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# Experiences of Nurses Working in a Triage Area: An Integrative Review

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## **Background**

- The emergency department (ED) is often the entry point where patients are being reviewed for unscheduled <u>medical care</u> (Holm & Dahl, 2011).
- <u>In the ED, long waiting time, and queues are some of its well-known problems globally (Bernstein et al., 2009).</u>
- Triage is the categorization of patients according to distinct classifications of urgency (Johannessen, 2017). It is commonly used in disaster management and hospital emergency departments (EDs) to manage large volumes of patients (Wolf, 2010).
- Communication is important throughout the triage process as nurses can elicit information from the patients to make well-informed triage decisions (Hinkle & Cheever, 2014).

#### **Review Methods**

#### Aim

The aim of this integrative review was to synthesize existing literature to understand the experiences of nurses working in triage station in EDs.

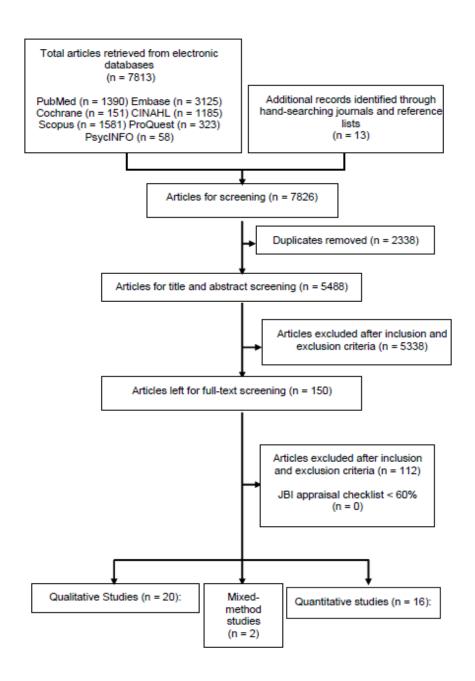
#### Design

This review used Cooper's (1989) five-stage framework (i.e. problem formulation, data collection, data evaluation, data analysis, and data interpretation and result presentation) to rigorously summarize the results of previous studies and draw conclusions related to the aim of the review (Cooper, 1989).

## **Search Method**

- Across seven databases: PubMed, Embase, CINAHL, PsycINFO, Cochrane, ProQuest, and Scopus from January 2008 to January 2018.
- Keywords such as "Nurses", "Triage", and "Experiences" and "Emergency Department"
- Primary articles published in English (a universal, wellaccepted language) from January 2008 to January 2018.
- A manual search of end references from published studies was conducted to obtain more articles; only to 50% of eligible studies due to inconsistencies in search terminologies (Whittemore & Knafl, 2005).

Figure 1 - PRISMA Flow Diagram summarising the literature search process



# **Quality Appraisal**

- Problem formulation: decided to focus on exploring the experiences of nurses working in triage station in EDs.
- Data collection: only included primary research articles and articles that were published in English.
- Data evaluation, Independently reviewed the selected articles using Joanna Briggs Institute appraisal checklist (The Joanna Briggs Institute, 2014)
- Data analysis and interpretation stage, each study was read independently by both first and last author multiple times to gain in-depth understanding of its contents in preparation to abstract key data relevant to the review aims.

#### Results

The findings of the 38 full-text articles were categorized into three major themes on experiences:

- (1) making judgments,
- (2) service delivery,
- and (3) effective communication.

- Decision-making has been reported to be an integral part of triage, subjected to influences from the triage nurses' work environment, triage guidelines, level of experience, and intuition (Reay, Rankin, & Then, 2016).
- Nineteen studies conducted in Australia, the United States of America (USA), Sweden, Canada, Taiwan, Italy, and Brazil have discussed the influence of the workplace environment on triage decision-making.
- ED is an environment that is resource-limited, unpredictable, and full of interruptions where patient prioritization is crucial (Roscoe, Eisenberg, & Forde, 2016).

- Several studies also highlighted the unpredictability of cases seen in the ED. Triage nurses need to remain alert in case patients deteriorate and register a change in their acuity level (Lau, Magarey, & Wiechula, 2012).
- Interruptions to workflow during triage sometimes disrupt the work on triaging.
- The most common cause of interruptions concerns patients' inquiry or complaint of long waiting time (Chang et al., 2017; Johnson et al., 2014).
- Protocols are used during triage; reduces the likelihood of under-triaging (Wolf, 2010).
- Manchester Triage System (MTS); Canadian Triage Acuity Scale (CTAS); Australasian Triage Scale (ATS)

- Two shortcomings are noteworthy from using guidelines and protocol.
- The first concerns the rigidity of adhering to guidelines. Triage nurses have found that not all patients would fit within the fixed criteria and therefore might selectively deviate from the guidelines (Forsman et al., 2012; Johannessen, 2017; Wolf, 2010) which often led to inconsistencies in practice.
- The second shortcoming concerns the over-triaging due to the use of guidelines, which made it difficult for nurses to prioritise and classify patients as genuinely 'urgent' in the real-life context (Johannessen, 2017; Wolf, 2010).

- Having sufficient experience in ED and also in other areas of nursing is seen as an important variable for effective triaging (Forsman et al., 2009; Lau et al., 2012; Roscoe et al., 2016).
- However, there is no study suggesting any minimum required number of years.
- In China, however, the Central Government has mandated a duration of at least 5 years of ED experience.
- There is also the mention of clinical acumen versus intuitive judgments based on years of experience as a nurse.
- Importance of specialist training programmes and onthe job training.

## **Service Delivery**

- Having the initial impression formed of the patient will in turn affect triaging. Most nurses are able to set aside their prejudgement and give all patients a fair assessment (Fry, 2012; Wolf, 2010).
- The influx of non-urgent cases and the need to triage had created frustration among nurses because of the over-crowding and increased workload (Roncalli et al., 2017).
- Situation gets worsen when some patients and caregivers overrate their conditions making it difficult for nurses to assess.
- Workplace violence due to frustration and long waiting time (Morphet et al., 2014; Pich et al., 2017; Wolf, 2010).

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## **Effective Communication**

- Good communication is vital in effective triage.
- Communication happens in many occasions; nurses to patients/caregivers; fellow healthcare professional; ambulatory staff.
- High risk for miscommunication; so the use of electronic means have been mist effective for communication with healthcare professional (Hitchcock et al., 2014).
- Time constraints resulted in only pertinent information being given to patient/ caregiver.
- Important for nurses to recognise good communication helps to promote caring relationships (Elmqvist et al., 2012; Reay et al., 2016).

## **Discussion**

- ED remain as an important gateway for admissions.
- Triage helps to categorise the urgency of care and saves life.
- This review encourages EDs to continue training nurses to improve their confidence with using triage guidelines and to build experience over time.
- Guidelines are helpful (Chung, 2005). Intuitive knowledge and analytic reasoning were noted to be linked to observation, prioritization, objectiveness, knowledge, and flexibility (Benner and Tanner;1987) are important characteristics.

## **Discussion**

- The 'knowledge' and educational preparation of the triage nurse is also important. A study conducted in the perioperative speciality which supported this notion by illustrating that nurses who had more experience and those with speciality education reported higher levels of competence (Gillespie, Chaboye, Wallis, & Werder, 2011).
- Interdisciplinary collaboration and teamwork in many instances is important for quick decision-making when initiating rapid care to patients. (Wheelan, Burchell, & Tilin, 2003; Bost, Crilly, Patterson, & Chaboyer, 2010).

## **Discussion**

- Finally, with the reported prevalence of workplace violence and aggression experienced by triage nurses, it is important to equip nurses with skills such as verbal de-escalation techniques so that nurses can learn to recognize signs of aggression and regain their internal locus of control during patients' aggressive episode (Holloman & Zeller, 2012).
- Organizations can also establish supportive services for nurses working in such an emotionally and physically straining environment.

## Limitations to the review

- Although this review included studies that were conducted in different countries worldwide, which reflected a broad scope of experiences of triage nurses, there are some strength and limitations identified in this review.
- Sampling methods used for qualitative studies were suitable as this align with the research design of each study allowing researchers to select participants who could generate an in-depth understanding of their respective perspective (Creswell & Plano Clark, 2017).
- However, as convenience sampling was the most commonly used for the quantitative studies, this might introduced selection bias and generated significant sampling errors (Polit & Beck, 2017).

## **Conclusions**

- This review examined existing peer-reviewed published literature on the possible dimensions of triage nurses' experiences.
- The key findings of the review showed that triage nurses' experiences revolve around decision-making and communication.
- Guidelines/ clinical acumen can help to ensure a comprehensive triage processes.
- No minimum number of years before nurses can work in triage, but having experienced nurses who are confident in their work is important.

## **Conclusions**

- Triage training programmes can be conducted by the organisation which the nurses worked for.
- Can have a combination of case-based training and simulation-based practice where trainees can discuss and analyse the case, and eventually practice using the high fidelity training mannequins.
- Scaffolding learning techniques can be used to build case complexities can build over time.
- Triage training should also include techniques such as verbal de-escalation where nurses can be better prepared to react when mitigating verbal abuse from demanding patients.

## **Conclusions**

- Important to have effective communication among doctors and nurses.
- Inter-professional communication opportunities in the emergency department, tertiary institutions can provide an early head start where inter-professional education activities can be conducted.

Support network for triage nurses should be available in all emergency settings. This can include the implementation of regular debriefing sessions where nurses can feel more at ease knowing that they have the collective support of colleagues and the management in times of difficulty.



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