



## Factors Contributing to the Stress Experienced by Nurses during Triage at a Selected Public Hospital in KwaZulu-Natal Province, South Africa

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### Abstract

Emergency care is one of the most sensitive areas of health care system. This sensitivity makes emergency care to be filled with lots of stresses. To reduce the stress experienced by health care workers in emergency departments, well-developed countries had to design a triage tool that is suitable for their settings. Even though most of these tools are not suitable for developing and under-developed countries, they still go ahead with the adoption of these tools. When the developing countries realised the crucial need for them to design a triage tool that is suitable for their settings, they started designing a much simpler triage that nurse can easily lead the team without any complication of which South African Triage Scale (SATS) is a typical example. The success recorded by this tool made most African countries and some other developing countries adopt the tool. The study was designed to investigate the factors contributing to the stress experienced during triage at a selected public hospital in KwaZulu-Natal province. The study utilized a quantitative approach, in which a non-experimental survey involving convenience sampling technique was chosen as the most suitable sampling technique for the study. Recognition-primed decision model formed the framework of the study. Ethical clearance was obtained from University of KwaZulu-Natal Ethics Review Board and ethics principles were observed during the study. The findings of the study revealed that 54% of the respondents perceived that some factors still contribute to stress experienced during triage, despite the implementation of SATS. The study concludes that there is need for policy makers to constantly analyse and review triage tool; they also need to involve essential stakeholders like the community elders, the hospital directors and ethic scholars.

**Keywords:** Emergency Care; Factors; Nurses' Perceptions; Public Hospital; Triage; Stress

### Introduction

The stress experienced in Emergency Department (ED) is a common scenario across the globe and resources like staff, space and equipment are always limited [1]. Emergency Departments (EDs) are widely known for their stochastic nature, unpredictable arrivals and overcrowding problems that normally stress nurses and other involved health workers [2]. In line with this view, crowding is another factor that causes stress for staff when the demands placed on the ED are greater than the entire hospitals capacity [2,3]. More so, this factor can also lead to provision of low-quality care to patients. When this situation is not well managed,

the nurses and other involved healthcare workers will be exposed to both physical and emotional stress as well as the of patients and their relatives. Most nurses also suffer from excessive level of acute and chronic stress, fatigue related to work hours and work-environment [3]. While another study revealed that there is need for more formal education for staff regarding family needs, particularly in view of South African's diverse cultural context to reduce the stress experienced by nurses [4].

Furthermore, lack of adequate training on triage usually yields lack of confidence which in turn stress nurses [4,5]. Congruently,

nurses need to be undergoing training on triage regularly to update their knowledge and boost their confidence [5]. This same study also revealed that some nurses do avoid triage due to stress and some other reasons. While another study states that most nurses fear fronting triage due to lack of adequate training on triage, lack of adequate experience which always leads to lack of confidence [6]. However, nurses' age, years of work experience and their professional status do influence how they manage stress during triage. Another study confirms that nurses with more years of work experience are competent to front triage than nurses with few years of work experience. This same study also suggests that nurses should have had at least two years of work experience before fronting triage. In line with this view, there is need for an experienced senior healthcare professional to front triage to improve patients' flow and improves job satisfaction among staff [7].

Nurses seem to be mostly affected by health and safety issues, powerlessness, lack of confidence, inexperience, lack of respect and feelings of not being valued; these factors may also affect their health, their levels of job satisfaction and the quality of the services provided to patients. Another comparative study assert that overcrowding, lack of medical personnel, shortage of staff nurses, availability of critically ill patients, high patient demand standards, low value of their professional activities, low motivation and high managerial skill demands have always been a significant barrier for nurses [8]. While most nurses could not render holistic nursing care to their patients during triage due to inexperience and work overload because of short staff. This same study also unfolds that when a nurse is inexperienced, he or she will not have confidence to front triage, and this can lead to unavoidable stress [8,9].

In addition, most nurses in EDs are experiencing roles overloading especially in developing countries EDs and most of these overloads are due to critical staff shortages, budgetary cuts, increased patients' number, and acuity. By the same token, such overload can overstress nurses and other health professionals, because these staff will want to meet the needs of all patients and this might cause stress [10,11]. While some nurses perceive that triage is not within their scope of practice and if someone does not have passion for a role; this might lead to stress [11]. However, this study makes use of scientific approach to investigate the factors contributing to stress during triage administration.

## Method

A non-probability, convenience sampling method was used to recruit one hundred respondents. Furthermore, the researcher

chose the elements of the study that were available and ready at the right place and at the right time during the study period. In this study, convenient sampling was the most suitable technique because it made it easier for the researcher to collect data from the participants, especially when the nurses were off duty. Before the research was conducted, ethical approval was granted to conduct the research from the University of KwaZulu-Natal's Biomedical Research Ethics Committee. The protocol reference number is HSS/0547/018M. Before the full approval of the ethical clearance was granted, the Department of Health Research unit approved the research proposal and the HRKM reference number is 224/18, while the NHRD reference number is KZ\_201806\_008. Permission was also granted from the selected hospital where this study was conducted.

A two-page participation information document was also provided to each respondent explaining the purpose of the research and the nature of the questionnaire. They were also provided with consent form to participate in the study which they signed before answering any questions. Each of the respondents was given a copy of the consent form. The principle of justice was adhered to by ensuring the respondents' confidentiality. During data collection processes, the researcher informed the respondents not to write their names on the questionnaires because the researcher adhered strictly to the use of codes.

Since the study is quantitative in nature, a-60- itemed questionnaire A structured questionnaire was considered for this study because a structured questionnaire allows the respondents to respond directly in writing. It also enables a researcher to gather retrospective data about activities that have occurred in the past or gather projections about behaviour which people plan to engage in the future.

This study recruited nurses working at the Emergency Department, Paediatric Unit, and Outpatient Department (ED, PU and OPD), because these are the major units where triage is performed. These three departments were chosen so that a cross sectional idea of the perceptions of the various units performing triage could be explored. The selection method is based on motive, key criterion, and relevance of the participants to the theme of the study. This study utilized the whole population as the sample size because of the limited number. The collected data were analysed using Statistical Package for the Social Sciences (SPSS) version 25, frequency distributions, percentages, mean, mode, median, and standard deviations, while cross tabulations were done to analyse the data.

## Validity

The validity in this study was determined through cross validation (namely content validity and face validity, with the specific and chosen questions according to the objectives of the study), the conceptual framework, the literature, the research methodology. The research instrument (questionnaire) was reviewed by a hired expert and the supervisor, using face and content criteria. The corrections and suggestions were integrated into the instrument to make it valid for the study.

## Results and Discussion

The findings of this study as expressed in table 1 showed that 42% of the respondents agreed that inadequate training on triage contributes to stress during triage and 9 % strongly agreed that inadequate training on triage contributes to stress during triage. Similarly, nurses need to be undergoing training on triage regularly to update their knowledge and boost their confidence [12]. Majori-

ty (60%) also of the respondents agreed that inexperience contributes to stress during triage, while 10% of the respondents strongly disagreed that inexperience contributes to stress during triage. In support of this finding, lack of adequate experience always leads to lack of confidence; nurses with more years of work experience are competent to front triage than nurses with few years of work experience. This same study also suggests that nurses should have had at least two years of work experience before fronting triage [13].

The view of the respondents on if lack of confidence contributes to stress during triage unfolds that most (36%) of the respondents agreed that lack of confidence contributes to stress during triage. In support of this view, most nurses fear fronting triage due to lack of adequate training and experience, which always lead to lack of confidence [14]. Furthermore, several studies have shown that most nurses are not courageous enough to front triage perfectly due to inadequate knowledge and training [14,15].

Factors contributing to stress during triage	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean	Total (%)
I do not feel adequately trained	11% (n = 11)	28% (n = 28)	10% (n = 10)	42% (n = 42)	9% (n = 9)	3.09	100% (n = 100)
I am trained but still inexperienced	10% (n = 10)	6% (n = 6)	14% (n = 14)	60% (n = 60)	10% (n = 10)	2.92	100 (n = 10)
I do not have enough confidence.	24% (n = 24)	1% (n = 1)	9% (n = 9)	28% (n = 28)	36% (n = 36)	2.35	100 (n = 100)
I feel this is not within my scope of practice	32% (n = 32)	39% (n = 39)	15% (n = 15)	24% (n = 24)	1% (n = 1)	2.45	100% (n = 100)
The triage system is not flowing smoothly yet.	15% (n = 15)	27% (n = 27)	19% (n = 19)	33% (n = 33)	6% (n = 6)	2.88	100% (n = 100)
Overcrowding in the waiting room due to shortage of nurses	7% (n = 7)	20% (n = 20)	16% (n = 16)	43% (n = 43)	14% (n = 14)	3.37	100% (n = 100)
Long-waiting times to see the doctor due to shortage of staff	8% (n = 8)	12% (n = 12)	12% (n = 12)	40% (n = 40)	28% (n = 28)	3.68	100% (n = 100)
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**Table 1:** Statistical presentation of responses on factors that contribute to stress during triage.

Findings on how overcrowding in the waiting room, due to shortage of nurses, contributes to stress during triage showed that 43% of the respondents agreed that overcrowding in the waiting

room due to shortage of nurses contributes to stress during triage, while 14% of the respondents strongly agreed to this view. In support of this findings, emergency care is one of the most sensitive

areas of health care and this sensitivity makes emergency care to be filled with lots of stress which are commonly based on factors such as human resources factor, urgency and overcrowding [16]. In addition, the stress experienced in emergency department is a common scenario across the globe [17,18]. In line with this view, overcrowding causes stress for staff, especially when the demands placed on the ED are greater than the entire hospital's capacity to ensure timely care in the ED [19].

The findings further indicate that the majority of the respondents agreed that long-waiting times to see a doctor due to shortage of staff contribute to stress during triage; 40% and 28% of the respondents agreed and strongly agreed to this view respectively. Another finding concurs that the amount of time a patient waits to be seen is one factor which affects the utilization of healthcare services. Patients perceive long-waiting times as a barrier to receive health care services. This same study also unfolds that keeping patients waiting unnecessarily can be a cause of stress for both patients and health personnel [20].

## Conclusion

The study unveiled that 54% of the respondents perceived that many factors may lead to the stress experienced by nurses and other health care workers while discharging their triage roles. While most of the respondents identify lack of confidence; overcrowding in the waiting room due to shortage of nurses; long waiting time to see doctor due to shortage of staff and lack of adequate experience as the main factors that cause stress for nurses and other health workers during triage. Based on these findings, there is need for hospital management and officers in charge of emergency departments to encourage their nurses to be attending, seminars, workshops and conferences on triage in order to update their knowledge. The hospital human resources should also employ more experienced and professional nurses to aid the flow of triage.

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