

Mental health nurses' attitudes towards risk assessment: An integrative systematic review

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Geoffrey L. Dickens* - Professor Mental Health Nursing, Northumbria University, UK
ORCID: <https://orcid.org/0000-0002-8862-1527>

Mohammed Al Maqbali - Research Fellow, Northumbria University and currently
Fatima College of Health Sciences, UAE
ORCID: <https://orcid.org/0000-0003-2023-5627>

Nutmeg Hallett - Lecturer - University of Birmingham, UK
ORCID: <https://orcid.org/0000-0003-3115-8831>

Robin Ion - Senior Lecturer, University of the West of Scotland, UK
ORCID: <https://orcid.org/0000-0002-9206-4495>

Caroline Kemp - Expert-by-experience, UK

Mariyana Schoultz – Associate Professor, Northumbria University, UK
ORCID: <https://orcid.org/0000-0003-3780-8110>

Fiona Watson – Assistant Professor, Northumbria University, UK
ORCID: <https://orcid.org/0000-0002-4964-0477>

*Corresponding author: E: Geoffrey.Dickens@northumbria.ac.uk T: +447458366255

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ABSTRACT

Introduction

Understanding nurses' attitudes towards risk assessment could inform education and practice improvements.

Aim/Question

To explore mental health nurses' attitudes towards risk assessment.

Method

An integrative systematic review (PROSPERO: CRD42023398287). Multiple databases (PubMed, CINAHL, MEDLINE, EMBASE, PsycINFO) were searched for primary studies of mental health nurses' attitudes towards risk assessment. Qualitative studies were subject to inductive coding and thematic analysis; quantitative data were integrated with emerging themes.

Results

Eighteen papers were included. Qualitative studies commonly lacked rigorous analyses. Four themes emerged: underlying purpose and legitimacy of risk assessment (philosophical orientation); use of structured approaches (technical orientation); value of intuition (intuitive orientation); and service user involvement (relationships orientation). There were contradictory study findings in each thematic category indicating different attitudes among mental health nurses.

Discussion

Mental health nurses' attitudes towards risk assessment vary in four key domains. Survey studies suggest they are more approving of structured approaches to risk assessment than many qualitative studies suggest. There is a need to develop a valid measure of attitudes to risk assessment.

Implications for practice

This review could help health organizations to develop strategies to improve their risk assessment policies and practice. There is a need to develop structured training and education programs.

Keywords: risk assessment, nursing role, violence, suicide, systematic literature reviews

Relevance statement:

Assessment of risk for adverse outcomes including suicide, self-harm, violence, victimisation and self-neglect is a key part of the mental health nursing role in all settings. Nurses' attitudes to risk assessment appear to be mixed but this is the first systematic review of the related empirical literature. Resulting from the review we present a framework for understanding the domains in which attitudes differ. This can inform practice and future research.

What is known on the subject?

- Risk assessment and risk management are considered to be important practices carried out by mental health nurses.
- Risk assessment can help keep mental health service users' safe but some nurses see it as a 'tick the box' exercise.
- Some studies have looked at nurses' attitudes to risk assessment but no one has systematically described all the studies.

What the paper adds to existing knowledge?

- Mental health nurses' attitudes towards risk assessment are diverse with regard to its legitimacy, conduct and value.
- This study provides an organised framework to help understand the areas in which these different attitudes occur.

What are the implications for practice?

- Since attitudes can influence clinical practice, nurses need to reflect on how they view risk assessment. Further research is required to investigate whether particular attitudes are positive or negative and whether attitudes can be changed.

1. INTRODUCTION

Risk assessment is one of the highest profile components of mental health practice (National Confidential Inquiry into Suicide and Safety in Mental Health, 2018; Royal College of Psychiatrists, 2016; Woods, 2013). Risk assessment and management in mental health services have been viewed as a process that can enhance quality of care for patients (Flintoff et al., 2019) and that is essential to assuring patient and employee safety (Rimondini et al., 2019). The Department of Health (2009: p.61) has defined risk as 'The nature, severity, imminence, frequency/duration and likelihood of harm to self or others', whereas risk management involves the actions taken on the basis of risk assessment that are designed to prevent or limit undesirable outcome. The assessment of the likelihood, severity, and the potential circumstances of adverse risk events including self-harm, suicidal behaviour, violence, self-neglect, and victimisation is central to professional practice across all mental health settings (Higgins et al., 2016; Gunenc et al., 2018). Further, risk assessment involves consideration of the circumstances in which those estimations are likely to alter, for example what might be the potential de-stabilisers of continued desistance from risk behaviours (Logan, 2014). Safety-management, which is closely linked to risk assessment, involves planning with service-users to manage and mitigate risks (Royal College of Psychiatrists, 2016).

Risk assessment requires skilled application of assessment, formulation, and management within the context of patient and family engagement, professional collaboration and communication (Downes et al., 2016). Risk assessment guidelines prepared by the Royal College of Psychiatrists (2016: p.6) note that the interaction between clinician and patient is crucial: 'good relationships make assessment easier and more accurate and might reduce risk'. This reflects research which indicates that interpersonal relationships, communication,

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and a gradual development of trust are among the risk assessment practices that patients report to be beneficial (Brown & Calnan, 2013; Deering et al., 2019; Holley et al., 2016). Another aspect that has gained research attention is the study of mental health nurses' attitudes. This is largely because of both the theoretical and measurable links between attitudes and practice including behaviour towards and relationships with patients (Dickens et al., 2022). Mental health nurses' attitudes have been considered important in shaping their practice in specific domains including the use of containment measures for disturbed behaviour or management practices for self-harm (Bowers et al., 2007; Hosie & Dickens, 2018). Thus, from a psychological perspective, attitudes are considered important because they are proposed as important determinants of behaviour (Rohall et al., 2021).

While the attitudes of mental health nurses to risk assessment practice have been subject to some scrutiny (Coffey et al., 2017; Downes et al., 2016; Hawley et al., 2010) they have not, to the best of our knowledge, been subject to rigorous systematic review. A systematic review is justified because its purpose is to “deliver a clear and comprehensive overview of available evidence on a given topic” (Poklepović Peričić & Tanveer, 2019). The aim of this review was to systematically identify, appraise, and synthesise the existing body of empirical knowledge about mental health nurses' attitudes towards assessment of, for, and with patients.

2. METHOD

The review was conducted according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses 2020 (Page et al., 2020) guidelines (Page et al., 2021). The review protocol was registered at PROSPERO (No. CRD42023398287).

2.1 Search strategy

A search of the Cochrane Library, PROSPERO, and Joanna Briggs Institute databases was conducted to ensure the review did not duplicate existing or in progress reviews. The review question was framed in the PEO (Population, Exposure, Outcome) format: What is known about the attitudes (O) of mental health nurses (P) regarding risk assessment (E)? In the current review we take a perspective of the term 'attitude' which is aligned to a dictionary definition: "the way you feel about something or someone" (www.dictionary.cambridge.org) rather than related, non-evaluative constructs such as perception, belief, opinion, or experience. A systematic literature search was conducted from 1975 to 2021 in PubMed, CINAHL, MEDLINE, EMBASE, PsycINFO. Search terms included free text terms and Medical Subject Headings (MeSH) related to nurses (nurs*, health professional*, health care worker*, health personnel); attitudes/experiences (attitude*, perception*, experience*, perspective*, feeling*, thought*, opinion*, belief*, knowledge, view*, practices); risk assessment (safety planning intervention, "Risk Management" [MeSH], "Risk Assessment" [MeSH]) and type of risk (substance misuse, drug use, drug abuse, substance abuse, addiction, violence, aggression, hostility, violent, anger, aggressive behavior, forensic, exploitation, "Social Problems" [MeSH], self-neglect, suicide, self-harm, self-injury, mental illness, mental disorder, psychiatric illness). In addition, reference lists of retrieved studies and review articles were searched to identify any further relevant studies. Additional searching, limited to the first 200 results, was conducted in Google Scholar.

2.2 Inclusion/ Exclusion criteria

Papers eligible for inclusion were English-language accounts of primary research (any study design) published in peer-reviewed journals. Participants must have included mental health nurses and studies must have investigated their attitudes to risk assessment related to any of

seven adverse outcomes commonly assessed in mental health settings (violence, suicide, self-harm, self-neglect, victimisation, substance misuse, absconding). Studies solely about risk management practices, either in general or specific interventions, were excluded; as were studies where no mental health nurses participated, literature reviews, and studies solely about service users' views or experiences of risk assessment. Studies were not excluded on the basis of year of publication or design.

2.3 Quality Assessment

Eligible studies were subject to quality assessment using one of two assessment tools.

Quantitative studies were assessed using the Newcastle-Ottawa Scale (NOS) (Well et al., 2020). This scale, designed to evaluate non-randomized studies, comprises eight items (scored 0 or 1 except where indicated) across three domains: participant selection (4 items), comparability of study groups (1 item, scored 0-2), and outcomes assessment (3 items).

Studies were considered to be at low (total score 7-9), moderate (5-6) or high (0-4) overall risk of bias (Li & Katikireddi, 2019). Qualitative studies were assessed using the 10-item Critical Appraisal Skills Programme (CASP) checklist (Critical Appraisal Skills Programme; 2021). Each checklist item was rated as 'Yes', 'Can't Tell', or 'No'. In line with the tool's guidance, we did not calculate a total score.

2.4 Data analysis

It was anticipated that included studies would use quantitative and/or qualitative approaches to data gathering. An integrative approach to data synthesis was therefore planned (Pearson et al., 2015; Thomas et al., 2004; Thomas & Harden, 2008). Analysis followed the six-stage process advocated by Braun and Clark (2006): familiarisation with the data; generation of initial codes; search for themes; review of themes; definition of themes; write up. Further, thematic synthesis is philosophically positioned in critical realism, such that the reviewers

acknowledge that their own perspectives will inevitably mediate analysis and make them explicit for reasons of transparency (Zachariadis et al., 2013). To this end, author one has researched extensively about the use and value of structured professional judgement tools and is broadly supportive, but not uncritical, of them (e.g., Dickens, 2015).

2.4.1 Qualitative Studies

The data in the included qualitative studies were taken to be the content of results or findings sections of the papers including descriptions and direct quotes from first hand narrative accounts, and the researchers' interpretations such as abstractions of groups of narrative into themes. The full text of these sections was copied into a Microsoft Word document. Initially, text from a random selection of half of the qualitative studies was subject independently to line-by-line free coding (author one and two) and organised into themes. Disagreements about coding at this point were resolved through discussion and the initial themes were presented to the research team, discussed, and amended. Coding was done inductively to capture content and the meaning of each sentence and could be organised in a hierarchical manner (themes and sub-themes) or as standalone themes. Results from quantitative studies were incorporated into the analysis at this point (see 2.4.2). Subsequently, findings from the remaining qualitative studies were coded and incorporated into the analysis and again discussed by the team. When necessary, new codes were created or deleted when themes were merged. Further interpretation of the data corpus was conducted through a process of rewriting and reorganising the narrative account of emerging themes.

2.4.2 Quantitative Studies

Results from three quantitative papers were extracted; all used survey designs to explore respondents' opinions and views about risk assessment and largely presented responses in terms of the proportion of the sample agreeing or disagreeing with statements about the issue.

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Using the preliminary coding schema developed from analysis of half of the qualitative studies (see 2.4.1) results from the survey studies were integrated or, where deemed necessary, the coding schema was amended to facilitate inclusion of these results.

2.4.2 Integration and major theme development

Finally, the data were re-examined to identify any overarching supra-themes both within and across thematic categories. Using examples from both qualitative and quantitative studies, Table 1 shows progress from initial coding to synthesis of codes into major themes.

Throughout the analysis, interpretation of the findings was informed by the quality appraisal of studies with results from stronger studies duly accorded more weight.

>> *Insert Table 1 about here*<<

3. FINDINGS

3.1 Study selection

Relevant articles were retrieved as per the PRISMA flow diagram (see Figure 1). In total, 18 ($n=15$ qualitative, $n=3$ quantitative) articles involving 1,205 ($n=360$ in qualitative studies and 845 in quantitative studies) individuals were eligible for inclusion (see Table 2 for further details). Papers drew on 17 unique samples; one sample was investigated in two separate articles. Of the qualitative studies, nine used individual interviews to gather data while five used focus groups. All three quantitative studies were cross-sectional surveys using questionnaires to capture data. Papers were published from 1999 to 2021 and described studies conducted in the UK ($n=7$), Australia, Sweden (both $n=4$), Canada, Ireland, and Turkey (all $n=1$).

>>*Insert Figure 1 about here*<<

>>*Insert Table 2 about here*<<

3.2 Quality assessment

Qualitative studies met all quality criteria related to appropriate methods, design, recruitment and data. However, only four were judged to have described data analysis with sufficient rigour, none had explicitly considered the relationship between the researchers and participants, and half were lacking detail to provide confidence about the clarity of the results (see Supplementary Table s1). While not a CASP quality criteria, we noted that five of the papers were single-authored which could be considered to transgress strategies that might reduce personal biases including engaging with other researchers (Noble & Smith, 2015). One of the quantitative studies (see Supplementary Table s2) was judged to be of moderate risk of bias (Wand et al., 2015) with the remaining two judged to be at low risk. Accordingly, quality rating informed our analysis and interpretation of findings.

3.3 Thematic synthesis

Analysis resulted in four themes which describe attitudes toward different aspects of risk assessment. Table 1 provides examples of findings of interest from both qualitative and quantitative studies, how these were subsequently coded and then synthesised into one of four attitudinal themes: Philosophical Orientation; Technical Orientation; Intuitive Orientation and Relationship Orientation. To clarify further, Table 1 provides an example of how nine findings of interest were coded as four categories and subsequently collapsed into the single attitudinal theme of Philosophical Orientation. Similar examples of findings related to Technical Orientation, Intuitive Orientation, and Relationships Orientation are also presented. While each theme describes a discrete area there were frequently contrasting within-theme findings across studies.

In the results section, we use the term 'risk assessment' to refer to findings of studies, which have been conducted as investigations of risk assessment in a general sense, often largely but not entirely about risk of violence or risk to others. When study findings were about risk assessment for specific outcomes such as suicide or self-neglect, we state the outcome around which the study was focused. We use the term 'tool' to refer collectively to a range of instruments that aim to provide structure to risk assessment including checklists and aide-memoires through to published schemes with evidence of psychometric validation.

3.3.1 Theme 1: philosophical orientation

Philosophical orientation described participants' attitudes regarding the legitimacy of the mental health nursing role in risk assessment, the underlying purpose of risk assessment, the role, importance and utility of policy and of adhering to that policy, and the legitimacy of the outcomes for which risk assessment is appropriate.

Risk assessment was perceived to be important due to the potential for substantial positive impact on patients' lives (Levin et al., 2018), and, in survey research, participants largely disagreed with statements suggesting that risk assessment is a waste of resources and primarily a defence against litigation (Downes et al., 2016). Conversely, risk assessment *was* considered to be primarily driven by fear of litigation (Clancy et al., 2015), and, in one survey study, most respondents experienced organisational pressure and a culture of blame around risk assessment and management (Wand et al., 2015).

The perceived purpose of risk assessment was usually considered to be to prevent adverse outcomes or, euphemistically, to promote safety (Ayhan & Ustun, 2021; Godin, 2004; Muir-Cochrane et al., 2011; Woods, 2013). A minority of participants in one study viewed risk assessment as an opportunity to pursue therapeutic goals through carefully managed risk taking (Murphy, 2004). The legitimate outcomes to be considered for prevention in risk

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assessment included 'adverse events' (Woods, 2013), violence (Clancy et al., 2015; Godin, 2004; Murphy, 2004), self-harm (Godin, 2004; Murphy, 2004), suicide (Clancy et al., 2015), self-neglect (Murphy, 2004), victimisation (Godin, 2004; Murphy, 2004), and iatrogenic issues (Godin, 2004). Different risk outcomes were prioritised for prevention depending on the population with whom participants worked: for example, participants working with older aged adults were concerned with suicide, poor care, and iatrogenic outcomes (Godin, 2004).

There were mixed views about whose role risk assessment was. Mental health nurse participants in Murphy (2004) and Downes et al. (2016) overwhelmingly said risk assessment was in their remit. In three further studies (Clancy & Happell, 2014; Muir-Cochrane et al., 2011; Raven & Rix, 1999) participants viewed risk assessment as a multidisciplinary team responsibility. However, some participants in two studies said risk assessment was the responsibility of medics due to their psychiatric knowledge and legal responsibility (Muir-Cochrane et al., 2011; Ayhan & Ustun, 2021). For suicide risk assessment, participants described taking responsibility *despite* it being formally the role of medics (Derblom et al., 2021).

3.3.2 Theme 2: technical orientation

Technical orientation described participants' attitudes towards operational aspects of the risk assessment process including the legitimacy of identifying specific risk factors for target outcomes, and about the value of the evidence base for risk assessment more widely. Further, the legitimacy of scales, tools, or structured approaches in the conduct of risk assessment, views on the appropriate frequency, duration, and intensity of risk assessment, the legitimacy and appropriateness of specific sources of information to consult during risk assessment, and the way in which risk assessment and risk management are integrated were all discussed.

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Identified risk factors for individuals included unemployment, alcohol or illicit drug use, self-neglect, medication non-concordance, failure to engage, change in environment or baseline behaviour, demographic and clinical features, subtle nuances (Murphy, 2004), non-verbal behaviour (Murphy, 2004; Woods, 2013), history of violence (Murphy, 2004; Muir-Cochrane et al., 2011), and history of hospitalisation (Muir-Cochrane et al., 2011). In one study, nurses said risk assessment should cover home circumstances, family relationships, socio-economic status, and illness symptoms (Ayhan & Ustun, 2021). Perceived risk factors for suicide specifically were history of repeated attempts, though some participants believed the opposite to be the case (Derblom et al., 2021). Reported barriers to the development of risk assessment practice included a lack of research evidence (Clancy et al., 2015).

With regard to the perceived usefulness and desirability of risk assessment tools, some thought that they might assist less experienced practitioners, and aid clinical decision making (Godin, 2004). Some participants in Muir-Cochrane et al. (2011) said that a structured tool facilitated a systematic and comprehensive approach, and improved interprofessional communication and continuity of care. But elsewhere, respondents felt structured assessments were 'mechanical, behaviourally reductive and dehumanising' and denied patients the opportunities to take risks that might improve their lives (Godin, 2004: p.352). Clancy and Happell (2014) reported that formalised risk assessments were perceived to stifle skills development. Despite these concerns, commonly expressed in qualitative studies, when asked in survey studies most mental health nurses agreed that risk assessment tools can be effective (Downes et al., 2016; Wand et al., 2015), useful to other staff (Hawley et al., 2010) and rejected statements that they are 'mechanical and dehumanising' and that 'personal clinical assessment is a better predictor' (Downes et al., 2016: p.190). Less promisingly, only half agreed that their assessment identified the most salient features of a new referral or that it offered a meaningful description of risk (Hawley et al., 2010).

Risk assessment was viewed as a 'frequent and commonplace activity' (Langan, 2008: p.477), and 'some elements' were explored by participants on every contact with patients (Murphy, 2004: p. 410) or 'daily' (Nyman et al., 2019: p.106). Elsewhere, participants said that risk assessments were only valid for a limited period and hence there was inherent tension between doing too much or insufficient risk assessment (Jansson & Graneheim, 2018).

Observation was a key source of current risk information (Ayhan & Ustun, 2021; Muir-Cochrane et al., 2011; Woods, 2013). Historical risk information commonly came from psychiatric (Gilbert et al., 2011; Godin, 2004; Muir-Cochrane et al., 2011; Murphy, 2004; Woods, 2013; Godin, Muir-Cochrane, Woods, 2013) and criminal records (Woods, 2013). Legitimate collateral sources included friends or relatives (Gilbert et al., 2011; Muir-Cochrane et al., 2011; Murphy, 2004; Woods, 2013) and other professionals (Gilbert et al., 2011; Godin, 2004; Muir-Cochrane et al., 2011). The point *when* information was collated appeared important: while this could occur 'before the patient was even met' (Godin, 2004: p.354), some nurses avoided reading about a new patient's background until they had met them to 'create a first encounter with the patient that was as caring and trusting as possible' (Nyman et al., 2019: p.107).

The presence and importance of joined up thinking between risk assessment and practice was highlighted (Godin, 2004; Muir-Cochrane et al., 2011), as well as building risk procedures into daily practice and workplace culture (Muir-Cochrane et al., 2011). However, this did not always happen (Gilbert et al., 2011; Woods, 2013). Staff tentatively suggested that the START had been used to inform decisions about risk management (Levin et al, 2018). Survey results indicated that one third of nurses agreed that an emphasis on the importance of risk assessment inherently reinforces risk averse practices, while slightly more, two in five,

disagreed (Downes et al., 2016). Wand et al. (2015) reported that respondents agreed with statements that uncertainty about individual patient's risk was likely to increase use of medication, hospitalisation, and community treatment orders. According to Gilbert et al. (2011), even following review, respondents reported that changes were rarely made to the risk assessment and, notably, positive changes in levels of assessed risk would likely be ignored in terms of reduction of risk management measures.

3.3.3 Theme 3: Intuitive orientation

Intuitive orientation described participants' attitudes towards the role of their unique personal experience in the development of risk assessment skills and to the role and value of phenomena that can best be described as related to intuition.

The accumulation of hands-on experience of risk assessment itself facilitated preparedness (Ayhan & Ustun, 2021; Clancy & Happell, 2014; Clancy et al., 2015; Levin et al., 2018; Muir-Cochrane et al., 2011; Murphy, 2004; Woods, 2013; Raven & Rix, 1999) including specifically for suicide and self-neglect risk assessment (Derblom et al., 2021; Gunstone, 2003). The consensus in Murphy's (2004) study was that 2+ years' experience would significantly improve ability. However, Derblom et al. (2021) found that, the accumulated experience and knowledge of suicide risk assessment reportedly led to less confidence in their risk assessments because of increased awareness of the multiple factors involved.

The perceived value of an intuitive approach to risk assessment was often expressed by participants. The terms used included 'intuition' (Clancy & Happell, 2014; Derblom et al., 2021; Jansson & Graneheim, 2018), 'Spidie-sense' (Woods, 2013), 'gut feelings' (Raven & Rix, 1999), and 'clinicians' knowing' (Clancy & Happell, 2014). The constructs were rarely elaborated upon and, effectively, the intuitive approach favoured by many remained largely unarticulated except when contrasted with more structured approaches (see Theme 2). Thus,

for participants in Clancy et al.'s (2015: p.3183) study, best practice in risk assessment was arrived at by rejecting formal measurement tools in favour of 'intuition and knowing the client well'. This illustrated how some nurses' conflated intuition with desirable outcomes like development of a therapeutic relationship as if this could not be achieved in the context of a structured approach. Concurrently, structured approaches were conflated by some with less desirable outcomes e.g., Godin's (2004: p.352-353), report that risk assessment was seen as an art as much as a science, and that the imposition [sic] of structured procedures 'stifled creativity'. At least some nurses realised that such polarisation was unwarranted, the author noted that 'many, however, felt that there was a need to integrate the new methods of risk assessment with, what they termed, 'professional intuition', 'gut feeling' and 'instinct'".

The preferred role, for some, of intuition was also demonstrated by Muir-Cochrane et al. (2011) who reported a perception that risk assessment policies may be of importance but were, and *should* be, secondary to 'clinical judgement... intuition and integrity'. Whether 'policies' were perceived to be equivalent to a more structured approach in general is not disclosed; however, intuition is again conflated with clearly positive aspects, in this case integrity and clinical judgement. From an agglomeration of participant views, Muir-Cochrane et al. (2011: p.731) then identified characteristics that were believed to contribute to a clinical judgement approach: experience in the assessment and management of risk, and additional skills and attributes including motivation, objectivity, awareness, precision, sensitivity, and empathy. The authors concluded that the centrality of these features meant that the nurse-patient therapeutic relationship was key. However, the extent to which this impressive list of characteristics was prevalent in participants was unclear.

For suicide risk assessment specifically, intuition, hunch, or 'gut feeling' ('an ineffable sense that something is not right') was considered important (Derblom et al., 2021: p.778). Also in

Derblom et al.'s (2021: p.778) study, intuition would reportedly direct subsequent risk assessment questions and was sometimes the 'decisive factor' in their assessment; participants in Jansson and Graneheim's (2018: p556) rural community study 'relied on' intuition. Despite this reliance, in a rare instance where the power of intuition was challenged, participants acknowledged that sharing one's intuitions was 'impossible' due to their subjectivity. Further reflecting the inherent subjectivity of and clear limitation of overemphasis on intuition, participants reported that once they perceived one patient as suicidal that their estimation of risk for others would also rise.

3.3.4 Theme 4: Relationships orientation

Relationships orientation described participants' attitudes to the networks of individuals and groups with whom they could potentially interact with during the process of risk assessment. Most notably, these included service users themselves, and their colleagues and other relevant agencies.

Patients themselves were seen as an information source for their own risk assessment (Ayhan & Ustun, 2021; Gilbert et al., 2011; Muir-Cochrane et al., 2011; Murphy, 2004; Nyman et al., 2019; Raven & Rix, 1999; Woods, 2013). While there was an acknowledgement that collaboration and involvement of the patient was important and desirable (Langan 2008; Muir- Cochrane et al., 2011; Nyman et al., 2019) the extent to which this happened was dependent on several factors. Prior knowledge or experience of the individual, particularly with reference to known individual triggers, was seen as helpful in assessing risk (Nyman et al., 2019; Raven & Rix, 1999). Muir-Cochrane et al. (2011) alluded to a piecing together of many elements in terms not only of the presence of risk factors but also their relevance. Jansson and Graneheim (2018: p.556) described how participants were constantly 'looking

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for signs' of increased risk, drawing on their historical knowledge of the individual's response to similar situations to inform their assessment.

Suicide risk assessment was supported by direct questioning of patients about their thoughts or plans (Derblom et al., 2021). Moreover, nurses felt that suicide-assessment reliability was enhanced by longer conversations with patients. In turn, this facilitated development of closer relationships in which nurses themselves were more willing to negotiate verbal non-suicide or self-harm contracts. Development of the therapeutic relationship was also seen as a key facilitator of self-neglect risk assessment and was said to aid assessment of both strengths and weaknesses (Gunstone, 2003).

Teamwork was seen as central to risk assessment, with respondents saying they valued the opinion of multi-professional team members (Ayhan & Ustun, 2021; Raven & Rix, 1999). Interestingly, while team responsibility was central to self-neglect risk assessment, it was also noted that, due to the role of personal values, decisions might differ depending on who was involved in the conversation (Gunstone, 2003). The value of teamwork was also suggested by the identification of team member changes as a barrier to risk assessment (Ayhan & Ustun, 2021). Others were shortages in patient records, excessive workload, poorly designed risk assessment forms or perceived irrelevant questions and lack of support from management. Temporary psychiatrists 'dominated the discussion' and were viewed as unhelpful in the assessment process (Levin et al., 2018: p.211). Lack of time was cited as a factor in suicide risk assessment (Derblom et al., 2021) and could lead to important information being missed.

3.3.5 Attitudes to risk assessment framework

Further consideration of the proposed themes led to conceptualisation of an Attitudes to Risk Assessment Framework (ARAF) in which risk assessment-related attitudinal targets can be understood in terms of their position along two axes: i) a cognitive – emotional continuum

and ii) a personal – interpersonal continuum (see Fig 2). This conceptualisation adapts Hodges' Health Career – Care Domains - Model (HCM; Hodges, 1989) which has previously been used to structure consideration of risk in mental health nursing (Dickens & Doyle, 2016). A cognitive – emotional continuum represents aspects of risk assessment that are perceived to involve maximum structure and codification at one pole and high creativity at the other. A personal – interpersonal continuum represents an individual's internal and external world in respect of risk assessment practice. Themes identified in the current study are proposed to each be most congruent with one quadrant of a 2 x 2 table formed from orthogonal positioning of the two continuums. The personal (internal) – emotional (low structure) cell best fits aspects of risk assessment described in our intuitive domain and relevant attitudes would be those towards the role of intuition and experience. The emotional (high creativity) – interpersonal (external) cell best fits aspects of risk assessment identified in our interpersonal domain and relevant attitudes would be about working with service users and other professionals. The personal (internal) – cognitive (high structure) cell represents a philosophical domain characterised by attitudes towards the purpose and legitimacy of risk assessment. Finally, the cognitive (high structure) – interpersonal (external) cell represents a technical domain characterised by attitudes towards the process of conducting risk assessment within the organisational structures and policies provided, and with or without tools or schemes developed in wider contexts. In each domain, evidence from the current review suggests that individuals may have markedly different attitudes.

4. DISCUSSION

We have conducted a systematic, integrative review of literature about mental health nurses' attitudes towards risk assessment. The search strategy resulted in identification of 18 eligible papers, most (n=15) describing qualitative studies. A significant contribution of the review is

the development of the ARAF which provides a theoretical basis for understanding a sizeable literature comprising disparate and sometimes contradictory findings. It may provide a framework for practitioners to consider their own attitudes, how they compare with others', and whether they differ in relation to specific risk behaviour. Here we discuss the findings of the review in the context of the theoretically generated domains of interest: philosophical, technical, interpersonal, and intuitive aspects of risk assessment.

In the philosophical domain, most mental health nurses view risk assessment as an important mechanism for protecting patients and service users; they acknowledge that it need not focus solely on risk of suicide/self-harm or violence; understand that risk outcomes will vary across groups; and accept that it is a nursing and multidisciplinary responsibility. Survey studies suggest that risk assessment does not – from most mental health nurses' perspectives - block engagement with service users; that risk can be predicted, and that validated tools can be useful. More disagree than agree with the idea that idiosyncratic personal clinical assessment is a more useful guide to risk than structured assessment (Downes et al., 2016; Wand et al., 2015). Messages that support the utility of risk assessment should be used to reinforce these findings. On the other hand, some believe that risk assessment is largely an exercise in litigation avoidance (Clancy et al., 2015; Wand et al, 2015). Care should be taken to ensure that routine risk assessment does not degenerate into a box-ticking exercise; hence, risk assessments should be regularly discussed among the team and with the individual patient. They should be evaluated in terms of the value-added to management, treatment, and building of therapeutic relationships and not simply on their existence.

In the technical orientation domain there was general support for structured approaches to risk assessment despite some acceptance that the evidence base is not *very* strong (Clancy et al., 2015). In particular, structured approaches were viewed as helpful for those with less

experience. Some, however, do appear to hold a more fundamental belief that risk assessment per se is mechanical and dehumanising (Godin, 2004) or stifles therapeutic creativity (Clancy & Happell, 2016). Structured approaches to risk assessment are, in our view, a more reliable method of skills development than personal clinical experience. Tools such as the Short-Term Assessment of Risk and Treatability (START) (Webster et al., 2004) were developed to marry the advantages of the use of evidence with professional judgement and offers a transparent format to support recordable assessment of risk and protective factors based on a comprehensive range of empirical evidence. In particular, it balances the reliance on the largely static statistical data used in actuarial assessments with valuable professional knowledge and understanding of the individual service user. While there is a range of evidence to support use of the START in terms of feasibility, acceptability, and predictive validity (O'Shea & Dickens, 2014), it has fared less well when subjected to tests of efficacy for prevention of recidivism (Troquete et al., 2013). Nevertheless, further research is required about whether schemes such as the START provide useful information to assessors, whether their use increases knowledge, confidence in risk assessment and objectively better risk assessments, particularly in non-forensic settings.

Findings related to the intuitive orientation domain suggest it is here that the most polarised attitudes lie. While surveys generally found widespread rejection of intuitive approaches to risk assessment (e.g., Downes et al., 2016), participants in qualitative studies more commonly and vociferously reported their value. The case for careful use of intuition as a supplement to more deliberative approaches to mental health risk assessment has previously been made by Carroll, (2012) who noted that progress has been dependent on the integration of both deliberative and intuitive thinking. The techniques described in qualitative studies reviewed here, however, were in our view often poorly articulated, incomprehensibly operationalised, and defined largely in contrast to structured approaches rather than on their own merits.

Given that, in a survey (Downes et al., 2016), such approaches did not garner widespread support we can only speculate that qualitative studies have, by accident or design, emphasised the views of a minority. This could not be ruled out on the basis of study quality given our finding of widespread failure to report on researcher positionality. We recommend that the disadvantages of intuition-based approaches, notably opacity and bias (Carroll, 2012), are offset by careful guidance on its use. There is much to learn from research beyond that on the topic of risk assessment in mental health. In a qualitative focus group study conducted among hospital specialists the authors concluded that, while participants used intuition in their clinical reasoning, they disagreed on its role considerably (Van den Brink et al., 2019). The authors noted vagueness about some participants' definitions, which included 'feeling, intuition, and gut feeling' while others offered a cognitive account of the phenomenon as 'not a feeling but pattern recognition' (ibid: p.2).

Actuarial approaches to risk assessment, in which empirically-derived risk factors are identified and used statistically to calculate a 'risk level' are characterised by their critics, fairly so in our view, as mechanical. Indeed, they were developed with the aim precisely of removing intuition from the assessment process (Monahan, 1984). However, the fact that these criticisms still pervade much mental health nursing discourse around risk assessment, as demonstrated in the current review, suggests that many have not been exposed to, or simply do not accept the value, of more recent developments in the field. The evolution of 'structured professional judgement' over the past quarter of a century has seen a conscious effort to marry both deliberative and intuitive approaches because such an approach is generally accepted to lead to optimal decision-making more generally (Baumeister & Bargh, 2014). While it is nearly 20 years since Godin (2004) reported that mental health nurses found structured approaches to risk assessment to be 'mechanical' and to 'stifle creativity', it is disappointing that these ideas are seemingly still prevalent in more recent studies. While

we agree with Melin-Johanson et al. (2017: p.3936) that intuition is 'more than simply a "gut feeling... and has a place beside research-based evidence', it needs to be carefully applied and subject to considered guidelines because over-reliance can be subject to heuristic biases and outcomes may be opaque (Carroll, 2012).

In contrast, the relationships orientation domain revealed the least contentious set of findings. Teamwork across disciplines and service user involvement in risk assessment were universally seen as advantages. This is positive because it reflects aspects of risk assessment that patients report to be beneficial (Brown & Calnan, 2013; Deering et al., 2019; Holley et al., 2016). Nevertheless, some frustrations were evident about working with those service users who were seen as less co-operative; similarly, frustrations were apparent as a result of resource shortages.

Within each attitudinal theme there were contrasting findings between and within studies. We do not consider this to be contradictory; instead, we suggest it is indicative that individual respondents hold different attitudes towards risk assessment: mental health nurses are oriented positively or negatively, to a greater or lesser extent, in their appraisal of the role and value of risk assessment per se, and that of intuition, structure, and relationships in the risk assessment process. This has potentially important implications given that one important rationale for investigating attitudes is the well-established theory that they influence behaviour (Ajzen, 1985). Such theory has been widely cited to support attitudinal research in mental health nursing across a range of topics (Dickens et al., 2022). Consequently, the ability to discriminate between those with different attitudinal sets provides an opportunity to understand their role in risk assessment. On the evidence of this review, we predict that mental health nurses will have non-uniform attitudinal sets, which could be discernible through development of appropriate measures. Consequently, the relationships between

attitudes to risk assessment and related behaviour could be investigated; for example, whether particular attitudes are consistent with good practice or risk assessment quality. Further, it may be possible to investigate whether attitudes can change in the context of, for example, education or experience. The themes identified in this review, and the framework we propose, provide a starting point for the development of a valid psychometric tool for the purpose of measuring these attitudes.

4.1 Strengths and limitations

The review protocol was registered in advance on PROSPERO and we made no significant changes during its conduct. Evaluation of methodological quality was important for interpretation of study results. Study quality was assessed independently using the NOS for quantitative and CASP for the qualitative studies. While qualitative studies met most quality criteria, many lacked information about data analysis, results, and the researcher – participant relationship. While not a CASP quality criteria, we also found little information about researchers' existing orientation to risk assessment. Given the widely different, sometimes polarised, views expressed across studies, this seems relevant. On the other hand, survey studies are essentially snapshots and allow little nuanced exploration of views (Coughlan et al., 2009) and this may, at least partly, explain a superficial support for structured approaches that does not withstand the scrutiny of qualitative studies, which purportedly provide in-depth understanding (Merriam, 2009). The survey studies in this review did not optimally measure attitudes towards structured risk assessment as evidenced by the lack of any validated instruments.

5. CONCLUSION

Risk assessment is a cornerstone of mental health nursing practice. Significant strides have been taken over the past 20 years to increase its value in terms of its comprehensiveness

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including consideration of a range of target outcomes beyond violence and self-harm, and of protective factors or strengths alongside vulnerabilities. The development of structured tools such as the Short-Term Assessment of Risk and Treatability (START) (Webster et al., 2004) offers a method to bring evidence to the fore in risk assessment. Repeatedly, survey research has shown that mental health nurses understand the value of risk assessment and that it has a central place in their practice. There are differences among mental health nurses as regards their attitudes to risk assessment, most notably in their views about intuition and structure which could fruitfully be investigated with more rigorously developed measures. For a phenomenon that is seen by some as so crucial, intuition in risk assessment has received little critical research attention. Its constituent elements need to be more systematically identified and operationalised in order that they can be tested. Risk assessment is a complex area requiring considerable attention to development of training, user involvement, and support systems. While it is not sufficiently known what the relationships are between mental health nurses' attitudes and practice, particularly in terms of associated behaviours and, ultimately, patient outcomes (Dickens et al., 2022), the case of risk assessment offers opportunities for further investigation.

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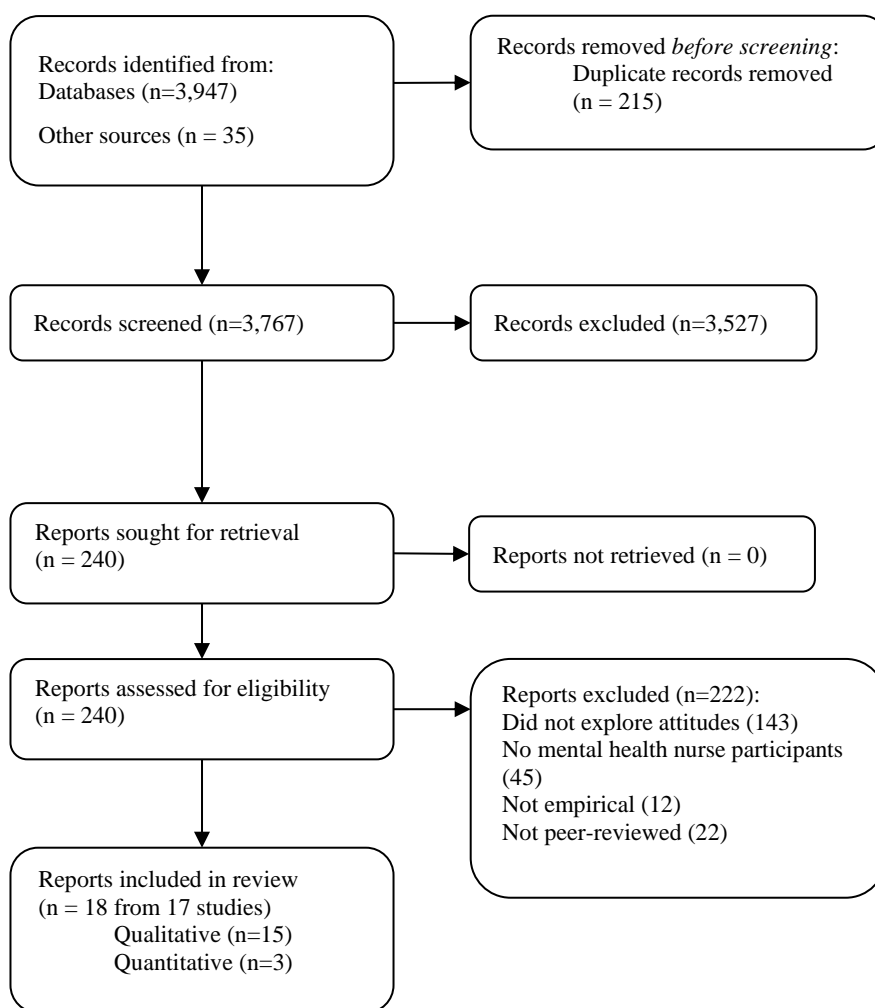


Figure 1: PRISMA flow diagram

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Table 1: Characteristics of the included studies.

Study	Country	Data collection	Data Analysis	Participants	Sample size	% MHN	% Female	Age range	Risk focus
Qualitative studies									
Ayhan & Üstün, (2021)	Turkey	Semi-structured interviews	Descriptive	Community mental health nurses	14	43	79	28-56	General
Clancy & Happell (2014); Clancy et al. (2015)	Australia	Semi-structured interviews	Thematic	Mental health professionals	22	59		30-59	General
Derblom et al., (2021)	Sweden	Semi-structured interviews	Content	Mental health nurses	10	100	50	23-40	Suicide
Gilbert et al. (2011)	UK	Semi-structured interviews	Not described	Mental health nurses	17	100	-	-	General
Godin, (2004)	UK	Semi-structured interviews	Thematic	Community mental health nurses	20	100	-	-	General
Gunstone (2003)	UK	Semi-structured interviews	Content	Community mental health nurses	7	100	-	-	Self-neglect
Jansson & Graneheim (2018)	Sweden	Semi-structured interviews	Content	Mental health nurses	12	100	67	39-62	Suicide
Langan, (2008)	UK	Semi-structured interviews	Thematic	Mental health professionals	46	48	-	-	General
Levin et al. (2018)	Sweden	Focus Group	Content	Mental health professionals	18	-	-	27-62	Forensic
Muir-Cochrane et al. (2011)	Australia	Semi-structured interviews	Thematic	Mental health professionals	15	47	-	25-64	General
Murphy (2004)	UK	Focus Group	Thematic	Community mental health nurses	16	100	55	26-56	Violence
Nyman et al. (2020)	Sweden	Focus Group	Content	Mental health nurses	15	100	60	-	Forensic
Raven & Rix, (1999)	UK	Focus Group	Not described	Mental health professionals	>100	-	-	-	General
Woods (2013)	Canada	Focus Group	Thematic	Mental health professionals	48	69	69		General
Quantitative studies									
Downes et al. (2016)	Ireland	Survey questionnaire	Statistical	Mental health nurses	381	100	68	20-55	General
Hawley et al. (2010)	UK	Survey questionnaire	Statistical	Mental health professionals	300	71	67	23-62	General
Wand et al. (2015)	Australia	Survey questionnaire	Statistical	Mental health professionals	164	60	37		General

Table 2: Example coding and theme development

Example finding	Initial coding	Synthesis
“All argued that risk taking took place by practitioners, and was a part of the CMHN’s role” (Murphy, 2004: p.410)	Legitimacy of nursing role in risk assessment	Theme name: Philosophical orientation There were similarities and difference both across and within studies regarding participants’ attitudes regarding the legitimacy of the mental health nursing role in risk assessment, the underlying purpose of risk assessment, the role, importance and utility of policy and of adhering to that policy, and the legitimacy of the outcomes for which risk assessment is an appropriate method of addressing
“Risk assessment and management was officially seen as the doctor’s responsibility” (Muir-Cochrane et al., 2011: p.730)		
“In addition, just seven percent (n=26) of the sample agreed/strongly agreed that ‘the purpose of risk management is primarily to protect services from legal action’”. (Downes et al., 2016: p.193)		
“The coroner’s court and their recommendations featured prominently, but it was thought that not all the recommendations were necessarily beneficial” (Clancy & Happell, 2014: p.3181)	Importance of policy, legislation, and other external influences	
“So policies and procedures can again alert you to important things and important steps to follow, but policies and procedures are always secondary” (Muir Cochrane et al., 2011: p.731)		
“The remaining three quarters identified only the negative connotations of risk that focused on violence (verbal and physical)” (Murphy, 2004: p.410)	Legitimacy of target risk behaviours	
“Risk assessment and risk management held different meanings to CMHNs working with different client groups. CMHNs working with the elderly were largely concerned with suicide potential” (Godin, 2004: p.353)		
“The purpose of risk assessment was identified as keeping the consumer, their family, the community, staff, and other consumers safe (Muir-Cochrane et al., 2011: p.729)	Purpose of risk assessment	
“Risk for the most part was conceived to be an intervention to prevent or deal with an adverse event” (Woods, 2013: p.809)		

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Example finding	Initial coding	Synthesis
"History of violence" (Murphy, 2004: p.408)	Legitimacy of identified risk factors	Theme name: Technical orientation
". For example, patient's circumstances at home, one's relationship with family, socio-economic status and of course the disease symptoms" (Ayhan & Ustin, 2021: p.92)		Participants attitudes towards operational aspects of the risk assessment process including the legitimacy of identifying specific risk factors for target outcomes, and the value of the evidence base for risk assessment. Further, the legitimacy of scales, tools, or structured approaches in the conduct of risk assessment, views on the appropriate frequency, duration, and intensity of risk assessment, the legitimacy and appropriateness of specific sources of information to consult, and the way in which risk assessment and risk management are integrated were all discussed.
"A number of CMHNs praised these tools as useful guides which could direct and inform the practice of less able or less experienced practitioners" (Godin, 2004: .p.353)	Legitimacy of scales and tools to aid risk assessment	
"a number of CMHNs expressed the view that the use of standardised actuarial risk assessment tools was too mechanical, behaviourally reductive and dehumanising (Godin, 2004: p.352)		
"Table II reflects the view, among three-quarters of respondents, that RAPs are useful at least half-the-time." (Hawley, 2010: p.92)		
"Over four-fifths (85.4%, n=317) of the sample disagreed with the statement that 'risk cannot be predicted' indicating a strong belief that the probability of a risk is capable of being estimated." (Downes et al., 2016: p. 193)		
'...some elements of risk assessment' were explored by participants on each visit to a client" [Murphy, 2004: p.410]	Appropriate duration, frequency, intensity of risk assessment	
"To be fully aware of the risk need to assess over 3–4 days...history can be misleading..." (Clancy et al., 2015: p.580)		
"Historical sources included old psychiatric records" [Woods]	Legitimacy of information sources to inform risk assessment	
"piecing together numerous sources of information (e.g., medical, psychological, observational) and making a judgment about what is or is not relevant in relation to risk (Muir-Cochrane et al., 2011: p.729)		
"A number of them felt that standardised procedures of risk assessment, which they were obliged to perform, stifled creativity in their work" (Godin, 2004: p.353)	Legitimacy of structured approaches to risk assessment	
"there was a need to integrate the new methods of risk assessment with, what they termed, 'professional intuition'" (Godin, 2004: p.352)		
"but the evidence for risk isn't really that robust...not high level evidence...we attempt to base on evidence but there's not a lot of really strong evidence to inform us" (Clancy & Happell, 2014: p.3182)	Legitimacy of evidence for risk assessment practice	
"integrating risk procedures into daily practice and workplace culture" (Muir-Cochrane et al., 2011: p.731)	Linking assessment and management	

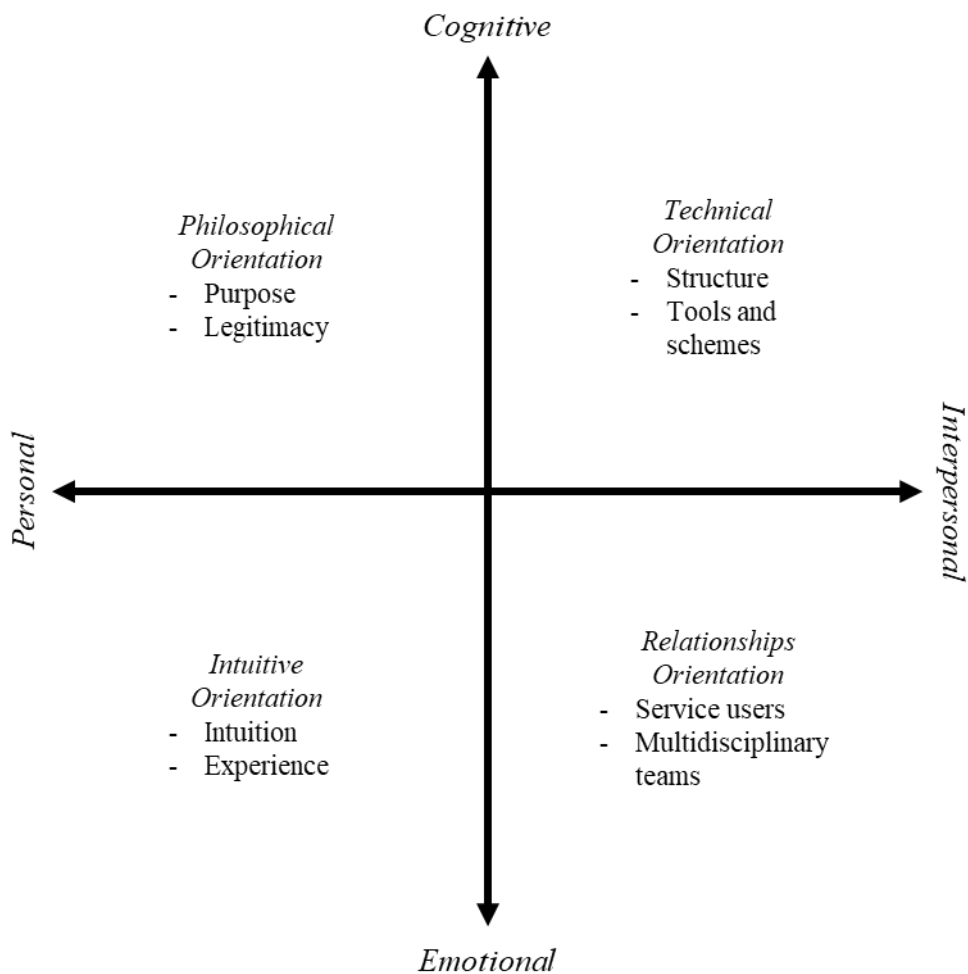
Mental health nurses' and risk assessment

Example finding	Initial coding	Synthesis
<p>“unaware of how structured risk management practices grounded by individual risk assessment may assist them with this.” (Woods, 2013: p.810)</p> <p>“Risk assessment and management practices provide me with reassurance that risk has been adequately addressed. Agree/ Strongly Agree 73.4%” (Wand et al., 2015: p.150)</p>	<p>Linking assessment and management</p>	<p>Theme name: Technical orientation continued</p>
<p>“This was substantiated by arbitrary time span of around 2 years, in which it was felt that exposure to the plethora of contacts and incidents would have equipped the CMHN better for the role.” (Murphy, 2004: p.411)</p>	<p>Value of experience in risk assessment</p>	<p>Theme name: Personal orientation</p> <p>Participants attitudes towards the role of their unique personal experience in the development of risk assessment skills and to the role and value of phenomena that can best be described as related to intuition.</p>
<p>“Improved knowledge about risk and protective factors were reported in all three focus groups as a consequence of using START, and some expressed that care had improved as a result of a better balance between the two” (Levin et al., 2018: p.212)</p>		
<p>“Sharing intuition with others was described as impossible because intuition is subjective.” (Jansson & Graneheim, 2018: p.557)</p> <p>“clinicians’ knowing” (Clancy & Happell, 2014: p.3182)</p>	<p>Value of intuition in risk assessment</p>	
<p>“Characteristics such as tenaciousness, ability to find meaning, supporting colleagues and solving problems” (Levin et al., 2018: p.210)</p> <p>“Strong leadership” (Clancy & Happell, 2014: p.3182)</p>	<p>Value of teamwork in risk assessment</p>	<p>Theme name: Relationships orientation</p> <p>Participants attitudes to the networks of individuals and groups with whom they could potentially interact with during the process of risk assessment. Most notably, these included service users themselves, and their colleagues and other relevant agencies.</p>
<p>“Reserved patients and patients who expressed themselves cryptically were considered difficult to assess because their responses were difficult to interpret.” [Jansson & Graneheim, 2018: p.556].</p>	<p>Importance of service user issues</p>	
<p>“The most problematic discussions were reported as those where a service user rejected the suggestion of any risks (however phrased) and became threatening or angry if discussion was attempted.” (Langan, 2008: p.478)</p>		
<p>“Three people said that they could not conceive of any situation risk assessment where this [mental health service user involvement in risk assessment) would prove impossible” (Langan, 2008: p. 475-476)</p>	<p>Importance of service user involvement in risk assessment</p>	
<p>“This transparency was important particularly in the early stages of hospitalisation where procedures and rights (e.g., Mental Health Act) are foreign to the consumer, and strategies to reduce risk are often more staff-led” (Muir-Cochrane et al., 2011: p.730)</p>		

Mental health nurses' and risk assessment

Example finding	Initial coding	Synthesis
“establishing a therapeutic relationship to assess their needs, strengths and weaknesses.” (Gunstone, 2003: p.292)	Importance of therapeutic relationship in risk assessment	Theme name: Relationships orientation continued
“it was generally agreed that effective MDT working led to practitioner perceptions of feeling supported and valued.” (Raven, 1999: p.204)	Importance of teamwork or its absence	
“Team discussion arbitrated by person carrying the responsibility,...the psychiatrist...” (Clancy & Happell, 2014: p.3182)		

Figure 2: Attitudes to risk assessment framework



Supplementary Table s1: Critical appraisal of the included qualitative studies (Critical Appraisal Skills Programme, 2018)

Study	Clear focused issue	Appropriate method	Appropriate design	Appropriate recruitment strategy	Appropriate data collected	Relationship considered between researcher and participants	Ethical Issue considered	Data Analysis rigorous	Clear Statement of the results	Value of the Research
Raven and Rix (1999)	-	+	+	+	+	-	-	-	-	+
Gunstone (2003)	+	+	+	+	+	-	+	-	?	+
Godin (2004)	+	+	+	+	+	-	+	-	-	+
Murphy (2004)	+	+	+	+	+	-	+	+	?	+
Langan (2008)	+	+	+	+	+	-	+	-	+	+
Muir-Cochrane et al. (2011))	+	+	+	+	+	-	+	-	?	+
Woods (2013)	+	+	+	+	+	-	+	+	?	+
Clancy and Happell (2014)	+	+	+	+	+	-	+	-	+	+
Clancy et al. (2015)	+	+	+	+	+	-	+	-	+	+
Levin et al. (2018)	+	+	+	+	+	-	+	+	+	+
Jansson and Graneheim (2018)	+	+	+	+	+	-	+	+	+	+
Nyman et al. (2020)	+	+	+	+	+	-	+	-	?	+
Derblom et al. (2021)	+	+	+	+	+	-	+	+	+	+
Ayhan and Üstün (2021)	+	+	+	+	+	-	+	+	-	+

Key: +: Yes; - No; ? Cannot tell

Supplementary Table s2: Risk of bias assessment for quantitative studies using the Newcastle-Ottawa Scale (Well et al., 2020)

Study	Representativeness of the sample	Sample Size	Non-Respondents	Ascertainment of the exposure	Study controls for other variables *	Assessment of Outcome	Statistical Test	Adequate Follow up time	Score	Overall risk of bias
Hawley et al. (2010)	1	1	1	1	1	1	1	0	7	Low
Wand et al. (2015)	1	1	0	1	1	1	1	0	6	Moderate
Downes et al. (2016)	1	1	1	1	2	1	1	0	8	Low

Each item scores 0 or 1 except for item 5 where 2 points are available