white … they want to see that stuff is happening. (Olsson & Kristiansen, 2017, p. 59)

Reluctance in using structured risk assessments

Some mental health professionals were accepting of formal risk assessments; however, many were reluctant and saw them as another burdensome task (Daffern et al., 2009; Levin et al., 2018; Richardson, 2009). The nurses interviewed by Lantta et al. (2015) questioned the necessity of using any routine structured risk assessment. Many staff were not convinced of the usefulness of risk assessment tools and as a result were reluctant to use them, *"I feel that as this has become a routine task, it has lost some of its purpose"* (Daffern et al., 2009, p. 674). Feedback from Richardson (2009) suggested that resistance to using structured risk assessments to guide decision making may be due to a lack of support from other team members, or the pressure of existing workloads. Other staff members discussed the difficulties of changing ingrained habits, *"that's the hardest thing when implementing something new, to break it off with the old behavior you have"* (Levin et al., 2018, p. 218). Staff spoke about how it can feel like unnecessary work, and often negative attitudes about risk assessments can spread amongst staff teams.

> but there was so much negativity. It's not encouraging to walk into the room if everyone is sighing and saying, well, now, we have an hour in front of us and this is really hard. Then you don't become very motivated. (Levin et al., 2018, p. 217)

Discussion

Overview of the findings

The current review identified 16 studies describing mental health professionals' experiences of violence risk assessment and management in FMH settings. Utilizing a best-fit framework synthesis, the study drew upon the categories outlined by Nyman et al. (2020). The review aimed to explore the utility of these categories as a framework from which to understand the experiences of mental health professionals across the studies. The a priori framework accommodated the majority of the data from the review studies. However, the framework did need to be expanded to provide a wider understanding of mental health professionals' experiences (as outlined in Table 7). The resulting framework provides a comprehensive overview which can be used to begin to understand mental health professionals' experiences.

A topic discussed by professionals across the studies centered on how risk assessments can act as both an opportunity and a barrier to considering service users' individual needs. Professionals appeared to like the structure and objectivity of the risk assessments. However, they felt that the assessments were often overly focused on risks or problems, failing to pay adequate attention to an individual's resources or protective factors. Professionals in the studies identified many barriers to supporting the service users' needs, such as knowing about a violent past, sheltered environments, lack of focus on protective factors and time pressure.

Professionals emphasized the importance of the therapeutic relationship and the impact this may have on risk assessment and management. Professionals were often conflicted between managing the dual role of being an assessor of risk and provider of care. Some professionals felt that taking on the dual role had the potential to negatively impact on the therapeutic relationship (Cordingley & Ryan, 2009; Heyman et al., 2004; Kroppan et al., 2011; Nyman et al., 2020; Olsson & Kristiansen, 2017). Consistent with previous research (Dixon, 2012; Langan & Lindow, 2004), professionals often did not involve service users in their risk assessments, and reasons for this generally centered on worries about damaging the relationship. However, some studies in this review found that discussions with service users about risk improved the therapeutic relationship (Allen & Beech, 2010; Langan, 2008), particularly in more challenging situations (Nyman et al., 2020). This is consistent with other research, for example, Shingler et al. (2018) who found that participants in a prison setting were more likely to be accepting of the outcome of the

assessment if they had understood and felt included in the process. Failing to include service users in their own risk assessments goes against the literature highlighting the benefits of collaboration (Dixon, 2012; Eidhammer et al., 2014; Hamann et al., 2003; Kroner, 2012; Kumar & Simpson, 2005; Ray & Simpson, 2019; Söderberg et al., 2020; Vazire & Mehl, 2008). Given risk assessment and management plans serve to protect the person, and the public, it is of primary importance that they are carried out collaboratively in line with best practice (Salkeld et al., 2018).

Many staff felt that risk assessments aided transparency and supported clarity and dialogue between both the MDT and with service users. It appeared that when an MDT was able to communicate effectively, staff members felt engaged and valued. However, when multidisciplinary collaboration was ineffective, staff felt disengaged, left out, and did not believe the risk assessments and management plans were valid. In these instances, professionals tended to not use the risk assessments. These negative feelings toward risk assessments reported by staff may in part explain the general reluctance to using structured assessments and why many staff reported using their own gut feelings when making decisions. The continued use of unstructured clinical assessments of violence risk was not a surprising finding in light of the previous research (Nicholls et al., 2006, 2016; Nielsen et al., 2015; Singh et al., 2011).

Quality of the evidence

The quality ratings of the studies can be seen in Tables 3, 4 and 5. Overall, the studies were judged to be of acceptable quality. In particular, the qualitative studies in the review were deemed to be of high quality. Unfortunately, the majority of mixed methods studies in the review presented with quality issues (Doyle et al., 2008; Kroppan et al., 2011; Richardson, 2009). It often appeared that the qualitative element of the mixed methods study was added as an afterthought, and little attention was paid to ensuring quality (such as reporting on data analysis methods and ensuring interpretations were appropriately substantiated). However, it is encouraging that the most recently published mixed methods study in the review (Walker et al., 2019) met all the MMAT quality criteria.

Strengths and limitations

Utilizing a systematic mixed methods approach was a key strength of this review. It allowed for insight to be gained from qualitative, quantitative, and mixed methods research to deduce the maximum available information from the literature and provide a detailed and thorough understanding of mental health professionals' experiences of violence risk assessment and management. The review included studies which incorporated the experiences of a wide

range of mental health professionals, thus reflecting the multidisciplinary nature of FMH services. The search strategy used in this review is considered a strength, as it covered a wide variety of databases, manual searches, contacting relevant authors in the subject areas, and the inclusion of grey literature to attempt to reduce the effects of publication bias. However, given the infinite number of possible search terms it is possible some articles may have been omitted. By using the 'best fit' framework synthesis approach the authors were able to build upon an existing framework, put data into the pre-defined themes, without being restricted by it, resulting in an enhanced framework. This allowed the researchers to do high quality research within a shorter timeframe, resulting in a coherent output of staff experiences.

Limitations of this review include that only studies in the English language were included, thus potentially valuable findings written in other languages may have been excluded. It should also be acknowledged that screening is not an exact science, and accidental omission of studies may have occurred due to human error. However, attempts were made to overcome this by using the dual screener approach and ensuring adequate kappa levels were achieved.

Conclusions and recommendations for future research

This systematic mixed studies review utilized a 'best fit' framework synthesis approach to synthesize data from 16 studies to build a comprehensive framework of mental health professionals' experiences of violence risk assessment and management in FMH settings. Conclusions and suggestions for future research are highlighted below.

The importance of effective multidisciplinary collaboration was a key finding of this review. Notably, when it was ineffective, many staff were found to disengage and were reluctant to use the risk assessment and management plan. Despite the challenges, to assess and manage risk with any degree of consistency, the use of a structured tool is considered essential in line with best practice (Singh et al., 2016). Some potential factors regarding why staff may prefer to use their own clinical judgment or be reluctant to use structured assessments have been suggested by studies in this review. It appears that there may be a gap in practice, whereby staff want to include service users, but lack the practical tools to achieve this. Alternatively, they may become caught within the dual dilemma of balancing risk and care. Possible areas to support minimizing this gap could include increasing staff training on the risk assessment process, particularly around having difficult conversations about risk. Educating staff on these areas may support their understanding of why collaboration is important. This may lead to more effective risk assessment and management. Further research about the reasons why staff find

the use of structured tools challenging, and what factors are important for successful implementation of risk assessment tools would be beneficial to support this work.

Findings from this review, and the limited literature, have illustrated that FMH service users are often excluded from their own risk assessments and generally see risk assessment and management as a negative experience (Dixon, 2012; Eidhammer et al., 2014; Langan, 2008; Nyman et al., 2020). As has been highlighted in the literature, and in this review, collaboration does pose challenges, particularly in FMH. However, the limited research (Dixon, 2012; Rusbridge et al., 2018) and studies in this review, have also suggested that a collaborative approach may in fact serve to enhance therapeutic relationships. There is a scarcity of studies of service user views in FMH (Coffey, 2006; Sullivan, 2005) and this is particularly notable in the case of violence risk assessment and management (Markham, 2020). We need to understand how FMH service users experience the risk assessment and management process to enable practitioners to maximize engagement where service users are meaningfully included and can become assessors and managers of their own risk. Exploration of this topic would add to the limited literature base, guide future research, and could have the potential to lead to improvements in violence risk assessment and management practices.

To our knowledge, this is the first systematic review to investigate mental health professionals' experiences of risk assessment and management in FMH settings. Evidently, there are many challenges in the assessment and management of risk in these settings. Mental health professionals play a central role in assessing and managing risk and furthering our understanding of their perspectives has highlighted areas for future research, as well as outlined potential ways to improve clinical practice.

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