PERCEPTION OF NURSE MANAGERS REGARDING BARRIERS TO PATIENT SAFETY IN PUBLIC SECTOR TEACHING HOSPITALS OF PESHAWAR

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ABSTRACT

Aim: This study was conducted to explore perceptions of nurse managers regarding barriers to patient safety in public sector teaching hospitals of Peshawar.

Design: A qualitative case study design was used to explore perception of mangers regarding barriers to patient's safety.

Methods: Focus group discussions were used to collect data from nurse managers in three public sector teaching hospitals of Peshawar. Total six focus groups discussion were conducted. Data was analyzed through thematic analysis.

Results: Five main barriers to patient safety were identified by participants including work overload, scarce resources, lack of professionalism, lack of competence and poor management. Perceived barriers to patient safety identified in this study need to be properly addresses to improve patient safety in public sector hospitals of Peshawar.

Key words: Patient safety, barriers, nurse managers

INTRODUCTION

"Above all, do no harm" despite ancient origins is a persuasive reminder for health care professionals today to give priority to patient safety over treatments that can harm patients health and life[1]. Adverse events caused by errors during treatment or care process is leading cause of mortality and morbidity worldwide[2] Patient safety grasped attention after the report of "to error is human" according to that 44,000 to 98,000 patients die every year because of avoidable medical errors and this mortality is greater than combined death rates of traffic accidents, AIDS and cancer[3]. Harms to patient in hospital are usually due to work load on staff, poor staffing, lack of training , poor communication and low collaboration among health team members and in these conditions nurse managers play a key role in ensuring patient safety throughout the process of care [4]. A study found that nurse manager's works and time spent can positively influence patient safety, outcomes and performance [5].Risk of harm to the patients increases when managerial processes are planned and performed poorly in health care organizations [4].

Even though the patient safety is a research priority, ensuring patient safety in low income countries is a challenge. Moreover there is lack of research from developing countries and findings from developed countries may not be transferable because of different context [5].The issue of patient safety is extensively in-vestigated through surveys in developed countries and those surveys identified work overload, staffing issues, punitive response to errors and less support from man-agement as barriers to patient safety. In developing countries including Pakistan patient safety is not consecutively investigated due to lack of surveillance system, however existing evidence shows harms due to medical errors are 2-20 times higher than developed countries [10]. One study from Lahore reported that patient safety is not satisfactory in public sector hospitals of Pakistan [11]as perceived by nurses. Furthermore Surveys as the only source of investigating patient safety are of limited worth 12. For the purpose of in-depth understanding of barriers to patients' safety in order to ensure and improve patient safety this study was aimed to explore nurse manager's perceived barriers to patient safety in public sector hospitals of Peshawar Pakistan.

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METHODS

Qualitative case study design was used to explore perception of nurse managers regarding barriers to patient safety in public sector teaching hospitals of Peshawar, Leady Reading Hospital, Khyber Teaching Hospital and Hayatabad Medical Complex. These hospitals are the main sources of tertiary health care services to middle and lower middle population of Province Khyber Pakhtoonkhwa (KP) and neighboring country Afghanistan. Participants in included this study were nurse managers including Nursing Directors, Chief Nursing Superintendent, Nursing Superintendents and head nurses of different units. Nurse Managers are purposively selected for the study. Managers working on acting charge basis were excluded from the study.

Total six focus groups each consist of five members (two groups per hospital)were recruited for discussion, upon obtaining approval from Advanced Studies and Research Board followed by permission from Ethical review committee of Khyber Medical University. Participants were approached for FGD after written informed consent. Focus groups were conducted by the primary researcher in the language convenient to participants (Urdu and Pashto).Focus group discussions were digitally recorded. Specific questions regarding barrier to preventing medical errors such as hospital acquired infections, medication errors, falls, pressure ulcers and poor communication and patient safety were asked from the participants.

The process of data analysis and data collection moved forward simultaneously. Focus group discussions were transcribed and translated first. Transcription was checked with participants for conformation. Each transcript was read and re-read several time to get general understanding. Open codes were applied and categorized on the basis of reoccurrence or interrelationship. Salient themes were extracted from categories.

RESULTS

After detailed analysis five main barriers to patient safety were identified by the participants. These barriers were work overload, scarce resources, lack of professionalism, lack of competence and poor management.

Work overload

Majority of the focus group participants shared their views regarding work overload as primary barrier to patient safety in public sector teaching hospitals of Peshawar. Nurses working in these hospitals become exhausted to cope with workload and patient safety is overlooked. Participants believed that patients are not safe because no one have time to consider patient safety. In high patient flow medication administration is the single most nursing intervention which is also hard to give on right time.

"Most of the Time…there are too many patients like I myself cared for 100 patients with one colleague…. It becomes very difficult to provide timely medications and are sometime delayed or given early"(FGD1R6).

"We don't have that much time to wash our hand after attending each patient...we just try to finish medication round on time"(FGD5R4)

Despite high patient flow Indenting medication, maintaining expenses, maintaining records equipment, linens and patient statistics are non-nursing work that nurses have to do in these public hospitals. They viewed that these not essential work deviates them from their core responsibility of patient care and as a result patients are suffered.

"we also have to do many non-important wok here for example indent etc so here nurses also do clerical work …"(FGD4R1).

"She do online indent …it also takes a lot of time so for this should be other staff only patient care is our job and these thing deviate us from care….."(FGD4R2

Scarce Resources

Although there is work overload on staff in these

Table 1: Characteristics of participants

	No	Percentage
Gender		
Male	9	21.4
Female	33	78.5
Qualification		
BSN	34	80
MSN	8	19
Experience		
5-10	8	19
10-15	18	42.8
15-20	10	23.8
20-25	6	14.2
Management Position		
Head nurses	22	52
Nursing supervisor	14	33
Nursing superintendent	4	9.5
Director nursing	2	4.7

Table 2: Process of coming up with codes ,categories and themes.

Theme	Category	Codes	Data extract
Work overload	High patient flow	Poor staff to patient ratio	Most of the Time in pediatric units there are too many patients like I myself cared for 100 patients with one colleague…. It becomes very difficult to provide timely medications and are sometime delayed or given early (FGD1R6).
	Highly dependent patients	Few staff for many dependent patients	In ICU….child fell down from bed and died ….there were six beds in ICU and on one bed there were three patients and I was the only nurse caring for them. One patient was of open heart surgery and I could not leave him alone (FGD1R1)
	Non nursing work burden	Extra unessential work	we also have to do many non-important work here for example indent etc so here nurses also do clerical work … (FGD4R1). She do online indent …it also takes a lot of time so for this should be other staff only patient care is our job and these thing deviate us from care…..(FGD4R2)
Scarce resources	Poor condition of existing resources	Broken bedside rails	There should be side rails as they are not available with most of beds or broken …(FGD5R3)
	Insufficient human resources	Lack of staff	I assign three patients to that one staff and those three patients are on ventilator….if ask staff to change patient position one hourly so from one staff how much work I can expect…(FGD3R4).
	lack of medicines	No Emergency medicine at the time of emergency	We don't have injection atropine and epinephrine and solocartif with us so can I write it from outside when there is emergency and I required it in 2 minutes…..(FGD6R1)
	Insufficient beds	No empty bed for serious patients.	A patient was serious and there was no oxygen…. no bed was empty in other wards too there …and the patient was expired on the way…(FGD6R2)

hospitals, another main barrier to patient safety is lack of resources as existing resources are not sufficient to fulfill healthcare needs of patients coming to these hospitals. Majority participants believed that condition of existing resources like beds, mattresses, equipment and building is worst as there are no side rails available on beds or broken, mattresses are rough and lifts are damaged keeping patients at risk of falls, pressure ulcers and infections.

"Here one patient fell down from the bed in pediatric unit because there are no side rails on the beds…."(FGD6R1).

Some participants believed that there is deficiency of human resources and material resources like medicines, equipment, and supplies for infection control posing threat to patient safety.

"I assign three patients to that one staff and those three patients are on ventilator….if ask staff to change patient position one hourly so from one staff how much work I can expect…"(FGD3R4).

"We don't have injection atropine and epinephrine and solocartif with us so can I order it from outside store when there is emergency and I need it within 2 minutes….."(FGD6R1).

"A patient was serious and there was no oxygen…. no bed was empty in other wards too there …and the patient was expired on the way…"(FGD6R2)

Lack of Professionalism

Participants believed that doctors and nurses usually show unprofessional behavior like lack of interest and concern in patient care. They said that most of the care including intra venous injection is given by students without any supervision that leads to medication errors and compromised patient safety.

"In public hospitals students provide most of care including I/V medications…. and students do not have that much expertise to consider patient safety…" (FGD1R3).

"In gynea OT and surgeon removed uterus instead of uterine cyst. I asked the surgeon what you did and she said oh no! Then responded we will tell relatives

of patients that it was necessary…"(FGD1R4)

Lack of competence

Despite other barriers participants discussed lack of competence of nurses as another obstacle in patient. Participants believed that nurses and nurse managers have lack of knowledge of patient safety and majority of nurses have only diploma in nursing. Participants also discussed that quality of basic nursing training is poor which leads to unrefined skills of nurses and consequentlykeep patient safety at risk.

"….most of our senior nurses have lack of education they are not highly qualified…."(FGD4R4)

"For sample of ABGs we should know proper degree of inserting needle. Patient was normal… nurse pricked the arty on 90 angle and the artery became double pricked and patients hand and whole arm became bruise then patient was shifted to the OT and was operated…."(FGD2R2).

Poor Management

Poor management encompasses poor medication management system in these hospitals as they said that medication supply is very slow because of which important medicines doses like antibiotics are delayed or sometimes missed. Furthermore participants believed that error reporting is not supported by management and those who reported such events and errors are targeted and punished. They also said that there is lack of policies on patient safety and if there are policies then there is lack of check and balance to ensure its implementation.

"The chain of medicine supply is not properly maintained….. we indent medicines in the morning and the dose is received to the patient in the evening". (FGD3R2)

"This is the issue of our system from management point of view that we don't encourage incidence reporting…."(FGD3R3)

DISCUSSION

The primary barrier considered responsible by majority of study participants in preventing errors and ensuring patient safety was work overload. This barrier was identified in terms of high patient flow, low nurse to patient ratio, unfair distribution of staff for different patients and high patient flow. Previous studies supports these findings as they found that assigning greater number of patients to nurse increases the chance of errors and compromise patient safety.[13,14] Some studies concluded that nurse staffing level and patient acuity, heavy work load were associated with increased infections, falls and medication errors[15,16]

Lack of resources was perceived a further major barrier to patient safety in our study. The first thing surfaced by study participants is lack of human resources that pose serious threats to patient safety. Brain drain of doctors and nurses from country is contributing to this issue and there are little efforts from government to control this issue. Our findings are supported by previous studies as they revealed that shortage of staff and overwork are factors that hinder patient centered safe care[6,17]

Participants perceived that nurses are less devoted and they have lack of interest in patients care as most of the care is provided by students that enhanced chances of errors. Similar findings were revealed by previous study conducted in Spain that low number of health professional are dedicated to patient safety[18] in this regard one more study found that there is positive impact of nurses personal interest on patient safety[19]. Participants shared stories in which mostly students were involved in medication errors and they believed students do not have that much expertise to considered patient safety. Possible explanation for this may be that in nursing educational curricula there is little emphasize on preventing medication errors. In a study conducted in India significant association was found between medication errors and inexperience of nursing personnel[20].

We found that when nurses do not have knowledge of patient safety it increases chances of errors and result in poor patient safety. Previous studies have discussed importance of patient safety knowledge in improving patient safety.[5,19] Education on patient safety is critical to prevent errors and guarantee patients safety in both basic training and in service. A study from South Korea showed that nurses have lower level of knowledge regarding patients safety for which creating and providing integrated programs on patient safety by variety of methods is necessary[21].

In public hospitals of Pakistan medicines are not freely provided due to increased cases of corruption that could occur when medicines are provided in large amount without any formal process and monitoring. Pakistan's public health sector is weighed down by corruption and literature shows that corruption is more in public sector as compared to private sector[22]. Although transparency in processing of medication is appreciable for control of corruption but it should not result in delayed supply of medication and patient safety should be kept at priority.

Participants believed that error reporting is not supported by management and those who reported such events and errors are targeted and punished. This leads to fear of reporting among staff and result in minimal learning from errors and consequently errors are continued. Previously conducted studies found that punitive response to errors by management discourages error reporting and in poor learning from errors that ultimately compromise patient safety[6–9,23].

Barriers identified in this study may help manag-

ers to make health care professional accountable for patient safety. Findings may also help nurse educators and curriculum developers to include patient safety education in basic nursing training. Researchers may be encouraged to study critical but neglected area of patient safety. Further research in the area may help to explore other aspect of patient safety that may have positive impact on overall improvement of patient safety.

DECLARATION

We hereby state that this research is our own work unless where indicated conducted in three public sector teaching hospitals of Peshawar Khyber Teaching Hospital, Leady Reading Hospital, Hayatabad Medical Complex, and Institute of Nursing Sciences, Khyber Medical University Peshawar.

REFERENCES

1. Algahtani FD. The Culture in Safety Culture : Exploration of Patient Safety Culture in Saudi Arabian Operating Theatres. 2015;
2. Wami SD, Demssie AF, Wassie MM, Ahmed AN. Patient safety culture and associated factors : A quantitative and qualitative study of healthcare workers ' view in Jimma zone Hospitals , Southwest Ethiopia. BMC Health Serv Res [Internet]. 2016;16(495):1–10. Available from: http://dx.doi.org/10.1186/s12913-016-1757-z
3. Suliman MM. Nurses' Perceptions of Patient Safety Culture in Public Hospitals in Jordan. CASE WESTERN RESERVE UNIVERSITY; 2015.
4. Aparecida G, Hayakawa LY, Claudia A, Murassaki Y, Matsuda LM, Gabriel CS, et al. NURSE MANAGER PERCEPTIONS OF PATIENT SAFETY STRATEGY. 2016;26(2):1–9.
5. Pelzang R. Bhutan's, Patient Safety Issues and Concerns in Study, Healthcare System: A Qualitative. Deakin University; 2016.
6. Gözlü K, Kaya S. Patient Safety Culture as Perceived by Nurses in a Joint Commission International Accredited Hospital in Turkey and its Comparison with Agency for Healthcare Research and Quality Data Article history : Patient Saf Qual Improv. 2014;2(5):441–9.
7. Yilmaz Z, Goris S. Determination of the patient safety culture among nurses working at intensive care units. Pakistan J Med Sci. 2015;31(3):597–601.
8. Balamurugan E, Flower JL. A Study on Patient Safety Culture among Nurses in a Tertiary Care Hospital of Puducherry. 2015;7(1):174–9.
9. Mohammadreza A, Sogand T, Omid B. Measuring Safety Culture And Setting Priorities For Action At An Iranian Hospital. Al Ameen J Med Sci [Internet]. 2010;3(3):237–45. Available from: http://www.researchgate.net/publication/44796998_Measuring_Safety_Culture_And_Setting_Priorities_For_Action_At_An_Iranian_Hospital?enrichId=rgreq-59a53396-ed0d-497e-8be0-b89d-18e3533d&enrichSource=Y292ZXJQYWdlOzQ0Nzk2OTk4O0FTOjk5ODQyNTcxMzc0NTk1QDE0MDA4MTU
10. Liu C, Liu W, Wang Y, Zhang Z, Wang P. Patient safety culture in China: a case study in an outpatient setting in Beijing. BMJ Qual Saf. 2013;18:1–9.
11. Jafree SR, Zakar R, Zakar MZ, Fischer F. Nurse perceptions of organizational culture and its association with the culture of error reporting : a case of public sector hospitals in Pakistan. BMC Health Serv Res [Internet]. 2016;1–13. Available from: http://dx.doi.org/10.1186/s12913-015-1252-y
12. Allen S, Chiarella M, Homer CS. Lessons learned from measuring safety culture: An Australian case study. Midwifery [Internet]. 2010;26(5):497–503. Available from: http://www.midwiferyjournal.com/article/S0266-6138(10)00116-6/fulltext
13. Needleman J, Buerhaus P, Pankratz V, Leibson C, Stevens S, Harris M. Nurse Staffing and inpatient hospital mortality. N Engl J Med. 2011;364(11):1037–45.
14. Magalhães AMM de, Dall'Agnol CM, Marck PB. Nursing workload and patient safety – a mixed method study with an ecological restorative approach. Rev Latino-Am Enferm. 2013;21.
15. Nacioglu A. As a critical behavior to improve quality and patient safety in health care : speaking up ! Saf Heal [Internet]. 2016; Available from: http://dx.doi.org/10.1186/s40886-016-0021-x
16. Pardal BM, Kreling A. The medication process , workload and patient safety in inpatient units. Rev Esc Enferm USP. 2015;49:42–9.
17. Jardien-baboo S, Rooyen D Van, Ricks E, Jordan P. ScienceDirect Perceptions of patient-centred care at public hospitals in Nelson Mandela Bay. Heal SA Gesondheid [Internet]. 2016;21:397–405. Available from: http://dx.doi.org/10.1016/j.hsag.2016.05.002
18. Alfredo Á, Ques M. Strengths and Threats Regarding the Patient ' s Safety : Nursing Professionals ' Opinion 1. 2010;18(3):54–6.
19. Ridelberg M, Roback K, Nilsen P. Facilitators and barriers influencing patient safety in Swedish hospitals : a qualitative study of nurses ' perceptions. 2014;13(1):1–12.
20. Patiala D, Singh G, Mitra Y, Kaur K, Bhardwaj K. Public Health Review - International Journal of Public Health Research Knowledge , Attitude and Practices of Parents of Thalassemic Children. 2019;6:25–33.
21. Jang H, Lee N. Patient safety competency and educational needs of nursing educators in South Korea. PLOS ONE |. 2017;1–18.
22. Haroon MZ. EDITORIAL CORRUPTION IN HEALTHCARE SYSTEM : AN OBSTACLE IN Address for Correspondence : J Ayub Med Coll Abbottabad. 2014;26(2):109–10.
23. Macedo TR, Rocha PK, Tomazoni A, Souza S de, Anders JC, Davis K. The culture of patient safety from the perspective of the pediatric emergency nursing team. Rev Esc Enferm USP [Internet]. 2016;50(5):756–62. Available from: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0080-62342016000500756&lng=en&nrm=iso&tlng=en