

Nurses' Perception on Patient Safety in Hospital Setting

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Abstract

Patient Safety is a priority for health services in all countries. Patient Safety refers to reduce the error, prevent the patient fall, developing the knowledge about error that means prevention of harm by nursing care. Nurses' are the heart of the medical services to improve patient safety through prevention of nursing errors. The aim of this study is to identify the level of nurses' perception on patient safety. The descriptive correlational design was used to explore the nurses' perception on patient safety in hospital setting. Simple random sampling was used and sample size was 163. Data was collected by a self-structured questionnaire during January 11, to February 28, 2018 at Dhaka Medical College Hospital. Data was analyzed using SPSS version 21. The result showed that average age of the participants was 31.57 years old and the average score of perception on patient safety was moderate (2.80 ± 0.46). There were statistically significant relationships between nurses' perception on patient safety with gender ($t=2.14$, $p=.036$), and working ward ($F=5.95$, $p=.000$). Based on the results of this study, it is indicated that lack of perception on patient safety among nurses' is moderate level. So hospital should provide in-service training for female nurses' and all departments are equally. The syllabus in Bangladesh nursing curriculum should be reviewed and added comprehensive program regarding patient safety. Predictive study of factors related to nurses' perception on patient safety is recommended for future study. These findings suggest that increase nurses' perception level on patient safety and improve the quality of patients' life.

Key words: Nurses, Hospital, Perception, Patient safety.

Background:

In globally Patient safety is a first priority for health service system. Patient safety has become a primary focus in worldwide for health care organizations, and a prerequisite for the provision of useful quality of care [28]. Patient Safety refers reduce the error, prevent the patient fall, developing the knowledge about error that means prevention of harm by nurses' care. Nurses are the heart of the medical services to improve patient safety through prevention of nursing errors.

"Raymond [36]" founded that 7.5% of patients attending acute healthcare facilities experienced at least one patient safety event and that 9,250 to 23,750 of the resulting deaths were preventable. A study conducted in, the United Kingdom and Australia they demonstrated those adverse events may occur in 3.7% to 16.6% of all hospital admissions; a significant portion of them may be preventable [7]. In between 2.9% to 16.6% of hospitalized patients are affected by undesirable events like medication errors, healthcare-associated infections, or patient falls. More than one-third of adverse events lead to temporary (34%) or permanent disability (6%-9%). However 37%-70% of all adverse events are considered preventable harmful impacts on patients, such as psychological trauma, impaired functionality or loss of trust in the healthcare system as well as socio-economic costs could be avoided [4].

In health care setting nurses' are the most significant health care personnel for providing nursing care as well as maintaining on patient safety in every part of health care system. Nurses are an indispensable part of the endeavor to find innovative solutions to improve safety. It is estimated that 75% of actual service delivery in hospitals is delivered by nurses. As the majority provider of health services, these professionals have a significant understanding of the multiple risks patients face while hospitalized [2]. Furthermore, a survey founded that 96% of nurses and 90% of physicians, pharmacists, and administrators believe that nurses have the primary responsibility for the prevention of harm to patients in the hospital setting [8]. Nursing is that the protection, promotion, and optimization of health and skills, bar of unhealthiness and damage, improvement of suffering through designation and treatment of human response, and support within the care of people, families, communities, and populations [11].

Perception is a way of understanding, or interpreting something. Perception is the state of being or process of becoming aware of something through the senses [10]. According to Ramanujam, Abrahamson & Anderson [35] study seeks to determine the influence a hospital unit's overall level of nurse education and experience has on individual nurse perceptions of their patient's opportunity to receive safe care. Perception is proposed, using the critical characteristics of sensation, selection, assimilation, and interpretation. Nurses' perception on patient safety is linked to workload demands, which is associated with

lower safety. Other findings illustrated that managerial commitment; a positive work environment, education level, and knowledge transfer among staff are significant factors connected to higher patient safety perception and have an impact on patient outcomes [12]. The aim of this study was to assess the level of nurses' perception on patient safety and identify related factors of nurses' perception on patient safety.

Methods:

The descriptive correlational study design was conducted at Dhaka Medical College Hospital. The total numbers of 163 samples were recruited by simple random sampling technique. The instrument consisted of three parts including: The Demographic Data Questionnaire, Nursing Job Related Characteristic Questionnaire and Nurses' Perception on Patient Safety Questionnaire which was measured by 4-point Likert scale. Data was collected by structure self administered questionnaire. Two sample t-test, ANOVA and correlation were used for data analysis.

Ethical consideration:

Before the study, written ethical consent was obtained from the ethical boards and hospital. Moreover, all of the participants gave written consent prior to participating in the study.

Result:

Analysis was performed on the data from 163 nurses'; the subjects age ranged from 24 to 59 years with mean of 31.57 years and (SD = 8.04). Majority 130 (79.8%) subjects were female and very few 33 (20.2%) subject were male. About two third of the subjects had Muslim 129 (79.1%), were Hindus 31 (19.0%) and Christian was 3 (1.8%). Most of the subjects were married 110 (67.5%) and only 53 (32.5%) were single. Near about two third of the subjects had diploma in nursing 122 (74.8%) where as 33 (20.2%) were Bachelor in nursing while 8 (4.9%) had done Masters in nursing.

The subjects service experience ranged from 2 to 31 years with a mean of 8.01 years and (SD = 7.52). Majority of the subjects were working at surgery department 51 (31.3%) rest of the subject were working at others ward/department. Nearly all subjects had high level of experience on patient safety problem (88.3%). About two third of the subjects had get continuing education training (72.2%). Majority (89.0%) of patient safety policies have had in this hospital.

Table 1. Level of nurses' perception on patient safety in each dimension.

| Variable | M±SD |
|--------------------------|-----------|
| Total Nurses Perception | 2.80±0.46 |
| Nurses responsibility | 2.92±0.48 |
| Authority responsibility | 2.49±0.67 |
| Patient involvement | 2.81±0.53 |
| Hospital environment | 2.64±0.60 |

The table 1 showed that the total mean of nurses perception on patients safety was (M= 2.80, SD = 0.46). This results also indicated that nurses were high level of perception on patient safety in the dimension of nurses responsibility (M= 2.92, SD= 0.48). Whereas nurses perception level was very low in the dimension of hospital environment (M= 2.64, SD = 0.60). However nurses had moderate level of perception on patients safety in all others dimension compare with nurses responsibility and hospital environment dimension.

Table 2. Relationship between demographic characteristic and nurses' perception on patient safety

| Variable | Category | Mean±SD | t/r | (p) |
|----------------|-------------------------------|-----------|-------|-----|
| Age | | | -0.01 | .85 |
| Gender | Male | 2.93±0.35 | 2.14 | .03 |
| | Female | 2.77±0.48 | | 6 |
| Religion | Muslim | 2.80±0.47 | 0.02 | .97 |
| | Non-Muslim | 2.80±0.46 | | 9 |
| Marital Status | Single | 2.78±0.49 | -0.36 | .71 |
| | Married | 2.81±0.44 | | 6 |
| Education | Diploma in Nursing | 2.81±0.47 | 0.14 | .88 |
| | Bachelor & Masters in Nursing | 2.79±0.44 | | 3 |

The table 2 showed that there is a statistically significant relationship between perception on patient safety with gender (t=2.14, p=.036), whereas (2.93) male nurses' was a high level of perception on patient safety compare with female nurses (2.77). Therefore, nurses had no significant relationship between patients' safety with religion, marital status and nursing education.

Table 3. Relationship between nursing jobs related characteristic and nurses' perception on patient safety

| Variable | Category | Mean±SD | t/r/F | (p) |
|--|----------|-----------|-------|------|
| Service experience | | | 0.03 | .700 |
| Ward | Surgery | 3.01±0.34 | 5.95 | .000 |
| | Medicine | 2.53±0.48 | | |
| | ICU | 2.68±0.49 | | |
| | Dialysis | 2.87±0.39 | | |
| | OT | 2.78±0.47 | | |
| Experience PS problem | Yes | 2.79±0.47 | -1.25 | .222 |
| | No | 2.90±0.35 | | |
| Did you get any continue education on PS | Yes | 2.81±0.50 | 0.31 | .754 |
| | No | 2.78±0.31 | | |
| Hospital have policies on PS | Yes | 2.82±0.47 | 1.64 | .112 |
| | No | 2.67±0.36 | | |

The table 3 showed that there was a statistically strong significant relationship between nurses' perception on patient safety with working ward ($F=5.95, p=.000$), whereas nurses' who were working at surgery ward they had high level of perception ($M=3.01, SD = 0.34$) on patient safety compare with others ward.

Discussion:

The majority of the subjects were female nurses' (79.8 %). In Bangladesh, more female (93%) nurses' are currently working in the hospitals, and this is similar to many other countries all over the world [30]. Karimi & Alavi [24] reported that Florence Nightingale established modern nursing in her work as a nurse caring based on safety. From that period most of the female people were entering this profession from her adverting are motivating likely to come enter in nursing. In this study the subjects were young, their mean age 31.57 and $SD = 8.04$. About maximum of the subjects was Muslim (79.1%). In Bangladesh, there are four religions that recognized by government - Muslim, Hindu, Christian and Buddhist. Islam is the largest religion in Bangladesh (90%) and the rest of others religion [20]. The legal marriage age for a girl is 18 years and for a boy is 21 years in Bangladesh [22]. Most of the responded (67.5%) were married. Majority of subjects had only a diploma in nursing (74.8%). This level of education would make them need more knowledge on patient safety.

The study findings showed that the total mean score of nurses' service experience was at a low level ($M = 8.01, SD =$

7.52). Recently a number of nurses recruited in Bangladesh they are need to developed their knowledge and perception on patient safety precaution that lead to patient safety. This study results showed that (31.3%) higher number of nurses were working in surgery ward that found in other study they need to know prevention of infection is the most important function for nurses to increase patient safety. Previous study found that result related infection controls which lead to increase patient safety [40]. The study results showed that most of nurses had high level of experience on patient safety problem (88.2%) . the finding of this study are congruent with previous study [6]. Nurses are required to have knowledge and awareness concerning professional values as standards to provide safe and high-quality ethical care. Professional nursing education is a significant part of the development of nurses' knowledge, skills, and attitudes for providing quality health care [34]. The study results showed that the majority of nurses got continue educations (72.4%), education and training supported and enhance that nurses on patient safety at high level. Therefore, the study findings showed that the majority of nurses response their hospital has patient safety policy (89.0%). In this study setting there have existing safety policy which reflected the nurses in model to help learning related to patient safety [17].

The study findings showed that the total mean score of nurses' perception on patient safety was at moderate level ($M = 2.80, SD = 0.46$). This was also true for all dimensions of perception (Table 1). The findings of this study indicated that the nurses' had moderate level of perception on patient safety.

Anderson & Townsend [3] showed that in United States 10% to 18% of all re-reported hospital injuries have been attributed to medication error, in the study researcher found that (34.4%) nurses' are not well known about medical error. England's National Health Service Trust found that (79%) of staff report 'support from colleagues' [35]. Although study showed that 40.5% nurses' are not get enough support from senior nurses or manager related to safety issue. This study subjects (39.2%) were think manager are not focuses for subordinate to better outcome, but Senior managers' leadership was linked to lower rates of patient complain and better clinical governance ratings [14]. 52.7% respondent response they have not getting available resource. However another study was conducted in Bangladesh, they showed that (50%) of the medical equipment is not usable because shortage of expert to handle / use those kinds of instrument in hospital properly which might be affects the patients safety [33].

According to Boin & Schulman [5] Nurses' perception of patient safety is linked to workload demands, which is associated with lower safety. (62.6%) nurses' belief that work load change their behavior which affect on patient safety. A positive work environment connected to higher patient safety and has an impact on patient outcomes [12]. In this study (51%) nurses' were agree on positive work environment which help to increase patient safety. Nurse education levels and a positive work environment was the important factors which is impact on patient safety outcomes [28]. Eldeeb [10] found that failure to act appropriately on available information (16%) but (46%) nurses' respond that authority are not convey necessary message.

According to Ishaq [19] suggested that effective teamwork contribution help to reduce errors and mistakes, and increase higher levels of job satisfaction, higher quality of care on patient safety. 38.7% responded response authorities are not encouraging their staff for team work. Researchers report that lack of communication leads to unsafe worker behaviors including errors, policy and procedure violations, and not reporting events or any problems that may affect patient health conditions. Better communication among nurses, doctor and other health workers is important to increase the quality of work and that lead to patient safety [19]. In these study 73.7% nurses were responded positive communication is too much important in patient safety.

However, this group of subjects still lacked knowledge in some areas of patient safety. Those areas were related to patient involvement, 35% nurses' were disagree in decision making patient involvement are effective, 41.1% nurses' are think patient have no responsibility to reduce some error, 45.4% patient have no knowledge on their health problem but patient engagement is increasingly recognized as an integral part of health care and a critical component of safe people centered services. Engaged patients are better able to make informed decisions about their care options [46].

A significant relationship found between gender and perception regarding patient safety. However, a previous study also found that most of the nursing personnel were female and they are taking care of patients than male nurses. However, male nurses are always facing different kind of problems in both government and private hospital settings. In Bangladesh male nurses are, disregard and discrimination compared with female nurses therefore, given less or denied attitude facilitated male nurses for mounting their career in highest level as well [1]. Another study founded that female nurses' is more patient safety management activities than male nurses' [21]. But in this

study male nurses' perception is more than female. In this study also showed that diploma nurses perception on patient safety is more than bachelor nurses. In 2016 recruit lot of basic graduate nurses in DMCH but they have not enough experience on patient safety. Jang, Song & Kang [21] showed that bachelor nurses' is more patient safety management activities than diploma or associated degree nurses'.

On the other hand Kirwan, Matthews & Scott [28] mentioned a higher proportion of nurses with degree level education on a ward, and a more positive mean work environment in that ward, results in higher levels of nurse reported patient safety in the ward. Patients' opinions about the care they received that was highly influenced by their experiences during hospitalization. Understanding consumers' views is essential for any service to be developed or improved. For the patient demand and provide quality of care, DMCH surgery department are shift to model ward. Hospital authorities should be observed this department for reduce infection control. In these study found a significant relationship between working ward and nurses' perception regarding patient safety. However, surgery ward nurses' is more perception than other wards. Another study also found that surgery and medicine ward nurses' were more patient safety management activities than other wards nurses' [21].

Conclusion:

The results revealed that the nurses had moderate level of perception (2.80 ± 0.46). There was a statistically significant relationship between gender, working ward and perception on patient safety ($t=2.14$, $p=.036$), and ($F=5.95$, $p=.000$) respectively. These findings suggest that increase level of nurses' perception for patient safety and improved quality of life.

Limitation of the study:

Several limitations were inherent in the methodology used in this study. Firstly, the sample recruited from 5 departments and only one hospital in Bangladesh. Secondly, this study used a set of self administer questionnaire for data collection that may not reflect the actual nursing perception. Thirdly, due to limited study it was difficult to comparison. Therefore, generalizations that can be made from the study are limited.

Recommendation:

Based on the results of this study, it is indicated that lack of perception on patient safety among nurses' is moderate level. To improve the quality of nursing care and the

quality safety life, the following implications and recommendations are offered.

Nursing training and education:

The results of the study indicated that nurses lacked knowledge and perception regarding patient safety. Inadequate education in the previous Bangladesh nursing curriculum and previous, outdated in-service training program may be the cause. Thus, it is recommended that the syllabus in Bangladesh Nursing Curriculum should be reviewed and added comprehensive program regarding patient safety, so that nursing students would be well-prepared before graduation. Up-to-date in-service training program will be able to provide new knowledge which help nurses' to enhance nursing competency regarding patient safety especially for female nurses' and all departments/wards are equally.

Nursing research:

The findings from this study will provide a reference criterion for further studies in the field of patient safety in Bangladesh. This study can be improved by increasing the sample size and medical hospitals to enhance the generalizability. At list two setting would be better for comparing nurses' perception on patient safety. A replication of this study using observation method is recommended to examine the level of nurses' perception regarding patient safety. Predictive study of factors related to nurses' perception for patient safety is recommended for future study.

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