Exploring the Factors Influencing Nurses’ Decisions in Applying a Mental Health Triage Scale: A Systematic Review

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Abstract

The aim of this systematic review was to synthesise evidence regarding ED nurses’ decision-making when applying a mental health triage scale. The review sought to answer the question: What factors influence ED nurses’ decisions and decision-making process in applying a mental health triage scale?

The views, attitudes and experiences of mental health triage nurses performing triages for patients with mental health presentations in emergency department settings were examined in a systematic review of published and peer-reviewed qualitative research articles. CINAHL, PsycINFO, PubMed, and EMBASE were used to find published works from 2013 to 2022. After reading the title and abstract, the whole text of relevant research was obtained. The results of the included papers were analysed using the thematic content and narrative analysis approach, and critical appraisal of the quality of included articles was carried out using CASP. Sub-themes and themes were created by collapsing emerging patterns and codes.

A total of eight full-text studies were included in the review. All the eight articles were qualitative studies conducted in six different countries and published in peer-reviewed journals. The total sample in the included articles consisted of 135 emergency department triage nurses with semi-structured and focus groups used in data collection. The methodological quality of the articles varied, with scores ranging from 16 to 18 out of 20. Three main themes emerged from the systematic review. From the ED triage nurses’ points of view, factors affecting triage decision making for patients with mental health presentations were “nurse-related”, “workplace-related”, and “patient-related”.

This is the first systematic review summarising the evidence of the factors affecting ED triage nurses’ decision-making involving patients with mental health presentations. The findings suggest that the nurse as an individual (personally and professional), the workplace (social, structural and architectural environment), and the patient as an individual (safety, risk, acuity and behaviour) affect the quality of nursing decision-making in applying mental health triage scales. Ongoing review of the literature in this area is important to provide further evidence to inform nursing policy, practice, education and further research.

Keywords: Triage nursing, emergency departments, mental health, decision-making factors, evidence-based practice, patient-centered care, nurse education.

1. Background

Mental health holds paramount importance for overall health and welfare, as highlighted by the World Health Organization (WHO, 2013). The urgent nature of the unmet mental healthcare needs, the extensive burden mental illnesses place on health systems, and their widespread prevalence underscore the necessity for swift access to mental healthcare. WHO defines mental health as a state where individuals recognize their potential, manage life's normal stresses, work productively, and contribute positively to their community. Given the mounting evidence that suggests improved outcomes with early intervention in mental health, it's increasingly vital to explore novel
approaches to address the unmet needs and bolster access to mental healthcare. The UK Crisis Care Concordat exemplifies the renewed focus on early intervention by pioneering improvements in the accessibility of mental healthcare services for those facing mental health crises (Krayer & Robinson, 2017). To promote better accessibility, the UK has seen the establishment of numerous mental health triages, aiming for a single point of entry to professional care.

Mental health triage acts as a gateway to mental health services, assessing an individual's mental health concerns, gauging their urgency, and aligning appropriate service responses (Sands et al., 2013). Not only does this triage assess new entrants, but it also evaluates existing patients who reconnect unexpectedly. These triage schemes function as clinical tools guiding evaluative and decision-making processes, enabling accurate prioritization based on urgency and determining suitable interventions (Sands et al., 2016).

Global trends reflect a surge in phone-based health services, optimizing healthcare accessibility for vast communities. Mirroring this trend, the mental health sector is witnessing an influx of telephone triages, ensuring uninterrupted access to professional assessment and intervention (Sand et al., 2013). These telephone triages serve as pivotal tools for the early identification of mental health issues and timely, fitting interventions. Parallelly, emergency triages are emerging as standard practice in addressing acute mental health challenges, further integrating with specialized centers such as treatment and crisis assessment units (Sylwanowicz et al., 2018). To further this, sectors like ambulances and police have incorporated mental health triage services to promptly gauge the urgency of presented mental health concerns.

Australia’s emergency departments utilize the Australasian Triage Scale (ATS) for triaging physical ailments, which includes concise descriptors for mental illnesses (Callender & Cole, 2016). However, there were reservations regarding its reliability for triaging mentally ill individuals. Subsequent research affirmed the enhanced proficiency and confidence of emergency department staff using the mental health triage scale (Callender & Cole, 2016).

Nurses, especially in countries like Australia, form a significant chunk of the mental health triage workforce. Their crucial role, particularly in telephone triage, demands adeptness in accurate patient assessments, employing both clinical judgment and emotional intuition (Nicholls et al., 2011). Given their pivotal position, it’s imperative to grasp the intricacies of nurses’ decision-making processes, especially when handling multifaceted cases like those with recurrent emotional mental health challenges.

The ever-increasing presentations at emergency departments in Australia emphasize their role as primary centers for psychiatric patients, necessitating innovations like the mental health triage scale (Tanner et al., 2014). Northern Ireland’s pressing mental health scenario has spurred the Department of Health to prioritize the development of mental health triage, broadening access to requisite services. Nevertheless, certain challenges persist, notably the sporadic inadequacies in nurses’ training to offer suitable interventions (Randi Tofthagen et al., 2014).

The prevalence of mental health disorders remains alarmingly high, as indicated by substantial research (Australian Bureau of Statistics, 2018). Statistics from Australia highlight that nearly 45% of Australians might experience a mental ailment in their lifespan. In Canada, mental disorders impact 20% of the youth, with emergency department visits related to mental disorders skyrocketing by 61%. Similarly, in Northern Ireland, mental illness rates have been on an upward trajectory since 2014, with the nation reporting the highest mental illness prevalence in the UK. Such prevalence data underscores the pressing need for robust and accessible mental healthcare systems across the globe.

Mental illnesses profoundly affect both individuals and society. Research indicates that those suffering from mental health issues are often more prone to violence, potentially posing threats to themselves and others. Ghiasi et al. (2022) note a higher likelihood of criminal activity and aggression among this population. Disturbingly, Shahtahmasebi (2013) found that 80–90% of suicide victims had experienced mental distress.

The repercussions ripple through families, manifesting as income loss, reduced academic and job performance, diminished quality of life, and decreased longevity. In England, the effects of mental illnesses are often lifelong and generally more severe than other health complications. The economic toll is immense; mental illnesses are responsible for an annual loss of 17.5 million working days, equivalent to £34.9 billion (Centre for Mental Health, 2022). In the fiscal year 2015-2016, Australia allocated approximately 9 billion dollars to mental health services (Australian Institute of Health and Welfare, 2022b).

Societal implications of unaddressed mental health are extensive, encompassing homelessness, unemployment, poverty, safety, and community well-being (Castillo et al., 2019). Mental health disturbances inflate healthcare expenditures, reduce business productivity, hinder youth education, and disrupt families (Ghiasi et al., 2022).
Distressingly, 1 in 6 workers face mental health challenges at any time (GOV.UK, 2022). The MHFA (2020) revealed about 602,000 work-related cases of stress, depression, or anxiety in the UK during 2018-2019. However, workplace support remains scarce, leading to discrimination and lack of aid for the mentally ill, which ultimately costs businesses. The Canadian Mental Health Association (2021) recognized mental illness as a top disability cause in Canada.

Mental health triage is a pivotal decision-making procedure. Emergency care nurses, leaning on their expertise, swiftly discern patient needs (Clarke et al., 2015). Enhancing these skills involves simulations, decision guidelines, and real-time nurse experiences (Phukubye et al., 2021). Rapid patient assessments, including history and physical examination, are essential for optimal emergency care (Noon, 2014).

Mental illness resonates deeply within individuals and the broader community. Therefore, robust intervention systems are crucial. Mental health triage presents an avenue for early mental illness detection and apt intervention. Comprehensive understanding of this triage, its global variations, and potential enhancements is indispensable for refining the process. Different countries employ varied scales, emphasizing the importance of regional awareness.

1.1 Aim and Objectives
Triage decision-making has been cited as one of the most complex and challenging encounters among ED nurses (Arnaert et al., 2021; Ausserhofer et al., 2021; Mulhearn et al., 2021). Triage is the process where nurses use developed scales to quickly assess random persons presenting to the ED for psychiatric and mental problems to prioritise their need for care and care planning (Arnaert et al., 2021). Well-developed, accurate, and easy-to-use triage systems and scales with high sensitivity and specificity (Nishi et al., 2015) are increasingly important for ED nurses amidst increasing demands, rising acuity and longer wait times (Brown & Clarke, 2014; Reay et al., 2020).

For the past five years, researchers have demonstrated a motivation to develop a better understanding of ED nurses’ triage decisions and decision-making processes, particularly in clinical situations involving patients with mental health issues (Reay et al., 2020). This research motivation has resulted in rapid growth in ED triage literature (Brown & Clarke, 2014). Existing literature on this subject is characterised by diversity in study methodology, study design, study methods and outcome assessment (Brown & Clarke, 2014; Reay et al., 2020).

This systematic review aimed to identify and synthesise available and relevant evidence regarding ED nurses’ decisions and decision-making process when applying a mental health triage scale. The review sought to identify the factors that influence ED nurses’ decisions and decision-making processes when applying a mental health triage scale.

2. Methods and Procedures
The study adopted a systematic review approach to collect and analyse secondary data. The systematic review identified, selected, synthesised and appraised all available and relevant articles to glean evidence on the factors that influence nurses’ decisions and decision-making processes when applying a mental health triage scale (Purssell & McCrae, 2020). A systematic review was deemed the best approach for gathering evidence related to the subject matter (Phillips & Barker, 2021), as it helps the researcher build a strong base of the best available evidence from the scientific method. This approach is beneficial for research utilisation and evidence-based practice (EBP) in mental health nursing research, policy and practice (Craig & Dowding, 2019).

This systematic review was conducted and reported in accordance with the quality guidelines and standards provided by the Cochrane Handbook for Systematic Reviews of Interventions (Higgins et al., 2021) and the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) (Page et al., 2021).

2.1 Eligibility Criteria
The eligibility criteria allowed for the determination of which studies would be included or excluded from the systematic review (Purssell & McCrae, 2020). According to Cochrane, eligibility (inclusion/exclusion) criteria are created based on a variety of factors that determine the scope of the review (Higgins et al., 2021).

2.2 Inclusion Criteria
Articles were included in this systematic review if they met the following criteria:

- Participants (i.e., study population / unit of observation / unit of analysis) in the study included ED nursing staff (newly qualified or experienced; with or without mental health specialist training).
- Interventions / exposure of interest in the study included the use of mental health triage processes and assessment scales by nurses within an emergency department of a healthcare setting.
- Reported study outcomes included decisions and decision-making processes employed by ED nurses.
regarding the mental health triage process and mental health triage scales.

- Peer-reviewed articles published within the last 10 years (i.e., 2013–2022) and in the English language (including those translated into English by the authors and/or publishers).
- The study setting was a healthcare facility offering emergency and urgent medical and nursing care services (e.g., emergency department of the general hospital).
- The geographic location in the study included urban or rural settings in any part of the world (no limitations).
- Primary studies only; this better allowed for data homogeneity (i.e., data comprised of populations, variables, outcomes, and interventions etc. that are similar to each other).
- The study design used quantitative, qualitative or mixed-methods empirical approaches with tested internal validity/credibility, external validity/transferability, reliability/dependability, and objectivity/confirmability.

2.3 Exclusion Criteria

The review excluded studies based on the following criteria:

- Participants in the study did not include ED nursing staff.
- Interventions / exposure of interest in the study did not include the use of mental health triage processes and assessment scales.
- Reported study outcomes did not include decisions and decision-making processes employed by ED nurses regarding the mental health triage process and scales.
- Non peer-reviewed articles (e.g., student dissertations).
- Secondary research (e.g., systematic reviews, literature reviews, scoping reviews etc.), reviews or editorials as they were deemed to be too heterogenous (i.e., data made up of populations, variables, outcomes, interventions etc. that were not similar to each other, challenging comparisons and theme development).
- Articles were not published in English or translated into English by the authors and/or publishers.
- The study setting did not offer emergency, urgent medical and nursing care services.
- Data lacked validity, reliability or trustworthiness.

2.4 Information Sources

To ensure that the literature was integrative and comprehensively searched to investigate the current evidence on the subject matter, the researcher reviewed a wide-ranging base of resources, including databases and reference lists (on the included articles) (Higgins et al., 2021; Page et al., 2021). Electronic searches of studies published in major databases were systematically conducted (Bhatta, 2021). The overall search was tailored to five of the largest, most reliable, credible and most consulted databases in nursing research, which included: 1) Cumulative Index of Nursing and Allied Health Literature (CINAHL plus; 2013 to 23 May 2022); 2) PsycINFO (2013 to 23 May 2022); 3) PubMed (2013 to 23 May 2022); and 4) EMBASE (2013 to 23 May 2022). The bracketed information indicates the dates when the selected databases were last searched or consulted, i.e., dates of coverage (Page et al., 2021).

2.5 Search Strategy

A systematic search strategy was formulated with the assistance of an expert librarian to identify all available and relevant literature pertaining to the subject of interest (Higgins et al., 2021). Before the systematic search, a brief scoping review was conducted to explore broadly, analyse and summarise the existing evidence on factors affecting ED nurses’ decisions and decision-making with mental health triage scales. The scoping review helped provide preliminary indications of the extent (or size), range (or variety) and nature (or characteristics) of the evidence on the topic of interest (Tricco et al., 2018). The brief scoping review also helped to identify gaps in the literature, informing subsequent preparations and preparation for the systematic review.

Search terms utilised the following keywords:

Nursing, nurses, psychiatric, mental health, emergency room, emergency department, factors, experiences, Emergency department triage, mental health triage, decisions, decision-making.

A Boolean Search was conducted to filter, strengthen and optimise the search. This ensured a more precise, refined
and meaningful search that closely matched the predefined requirements (Purssell & McCrae, 2020) and allowed
the researcher to define the search options by adding Boolean Logical Operators or Modifiers (Richardson-Tench
et al., 2018). The operator ‘AND’ was used to further limit the search results by instructing the search engine to
return results that included only the specified search terms (Craig & Dowding, 2019). The operator ‘NOT’ was
applied to narrow the search by excluding terms that were specified from the search (Linsley et al., 2019). The
operator ‘OR’ was applied to broaden the search by instructing the search engine to return results containing all
possible combinations of the search term (Richardson-Tench et al., 2018). Boolean Modifiers included quotes
around search terms (e.g., “emergency department”) to return results that contained that exact term or phrase and
not results that contained each separate word (Bramer et al., 2018). They also included parentheses that combined
other Boolean Operators (e.g., when combining ‘AND’, ‘NOT’ and ‘OR’ in a single search) to achieve a more
complex search, requiring search terms to be given priority (Craig & Dowding, 2019). Adding an asterisk to the
root or stem word of the search term (e.g., nurs*, psych* and mental* etc.) allowed for wildcard searching
(truncation), where the search engine was instructed to retrieve results that included every word that began with the
letters appearing before the asterisk (Tricco et al., 2018). In addition, the search was strengthened by combining search terms in different ways, using free-text for alternative terms and spellings (e.g., for British and American English), and using acronyms, synonyms and abbreviations that are commonly used in relation to the search term (Bramer et al., 2018). Finally, a cited-reference search, or reverse search, was conducted for each article using Google Scholar. Research results for each article were reviewed to ensure the search was thorough (Purssell & McCrae, 2020). The review considered 8–10 related research studies over the last 10 years. After study selection, an integrative literature review was conducted to critique, analyse and review the research using the PICO (Problem, Intervention, Comparison and Outcome) method (Linsley et al., 2019).

2.6 Selection Process
The review was be performed by the researcher. The researcher screened titles and abstracts of all the articles
retrieved through the database searches. All published articles the researcher deemed potentially eligible were
searched (Melnyk & Fineout-Overholt, 2019). In addition, the researcher evaluated all retrieved full texts, and
decided whether to include or exclude texts based on the predefined eligibility criteria. The researcher consulted
this project supervisor for help assessing article quality. Studies that did not meet the predefined eligibility were
excluded, and their bibliographic details cite the specific reasons for their exclusion (Melnyk & Fineout-Overholt,
2019).

2.7 Data Collection Process
A standardised data extraction sheet adapted from Cochra ne was used to extract data from the eligible articles
(Higgins et al., 2021). The standard form was pilot-tested on five randomly selected eligible articles and refined
(Higgins et al., 2021). The researcher used the refined data extraction sheet to perform the initial data extraction for
all included articles. The supervisor independently observed this process, checked all proceedings and advised
accordingly, along with supporting data extraction efforts.

2.8 Data Items
Data were extracted on the following variables: a) publication type, b) author, c) publication year, d) study design
characteristics, e) sample size and participant characteristics, f) details on decisions and decision-making
processes for the use of mental health triage and mental health triage scales in EDs and g) details of the major
results/outcomes recorded (i.e., themes from extracted data, such as decisions, decision-making process and extent
triage scale use) (Higgins et al., 2021). Definitions, conceptualisations and operationalisations of terms differed
across studies. Therefore, themes and measures related to nurses’ decision-making and decisions were eligible for
reviewer discussions and inclusion.

2.9 Quality Assessment
In systematic reviews, quality assessment indicates the strength of the synthesised evidence (Craig and Dowding,
2019). Quality assessment of the present review was guided by the Critical Appraisals Skills Programme (CASP)
checklists/tools specifically designed to appraise the quality of each article based on its research method (e.g.,
qualitative, quantitative, mixed-methods). The CASP checklists include appraisal for systematic reviews, RCTs,
cohort studies, case control studies and qualitative studies (Bhatta, 2021).
Qualitative articles were evaluated using the CASP Qualitative Studies Checklist, which included 10 appraisal
questions to guide the interpretation of qualitative research articles. This tool required ‘Yes’, ‘Can’t Tell’ or ‘No’
responses to the critical appraisal questions. In the scoring structure, ‘Yes’ was awarded a score of 2 points per appraisal question, ‘Can’t Tell’ led to a score of 1 and ‘No’ was awarded a score of 0, with a possible total score of 20 per article. Bias risk in the included studies was assessed independently using the revised Cochrane risk-of-bias tool (Higgins et al., 2021). To minimise bias, the supervisor independently reviewed the grades for the studies.

2.10 Data Synthesis

The study used a narrative method to synthesise the included articles (Melnyk & Fineout-Overholt, 2019). Themes were developed based on the results of the included articles (Bhatta, 2021). A summary of findings table was developed to describe sample and participant characteristics, details on decisions and decision-making processes in the use of mental health triage and mental health triage scales in EDs and details of the major results/outcomes recorded (Melnyk & Fineout-Overholt, 2019).

3. Results and Findings

An initial search conducted on the four databases on 23 May 2022 yielded a total of 189 records as follows: CINAHL Plus (n = 37), PsycINFO (n = 51), PubMed (n = 59) and EMBASE (n = 42). Before screening, the researcher removed two duplicate records (CINAHL Plus, n = 1 and PubMed, n = 1), leaving 187 records. The titles and abstracts of the 187 records were reviewed, leading to the removal of 161 irrelevant titles/abstracts (CINAHL Plus, n = 28; PsycINFO, n = 45; PubMed, n = 50; EMBASE, n = 38). Following this step, 26 articles were found eligible for full-text screening (CINAHL Plus n = 8; PsycINFO n = 6; PubMed n = 8; EMBASE n = 4). The researcher reviewed the 26 full texts and excluded 18 articles for at least one of the following reasons: not focused on mental health EDs (n = 10); not focused on mental health ED nurses (n = 5); were systematic reviews (n = 3). In the end, eight eligible studies were included in this systematic review: two from CINAHL Plus, one from PsycINFO, three from PubMed and two from EMBASE. Table 1 and Figure 1 offer descriptive summaries of the study selection results.

<table>
<thead>
<tr>
<th>Database</th>
<th>Number of hits from search</th>
<th>Discard irrelevant title/abstract</th>
<th>Discard duplication</th>
<th>Number of articles to undergo full-text review</th>
<th>Final number included</th>
</tr>
</thead>
<tbody>
<tr>
<td>CINAHL Plus</td>
<td>37</td>
<td>28</td>
<td>1</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>PsycINFO</td>
<td>51</td>
<td>45</td>
<td>0</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>PubMed</td>
<td>59</td>
<td>50</td>
<td>1</td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>EMBASE</td>
<td>42</td>
<td>38</td>
<td>0</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>TOTAL</td>
<td>189</td>
<td>161</td>
<td>2</td>
<td>26</td>
<td>8</td>
</tr>
</tbody>
</table>

3.1 Description of Included Studies

Annex (1) shows the author’s name(s), year of publication, aims and purpose, approach and design, study context (setting and country), population (participants, sampling techniques and sample size), data collection and analysis techniques, and key findings from each of the included studies.

3.2 Design

All eight full-text articles included in the review were qualitative studies published in peer-reviewed journals.

3.3 Context

The studies were conducted in six different countries. Two were conducted in Australia (Broadbent et al., 2014, 2020), two in Brazil (Pereira et al., 2019; Lopes et al., 2020), one in the United States (Plant & White, 2013), one in Taiwan (Chou & Tseng, 2020), one in Canada (Clarke et al., 2015) and one in Ireland (Mulhearn et al., 2021).

Broadbent et al. (2014) conducted their study in a regional hospital in Australia with a large emergency department, and Broadbent et al. (2020) conducted their study in a regional ED in a mental health hospital setting in Australia. Chou and Tseng (2020) conducted their study in an emergency department in central Taiwan. Clarke et al. (2015) carried out their study in a regional mental health ED in Canada. Lopes et al. (2020) conducted their study in the Referenced Emergency Unit (REU) of a university hospital emergency unit in Brazil. Mulhearn et al. (2021) undertook their study in the ED of an urban regional trauma centre and teaching hospital located in Ireland. Pereira
et al. (2019) conducted their study in a general hospital in southern Brazil. Lastly, Plant and White (2013) conducted their study in a medium-size community hospital in the North-eastern United States.

Figure 1. PRISMA Results Flow Chart

Source: Flow chart retrieved from http://prisma-statement.org/
3.4 Participants and Sampling
Participants in all included studies were triage nurses in ED facilities offering mental health services, including triaging. The total sample consisted of 135 nurses, with study sample sizes ranging from 7 to 28 nurses. Broadbent et al. (2014) used purposive sampling to recruit 28 ED nurses who were qualified to conduct triage. Purposive sampling is employed in all studies. Broadbent et al. (2020) recruited 28 ED triage nurses and 7 mental health triage nurses. Chou and Tseng (2020) recruited 17 ED mental health triage nurses. Clarke et al. (2015) recruited 11 nurses experienced in mental health triage. Lopes et al. (2020) recruited 13 ED mental health triage nurses. Mulhearne et al. (2021) recruited nine nurses based in the REU’s embrace room. Pereira et al. (2019) recruited 12 practicing mental health triage nurses working in ED. Plant and White (2013) recruited 10 female ED mental health triage nurses.

3.5 Data Collection and Analysis
Semi-structured interviews were the predominant data collection method (n = 7), and data for all studies were analysed via thematic/content analysis. Only one study (Plant & White, 2013) used focus groups for data collection.

Overall, the researcher found that there was a scarcity of studies specifically exploring the phenomenon of interest. However, all eight studies strived to offer in-depth insight and understanding of ED nurses’ practices and their perceptions of factors influencing decision-making when triaging.

3.6 Overall Quality of Included Studies
This systematic review used a rigorous process to determine study bias risk by critically appraising the research evidence of the included studies. The purpose of this process was to assess the methodological quality of each of the included studies to determine the extent to which their methodological design, conduct and analysis addressed the risk of study bias. The results of the critical and rigorous appraisal process helped inform the synthesis and interpretation of the results and findings of each of the included studies. The quality assessment helped indicate of the strength of evidence synthesised in the review (Craig & Dowding, 2019).

Quality assessment of the present review was guided by the CASP checklist/tool for qualitative research (CASP, 2019) (Appendix 2).

All eight included studies were qualitative in design and thus evaluated using the CASP Qualitative Studies Checklist, which included 10 appraisal questions to guide interpretation of the qualitative research articles. The scoring of this tool was described in an earlier section, and the tool can be found in Appendix 2. The outcomes of the CASP scoring for each of the included studies are presented in Table 3.

Based on the adapted CASP quality assessment tool, and as shown in Table 3, three studies (Broadbent et al., 2014, 2020; Mulhearne et al., 2021) had a score of 18 out of 20 (90%) overall; with three others (Plant & White, 2013; Clarke et al., 2015; Chou & Tseng, 2020) scoring 17 out of 20 (85%) overall. Two studies (Pereira et al., 2019; Mulhearne et al., 2021) had scored 16 out of 20 (80%) overall. Seventeen out of twenty (85%) and above was considered acceptable, but all studies were nonetheless included in the review due to the limited availability of research articles on this topic.

Researchers interested in systematic reviews as a methodological approach have often argued that qualitative methods fail to offer objective evidence, leading to them being regarded as lower-level research evidence. As such, qualitative studies have traditionally been excluded from systematic reviews (Hawker et al., 2002). However, qualitative studies were deemed most appropriate in the context of the current review, as it was interested in synthesising evidence on the opinions, preferences and lived experiences of ED nurses in triaging. According to Green and Thorogood (2018), qualitative research is the most accepted methodological approach and practice for exploring in-depth insights from people’s subjective viewpoints and experiences. Qualitative systematic reviews and the associated practices of systematic synthesis and meta-ethnography are relatively recent developments. Thus, they are still evolving as methods for reviewing and synthesising published qualitative evidence (Seers, 2015; Grove & Gray, 2018, p. 22). According to Seers (2015, p. 36), qualitative systematic review involves ‘systematically searching for research evidence from primary qualitative studies and drawing the findings together’.

3.7 Synthesis of the Key Findings
The eight full-text studies included in the review were thematically analysed; a narrative synthesis approach was used to establish emergent themes. The researcher identified three themes and several sub-themes identified in the included studies as factors that influenced ED nurses’ everyday mental health triage decision-making. Table 2
summarises these themes and sub-themes.

Table 2. Emergent Themes and Sub-Themes

<table>
<thead>
<tr>
<th>Theme</th>
<th>Sub-themes</th>
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<tbody>
<tr>
<td>1. Nurse-related factors</td>
<td>1.1. Level of education and training</td>
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<td>1.2. Skills and knowledge</td>
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<td></td>
<td>1.3. Experience</td>
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<td>1.4. Expertise</td>
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<td>1.5. Evidence-based practice</td>
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<td>1.6. Attitudes and perceptions</td>
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<td>1.7. Emotions and feelings</td>
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<td></td>
<td>1.8. Self-confidence</td>
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<tr>
<td>2. Workplace-related factors</td>
<td>2.1. Protocol</td>
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<tr>
<td></td>
<td>• Policy, processes and procedures</td>
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<td></td>
<td>• Shift handover and allocation of work</td>
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<td></td>
<td>• Triage tools and scores</td>
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<td></td>
<td>2.2. Patient volume</td>
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<td>2.3. Workload</td>
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<td>2.4. Time pressure</td>
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<td>2.5. Coordination and Collaboration</td>
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<td></td>
<td>• Being supported</td>
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<td>• Staff conflict</td>
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<td>2.6. Environmental factors</td>
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<td>• Technical interruptions</td>
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<td>• Human interruptions</td>
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<tr>
<td></td>
<td>• Privacy and confidentiality</td>
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<tr>
<td></td>
<td>• Nurse’s availability</td>
</tr>
<tr>
<td>3. Patient-related factors</td>
<td>3.1. Patient safety</td>
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<tr>
<td></td>
<td>3.2. Patient’s presentation (acuity)</td>
</tr>
</tbody>
</table>

3.8 Nurse-Related Factors

Nurse-related factors were the most predominant themes that emerged from the included studies. These factors are discussed below.

3.9 Level of Education and Training

Four studies found that education and training played a significant role in influencing triage nurses’ decision-making (Plant & White, 2013; Pereira et al., 2019; Lopes et al., 2020; Mulhearne et al., 2021). Plant and White (2013) found that education, including formal nursing academic programmes and continuous in-service training programmes designed to improve nursing practice, influenced nurses’ decision-making skills, abilities and competencies in mental health triaging in clinical ED units (Plant & White, 2013; Broadbent et al., 2014, 2020; Clarke et al., 2015; Pereira et al., 2019; Chou & Tseng, 2020; Lopes et al., 2020; Mulhearne et al., 2021). Pereira et al. (2019) found that education had a positive influence on triage nurse decision-making. Education appeared to improve situational awareness in triage nurses (Lopes et al., 2020). Two studies highlighted the importance of nursing education for the development of nurses’ decision-making abilities (Plant & White, 2013; Mulhearne et al., 2021). It was shown that nurses’ participation in clinical decisions depended on their education level (Plant & White, 2013). Educators play a significant role in nurses’ modes of decision-making (Plant & White, 2013).
Inexperience was linked to lack of self-confidence. Participants in one study suggested that they were not adequately prepared by the academic education system to be effective clinical decision-makers (Plant & White, 2013). However, Mulhearn et al. (2021) found that education, in and of itself, was not the only or ideal measure for effective mental health triage decision-making.

As shown by Plant and White (2013), nurses demonstrated a sense of hopelessness, mentioning that they lacked not only an academic background in decision-making in the context of triaging patients with mental illness in the ED; but also lacked role models to show them that they had the authority to make independent decisions based on their own judgement without waiting for approval from a psychiatrist or doctor (Pereira et al., 2019). From the inductive analysis and narrative synthesis of Lopes et al. (2020), the researcher deduced that nursing curriculum content affected nurses’ mental health triage decision-making processes in the ED. Pereira et al. (2019) showed that nurses were equipped with medical and clinical information, but less so on soft skills, such as decision making in mental health ED situations.

3.10 Skills and Knowledge

Four studies found that skills and knowledge influenced triage nurses’ decision-making (Plant & White, 2013; Clarke et al., 2015; Broadbent et al., 2020; Chou & Tseng, 2020). Broadbent et al. (2020) reported that having faith in one’s own competencies, that is, skills, knowledge, experience and ability (to apply these attributes properly and effectively) influences triage nurse’ decision-making when applying the mental health triage scale. (Clarke et al. (2015) reported that nurses who felt competent demonstrated an ability to collect, comprehend and integrate data while focusing on patient needs and recognising the clinical situation, which impacted mental health triage decision-making. While focusing more closely on the importance of skills, Plant and White (2013) reported that an ED nurse’s personal and professional knowledge equipped her with the requisite ability to understand the clinical condition and make informed decisions. One study reported that a competent and effective triage nurse possesses strong skills and knowledge that define his/her expertise in his/her own specialty field and job (Chou & Tseng, 2020). Regarding the effect of knowledge on decision-making, two studies indicated that a nurse’s professional and general knowledge level in the field, and the ability to use this knowledge well, renders him/her a competent clinical decision-maker (Broadbent et al., 2020; Chou & Tseng, 2020).

Three studies indicated that effective mental health triage decision-making requires the ED nurse to possess knowledge and a diverse skill set, particularly with regards to mental health triaging, to determine the urgency and complexity of a patient’s condition and to prioritise it accordingly (Plant & White, 2013; Broadbent et al., 2020; Chou & Tseng, 2020).

Nurses’ skill and knowledge of mental health triaging gained through involvement in and exposure to the process was suggested as a factor influencing decision-making. Three studies found experience to influence triage nurses’ decision-making strategies (Plant & White, 2013; Pereira et al., 2019; Lopes et al., 2020). Two studies found that experienced nurses sought to learn from their patient experiences through critical reflection of unforeseen events or errors during care interventions, case reviews, medical researching and debriefing with other members of the care team (Plant & White, 2013; Pereira et al., 2019). Lopes et al. (2020) also reported lack of clinical education to develop nurses’ decision-making abilities as a barrier to gaining more experience undertaking this process.

Obtaining sufficient information was cited as a key challenge for both ED and mental health triage nurses (Plant & White, 2013). Instead of relying on a triage score, having a professional knowledge and awareness of the nurse who made the referral affected the mental health triage nurse’s reaction time (Lopes et al., 2020). The two professional nurse cultures clearly have distinct process orientations and likely distinct acuity perceptions (Pereira, et al., 2019). Given the absence of mental health competence and knowledge and its impact on their ability and confidence to appropriately evaluate a person with mental illness, ED triage nurse participants reported relief and reassurance when a mental health triage nurse responded promptly (Plant & White, 2013).

Experience was captured by a nurse’s duration of tenure, referring to the amount of time the nurse spent triaging patients and interacting with colleagues and patients’ family personally and professionally (Plant & White, 2013). Plant and White (2013) indicated that triage nurses’ decision-making was influenced more by their previous personal and professional experiences than by the existing clinical circumstance in which they had to make a decision. Lopes et al. (2020) associated experience with skills, knowledge, self-confidence, intuition and other competencies that influence decision-making, such as triage algorithm or protocol utilisation, collaboration and teamwork.
3.11 Expertise

Expert skill or knowledge of nursing practice was also found to be an important factor influencing nurses’ decision-making in ED facilities. Two studies found that expertise influenced mental health triaging among ED nurses (Plant & White, 2013; Broadbent et al., 2020). In Plant and White’s (2013) study, participants mentioned that having feelings of expertise and competence were critical in a clinical context and integral to clinical decision-making. Broadbent et al. (2020) found that nurses who were able to apply their excellent knowledge, abilities and experiences make good clinical decisions. Broadbent et al. (2020) further viewed nurses with expertise in their field as strong decision-makers. Plant and White (2013) found that effective clinical decision-making required a nurse to be an expert in understanding patient and environmental contexts and situations.

3.12 Evidence-Based Practice

Two studies suggested the importance of evidence-based practice (Plant & White, 2013; Clarke et al., 2015). Clarke et al. (2015) asserted that evidence-based practice helped nurses overcome uncertainty during the decision-making process. Participants reported that there were some scenarios in which they would strive to acquire further information, either by applying current knowledge about mental health issues or by methodically evaluating the patient’s presentation (Clarke et al., 2015). Plant and White (2013) concluded that the goal of evidence-based practice is to improve decision-making and guide behaviour in a way that produces the intended results. Communication was found to be a major factor in directly eliciting information. The two studies found that nurses used analytical reasoning in conjunction with gathering and weighing all of the relevant facts as an evidence-based method of decision-making (Plant & White, 2013; Clarke et al., 2015). Clarke et al. (2015) elaborated that this reduces nurses’ reliance on the use of anecdotes, reflection, normally received or accepted knowledge and personal experience. As suggested by Clarke et al. (2015), these sources are not credible on their own. However, senior nurses, organisational data and the expertise and judgement of nurse practitioners were found to be importance sources of evidence (Plant & White, 2013).

3.13 Attitudes and Perceptions

Four studies identified nurses’ attitudes and perceptions as factors that influenced triage nurses’ decision-making in ED mental health triaging (Plant & White, 2013; Chou & Tseng, 2020; Lopes et al., 2020; Mulhearne et al., 2021).

Chou and Tseng (2020) established the influence of a nurse’s mindset – or a characteristic way of thinking as well as the established set of belief patterns, values and attitudes held by nurses – on decision-making. As found by Chou and Tseng (2020), mindset denotes the idea that the stigma associated with psychiatric disorders and the labels attached to them are widespread and deeply ingrained in society (Chou & Tseng, 2020). Further, the public’s conception of mental health conditions is largely formed by stereotypes and media representation of those conditions. Patients in psychiatric hospitals often face prejudice and social exclusion as a result of ingrained traditional attitudes (Chou & Tseng, 2020). Chou and Tseng (2020) found that when it comes to providing care for mental health patients, even nurses working in EDs have preconceived notions that affect their decision-making process in regard to service delivery and triaging. Most emergency department nurses also mentioned that this may affect their assessment and management of individuals with mental illness when providing care, which may even lead to delayed case management. These decisions were a result of their stereotypical perceptions and personal experiences with patients presenting to the ED with mental health conditions (Chou & Tseng, 2020). This is due to the fact that most ED triage nurses may have developed negative attitudes and perceptions towards psychiatric patients (Chou & Tseng, 2020).

Lopes et al. (2020) examined the attitudinal aspects of triage nurses that influenced their demeanour towards and decision-making in regard to triaging persons with mental health conditions at an emergency hospital service. It was established that triage nurses were more likely to accept people with mental health problems and made decisions for colleagues based on attitudes and perceptions shaped by their previous experiences (Lopes et al., 2020). This study found that triage nurses embraced mental health patients. Nurses were adept at recognising biological complaints, and when they noticed signs and symptoms of mental illness, they immediately referred patients to a psychiatrist for further evaluation (Lopes et al., 2020). When nurses expressed uncertainty about what should be done, they anticipated being given the authority to take such actions. Additionally, the nurses believed that a protocol could be of assistance, and would require additional time (Lopes et al., 2020).

Mulhearne et al. (2021) focused on ED triage nurses’ perceptions of and attitudes towards self-harming patients. This was clearly demonstrated through ED triage nurses’ discussions of patients’ conduct and behavioural
presentations in the ED, the circumstances that contributed to patients’ problematic behaviour and how this affects nurses’ decision-making (Mulhearne et al., 2021). Many nurses were also aware that self-harm might result in numerous ED visits and consequently developed perceptions about this, taking care to make decisions to prevent patient self-harm (Mulhearne et al., 2021). Mulhearne et al. (2021) found that because of the behaviour of certain mental health patients in ED, medical professionals may feel irritated towards patients who engage in self-harm.

Plant and White (2013) found that triage nurses had the perception that the patients were trying to manipulate them; as a consequence, they worried that patients’ conditions risked being neglected. A significant number of study participants voiced their anxiety around the possibility of people suffering from mental illness taking advantage of employees or the system (Plant & White, 2013). As established by Plant and White (2013), identification and prioritisation of patients suffering from mental illness has been and will continue to be an extremely difficult task, regardless of the level of knowledge and expertise that triage nurses possess. Triage nurses acknowledge that patients with mental illness are not simple to treat, and they are not always certain whether the patient is actually seeking treatment for acute symptoms of mental illness or whether they are just acting up and seeking attention (Plant & White, 2013). Nurses indicated that patients with mental illness were more likely to seek treatment than patients without mental illness (Plant & White, 2013). Plant and White (2013) found that nurses’ perceived mental health patients as a challenge.

3.14 Emotions and Feelings

Four studies found that personal emotions and feelings impacted the triage nurses’ decision-making within the context of ED mental health triaging (Plant & White, 2013; Clarke et al., 2015; Chou & Tseng, 2020; Mulhearne et al., 2021).

Chou and Tseng (2020) found that providing treatment for mental disorders in EDs might cause stress among mental health triage nurses in these settings. This stress affects a nurse’s ability to make effective triage decisions (Chou & Tseng, 2020). In another study, triage nurses’ management of their own frustrations and stress emerged as a prominent factor influencing triage decision-making (Clarke et al., 2015). Nurses who participated in the study by Clarke et al. (2015) indicated that when beginning a triage consultation, they felt uneasy because there were either no available on-site mental health services at the emergency department or there was confusion about whether psychiatry was available to respond (Clarke et al., 2015). Nurses in the study showed uneasiness and made statements to the effect of ‘Why has this patient come here?’ or ‘We cannot cope with this.’ Both of these questions conveyed an anxious mood (Clarke et al., 2015, p. 500).

As found by Clarke et al. (2015), the manner in which a patient presented seemed to impact whether a triage nurse would ask more closed-ended questions throughout the triage process. When a person was clearly very upset or angry, the likelihood of this happening decreased (Clarke et al., 2015, p. 500). According to the nurses, having patients shout at them was a source of concern and stress (Clarke et al., 2015). The triage nurses felt that they may not have done a good job because they lacked the knowledge and abilities necessary to accurately evaluate the intensity of the patient’s distress. They intended to ask the psychiatrists for help in the matter (Clarke et al., 2015).

In addition, participants indicated low levels of confidence in their ability to obtain information throughout the triage process (Clarke et al., 2015). It was not obvious if this was due to a lack of trust in their communication abilities, a limited amount of time available in the triage process, or the nature of the patient’s communication. Nurses had the impression that their colleagues who had been educated in psychiatry were more adept at the information gathering process (Clarke et al., 2015).

Plant and White (2013) conducted a study in which the participants voiced a variety of worries and issues that they had noticed that hampered their decision-making processes. The authors found that most of the nurses’ statements could be interpreted as expressions of dissatisfaction and as a perception that nothing would change regardless of the potential resources at their disposal, such as the addition of a new nurse educator. The phrase ‘We could do this, but’ was often used as a conclusion to proposed solutions for their many worries (Plant & White, 2013, p. 245). As reported by Plant and White (2013), because of this, the obstacles seemed insurmountable. The nurses opined that their decision-making capacity was curtailed by the doctors’ issuing of instructions, although the doctors really do not spend that much time with the patients and take several minutes to appear for appointments (Plant & White, 2013). It was also indicated that triage nurses’ decision making in an ED mental health triage setting would be affected by the speed at which patients were admitted to and discharged from the system.

3.15 Self-Confidence

Two studies investigated self-confidence as a factor influencing triage nurses decision-making (Plant & White, 2013; Clarke et al., 2015). Self-confidence is believing in one’s ability to ask triaging questions, consider options,
prioritise emergency mental health patient care, and competently implement interventions (Plant & White, 2013). Clarke et al. (2015) showed that self-confidence gave nurses a sense of control and increased their ability to make independent decisions. Self-doubt, on the other hand, was shown to cause nurses to feel ineffective and incapable, which poses challenges to making mental health triage decisions (Clarke et al., 2015). Plant and White (2013) found that nurses who reported feelings of self-confidence also demonstrated self-reliance, self-efficacy and assertiveness in triaging mental health patients reporting to an emergency department. As found by Plant and White (2013), a nurse who demonstrated self-confidence could assert himself or herself and exercise their abilities and decision-making skills in mental health triaging. Self-confidence was shown to boost clinical competence and give nurses a feeling of self-efficacy, which makes them initiators in decision-making (Clarke et al., 2015). Nurses participating in the studies indicated that being confident in their knowledge and abilities enabled them to make triage decisions. They further suggested that many nurses lack self-confidence and feel powerless; as a result, they wait for doctors, psychiatrists and other mental health professionals to offer guidance (Plant & White, 2013).

### 3.16 Workplace-Related Factors

More than nurse- and patient-related factors, workplace-related factors were identified the most common emergent themes and categories discussed by the nurses who participated in the included studies. These factors are addressed below.

#### 3.17 Environmental Factors

Environmental factors that were found to affect or influence nurses’ mental health triage decision-making in EDs included technical interruptions (Broadbent et al., 2014, 2020; Clarke et al., 2015; Mulhearn et al., 2021); human interruptions (Broadbent, Moxham, & Dwyer, 2014, 2020; Clarke et al., 2015; Mulhearn et al., 2021); and triage environment infrastructure (Plant & White, 2013; Pereira et al., 2019; Mulhearn et al., 2021). These factors were both human and physical (Broadbent et al., 2014), and affected privacy and confidentiality (Plant & White, 2013; Broadbent et al., 2020; Mulhearn et al., 2021), as well as triage assessment, client management, and client referral and response (Broadbent et al., 2014, 2020).

- **Technical Interruptions.** It was found that nurses’ decision-making in ED, mental health and triage settings was affected by distractions and interruptions caused by people and triage spaces. Two studies indicated that nurses were interrupted by busy, noisy environments that involved shouting patients/colleagues, ringing telephones and emergency alarms/sirens some requiring the attention of the triage nurse (Broadbent et al., 2014, 2020). Two studies reported that the distractions and disruptions were due to the open space, non-private nature of the triage area; this compromised privacy, security and confidentiality as everyone tends to be everywhere including patients, police, relatives and colleagues (Clarke et al., 2015; Mulhearn et al., 2021). Broadbent et al. (2014) found that the architectural design of the triage spaces allowed for noise creep, undermining the ability to have a private patient–provider conversation, thereby risking patient privacy, confidentiality and autonomy.

- **Human Interruptions.** Interruptions by human agents, against a backdrop of inappropriate and inadequate triage architecture, were shown to cause pervasive distractions and disruptions in triage decision-making. Triage nurses were interrupted by patients, relatives or colleagues asking questions or for assistance and support from the nurse before, during and after the triage decision-making process (Broadbent et al., 2014, 2020; Clarke et al., 2015; Mulhearn et al., 2021).

- **Privacy and Confidentiality.** People and structural distractions/disruptions were shown to affect privacy and confidentiality in three studies (Plant & White, 2013; Broadbent et al., 2020; Mulhearn et al., 2021). In addition, the quantity and quality of personal and health information obtained from patients can limit effective decision-making (Broadbent et al., 2014, 2020; Mulhearn et al., 2021). Broadbent et al. (2014) found that lack of privacy becomes a communication barrier as the triage nurse finds it hard to concentrate, ask questions and listen to a patient who is also hindered from opening up due to overcrowding and disruptions.

- **Nurse Availability.** Nurse availability was found to be a relevant factor in two studies (Broadbent et al., 2014, 2020). Broadbent et al. (2020) indicated that the nurses’ triage environment requires them to be at hand, that is, available and open for conversation with patients, patients’ relatives and other staff members. This accessibility is a result of the nature of the nurses’ working environment, which is versatile and demands they be able to assist anyone at any time and be present anywhere within the care facility (Broadbent et al., 2014). As found by Broadbent et al. (2020), this flexibility is disruptive and affects triage decision making.
3.18 Protocol

Protocols were found to be a relevant factor in three studies that explored policy, processes and procedures (Pereira et al., 2019; Lopes et al., 2020; Mulhearne et al., 2021); two studies that found shift handover and allocation of work (Broadbent, Moxham, & Dwyer, 2014, 2020); and four studies that reported triage algorithms (Clarke et al., 2015; Broadbent et al., 2020; Chou & Tseng, 2020; Mulhearne et al., 2021). Mulhearne et al. (2021) reported that in ED settings, organisational and departmental/unit processes and procedures influenced triage decision-making.

- **Policy, processes and procedures.** Mulhearne et al. (2021) and Lopes et al. (2020) found that adherence to policies, processes and procedures allowed for coordination, collaboration, support, compliance and information sharing, which directly contributed to decision-making. Pereira, Duarte and Eslabão (Pereira et al., 2019) concluded that nurses used protocols for decision-making support.

- **Shift Handover and Allocation of Work.** As a matter of protocol, two studies explored the effect of work allocation on nursing decision-making (Broadbent et al., 2014, 2020). Chaotic handovers and allocation of work were found to affect decision-making continuity and negatively influence the decision-making process (Broadbent et al., 2014, 2020).

- **Triage Tools and Scores.** The importance of triage tools, algorithms and scores emerged and was discussed in four studies (Clarke et al., 2015; Broadbent et al., 2020; Chou & Tseng, 2020; Mulhearne et al., 2021). Triage score outcomes affected the type of decisions to be made. Clarke et al. (2015) found that some nurses manipulated the scores to suit their needs, particularly due to heavy workloads, time pressure and the need to come up with an acceptable score and move forwards with other tasks.

3.19 Patient Volume, Workload and Time Pressure

Patient volume and workload appeared as a factor in one study (Broadbent et al., 2020), while the closely associated factor of time pressure was found in three studies (Clarke et al., 2015; Broadbent, Moxham and Dwyer, 2020; Lopes et al., 2020). Broadbent et al. (2020) found that the ED triages’ short evaluation timeframes significantly affected a triage nurse’s capacity to capture accurate, objective and thorough data. To this end, three studies indicated the need for and frequent referrals from psychiatrists (Clarke et al., 2015; Broadbent et al., 2020; Lopes et al., 2020). Due to often quickly changing priorities, patient volume and tremendous workload, decisions are sometimes hurried or made late, and heavy workloads strain decision-making (Broadbent et al., 2020).

3.20 Staff Coordination and Collaboration

Three categories were discussed under the theme of staff coordination and collaboration. Staff support was found in three studies (Plant & White, 2013; Clarke et al., 2015; Pereira et al., 2019), management of staff conflicts was found in two studies et al., 2020) and referrals were explored in one study (Broadbent et al., 2020).

- **Being Supported.** Participants in three studies raised the issue of supportive management and colleagues, indicating that colleagues are a valuable source of support in the clinical setting and that unsupportive colleagues are the biggest obstacle to effective triage decision-making (Plant and White, 2013; Clarke et al., 2015; Pereira et al., 2019). Pereira et al. (2019) found that the advice and support of more experienced colleagues helped in improving a triage nurse's expertise, triage quality and efficiency.

- **Staff Conflict.** Pereira et al. (2019) found that multiple competing interests in nursing practice led to staff conflicts, necessitating coordination of triage nurses’ work with an entire multidisciplinary team. Broadbent et al. (2020) found that conflict management between nursing professional groups impacted the triage decision-making process.

3.21 Patient-Related Factors

Patient-related factors appeared to be the least discussed as emergent themes from the included studies.

3.21.1 Patient Safety and Risk

Five studies discussed patient safety as a factor in clinical decision making for ED nurses applying mental health triaging (Broadbent et al., 2014, 2020; Clarke et al., 2015; Chou & Tseng, 2020; Mulhearne et al., 2021). In the study conducted by Chou and Tseng (2020, p. 5), ED nurses involved in mental health triaging described mental health patients as ‘ticking time bombs’, due to the risk of sudden violence and aggression. The majority of psychiatric nurses reported that they frequently experience serious attacks and assault when attending mental health patients at the emergency room (Chou & Tseng, 2020). Chou and Tseng (2020, p. 5) concluded that this contributes to the negative stereotypes of mental health patients, even among nurses. Two studies indicated that patients can often be violent against the medical staff working at emergency departments (Clarke et al., 2015;
Mulhearne et al., 2021). As these five studies suggest, patient risk adversely affects decision-making (Broadbent et al., 2014; Chou & Tseng, 2020) and may be related to the environment where triage takes place and unpredictable patient behaviour (Broadbent et al., 2020).

3.2.1.2 Patient's Presentation (Acuity)

Two studies found mental health presentation and patient acuity to be important factors influencing triage nurses’ decision-making (Clarke et al., 2015; Lopes et al., 2020). Lopes et al. (2020) found that, in the time-constrained environment of the ED, taking adequate time and applying one’s skills, knowledge and expertise to gather as much pertinent information as possible to develop a deeper understanding of the mental health patient and their condition supports effective triaging decision-making. The two studies found that understanding patient status provides the basis for any further nursing decision-making during mental health triaging (Clarke et al., 2015; Lopes et al., 2020).

The two studies indicated that through holistic information gathering (i.e., assessing the patient, listening to patients and their families, and critically evaluating clinical findings), experienced nurses are able to narrow the scope of possible clinical problems the patient may be experiencing and rapidly identify their needs (Clarke et al., 2015; Lopes et al., 2020). Lopes et al. (2020) found that due to their extensive experience managing myriad presenting patients, experienced nurses possess substantial knowledge that allows them to quickly identify subtle changes in a patient’s status, and to effectively identify patient care needs, which is an important factor in triage decision-making. Clarke et al. (2015) and Lopes et al. (2020), found that understanding the patient’s concerns and their needs and preferences; knowing their medical history; developing useful understanding of the patient’s current situation or care needs; and understanding the patient’s ‘norm’ in terms of observation, mobility, and level of function all influence decision-making.

4. Discussion

This systematic review aimed to identify the current empirical evidence relating to the knowledge and understanding of the factors affecting the triage decision-making processes of mental health nurses working in variety of ED settings, particularly relating to triaging using a mental health triage scale. From the eight included studies, the review identified that clinical decision-making in mental health nursing in the ED is discussed in the context of a complex healthcare setting characterised largely by issues of patient safety and risk. Importantly, the review found limited literature, particularly within the qualitative research paradigm, exploring the factors affecting the practice and process mental health triage decision making among nurses in the ED. The review of the eight included studies found that a combination of nurse-related, workplace-related and patient-related factors influenced mental health triage nurses’ decisions in ED settings. It appeared that the most pertinent nurse-related factors were the nurses’ level of education, skills and knowledge, experience, expertise, evidence-based practice, attitudes and perceptions, emotions and feelings, and self-confidence. Important workplace factors included environmental factors of the triage spaces and other structural (architectural), practice, and situational factors such as protocols, patient volume, workload, time pressure, and staff coordination and collaboration. Patient safety and risk, as well as patients’ presentations (acuity), were the patient-related factors found to also influence how triage nurses made mental health triage decisions in the ED. Interestingly, four studies described an emotional element to triage decision-making among mental health nurses making triage decisions in the ED, which helps to highlight, perhaps, one of the biggest individual level challenges faced by mental health nurses besides environmental- and patient-related factors. The review sheds light on the complexities of the decision-making process that triage nurses go through, as well as the nuanced balance of factors that may influence triage decision-making. This is an especially important finding because the role of the mental health nurses has expanded within various health care situations and contexts (Akbulut & Akpinar, 2017; Moon et al., 2021). In addition, mental health nurses are increasingly expected to use mental health triage scales and algorithms and provide related provisional assessments and diagnoses (Titov et al., 2019; Gorick, 2022). These findings are discussed in light of empirical evidence in the section that follows.

This review offers a more complete view of the factors affecting the mental health triage decisions of nurses at the ED. The review suggests that theoretically, effective ED mental health triage decision-making is supported by three pillars: the individual nurse (personal and professional characteristics), the workplace environment (human and physical), and the individual patient (acuity, safety and risk). Existing empirical evidence indicates that these pillars encapsulate the complex factors that affect decision-making in ED mental health nursing practice (Ausserhofer et al., 2021; Ryan et al., 2021; Gorick, 2022). Consistent with the findings of prior research studies (Reay et al., 2020; Ausserhofer et al., 2021; Gorick, 2022), this study demonstrates that ED mental health triage decision-making is a nuanced, complex process. This review’s findings further strengthen the existing literature by
clarifying several crucial components and skills involved in ED mental health triage decision-making. Research has shown that, beyond the ED mental health architectural and social space, the nurse as a whole person and the patient as a whole person bear certain characteristics that can influence decision making efficiency and effectiveness (Sweeney et al., 2020; Ausserhofer et al., 2021).

In an ideal scenario, ED mental health triage decisions would be made objectively utilising proven evidence and an ample bank of decision support tools (e.g., triage scales/algorithms) as well as adequate material, time, human, financial and other resources (Phillips et al., 2015). In addition, the ideal ED mental health triaging decision-making scenario would be characterised by minimal disruptions and interruptions (Brown & Clarke, 2014; Albert et al., 2018), the absence of workload or time pressures, teamwork and plenty of energy to manage any decision-making circumstance at any time (Ebrahimi et al., 2016; Goldsby et al., 2020). However, this ideal situation is not always the reality on the ground in nursing decision-making practice (Delmas et al., 2020). ED mental health triage decision-making is a delicate balance of recognised best practices (evidence, research), knowledge of the current situation, context and environment, and clear knowledge and understanding of the patient as a person and their circumstance and needs (Laiho et al., 2013; Phillips et al., 2015). To make an informed decision, it is vital for the ED triage nurse to draw connections between knowing the evidence and evidence-based practices, self-awareness, environmental awareness, and knowledge of the patient, in order to make informed ED mental health triage decisions (Albert et al., 2018; Xu et al., 2021). A variety of information and knowledge sources should be considered in the process (Carvalho et al., 2018).

Having presented these assertions, it is important to note that to the best of the researcher’s knowledge, this is the first systematic review that has focused specifically on synthesising the equally very few and disparate studies examining the factors influencing ED mental health nurses’ triage decision-making. However, it is interesting to note only three other reviews (although not systematic) have been conducted to explore the factors that influence ED nurses’ triage decisions. A literature review by (Gorick, 2022) found that several elements relating to the patient, the nurse, the triage algorithm, and the setting in which triage happens influenced the decisions made by nurses in EDs (Gorick, 2022). The research also found that inadequate staffing, a lack of privacy, inadequate training, and high patient load all negatively impacted nurses’ capacity to efficiently triage patients (Gorick, 2022). Ryan et al., (2021) utilised a qualitative, interpretive meta synthesis and found that ED mental health triage nurses tended to feel unqualified and underprepared, apprehensive and hesitant, and anxious to maintain patient safety. Further, they concluded that ED mental health nurses’ triage decision-making was influenced by their own preconceptions and concerns. In their scoping review, Perrone McIntosh (2021), found that concerns related to environment, beliefs and perceptions, and knowledge and confidence were the major factors influencing ED nurses’ triage decision-making. These findings reinforce – and are reinforced by – those in the current systematic review.

This present review indicates that triage decision-making by nurses at the ED is affected by both individual (nurse, patient) and environmental (triage space/workplace) aspects. Precise assessment of these factors, as well as the information obtained from the literature synthesis in this review, suggest the existence of interacting relationships among these variables. Figure 2 shows a model of these interactions. As the model indicates, the triage nurse’s individual factors such as expertise, experience and self-confidence are essential to effective mental health triage decision-making at the ED. Organisational protocols, structure and physical architecture, as well as the patient’s current situation and care needs (safety, risk, acuity), also affect how ED nurses make triage decisions.

5. Conclusion and Recommendations

5.1 Conclusion

The purpose of this systematic review was to determine what is known about the factors that influence triage decision-making by mental health nurses working at the ED. Eight studies were included; all explored triage nurses’ experiences, perceptions and description of perceived factors that influence or affect their decision-making at the ED. The review found that, when it comes to the care of patients presenting to the ED with mental health issues, triage nurses have a special place and role to play: they are expected to provide a rapid assessment of patient for quick attention and/or referral. Triage nurses’ ability to make sound decisions for patients reporting at the ED with mental health presentations is necessary for providing superior patient-centred care. This review uncovered many intricate elements that affect the triage nursing decision-making process. Making triage decisions in ED nursing necessitates using a multidimensional strategy for policy, practice, research and education to achieve the best possible results. The review findings suggested that there is an undeniable connection between the factors that influence triage decision making and the triage nursing practice at the ED. The findings of this systematic review contribute to a better understanding of the factors influencing mental health triage decision-making in ED triage
nursing. It supports prior research and contributes to the body of evidence about the factors influencing triage decision-making. The ability of triage nurses to make successful decisions is critical to their contribution to mental health patient outcomes in the ED.

As findings in this review imply, triage nurses’ level of education and training, skills and knowledge, experience and expertise, evidence-based practice, attitudes and perceptions, emotions and feelings and self-confidence were the most important nurse-related (personal and professional) factors influencing decision-making at the ED. These attributes are associated with mental health triage nurses’ decision-making when assessing patients with mental health presentations at the ED. According to the findings of the review, these factors are extremely important for triage nurses to keep in mind when conducting triage assessments. Participants from the studies included in this review suggested that some of the most significant personal characteristics impacting clinical decision-making by nurses are competence and self-confidence. The choices made by nurses may be strengthened or hindered by a variety of external variables, including organisational structure, accessibility of supporting resources and nursing education, among others. According to the findings of this review, the attitudes of triage nurses may influence their decision-making processes as well. The attitudes of triage nursing staff at the ED are thought to be important factors that influence the triage decisions made for patients who present with mental health issues. Indeed, nurses’ attitudes, perceptions and feelings influence triage decision-making processes and outcomes. Triage nurses are aware of the potential impact of their own attitudes on their ability to make sound triage decisions. Because of this, nurses emphasise the importance and role of emotions, feelings, self-confidence as well as of having experience and expertise. The review demonstrates that evidence-based practices relating to mental health triage decision-making by nurses at the ED influence the decision-making. In light of the review’s findings, more work needs to be done to enhance the personal, professional and practice aspects of nursing to facilitate decision-making.

The findings of this review also imply that triage workplace environment, the existing organisational protocol, patient volume, workload, time pressure, and staff coordination and collaboration were the most important workplace-related factors influencing triage nurses’ decision-making at the ED. The work environment, which includes both the employees and the buildings in which they are housed, is linked to social and physical disruptions that have an effect not only on the process of decision-making but also on the results of that process. The ability of the triage nurse to obtain accurate information and data to inform triaging is hindered by privacy and confidentiality concerns. The environment influences the quality of the questions asked and the willingness of the patient to disclose certain information, particularly in situations where the triage space is crowded or where other people frequently interrupt the process. Both the quality and quantity of the triage decisions that ED nurses make are impacted by time constraints and frequent interruptions to the triage processes. Therefore, it is essential to focus on the structural aspects of EDs. Based on the findings of this review, the ED needs to prioritise the modernisation of its physical amenities and the improvement of its communication procedures. Further, this review found that there is a significant deficiency in the quality of the triage spaces available at the ED to support the conduct of focused mental health assessments. In addition, the findings of the review imply the necessity of considering strategies for minimising disruptions to nursing procedures and protocols during the triage process, particularly in emergency departments.

The review also implied that patient safety, risk and mental health presentation (acuity) were the most important patient-related factors that influenced the decision-making process of mental health triage nurses working in EDs. From the review, it seems that patient safety and risk factors, in addition to their mental health presentation (acuity) at the ED play a role in determining how quickly decisions need to be made. A patient’s mental health presentation is related to the complexity of the case and the comorbidities they may have. Based on this finding, it is necessary to consider investigating how the severity of the patient’s condition and the results of the triage affect decision-making.

Although a wide variety of triage nurses’ perspectives and experiences were explored in the studies that were included in this review, the generalisability of the results in both those studies and the present review may be limited due to the ‘the nongeneralisable nature of qualitative research and small sample sizes.

5.2 Recommendations

Given the similarities between this review, existing research and the broader emergency healthcare contexts, the findings of this review have implications for efforts to make triage nursing decision-making theory (education), policy, practice and research more effective. Together, nurse-related, workplace-related and patient-related factors suggest that focusing on the triage nurse as an individual, the ED healthcare facility as an organisation and the patient with mental health presentations as a whole person would significantly affect triage nurses’
decision-making and, in turn, improve the quality-of-care delivery at EDs. Ongoing review of the literature in this area is important to further inform nursing policy, practice, education and the directions for research recommended in the following subsections.

**Recommendations for Policy.** Based on the findings of this review, as well as the discussion on policy implication conducted in the previous section, an important policy recommendation that has far-reaching implications on triage nursing practice and patient outcomes is the need to embrace and implement evidence-based nursing practice guidelines. At the individual and institutional levels, there is need for triage nurses to adhere to the set frameworks of nursing professional standards, ethical principles and values. This is a crucial point, as the evidence in this review found that interruptions and disruptions by triage nurses’ colleagues affected their mental health triage decision-making. Organisation-wide regulations and clinical practice guidelines should be developed and adopted to effectively reduce the intersecting problems of human and architectural disruptions in the triage environment. Nursing leadership is required to achieve this task. Policies should be implemented to ensure that nurses have access to evidence-based resources and have access to decision-making tools at the organisational level.

**Recommendations for Practice.** As indicated in this systematic review, many different aspects affect decision-making in the triage setting, and each of the core skills has the potential to influence how well decisions are made. When making mental health decisions in the ED setting, triage nurses are recommended to strike a balance between evidence-based best practice, environmental awareness, self-awareness and awareness of the patient. Nurses should develop a familiarity with both the subject matter of decision-making and the body of evidence so that they are able to seek the level of education, skills and knowledge, experience and expertise and as well as evidence-based practice in triage decision-making. Nurses should be aware of oneself in terms of behavioural characteristics, cognitive abilities, emotional states, and value systems. Nurses should also approach their patients as humans through a person-centred approach to ensure their safety and understanding. They should also be aware of the wider structural, cultural and team dynamics that might affect their decision making.

**Recommendations for Education.** Institutions mandated with training nurses should emphasise on building nursing and other aspects such as decision-making as core components of nurses’ training. Triage nursing should be considered a specialist position rather than a generalist field in both theory and practice.

**Recommendations for Future Research.** The review established that there is a dearth of research focusing on the factors affecting decision-making among triage nurses at the ED for patients with mental health presentations. Future research should focus on investigating these factors and examining the procedures that triage nurses use to make decisions.

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**Data Availability Statement**
The data that support the findings of this study are available on request.

**Competing Interests Statement**
The authors declare that there are no competing or potential conflicts of interest.

**References**


Bucknell, T., Fossum, M., Hutchinson, A. M., Botti, M., Considine, J., Dunning, T., ... & Manias, E. (2019). Nurses’ decision-making, practices and perceptions of patient involvement in medication administration in an


Seers, K. (2015). Qualitative systematic reviews: their importance for our understanding of research relevant to


## Appendixes

### Appendix 1. Study and Participant Characteristics

<table>
<thead>
<tr>
<th>Author(s), Year</th>
<th>Aims/Purpose</th>
<th>Approach, Design</th>
<th>Setting, Country</th>
<th>Population, Sampling, Sample Size (n)</th>
<th>Data Collection, Analysis</th>
<th>Key Findings</th>
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</thead>
<tbody>
<tr>
<td>1. Broadbent <em>et al.</em> (2014)</td>
<td>The purpose of this study was to develop understanding of emergency department (ED) nurses’ practices and experiences when triaging clients with mental illness</td>
<td>Qualitative, ethnography</td>
<td>A regional hospital in Australia with a large emergency department</td>
<td>28 ED nurses qualified to conduct triage were recruited through purposive sampling</td>
<td>Participant observation, formal and informal interviews, Thematic analysis</td>
<td>ED nurses’ decision-making was impacted by individual and environmental factors.</td>
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<tr>
<td>2. Broadbent <em>et al.</em> (2020)</td>
<td>The study researched the factors that impact the triage evaluation, referral, and clinical response of mental illness patients in the ED</td>
<td>Qualitative, ethnography</td>
<td>A regional ED in a mental health hospital setting in Australia</td>
<td>ED triage nursing staff and mental health triage nurses; Purposive sampling, ED triage nurses (n=28) and mental health triage nurses (n=7)</td>
<td>Face-to-face interviews, both individual and group depending on individual participant requests, and on the number of nurses per roster on the day of interviews; Thematic analysis</td>
<td>Decision-making was found to be affected by the unit’s location, the surrounding circumstances and ED nurses’ familiarity with the mental health triage scale.</td>
</tr>
<tr>
<td>3. Chou and Tseng (2020)</td>
<td>The purpose of the study was to investigate the experience of emergency department nurses in caring for patients with mental disorders</td>
<td>Qualitative, descriptive design</td>
<td>Emergency department in central Taiwan</td>
<td>17 ED nurses were recruited through purposive sampling</td>
<td>In-depth semi-structured interviews; Thematic content analysis</td>
<td>ED nurses’ decision-making was affected by (1) Attitude; (2) The dilemma of psychiatric care: Violence, isolation, and helplessness, and lack of therapeutic communication skills; (3) The influence of open space: inadequate safety and privacy; and (4) The educational needs of psychiatric nursing: improving cognition in psychiatric patients and changing negative thinking into positive thinking.</td>
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<tr>
<td>4. Clarke <em>et al.</em> (2015)</td>
<td>The aim of this study was to explore how ED triage nurses in general hospital</td>
<td>Qualitative, Case study</td>
<td>A regional mental health ED, Canada</td>
<td>ED nurses; purposive sampling; nurses</td>
<td>Semi-structured interviews; Thematic content analysis</td>
<td>ED nurses’ decision-making was affected by intuition and early judgements, current ED environment,</td>
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settings make clinical decisions for patients who present with mental illness-related conditions

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<tr>
<th>Study</th>
<th>Objectives</th>
<th>Methodology</th>
<th>Sample</th>
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<tr>
<td>5. Lopes et al. (2020)</td>
<td>The study aimed to comprehend the activities of nurses who care for persons suffering from mental illnesses in a university hospital’s Referenced Emergency Unit</td>
<td>Qualitative phenomenology</td>
<td>Referenced Emergency Unit (REU) of a university hospital, Emergency unit, Brazil</td>
<td>ED nurses; Purposive sampling; 13 nurses based in REU’s embracement room</td>
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<td>6. Mulhearn et al. (2021)</td>
<td>The study investigated the experiences of registered general nurses (RGNs) who care for patients who present to the ED with self-harm</td>
<td>Qualitative, descriptive design</td>
<td>Practicing RGNs working in ED; Purposive sampling, 9 RGNs</td>
<td>Semi-structured interviews; Thematic content analysis</td>
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<td>7. Pereira et al. (2019)</td>
<td>The aim of this study was to examine the challenges that nurses face while caring for patients with mental comorbidities in the general ED, as well as their recommendations for enhancing these patients’ treatment</td>
<td>Qualitative, descriptive, and exploratory study</td>
<td>A general hospital in southern Brazil</td>
<td>12 ED nurses were recruited through purposive Sampling</td>
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<td>8. Plant and White (2013)</td>
<td>The purpose of this study was to explore and describe the experiences and feelings of ED nurses offering care for mental health patients</td>
<td>Qualitative, case study</td>
<td>A medium-size community hospital in the North-eastern United States</td>
<td>10 ED nurses recruited through purposive sampling participated in four focus groups</td>
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## Appendix 2. CASP Quality Scores for Each Included Article

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