

Practice of paediatric triage among nurses in human-resource constrained setting: A cross-sectional study in the Tamale metropolis of Ghana

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ARTICLE INFO

Keywords:

Child emergency
Resource-constrained settings
Triage
Nurses
Health
Ghana

ABSTRACT

Background: Globally, about 30 million children are said to be in need of emergency health care. Proper emergency care can help meet the Sustainable Development Goal targets (SDGs) in relation to maternal and child mortality. Triage in emergency settings is an established effective way of reducing child mortality in health care institutions.

Aims: We determined the practice of paediatric triage among nurses working in health facilities in Tamale.

Methods: A cross-sectional design, was used to randomly recruit 173 nurses for the study. Using a pre-tested structured questionnaire, we collected socio-demographic information and the practice of paediatric triage among the respondents. The data was analyzed with Stata version 15.0.

Results: The majority of nurses in this study were males (56.07 %). Most of the respondents had a certificate in nursing qualifications. The practice of Paediatric Triage was 78.03 % among the respondents. Paediatric triage was practiced more in the Teaching Hospital (84.52 %) as compared to 64.29 % in the District Hospitals. The practice of paediatric triage was associated with the religion of the respondents (59.12, <0.001) and the hospital of work (29.30, <0.001). The respondents identified inadequate personnel, inadequate logistics, poor understanding of triage, complexity of triage and tiresome nature as barriers to triage.

Conclusion: The desire to practice paediatric triage among nurses in resource constrained settings is high even though inadequate personnel and logistics among others pose as barriers to the successful practice of paediatric triage.

1. Introduction

Triage is an essential measure to systematically sort patients so those who are most acutely ill or injured receive timely care before their condition worsens (Duko et al., 2019a; Molyneux & Goka, 2017; Phukubye, Mbombi, & Mothiba, 2019; Sutriningsih, Wahyuni, & Haksama, 2020; Tam, Chung, & Lou, 2018). Within 24 h of admission, Children admitted to the hospital often die because of late identification of severity of illness. (Ebrahimi et al., 2016; Molyneux & Goka, 2017; Reisi, Saberipour, Adienh, Hemmatipour, & Abdolahi Shahvali, 2018). Nurses must be able to spot severely ill children in congested emergency rooms and move them to the front. Nurses must be able to predict the prioritization/categorization and status of available treatment areas for these

children. To properly triage the patient, the nurse needs to work within 10–15 min of child's arrival to the hospital. While waiting in a crowded emergency room, patients should inform the nursing staff if their condition has changed. Many of the deaths could be avoided if very sick children are identified quickly upon their arrival in the health facility, and treatment is started immediately (Ebrahimi et al., 2016; Elmashad, Mohamed, Gouda, & Fadel, 2020; Ruano et al., 2016). Despite several interventions to expand the scale of health services for children during emergencies, inadequate human resources and skills within the health system (Ali, Taverner, Ghani, Kussor, & Naz, 2013; Craig et al., 2016; Gardner & Cowden, 2011; Gruba, Jonathon Gruba, Medcalf, Cieslak, & Smith, 2016) together with under reporting of child deaths and inadequate national data to provide complete and reliable information on

Abbreviations: PT, Paediatric triage.

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<https://doi.org/10.1016/j.ijans.2022.100516>

Received 6 June 2021; Received in revised form 3 November 2022; Accepted 12 December 2022

Available online 16 December 2022

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child health, they contribute greatly to the inappropriate policy making concerning children in Ghana (Kerie, Tilahun, & Mandesh, 2018; Manoharan et al., 2018; Reisi et al., 2018).

There is relatively very little research in the area of Paediatric triaging (PT) in Ghana. In 2011, the World Health Organization in collaboration with Ministry of Health (MOH), Ghana, in its study of paediatric emergency triaging in some selected district hospitals, found interestingly that there was no separate outpatient department for children in any of the health facilities studied and children with emergency conditions joined adults in the same queue for their hospital cards in all facilities (Who, 2011). Based on the research findings, it was recommended that specific emergency units be established to facilitate triaging and prioritise care for children. Despite the fact that most public health facilities within Tamale serve as referral centers for complicated conditions, there seem to be no well-structured triaging system for paediatric units and there are no established protocols requiring triaging for child cases (Molyneux & Goka, 2017). Some reports suggest that most children within Tamale die while waiting to receive care at the hospital (Afaya, Azongo, & Yakong, 2017). Since the literature describes triaging, an essential component of care as discretionary, the researchers sought to examine the practice of paediatric triage and socio-demographic factors that influence nurses to do triaging for paediatric emergencies considering that most of the nursing staff at the Emergency Units are not trained as Paediatric Nurses.

1.1. Aim

We determined the practice of paediatric triage and the socio-demographic factors influencing paediatric triaging among nurses working in health facilities in Tamale – Ghana.

2. Method

2.1. Study design

In this study, we employed a descriptive cross-sectional design. Nurses working at the Paediatric Units of the Tamale Teaching Hospital (TTH), Tamale West Hospital, and Tamale Central Hospitals with over six months working experience in the Paediatric Emergency Units were recruited. The philosophical foundation for the study was the positivist approach (Abuatiq, 2015; Fuller et al., 2001; Ryan, 2015). In adopting the positivist approach to research, which is quantitative, the researchers embarked on the study of the reality by maintaining a distance between him/her and the researched. This allowed the respondents to give a self-report of how they carry out the triage process in the various facilities devoured of the ideas of the researcher. In this study, our view was that the socio-demographic and institutional cultural variables which influence nurses during triaging were objectively measurable.

2.2. Setting

The study used three (3) hospital outlets in the metropolis, namely, the Tamale Teaching hospital, Tamale West hospital and Tamale Central hospital. These hospitals were used because they had well-structured paediatric units and served as referral centers for rural and sub-District Health facilities. The Tamale West and Central hospitals were chosen to represent the district hospitals while the Tamale Teaching Hospital represented the tertiary hospital. The Tamale Teaching Hospital (TTH) was commissioned in 1974 as a Regional Hospital and is now fully accredited as a tertiary level healthcare institution to provide the much-needed medical referral center for the Northern sector of the country and provides comprehensive health services to the people of Tamale and its environs. The second hospital was the Tamale West Hospital, which is to the west of Tamale main town adjacent Picorna Hotel in an area called Zogbeli. It was established in April 1st 1998 as a polyclinic and up graded to a district hospital the same year. It has a

total staff strength of 109 out of that number 93 are nurses with 40 of them working at the outpatient/emergency units, with a bed capacity of 107. The third hospital, which is Tamale Central Hospital, is to the east of Tamale Main Town and located opposite the post office on the Kalpohini road and west to the police service and central to the prison's services. It is also known as Old Hospital, formally served as the regional hospital of Northern Region and occasionally served as a referral point for the upper region until 1974 when it was closed down following the commissioning of the current Tamale Teaching Hospital as the Regional Hospital.

2.3. Sample size determination

The total paediatric emergency nursing staff in the three hospitals amounted to 185. A sample size of 162 was arrived at by using Yamane, 1967 formula for each hospital after which the values were summed up (Yamane, 1967). 10 % of the sample size was added to make up for errors and non-submitted questionnaires, which gave a total sample size of 177. Thus, a sample size of 177 respondents was required at a desired precision of 0.05 and added for 10 % non-response.

2.4. Selection of participants and data collection

Data were collected from May to August 2017. We included male and female nurses working at the Paediatric Emergency Units of the three hospitals. Nurses working in the emergency departments of the three (3) public hospitals were recruited for the study. One hundred and seventy-seven (177) nurses were selected and sampled using a systematic random sampling technique. However, all three hospitals were purposively selected for the study. Other health care professionals such as medical doctors and lab technicians, in the emergency and outpatient units who were not involved in triaging were excluded. Nurses who had been on the emergency units but had worked for less than six months were also excluded.

Prior to recruitment, a full list of all eligible nurses was obtained from the human resources units of the three hospitals. The list was then numbered, and a sampling interval was determined by dividing the sample size over the total population. The respondents were then chosen using the sampling interval until the last respondent was chosen. The chosen respondents were then contacted and given a questionnaire in English to fill by the researchers. A modified version of Knabe, Ann's, "Applying Ajzen's Theory of Planned Behavior to a Study of Online Course Adoption in Public Relations Education" (2012), questionnaire was used for this study. The phrase public relation education was replaced by Paediatric Triage in the modified version of the questionnaire. The questionnaire was divided into three sections. Section A had questions measuring socio-demographic characteristics of respondents which comprised of 7 items. Section B had questions measuring paediatric triage practice with 30 items, while Section C had 10 items measuring barriers to the practice of paediatric triage. The questionnaire was piloted by the principal investigator to ensure validity, there was no need for further modifications after piloting, as questions were understood and thought of by respondents as appropriately measuring the construct (paediatric triage). Therefore, changes were not made to the questionnaire. While a Cronbach's alpha (0.69) was calculated to ensure reliability of the questionnaire. The objective of the study was explained to the nurses and those who consented to participate were interviewed using the questionnaire in the form of face-to-face interview after which the questionnaires were collected for analysis. Again, permission was sought from the individual unit heads. Then the selected participants were briefed on the study and after the briefing, they were asked whether they would like to participate in the study and those who had agreed to do so were further briefed on how to complete the questionnaire. The questionnaires were administered to the participants by the researchers themselves and it took about 20 – 25 min for each participant to complete. The completed questionnaires were collected

immediately after filling them. The pre-tested structured questionnaire collected socio-demographic information and the practice of paediatric triage among the respondents. The data was entered into Microsoft Excel 2010 and imported into the Stata version 15.0 for analysis.

2.5. Data analysis

We analyzed the data using the Stata version 15. During the analysis, we did a facility/hospital comparison of socio-demographic variables using Pearson's chi-square (χ^2) test, particularly for the dichotomous variables. In determining the association of socio-demographic and practice of paediatric triaging, we used the Pearson's χ^2 . In this study, $p < 0.05$ was considered statistically significant.

2.6. Ethical considerations

Ethical approval was sought from the Noguchi Memorial Institute for Medical Research (IRB CPN 015/16-17). The objective of the study was explained to the nurses and those who consented to participate were further briefed on how to complete the questionnaire. The questionnaires were administered to the participants by the first author and it took about 30–45 min for each participant to complete the questionnaire. The completed questionnaires were collected immediately after filling them. A total of 177 out-patient/emergency nurses were selected for the study. Of these, 173 questionnaires were successfully completed representing a response rate of 97.7%. However, 4 of the questionnaires were incomplete and thus were not used. We obtained permission from the Deputy Director of Nursing Service of the three hospitals prior to data collection. Moreover, we explained the purpose of the study to each respondent before obtaining written informed consent for the study. Furthermore, we ensured the confidentiality of the data collected by assigning unique codes to each response. We also maintained privacy and ensured anonymity throughout the data collection and analysis of the data.

3. Results

A total of one hundred seventy-three (173) respondents took part in the study. As depicted in Table 1, Majority of the respondents (56.07%) were males with only 43.93% being females. The mean age of the respondents was 29.02 ± 3.64 . Majority of the respondents (45.09%) were enrolled nurses and only 24.28% had a bachelor's education background. The dominant religions among the respondents were Christianity (46.24%) and Islam (45.09%). Further, the study found that 45.66% of the respondents reported as having low-income levels as compared to 24.24% who reported as having high income level. The results showed that 50.29% were married with 39.88% and 9.03% reporting to be single or separated, respectively. Majority of the respondents (67.63%) worked at the teaching hospital with only 32.37% being workers of the two district hospitals in this study. Majority of the respondents (74.57%) had 1–3 years working experience as nurses. This is presented in Table 1 (Table 1) in appendix.

3.1. Comparison of socio-demographics between the hospitals/facility

Majority of the respondents (67.63%) were staff of the Tamale teaching hospital with 32.37% being staff of the two district hospitals. The nurses in the district hospitals had the majority of them being certificate nurses (54.29%) with only 16.07% of them being degree holders (Table 2). Comparatively, the nurses at the teaching hospital were holders of diploma and degree educational qualifications with 1 respondent possessing a post graduate qualification. The results revealed that nurses in teaching hospitals had a higher educational qualification compared to their counterparts from the district hospitals ($p < 0.001$). Majority of the respondents from the teaching hospital were Muslims as compared to those from the district hospitals who were

Table 1
Socio-demographic characteristics of respondents.

Variable	Frequency	Percentage (%)
<i>Sex</i>		
Male	97	56.07
Female	76	43.93
<i>Highest education</i>		
Certificate	78	45.09
Diploma	52	30.06
Degree	42	24.28
Postgraduate	1	0.58
<i>Religion</i>		
Christian	80	46.24
Islam	78	45.09
Traditionalist	15	8.67
<i>Income level</i>		
Low	79	45.66
Middle	52	30.06
High	42	24.24
<i>Marital status</i>		
Single	69	39.88
Married	87	50.29
Separated	17	9.03
<i>Hospital of work</i>		
District hospital	56	32.37
Teaching hospital	117	67.63
<i>Working experience</i>		
1–3	129	74.57
4–6	18	10.40
7–10	17	9.83
11–16	9	5.20

Field data, 2017.

Christians. Respondents from the teaching hospitals were predominantly single compared to their counterparts from the district hospitals who were married. The details are captured in Table 2.

3.2. Practice of paediatric triage

The results show that the practice of paediatric triage was 78% among the respondents. However, nurses from the teaching hospital indicated a higher level of practice of paediatric triage (84.62%) as compared to 64.29% from the district hospitals. This is presented in Fig. 1.

3.3. Association between the practice of paediatric triage and socio-demographic factors

The practice of paediatric triage among the respondents was 78.03% with 84.62% of those in the teaching hospitals practicing it compared to 64.29% in the district hospitals. The study revealed that the hospital work was associated with the practice of paediatric triage (29.30, $p < 0.001$). The results revealed that respondents who were Christians and Muslims in the teaching hospital were more likely to practice paediatric triage compared to the beliefs in the traditional African religion. Similar findings were identified for the respondents from the district hospitals. The details are in Table 3.

3.4. Barriers to paediatric triage

On the barriers to paediatric triage, the respondents identified the following factors as inhibitors to triage. The factors were the complex

Table 2
Comparison of socio-demographic factors between the study settings.

Variable	Teaching Hospital N (%) 117 (67.63)	District Hospitals N (%) 56 (32.37)	Chi ² , p-value
Sex			4.240, 0.120
Male	60 (51.28)	37 (66.07)	
Female	57 (48.72)	19 (33.93)	
Highest education			33.56, <0.001
Certificate	42 (35.90)	36 (64.29)	
Diploma	41 (35.04)	11 (19.64)	
Degree	33 (28.21)	9 (16.07)	
Postgraduate	1 (0.85)	0 (0)	
Religion			33.40, <0.001
Christian	39 (33.33)	41 (73.21)	
Islam	64 (54.70)	15 (26.79)	
Traditionalist	15 (12.82)	0 (0)	
Income level			32.47, <0.001
Low	43 (36.75)	36 (64.29)	
Middle	41 (35.04)	11 (19.64)	
High	33 (28.21)	9 (16.07)	
Marital status			38.97, <0.001
Single	62 (52.99)	7 (12.5)	
Married	40 (34.19)	47 (33.93)	
Separated	15 (12.82)	2 (3.57)	
Working experience			13.27, 0.100
1-3	84 (71.79)	45 (80.36)	
4-6	13 (11.11)	5 (8.93)	
7-10	13 (11.11)	4 (7.14)	
11-16	7 (5.98)	2 (3.57)	

Field data, 2017.

nature of triage, lack of logistics, inadequate personnel, poor understanding, and tiresome nature of triage.

3.5. First major barrier to paediatric triage

When the respondents were asked of the first major barrier to paediatric triage, 83.24 % of the respondents cited inadequate personnel as a major barrier. 8.09 %, 6.94 %, 1.16 %, and 0.58 % identified poor understanding, logistics, tiresome, and complex to perform as a first major barrier to triage. Details are in Table 4.

3.6. Second major barrier to paediatric triage

When the respondents were asked of the second major barrier to

Table 3
Comparing the association between practice of paediatric triage and socio-demographic factors in the respondents.

Variable	Total N, (%)	Practice of PT (%)	χ ² , p-value
Training on PT	109 (63.00)	83 (76.17)	1.156, 0.764
Sex of respondent			0.066, 0.797
Male	97 (56.07)	75 (77.32)	
Female	76 (43.93)	60 (78.95)	
Highest Education			6.017, 0.111
Certificate	78 (45.09)	57 (73.08)	
Diploma	52 (30.06)	43 (82.69)	
Degree	42 (24.28)	35 (83.33)	
Postgraduate	1 (0.58)	0 (0)	
Hospital of Practice			29.30, <0.001*
Teaching Hosp	117 (67.63)	99 (84.62)	
District Hosp	56 (32.37)	36 (64.29)	
Income level			2.941, 0.230
Low	79 (45.66)	57 (72.15)	
Middle	52 (30.06)	43 (82.69)	
High	42 (24.28)	35 (83.33)	
Marital status			2.500, 0.287
Single	69 (39.88)	58 (84.06)	
Married	87 (50.29)	64 (73.56)	
Separated	17 (9.82)	13 (76.47)	
Religion of respondents			59.12, <0.001*
Christian	80 (46.24)	56 (70)	
Islam	78 (45.09)	77 (98.72)	
Traditional	15 (8.67)	2	

Field data, 2017.

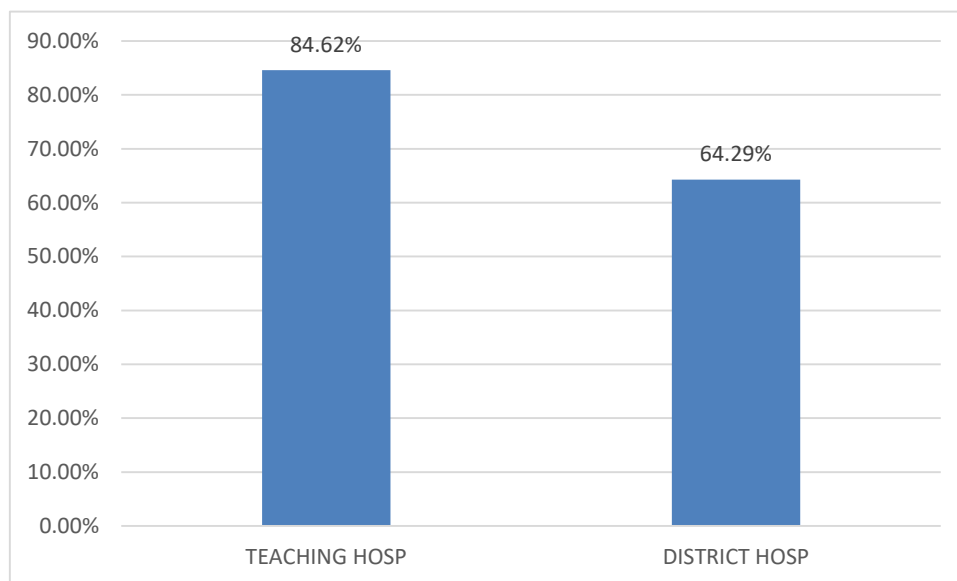


Fig. 1. Practice of paediatric triage among the study respondents. Field data, 2017.

Table 4
First major barrier to paediatric triage.

First Major Barrier to PT	Frequency	Percentage
Complex to perform	1	0.58
Logistics	12	6.94
No personnel	144	83.24
Poor understanding	14	8.09
Tiresome	2	1.16
Total	173	100

Field data, 2017.

paediatric triage, 83.24 % of the respondents cited a poor understanding of paediatric triage as a major barrier. 5.78 %, 4.05 %, 3.47 % and 3.47 % identified logistics, no personnel, tiresome, and complex to perform as a second major barrier to triage. Details are in Table 5.

3.7. Third major barrier to paediatric triage

When the respondents were asked of the third major barrier to paediatric triage, 87.28 % of the respondents cited the complex to perform paediatric triage as a major barrier. 4.05 %, 3.47 %, 2.89 % and 2.31 % identified tiresome, poor understanding, no personnel, and inadequate logistics as a third major barrier to triage, respectively. This is presented in Table 6.

3.8. Summary of results

The results as shown above indicate that the majority of nurses working in paediatric emergency settings in the Tamale metropolis were males. Most of them had certificates in General Nursing qualifications. Nurses in the teaching hospital had higher educational qualifications compared to their counterparts in the district hospitals. The results indicate that there was a high level of practice of paediatric triage in both settings even though the practice was higher in the teaching hospital. The practice of paediatric triage was associated with the religion of the respondents and the hospital of work. The respondents further identified inadequate personnel, inadequate logistics for triage, poor understanding of triage, as barriers to paediatric triage and had a perception of paediatric triage as complex and tiresome.

4. Discussion

A total of 173 respondents were involved in the study, this study had more male nurse respondents 56.07 % (n = 97) than female nurse respondents 43.93 % (n = 76) as discovered in previous studies (Chen et al., 2019; Dekker-Boersema et al., 2019; Recznik, Simko, Travers, & Devido, 2019) in Ghana, there is more male enrollment and sustenance in schools than female enrollment and sustenance. In addition, males in the northern region strive for high/tertiary education than many of the females, resulting in more male engagement in formal jobs than in the case of females. These practices probably contributed to the greater number of male nurse respondents in the study. The mean age in this

Table 5
Second major barrier to paediatric triage.

Second Major Barrier to PT	Frequency	Percentage
Complex to perform	6	3.47
Logistics	10	5.78
No personnel	7	4.05
Poor understanding	144	83.24
Tiresome	6	3.47
Total	173	100

Field data, 2017.

Table 6
Third major barrier to triage.

Second Major Barrier to PT	Frequency	Percentage
Complex to perform	151	87.28
Logistics	4	2.31
No personnel	5	2.89
Poor understanding	6	4.47
Tiresome	7	4.05
Total	173	100

Field data, 2017.

study was 29 years (SD = 3.637). Moreover, 68.2 % (n = 118) were aged between 26 and 30 years, suggesting a youthful and energetic group of nurses for paediatric triaging as discovered in previous studies (Afaya et al., 2017; Duko et al., 2019a; Faheim, Ahmed, Aly, & Hegazy, 2019; Phiri et al., 2020; Phukubye et al., 2019). It is observed that most people in the Ghana enter the work force at a very young age. Again, following the shortage of nurses and midwives in Ghana generally due to brain drain in the quest for greener pastures into western countries and retirement of nurses in Ghana, there has been an extensive proliferation of nursing training schools culminating in a large cohort of young nurses completing from these schools. Even though these schools were established in an attempt to increase the capacity of nurses in the country, the nursing profession and quality appear to suffer. These phenomena might have accounted for the youthful/ strong response group for paediatric triaging in this current study.

In terms of work qualification major of the respondents (45.09 %) were enrolled nurses. This finding is similar to the findings of earlier researchers (Asamani et al., 2019; Atitsogbui & Tawiah, 2019; Bell et al., 2014). Enrolled nurses in Ghana by default are expected to only gain competence in auxiliary nursing activities. This makes their training shorter and enrollment into the work force earlier as well as quicker. It is also cheaper and less burdensome to the government of Ghana financially when enrolled nurses are employed. These reasons could have contributed to the high number of enrolled nurses in this current study.

The study further found that nurses in the teaching hospital had higher educational qualifications compared to their counterparts in the district hospitals. In Ghana the best trained nurses are mostly employed at the tertiary institution that is mostly in the teaching hospitals while we have the diploma and basic certificate holders mostly in the district hospitals This finding is in line with the works of earlier researchers (Duko et al., 2019b; Gardner & Cowden, 2011; Kerie et al., 2018; Rahmati, Azmoon, Kalantari Meibodi, & Zare, 2013). Teaching hospitals as the name suggest, predominantly teaches, and models the way for others, particularly smaller health facilities such as district hospitals. In order to accomplish what they are mandated to do, highly qualified nursing staff such as degree nurses and post graduate nurses are required in these facilities. It is therefore not surprising to see a significant number of respondents in the teaching hospital in this study possessing a first degree as the minimum educational qualification. Compared to Australia and Canada it is the same trend. Degree nurses in these countries perform better triage as compared to nurses of a low cadre (Brouns et al., 2019).

The practice of paediatric triage among the nurses was high at 78.03 % similar finding was reported by (Phukubye et al., 2019; Rahmati et al., 2013; Soogun, Naidoo, & Naidoo, 2017; Tam et al., 2018). The nurses properly categorised the sick children into emergency, priority, and normal cases for care and treatment. This was done in a timely manner which reduced complications and death (Toloo, Aitken, Crilly, & Fitzgerald, 2016). Additionally, 84.62 % of the nurses in the teaching hospitals practiced paediatric triage more than those in the district hospitals 64.29 % (Abdelwahab, Yang, & Teka, 2017; Faheim et al., 2019; Heidarzadeh, Heidarzadeh, & Azadi, 2020; Phukubye et al., 2019). Nurses were able to spot severely ill patients in congested

emergency rooms and move them to the front. Nurses were able to predict the prioritization and status of available treatment areas for the children (Brouns et al., 2019). The practice of paediatric triage seems to be high in the teaching hospital probably due to the calibre (degree holders) of nurses found there. Again, the findings of this current study seem to suggest that the hospital worked in was associated with the practice of paediatric triage (29.30, $p < 0.001$). It appears that there may be more resources in the teaching hospital as are found in the district hospital and could be the reason paediatric triage is practiced more in the teaching hospital (Abdelwahab et al., 2017; Duko et al., 2019a; Faheim et al., 2019; Heidarzadeh et al., 2020; Rahmati et al., 2013). In Manchester triage is highly performed and has contributed immensely to reducing complications among sick children who attend the emergency department as well as reduce deaths among children in that state (Worth, Davis, Wallace, Bartlett, & Travers, 2019). Muslim nurses 77 (98.72 %) were more likely to perform paediatric triage in this study. This trend may be from the belief that human beings(children) and their fundamental rights hold an important place in Islam. Human beings are the highest ring of the chain of living creatures in the universe. Humans are the superior and most honourable creatures of Allah. The most fundamental right of human beings is the right to live and it is superior to anything else. Everything which may violate the right to live is prohibited in Islam. The fact that the right to live is superior to all other rights hold a great importance in Islam as well as all other religions and legal regulations regarding the preservation of this right (Elcioglu & Unluoglu, 2004; O'Leary, Abdalla, Hutchinson, Squire, & Young, 2020; Rotabi, Bromfield, Lee, & Sarhan, 2017).

Nurses in this current study identified lack of resources, poor understanding of triage, lack of personnel, lack of logistics, the complex nature, and tiresome nature of triage as hindrances to the practice of paediatric triage. Though the practice was generally high, it could be better when these barriers are mitigated towards optimal paediatric triage (Aloyce, Leshabari, & Brysiewicz, 2014; Bijani & Khaleghi, 2019; Craig et al., 2016; Gruba et al., 2016; Hamm, 2008; Molyneux & Goka, 2017). The recommendation however is that paediatric triage is very important, and that Nurses who perform it among children need to have the proper knowledge, skill, behavior toward its performance and the right resources to perform this all-important task that contributes to reducing child illness complications and deaths.

5. Limitations of the study

The study used a cross-sectional design making it difficult to infer causation. In addition, since the study depended on a pre-tested questionnaire which largely depended on the respondent's responses and recall, there is a high possibility of recall bias. Furthermore, income levels are usually associated with some social status in society, hence some of the respondents could claim to be in the high social brackets when actually they are not and vis-versa.

Declarations

Not Applicable.

Consent for publication

Not applicable.

Funding

There was no funding for this study.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence

the work reported in this paper.

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