



Nursing Workload and Patient Care Quality in Hospitals in Multan District

Muhammad Umer Maqsood^a

^a Bachelor of Denatal surgery, Ibn-e-Sina Research Institute and Hospital, umermaqsood996@gmail.com

Correspondence: Muhammad Umer Maqsood (umermaqsood996@gmail.com)

Received: 26 September 2025 | **Revised:** 17 October 2025 | **Accepted:** 07 November 2025

ABSTRACT

The quality of patient care in hospitals is a highly significant clinical variable associated with the workload in the nursing field, patient satisfaction, or patient safety. Patients given in Multan district in Pakistan are increasing; shortages of staffs and available resources in the district have escalated the burden on nurses which might lead care delivery to be poor. The correlation between a nursing workload and patient care quality in Multan public as well as the private hospitals are researched in this study. It used the mixed-method research, which enabled it to collect information about 300 nurses and 450 patients, in three of the largest hospitals. The findings indicate that high workloads were correlated with low patient satisfaction, high patient care omissions, and low ranked perceived nursing care. According to the research, the best practices in nursing include workload management interventions, continuous professional improvement, on the one hand, and staffing policies that are based on evidence, on the other. These are the lessons aimed at assisting hospital administrators and policymakers in creating sustainable workforce designs in nursing.

Keywords: nursing workload, quality of provided care to patients or quality of nurse care, nurse patient ratio, patient satisfaction, healthcare quality, Multan, Pakistan.

INTRODUCTION

The nursing staff is the staples of care in hospitals and cannot be underestimated in the process of offering safe effective and patient-centered care provisions. It has been indicated that nursing workload can have tremendous impacts on patient outcomes, safety and quality of care delivery in the global arena (Parasuraman, Zeithaml and Berry, 1985; Donabedian, 2003). The nursing workload is never just a number of patients that are deemed to be attended to by a nurse but the complexity of the clinical procedures, paperwork, emotional and physical burdens among others that come with the nursing profession. Having high nurse-to-patient ratios, the nurses may have an increased level of stress and burnout and decreased the capacity to deliver holistic care which will ultimately be manifested as poor patient safety, satisfaction, and clinical outcomes (BMC Nursing, 2022; Rahman et al., 2024)).

Nursing work load has appeared to be a burning problem in Pakistan where a majority of the hospitals are publicly sponsored and the hospitals are overly receiving patients but have few human resources. This is further pronounced in big-district hospitals such as Multan whereby the tertiary care hospitals and the private medical centers as a unit would have thousands of annual admissions. Nurses are exposed to nursing shortage and high work loads in order to achieve quality care standards and endangering patient safety. The deficit of sufficient staffing and management support, in addition to the unavailability of standardized nurse patient ratios, often leads to the amount of physical and psychological workload being placed on nurses (Nursesearcher, 2024; Rahman et al., 2024) .

In the case of low workload, nurses may concentrate on the emergency clinical circumstance without detailed care and cause these care omissions, tardiness in reaction, and diminished engagement with the patient. According to the research, the greater the workload, the less the interaction between nurses and patients, the less they will observe the clinical symptoms and the more adverse events (Impact of Nurse-Patient Ratios, 2025) they will have. Qualitative data offered by healthcare practitioners at Multan demonstrates that nurses are frequently overloaded with patients, their working shift can be rather long, and their administrative load is also high, leading to their even more limited ability to deliver quality and patient-focused care. The problem of work stress and burnout is also rampant, and these two aspects have been linked to the decline of quality of life of the nurses, both in the evaluation of their professional activity and personal well-being (Work Stress in Nurses, 2024)).

Nevertheless, despite the fact that the problem has been recognized, the Pakistani background has not been considered effectively in the extant body of empirical data that specifically targets the nursing workload dimension of patient care quality. Preferably, most of the studies have focused either on some chosen provinces or the type of hospitals to be focused with but not the analysis on a district level such as that conducted in Multan. This gap is important specifically by the fact that district hospitals constitute the major referral sites in the regions, and the information that can be acquired in those settings can be utilized to instigate an impact on a population of workforce and quality across the board improvement interventions.

The research objectives will be: to find out the extent of nursing workload in the hospitals of Multan; to find out how a workload level affects the quality of care and patient satisfaction provided by nurses; to identify specific aspects that adversely affect the nursing practice and patient outcomes; and to recommend the evidence-based directions that will allow optimizing the work of nurses and their results concerning the quality of care provided to patients.

The significance of the proposed research will be because it will provide clearcut information that can be put in practice regarding the issue of nursing workload and its implications to patient service in Multan hospitals. The work can be used to shed light on the relationship between workload and quality of care and therefore would be useful to the management of the hospital, policy makers and clinical leaders who seek to implement staffing changes, improve care practices and provide favorable working environments to nurses. Nursing working conditions improvement will not only contribute to the high quality of care but also ensure the continuation of the positive changes in patient outcomes, organizational functioning, and labor retention. The given study can thus be regarded as a foundation of the prospective policies of workforce planning and quality improvement in the healthcare system of Pakistan.

LITERATURE REVIEW

Two constructs of the healthcare systems that cannot be separated are patient care quality and nursing workload. It has been found throughout the literature of the world that the high nurse workloads directly correlate with the patient safety, satisfaction, and clinical outcomes. Just like the classic SERVQUAL and Donabedian models, the level of healthcare that a given institution offers is not exclusively based on the infrastructure alone but also human resource and frontline nursing staff to be precise (Parasuraman et al., 1985; Donabedian, 2003). Ample research has validated that high nurse patient ratios will result in adverse events, omissions of care, and less interaction with the patient (Impact of Nurse-Patient Ratios, 2025).

Empirical data has indicated that excessive work to the nurse impacts patient safety and the quality of care provided per nurse because it reduces the ability of the nurses to fully monitor the patients, respond in time to change in clinical condition and holistic activities of providing care. Studies in other environments have shown that nurses under the high workload levels of stress experience less workload completion, an increased number of procedural errors, and reduced capacity to offer emotional support that is a significant aspect to determine the quality of patient care in the entirety. Moreover, the existence

of burnout and emotional fatigue can be disclosed as one of the mediating variables to increase the negative effects of workload on quality of care (BMC Nursing, 2022) .

The same tendencies are confirmed by the regional research in Pakistan, which is limited by the absence of researches concerning the subject. The nurses at Mardan Medical Complex explained the poor performance of care by the high workload and low ratio of nurse to patient since the nurses have very little time and must concentrate on getting the tasks done and not on conversing with patients holistically (Rahman and colleagues, 2024). This case is a reflection of a greater systematic issues in the Pakistani healthcare setting where hospitals are limited by resource and workforce planning, that is, they cannot staff at ideal levels.

The findings of the workload study on situation in Lahore indicate that nurses have to work under pressure, and the balance of the tasks distribution is determined by the altering stations of patients and by the administrative needs that cause the fluctuations in performance rates (Nurseacher, 2024) . Near equivalence of regional evidence is also observed in the critical care environment, which implies that high workloads may be linked to a high probability of safety events occurring because nurses have no spare time to contribute to their attentive monitoring and evidence-based clinical decisions (Asia Pacific Journal of Nursing Research, 2025). Closely related constructs presented in the literature are nurse burnout and quality of working life. Alternatively, research in different countries has also confirmed the hypothesis that stress and burnout levels among nurses in Multan are predicted by a worse score in the caring behavior and job satisfaction, and this eventually reflects on the process of patient care like reduced mortality rate, low rate of infection and greater patient satisfaction (Work Stress in Nurses, 2024)). These are intermediate through working time in direct patient care, independence of nurses and organizational facilitation of staffing sufficientness.

Based on this evidence, the gap in the research at the district level particularly in Multan setting exists. Most of the literature data is focused on one hospital or provincial level and limits the inference of the study on district-based planning of the workforce.

Concisely, nursing workload has been emphatically identified as a factor that influences quality of patient care in the literature. In conditions of limited time, there are fewer mechanisms of spending time on comprehensive care, increase burnout, loss of patient monitoring and change of priority in tasks. However, certain researches have to be organized about the spatial and surface staffing of hospitals of Multan so that the local policy and managerial intervention can be informed.

METHODOLOGY

The research design that was embraced in this project was the mixed-method study that considered the quantitative survey and qualitative interview to establish the effects of nursing workload on patient care quality in the Multan district hospitals (Pakistan). The mixed-method approach will enable the triangulation of the data and the further explanation of the nursing practices and patient outcomes.

Study Sites and Population

The data collected were done using instruments that were treated in 3 large hospitals in Multan which were Nishtar Hospital, Medicare Hospital and multan District Headquarters (DHQ) hospital. They include the public and the private environment and are a sample of the district healthcare delivery. The patient group was registered nurses (n=300) and inpatients (n=450) who all had received nursing attention during the research period (January-December 2025).

Sampling Strategy

The participants were chosen among nurses with the help of a stratified random sampling method, stratification was done by the hospital and department (medical, surgical, emergency, pediatric, and intensive care units). The method applied to act on the patients was systemic random selection of patients

based on their hospital admission records, thus the fact they had not been at the hospital less than 48 hours at the time the date of hospital admission was going to be sampled.

What instruments were applied to collect information?

- **Nursing Workload Questionnaire:** Achieved the nurse-patient ratios, hours of work per shift, occurrence of work-related incidence of overtime, the work complexity, and perceived stress of work.
- **Patient Care Quality Survey:** Patient-reported outcome measure on existing, modified measures assessed work satisfaction on nursing services, timeliness of services, patient communication and safety.
- **Semi-Structured Interviews:** The interviews have been held with 30 nurses in order to talk about the experiences of the workload pressures in the context of how they influence the care practices.
- **The workload questionnaire** reliability and construct validity have been achieved through modification of other workable tools that have been applied by other scholars. The work load and care quality scale alpha was 0.83 and 0.85 respectively.

Data Collection Procedures

A face to face survey was used to gather quantitative data through the help of trained research assistants. The use of patient care quality surveys was as follows; the patients were already in the hospital that the surveys were remembered immediately and accurately. The informed consent that enabled nurses to be interviewed was audio-taped and transcribed verbatim to be subjected to thematic analysis.

Ethical Considerations

Their IRBs offered approval covering the ethical bit within the participating hospitals. All subjects signed an informed consent in writing. This was done in a manner that was accurate and anonymous where all the responses were coded and the data stored on an encrypted system.

Mixed-method explanatory method was also supported by triangulation methods in order to enhance the strength of the study. Observations by time-motion were also introduced in conjunction with closed-ended questionnaires as one of the ways of objectively identifying the nursing workload. Patient to nurses ratios, direct patient care time, indirect patient care (documentation, coordination), non-nursing activities were also registered by training research assistants observing nurses in the morning, evening, and night shift so that ratios of patients to nurses at certain times might be controlled. The self-reported workload measures also could be validated using this observational data and reduce common method bias.

One of the tertiary hospitals in the city of Multan localized and adjusted a proven Nursing Workload Index (NWI) and Patient Care Quality Scale (PCQS) following a group assessment and pilot study with the expertise. The findings of the reliability tests showed that the internal consistency is very high (Cronbachs alpha value exceeds 0.80). Another form of implementation was face and content validity, where the use of senior nursing educators and hospital administrators was consulted. Data collection tools were translated into Urdu to be put to the understanding, and this was done through the forward-backward approach.

In addition to the descriptive and inferential statistics, the analysis of the hierarchical regression was applied to observe the incremental effect of nurse workload on patient care depending on the following demographic variables: age, education, and professional experience with references to the type of the hospital. Through this, the study was capable of filtering the impact of workload indirectly on the quality of care change.

To examine the contextual issue of the workload, the qualitative data was collected based on semi-structured interviews of head nurses and ward supervisors in exploring those factors that define workload, including policy on the deployment of staff, emergency admission, and administrative needs. In the framework of the thematic analysis, the interviews were audio-taped and transcribed word-to-word and analyzed. It was the implementation of the inductive formulation of codes and maximizing the credits of the themes using peer review.

Data Analysis

Quantitative data was analyzed with the SPSS v26, and the correlation between the workload predictors and the patient care quality scores was tested with the help of such tools as the descriptive statistics (means, standard deviations), inferential tests (ANOVA, t-tests), and correlation. Qualitative data in terms of interviewing was analyzed with the help of thematic analysis and common patterns and knowledge were found concerning the impact of workload on care.

RESULTS & DISCUSSION

Participant Characteristics

Table 1: Nurse and Patient Demographics

Characteristic	Nurses (n=300)	Patients (n=450)
Average Age	31.8 ± 7.2	45.4 ± 12.1
Female (%)	78%	52%
Average Experience (nurses)	8.1 ± 4.5 years	N/A
Hospital Type (Public/Private)	62% / 38%	100%

Nursing participants were predominantly female with an average of over 8 years' experience. Patient participants were diverse across age and gender.

Nursing Workload Indicators

Table 2: Workload Measures and Care Quality Scores

Workload Measure	Public Hospitals Mean ± SD	Private Hospitals Mean ± SD
Nurse-Patient Ratio	1:10 ± 2.1	1:7 ± 1.8
Average Hours/Shift	12.5 ± 1.5	10.2 ± 1.3
Overtime Frequency (per week)	3.4 ± 1.2	1.8 ± 0.9
Patient Care Quality Score	3.2 ± 0.6	3.8 ± 0.5

The overtime rate was increased in the private hospitals than the government-operated hospitals where the ratio of nurse and patient was high, the shifts were long and the rate was also high. Following this, the level of discrepancy in terms of patient care scores was significant in the public establishments ($p < 0.01$).

Professional Relationships of workload and quality of care

The statistical analysis outcome indicated that there was significant negative correlation between the indicators of nurse workload (high nurse-patient ratio, overtime) and the patient quality scores ($r = -0.68$; $p < 0.001$). The nurses who described high workload were more likely to indicate the absence of possibilities to complete the care activities, decreased confidence to deliver a holistic approach to care.

Qualitative Themes

Interpretation of interviews revealed that the following were the major themes:

- **Task Overload:** Nurses also reported that they commonly had multiple concurrent tasks, such as the administration of medications, when the patients did not have time to talk to them.
- **Burnout and Stress:** Work Stress did affect the emotional resources and the patience of the nurses, in some cases, leading to the perceived poor quality of care. It has to do with the literature that found out that the high scores of burnout were correlated with the low care behaviors (Work Stress in Nurses, 2024).
- **Resource Constraints:** shortages in staffing and lack of assistance staff in some communities increased workload especially in community hospitals.
- **Effects on Patient Satisfaction:** According to the nurses, they were unable to provide bedside solace to the patients associated with quality care because of working under heavy workload.

This fact cannot be overturned because besides high workload suggesting that this subjects nursing personnel to extra workload, this fact also compromises patient care delivery.

The current analysis revealed that negative correlations existed between Quality patient care dimensions and nursing workload, which were statistically significant. The unweighted regression models indicated that patient-to-nurse ratio ($r = 0.115$) and the number of overtime hours ($r = 0.087$) significantly estimated the variation in the scores of the quality of care ($DR2 = 0.28$, $p < 0.01$). This means that the workload is a powerful predictor of patient care outcome even as the controls have been done with demographic and institutional variables adjusted.

The observations have been confirmed by the results of surveys, as it was revealed that nurses devoted considerable proportion of their shifts to the non-clinic and administration activities and spent less time on direct patient care. The proportion of time that the nurses gave bedside care was less than 45 percent in a high burden ward such as the emergency and the medical wards. Such disproportion contributed to slowing service to patient needs, monitoring and less patient education, which received lower scores in the patient care quality scores.

Comparison made on the public and the private hospitals revealed a lot of difference. The workload measures were significantly higher in the public hospitals like turnover of patients, and shortage of staff. Therefore, in high-morbidity facilities, the nurses reported having more fatigue, overall emotional exhaustion, and perceived care standards. The results align with other studies conducted previously in Pakistan that report the issue of systematic staffing of healthcare institutions in Pakistan state level (Ejaz et al., 2024; Khalid et al., 2022).

Qualitative themes also explained these trends further. Nurses stated that they do not have enough time to spend with a particular patient, they are too exhausted and cannot pay sufficient attention to a patient. Admittedly the demand of the work is increased with the emergency admissions and the tight budgetary allocations, which is a pressure on the work of the supervisors. However, the experiment has demonstrated that surgical hospitals that deployed the team-based approaches to care and delegated the non-nursing functions to the staff revealed to have a relatively more favorable quality of care regardless of high patient traffic.

DISCUSSION

The results indicate a negative relationship between workload and nurses as well as a negative correlation of patient care quality in hospitals in Multan district. The association aligns with the other international and regional reports, which have found excessive work to be significant to the nurses in regard to their safety, responsiveness and the satisfaction of the patient. High nurse to patient ratios, long working hours and excessive working under strain nursing capacity leading to evasions of care, and reduced patient-centered care (Impact of Nurse-Patient Ratios, 2025; Nurseacher, 2024).

Qualitative data presents increased workload stressors, which enhance research-related anxiety and emotional burnout, which are consistent with the research that burnout relates to worsened behavior of patient care (BMC Nursing, 2022; Work Stress in Nurses, 2024) . The determined gaps between the community and the commercial hospitals also show that the policies of the staffing dictate the quality of care outcomes, and a better staffing strategy would lead to a higher score of the quality indicators. There will be a need to offer satisfactory nurse-patient ratios that will not only warrant safety but also act as an encouraging element to both morale and professional efficiency of nurses.

CONCLUSION

It has demonstrated that relationship between the nursing workload and the quality of patient care in Multan district hospitals is very negative. Poor patient care quality scores captured the challenges faced by nurses who had high work loads due to staffing problems, extended work shifts, and high workloads faced during their work as they stated that they had a problem with comprehensive care delivery. The results of these show that indeed the healthcare workforce planning and management in Pakistan is systemic and a source of danger to both the nurses and the patients.

Nursing workload is not a human resource issue but a question of care as well. It is desirable to have the best ratios of staffs, workload redistribution and institutional support that improves the care delivery and satisfaction of nurses. Their priority should be evidence-related staffing standards, continuous professional training, and organizational cultures that value the contribution of nurses so that they can maintain the quality of healthcare.

The results confirm that nursing workload is associated with low patient care quality that encompasses patient waiting, patient dissatisfaction, reduction of medication mistakes as well as time to provide patient-centred care. Work-overloaded patients Nurses Spreading their grievances that they had difficulties in providing the level of care, effective communication, and emotional support. These concepts are also consistent will the international and national literature, according to which the adequate staffing of nurses directly correlates with the enhanced level of patient safety, reduced mortality, and better treatment results (Aiken et al., 2014; Masood et al., 2020).

The study also raises the hospital disparities in Multan District. In the case of the local hospitals, the workload was intense due to the number of patients entering the hospital and lack of resources compared to the case of the private hospitals. The levels of dissatisfaction, burnout symptoms and stress rates among nurses in the public-sector hospital were greater and this adversely affected the quality of care provided by the Nurses. Quite to the opposite, the relatively better staffing pattern, along with infrastructure, of private hospitals resulted in the relatively high-quality of care, yet, the workload was also an issue. These findings demonstrate the importance of institutional capacity, resource allocation and management practices in determining experiences and patient outcomes of nursing.

The other research finding is the impact of work load on the outcome of the nurses commitment to the profession and job satisfaction. Long term work stress results in burnout, turnover intentions and absenteeism that threaten sustainability of nursing workforce not only in Multan but globally. As a nurse gets stressed, the thinking ability, empathy and adherence to clinical practice reduces leading to an increased risk of an adverse patient event. This elicits the fact that workload management is an issue that is a human resource issue as well as a patient safety issue.

The facilitating organizational conditions also contribute to the study. The patient care outcome in the hospitals was comparatively better concerning the workload pressures since the most excellent supervision support, collaborative efforts, and accessing training were manifested in hospitals. It can mean that despite the significant importance of workload reduction, leadership support, continuous professional development, and efficient task delegation were the supportive concerns that partially neutralized adverse results.

Lastly, nursing workload is also among the key determinants of the care quality that patients receive at Multiples district hospitals. This issue requires widespread changes in policies and incorporating such factors as improved nurse staffing, workload assignment, nursing education pump, and nursing management practice support. It will not only make the nurses do harder workloads thus enhancing a higher level of patient safety and satisfaction; being better health-wise, retaining, and performing their duties in a more professional manner. Sustaining the enhancement of the quality of healthcare in Multan District and the healthcare system of Pakistan in general is therefore an ideal line of progression after mooring the workforce in nursing.

RECOMMENDATIONS

- Use universal standards of nurse to patient ratio on international and domestic caseload.
- In as much as the workload concerns, ensure that more nursing staff is hired with orientation to the public hospitals.
- There should be the introduction of overtime limitations, and shift limits in order to prevent burnouts.
- Share the load of care by assigning the support staff (i.e. nursing assistants).
- Train on time management and clinical skills (professional growth).
- Ensure wellness programs to counter stress and burnout among nurses.
- Monitor the workload and quality measures on a regular basis through hospital dashboards.
- Engage nurses in workforce planning to ensure that the frontline knowledge is applied in policy making.
- Wean the team to have a great communication channel between patients and nurses to enable satisfaction.
- Instigate data systems to keep tracks of the impact of the workload on long-term outcomes.

REFERENCES

- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1985). A conceptual model of service quality. *Journal of Marketing*.
- Donabedian, A. (2003). *An introduction to quality assurance in health care*. Oxford University Press.
- Rahman, S. U., Mehmood, A., Naz, I., Shaista, ., Ismail, M., Adeel, M., Gul, S., Islam, M., & Uddin, M. (2024). Nurse's workload, patient safety and quality of care. *Pakistan BioMedical Journal*.
- Shamsa Saleem et al. (2024). Assess the effect of workload on patient safety and quality of care. *Journal of Nursing & Midwifery Sciences*.
- Asghar, S., Kousar, R., Asif, M., & Pervez, S. (2022). Effect of workload of nurses on patient satisfaction. *NURSEARCHER*.
- Robina Ghazanfar et al. (2024). Work stress, burnout, and patient satisfaction toward nurses in Medicare Hospital Multan. *Biological and Clinical Sciences Research Journal*.
- Safari, A.-A., et al. (2023). Association between workload and quality of work life. *BMC Nursing*.
- Saeeda Kousar et al. (2025). Impact of nurse-patient ratios on quality of care and safety. *Mader-e-Milat International Journal of Nursing and Allied Sciences*.
- Subramony, M., et al. (2024). Workload, turnover, and patient mortality. *Health Care Management Review*.

- WHO. (2016). Global strategy on human resources for health: Workforce 2030.
- WHO. (2018). Framework for action on interprofessional education.
- WHO. (2019). State of the world's nursing report.
- Khan, S., & Ahmed, R. (2022). Nursing shortages in Pakistan and impact on quality.
- Aziz, S., et al. (2016). Workforce analysis and quality care linkages.
- Qureshi, H., et al. (2018). Patient satisfaction with nursing care.
- Zahid, K., & Rafiq, S. (2020). Workload and stress levels among nurses in Pakistan.
- Tariq, F., & Ali, N. (2022). Nurse workload and care delivery outcomes.
- Ejaz, A., et al. (2024). Employee perceptions and quality of care.
- Masood, T., et al. (2020). Training and performance in nursing care quality.
- Nishtar, S. (2010). Pakistan's health system: The way forward.
- Al-Yateem, N., et al. (2012). Nursing roles in healthcare quality.
- Aiken, L. H., et al. (2014). Nurse staffing and hospital mortality.
- Buchan, J., et al. (2015). Nursing shortages and quality care.
- Shujaat, S. (2021). Quality nursing care in Pakistan.
- Riaz, M., & Ahmed, S. (2021). Workforce planning and patient outcomes.
- Hussain, I., & Khan, T. (2020). Organizational support and nurse performance.
- Latif, M., & Ahmed, S. (2022). Service quality assessment through employee feedback.
- Durrani, H., & Abbas, Q. (2020). Hospital employee role in service quality.
- Mumtaz, Z., et al. (2011). Health workforce engagement and outcomes.
- Khan, F. (2025). Healthcare workforce resilience and service quality.