



Original Article

Assess the Effect of Workload on Patient Safety and Quality of Care

Shamsa Saleem¹, Humaira Saddique¹, Syeda Sidra Tasneem¹ and Rubina Jabeen¹¹Department of Nursing, The Superior University, Lahore, Pakistan

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*Corresponding Author:

Shamsa Saleem
 Department of Nursing, The Superior University,
 Lahore, Pakistan
shamsasaleem1997@gmail.com

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ABSTRACT

The workload remained one of the major problems in the health care system. All Health professionals dealing with this issue of increased workload such as doctors, nurses, Paramedic's etc. **Objective:** To assess the effect of workload on patient safety and quality of care in the medical and surgical units of Jinnah Hospital, Lahore. **Methods:** A descriptive cross sectional research study design was conducted among 178 patients at Jinnah Hospital, Lahore. The convenient sampling technique was used. The population that is targeted was patients of Jinnah Hospital, Lahore. **Results:** The general finding of the study demonstrated that workload affect the patient safety and quality of care. The descriptive statistics applied, frequency and mean checked, formed for quality, cronbach alpha, bartlett's, KMO and kolmogorov-smirnov test values have been checked to insure the validity and reliability and data normality in our context. The values showed positive and significant results and tools were consider as reliable and valid for performing statistical analysis. **Conclusions:** The study concluded that nurse to patient ratio is not appropriate. And this inappropriate nurse to patient ratio cause lack of patient safety and decrease quality care. In addition to patient condition and staffing numbers, the structure of the nursing work system also has an impact on nursing workload. The outcomes demonstrated a significant relation between nursing workload and patient safety.

INTRODUCTION

The workload remained one of the major problems in the health care system. All Health professionals dealing with this issue of increased workload such as doctors, nurses, Paramedic's etc. But the Nurses are encountering higher workload because of four core fundamental aims: (1) increased responsibility for nurses, (2) insufficient inventory of nurses, (3) decreased faculty and expanded additional time, and (4) decrease in duration of patients stay. Approximately 15 years ago, efforts have been made to reduce and control and regulate risks associated with health services. This has resulted in worldwide health policy initiatives and collaborations between institutions, medical experts, and patients [1]. 10% of hospital admissions experience patient safety incidents, which are defined as incidents or circumstances that may have or actually have led to unnecessary harm to patients. These incidents include those involving medication dispensing,

falls, patient accidents, medical equipment, and infections related to healthcare [2]. According to the studies, the prevalence of events varies between 6.2 percent and 15.7 percent [3]. Only a few studies have looked at how elements in the workplace, such as workload, lead to nursing aggression [4]. Heavy workloads, according to nurses, have an impact on their ability to provide good treatment [5]. Poor working conditions, inadequate resources, overcrowding, and long waits in public hospital emergency rooms are frequently reported in the media, and exposes on medical mistake and failures in patient care are becoming more common. These reports may contribute to the public's perception of health care practitioners as inefficient. Many studies have been conducted but the concern of nurse's workload is remaining present. Studies show a relation between increase workload and decrease patient outcomes. The

majority of published studies are focused on the hospital environment; this research gap is especially towards patient quality care, safety and outcomes [6-9]. Providing high-quality healthcare requires nursing tasks, especially in intensive care units (ICU). However, these actions change based on a number of factors such as the working environment, the severity of the disease, the workload, staff qualifications and abilities, and cost-effectiveness, as well as the diseased patients' clinical results [10, 11]. In order to maintain and improve treatment quality, which results in improved client desire and better medical findings, having enough nurses on duty has become vital. To avoid problems such as nosocomial infections, it is critical to reassess health care supplies allocation and staffing are based on the workload of the impacted institutions. Nurses play important role in ensuring client safety while providing therapeutic care to patients [12-14]. In order to prevent factors like patient falls, pressure sores, infections, adverse events from worsening patient condition, observing client for clinical decline, identifying mistakes and near misses, identifying and communicating changes in patient condition, and performing countless other tasks these all are nurse's role in patient safety [15]. To determine the effect of over work on client safety and quality of care was the aim of the current study. We predicted that more work for nurses would lead to worse patient outcomes, including lengthier hospital stays and lower-quality treatment [16]. 30-day re admissions, and patient satisfaction [17]. So, the study aim is to assess the effect of workload on patient safety and quality of care.

METHODS

Descriptive cross-sectional research study design was used. The study setting was Jinnah Hospital Lahore. This study took approximately 9 months. The study targeted population was patients of public Hospital (Jinnah Hospital Lahore). The study sample was calculated by Slovin's formula which is 178.7. The Convenient sampling technique used to gather the sample from the patients. The patients of public Hospitals included in study. The patients who stay longer than 1 week was included in study. The patients who visiting in OPD excluded in study. The patients who visiting in Emergency Department was excluded in study. The current study examines "the effect of workload on patient safety and quality of care". Workload effect was assessed through an adapted modified, Urdu translated research tool of Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) survey.

RESULTS

Table 1 shows that from total no of participants who respond in this study. Those with the age group 15-25 years were 27(15.2%), those with age group 25-35 years were

32(18.0%), those with the age group 35-45 years were 43(24.2%), and those with the age group above 45 years were 76(42.7%). Those who were male 83(46.6%), and those who were female 95 (53.4%). Those who employed 68 (38.2%), and those who were unemployed 110 (61.8%). Those who are illiterate were 60 (33.7%), those who has primary education were 33(18.5%), those who has secondary education were 53 (29.8%), and those who has tertiary education were 32(18.0%).

Variables	Frequency (%)	Cumulative Percentage
15-25	27(15.2%)	15.2
25-35	32(18.0%)	33.1
35-45	43(24.2%)	57.3
Above 45	76(42.7%)	100.0
Gender		
Male	83(46.6%)	46.6
Female	95(53.4%)	100.0
Occupation		
Employed	68(38.2%)	38.2
Unemployed	110(61.8%)	100.0
Education		
Illiterate	60(33.7%)	33.7
Primary	33(18.5%)	52.2

Table 1: Basic Demographics

Table 2 shows that from total no of participants who responded about the question "During this hospital stay, how often did nurses treat you with courtesy and respect", those who respond never were 8(4.5%), those who respond sometimes were 40(22.5%), those who respond usually were 60(33.7%), and those who respond always were 70(39.3%). About the question "During this hospital stay, how often did nurses listen carefully to you", those who respond never were 8(4.5%), those who respond sometimes were 43(24.2%), those who respond usually were 54(30.3%), and those who respond always were 73(41.0%). About the question "During this hospital stay, how often did nurses explain things in a way you could understand", those who respond never were 16(9.0%), those who respond sometimes were 50(28.1%), those who respond usually were 35(19.7%), and those who respond always were 77(43.3%).

Variables	Frequency (%)	Cumulative Percentage
During this hospital stay, how often did nurses treat you with courtesy and respect		
Never	8(4.5%)	4.5
Sometimes	40(22.5%)	27.0
Usually	60(33.7%)	60.7
Always	70(39.3%)	100.0
During this Hospital stay, how often did nurses listen carefully to you		
Never	8(4.5%)	4.5
Sometimes	43(24.2%)	28.7
Usually	54(30.3%)	59.0
Always	73(41.0%)	100.0

Variables	Frequency (%)	Cumulative Percentage
During this hospital stay, how often did nurses explain things in a way you could understand		
Never	16(9.0%)	9.0
Sometimes	50(28.1%)	37.1
Usually	35(19.7%)	56.7
Always	77(43.3%)	100.0

Table 2: Response of Participants about nurses

Table 3 shows that from total no of participants who responded about the question "During this hospital stay how often did doctors treat you with courtesy and respect", those who respond never were only 5(2.8%), those who respond sometimes were 17(9.6%), those who respond usually were 59(33.1%), and those who respond always were 97(54.5%). About the question "During this hospital stay how often did doctors listen carefully to you", those who respond never were 8(4.5%), those who respond sometimes were 32(18.0%), those who respond usually were 47(26.4%), and those who respond always were 91(51.1%). About the question "During this hospital stay how often did doctors explain things in a way you could understand", those who respond never were only 5(2.8%), those who respond sometimes were 26(14.6%), those who respond usually were 57(32.0%), and those who respond always were 90(50.6%).

Variables	Frequency (%)	Cumulative Percentage
During this hospital stay how often did doctors treat you with courtesy and respect		
Never	5(2.8%)	2.8
Sometimes	17(9.6%)	12.4
Usually	59(33.1%)	45.5
Always	97(54.5%)	100.0
During this hospital stay how often did doctors listen carefully to you		
Never	8(4.5%)	4.5
Sometimes	32(18.0%)	22.5
Usually	47(26.4%)	48.9
Always	91(51.1%)	100.0
During this hospital stay how often did doctors explain things in a way you could understand		
Never	5(2.8%)	2.8
Sometimes	17(9.6%)	12.4
Usually	59(33.1%)	45.5
Always	97(54.5%)	100.0

Table 3: Response of Participants about doctors

DISCUSSION

The descriptive study was examining "the effect of workload on patient safety and quality of care". The study results shows that the total respondents who responded to the study all were males and females, and the majority were females 95(53.4%). The tool used for "the effect of workload on patient safety and quality of care" was adopted. The cronbach alpha, bartlett's test, Kolmogorov-Smirnov Test

and KMO values have been checked to insure the validity and reliability in our context [18]. The values show positive and significant results and tool were considered as reliable and valid for performing statistical analysis. Demographic analysis shows that majority peoples with age group above 45 years were 76(42.7%), majority were unemployed 110(61.8%) and majority respondents were illiterate that are 60(33.7%) but the respondents who has secondary education were 53(29.8%). Descriptive analysis showed that from total participants who responded about the question "How often did nurses treat you with courtesy and respect", those who respond never were 8(4.5%), those who respond sometimes were 40(22.5%), those who respond usually were 60(33.7%), and those who respond always were 70(39.3%). It shows that the majority were respond always that nurses treat with courtesy and respect. From total no of participants who responded about the question "How often did nurses listen carefully to you", those who respond never were 8(4.5%), those who respond sometimes were 43(24.2%), those who respond usually were 54(30.3%), and those who respond always were 73(41.0%). It shows that the majority were respond always that nurses listen carefully. From total no of participants who responded about the question "How often did nurses explain things in a way you could understand", those who respond never were 16(9.0%), those who respond sometimes were 50(28.1%), those who respond usually were 35(19.7%), and those who respond always were 77(43.3%). It shows that the majority were respond always that nurses explain things in a way that can be understand. Our results were consistent with Astik et al., study [19]. From total no of participants who responded about the question "Did doctors treat you with courtesy and respect", those who respond never were only 5(2.8%), those who respond sometimes were 17(9.6%), those who respond usually were 59(33.1%), and those who respond always were 97(54.5%). It shows that the majority were respond always that doctors treat with courtesy and respect. From total no of participants who responded about the question "Did doctors listen carefully to you", those who respond never were 8(4.5%), those who respond sometimes were 32(18.0%), those who respond usually were 47(26.4%), and those who respond always were 91(51.1%). Jung et al., study showed that the majority were respond always that doctors listen carefully [20]. From total no of participants who responded about the question "How often did doctors explain things in a way you could understand", those who respond never were only 5(2.8%), those who respond sometimes were 26(14.6%), those who respond usually were 57(32.0%), and those who respond always were 90(50.6%). It shows that the majority were respond always that doctors explain things in a way that can be understand.

The study results are consistent with the results of the previous study by Manzoor *et al.*, and Neill [21, 22].

CONCLUSIONS

Staffing levels, patient conditions, and the layout of the nursing work system all have an effect on the workload. The nursing workload, however, is a more dynamic relationship and cannot be assessed by a straightforward nurse-to-patient ratio, according to earlier studies. This patient to nurse ratio is taken into consideration because to its accessibility and usability, and it is likely to be used as a baseline for assessing all the variables that may have an impact on the patient quality of care provided in the ICU. Evidence demonstrates that many unfavorable changes can occur with clients in the different units of the Hospital like mortality, increased hospital stay and catching in hospital infections.

Conflict of Interest

The authors declare no conflict of interest

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