

Original Article

Assessing the Factors That Effect the Performance of a Clinical Nurse

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ABSTRACT

Background: Clinical nursing performance encompasses patient-centered care, clinical competence, patient safety, communication, and effective multidisciplinary teamwork. Understanding nurses' perceived performance can help identify areas of clinical strength and potential professional-development needs. **Objective:** To assess self-reported clinical performance among clinical nurses at the University of Lahore Teaching Hospital across patient-centered care, clinical competence, and teamwork and collaboration. **Methods:** A quantitative cross-sectional study included 67 clinical nurses selected through non-probability convenience sampling. Performance was assessed using a 12-item, five-point Likert questionnaire covering three clinical-performance domains. Data were summarized using frequencies, percentages, means, and standard deviations. **Results:** Participants had a mean age of 22.93 ± 1.20 years, and 46 (68.7%) were male. Overall, 34 (50.7%) participants were classified as having high performance, 26 (38.8%) moderate performance, and 7 (10.4%) low performance. The highest mean item score was observed for respecting the roles and contributions of team members (4.06 ± 1.26), followed by prompt and effective emergency response (4.04 ± 1.21). The lowest score was observed for perceived proficiency in clinical skills and procedures (3.10 ± 1.56). **Conclusion:** Clinical nurses generally reported moderate-to-high performance, particularly in teamwork, emergency responsiveness, patient safety, and interpersonal care, while clinical skill proficiency and patient involvement showed comparatively less favorable responses. **Keywords:** clinical nurses; nursing performance; clinical competence; patient-centered care; teamwork; cross-sectional study.

INTRODUCTION

Clinical nurses are central to the continuous delivery of patient care and are required to integrate technical competence, communication, clinical judgment, patient-safety practices, and effective collaboration with multidisciplinary teams. Their performance has implications not only for individual patient care but also for the quality, safety, and efficiency of healthcare services. Previous research has shown that nurse deployment and workplace conditions are related to nursing performance, while the effectiveness of registered nurses and their safety-related practices can influence important patient and service outcomes (1-3). Clinical nursing performance should therefore be viewed as a multidimensional construct that includes patient-centered care, clinical competence, responsiveness to clinical situations, and teamwork rather than as the completion of isolated technical tasks.

Clinical nurses perform these responsibilities within demanding work environments characterized by prolonged duty hours, rotating schedules, night work, high patient-care demands, and the need for sustained attention. Sleep

disruption and fatigue are particularly important occupational concerns because nurses working extended shifts may experience reduced sleep health and lower predicted cognitive effectiveness (4). Shift characteristics have also been associated with burnout and occupational exhaustion among nurses, while broader evidence links shift work and long working hours with adverse health outcomes among healthcare workers (5,6). Comparisons between nurses working rotating night shifts and those working day shifts further demonstrate that non-standard work schedules can influence physical and psychological well-being (7). Although these findings do not by themselves establish impaired clinical performance, they demonstrate that the conditions under which nurses work may influence their capacity to maintain consistent professional functioning.

Physical demands are another important component of the clinical nursing environment. Patient handling, prolonged standing, repetitive movements, bending, and other physically demanding activities expose nurses to work-related musculoskeletal problems. Musculoskeletal disorders have been directly associated with poorer work performance among nursing staff, indicating that physical discomfort can have occupational consequences beyond the presence of symptoms alone (8). A high prevalence of musculoskeletal disorders and low-back pain has also been reported among nurses, while both physical and psychological occupational exposures have been identified as relevant risk factors for work-related musculoskeletal disorders (9,10). Workload, duration of work, body mass index, and fatigue have likewise been examined together in nursing populations, although the strength and statistical significance of individual relationships have varied across studies (11). These findings indicate that physical and occupational health characteristics should be considered cautiously when interpreting differences in nurses' ability to perform demanding clinical roles.

Individual and professional characteristics may also influence how nurses adapt to clinical demands. Research focusing on older nurses has identified age-related workplace needs and highlighted the importance of organizational strategies that enable experienced nurses to remain effectively engaged in clinical practice (12). Qualitative evidence from older nurses and midwives similarly indicates that physical demands, changing work capacity, professional experience, and workplace expectations interact in complex ways rather than age acting as a simple determinant of poor performance (13). Beyond individual characteristics, organizational factors are also relevant. Internal service quality, employee well-being, job satisfaction, and organizational commitment have been associated with nurses' work performance (14). Occupational stress is additionally related to nurses' mental health, with self-efficacy potentially influencing how nurses respond to stressful professional environments (15). Continuing professional development represents another important mechanism through which nursing knowledge, confidence, and professional practice may be maintained and strengthened over time (16).

Despite this broad evidence base, previous studies have frequently examined individual influences in isolation, such as shift schedules, fatigue, musculoskeletal disorders, occupational stress, or organizational conditions, and have often focused on outcomes such as burnout, chronic morbidity, psychological well-being, or patient outcomes rather than a unified assessment of nurses' clinical performance (4,5,8,14,15). Consequently, context-specific evaluation remains important for determining how nurses perceive their performance in core areas of clinical practice and whether readily measurable characteristics of the nursing workforce are associated with differences in performance. Such information may help nursing administrators identify areas requiring workforce support, professional development, and further investigation while avoiding assumptions of causality that cannot be established through a cross-sectional design.

Accordingly, this cross-sectional study aimed to assess self-reported clinical performance among clinical nurses at the University of Lahore Teaching Hospital across the domains of patient-centered care, clinical competence, and teamwork and collaboration, and to explore whether performance was associated with the measured participant characteristics of age, gender, and years of nursing experience.

MATERIALS AND METHODS

This quantitative cross-sectional study was conducted among clinical nursing staff at the University of Lahore Teaching Hospital, Lahore, Pakistan, over a four-month period during the 2024–2025 academic session. A cross-sectional design was used to characterize nurses' self-reported clinical performance and its distribution across selected demographic and professional characteristics within the study population without manipulating occupational or individual exposures.

The target population comprised staff nurses engaged in direct clinical care at the study hospital. Nurses were eligible if they were registered nurses or licensed nursing personnel working in a patient-facing clinical role, were 20–65 years of age, had at least one year of clinical nursing experience, were employed on a full-time or part-time basis, and voluntarily agreed to participate. Nurses working exclusively in non-clinical, administrative, managerial, or educational roles were excluded, as were temporary, per-diem, or contract staff, nurses with less than one year of clinical experience, pregnant nurses, and nurses with an active major mental health condition requiring intensive treatment. Eligible nurses who were accessible during the data-collection period were recruited using non-probability convenience sampling.

The accessible nursing population at the study setting was 75. A minimum sample size of approximately 63 participants was estimated using Slovin's sample-size formula based on the stated source population. Recruitment yielded a final analytic sample of 67 clinical nurses. Before data collection, eligible nurses were informed about the purpose of the study and their voluntary participation. Written informed consent was obtained before enrollment, and participants retained the right to decline participation or withdraw without penalty. Participant identity was not included in the study reporting, and collected information was treated confidentially.

Data were collected using a structured questionnaire consisting of a demographic component and a 12-item clinical performance assessment. The demographic component recorded age, gender, years of nursing experience, and clinical work setting. The performance component assessed three conceptually related domains of nursing practice: patient-centered care, clinical competence, and teamwork and collaboration. Patient-centered care was assessed through four items addressing communication with patients and families, empathy and understanding, involvement of patients in care decisions, and explanation of treatment and follow-up plans. Clinical competence was assessed using four items addressing proficiency in clinical skills and procedures, response to emergencies, maintenance of current nursing knowledge and protocols, and patient safety during care delivery. Teamwork and collaboration were assessed through four items addressing effective work with other healthcare professionals, participation in team discussions and decision-making, respect for the roles of team members, and support or mentorship of colleagues.

Each performance item was rated on a five-point Likert response scale ranging from strongly disagree to strongly agree, corresponding to scores from 1 to 5. The 12 items therefore produced a possible aggregate performance score ranging from 12 to 60, with higher scores representing higher self-reported clinical performance. For descriptive interpretation, the study operationally classified performance as low when the percentage score was $\leq 35\%$, moderate when it was $36\%–83\%$, and high when it was $\geq 84\%$. The principal outcome was self-reported clinical nursing performance, evaluated through item-level responses and the aggregate performance score. Age, gender, and years of nursing experience constituted the principal participant characteristics available for comparison with performance.

All participants were evaluated using the same questionnaire, item wording, response options, and scoring structure to maintain consistency of measurement. Questionnaire responses were summarized using descriptive statistics. Categorical participant characteristics and individual Likert-item responses were reported as frequencies and percentages. Overall performance was summarized using the predefined performance categories. Item-level results were interpreted using the number of valid responses for the relevant item where response totals differed. The analysis presented in the study was descriptive; therefore, causal effects were not inferred from observed differences, and the cross-sectional findings were interpreted as characteristics of the sampled nursing population rather than evidence of temporal or causal relationships.

The study was conducted in accordance with the ethical requirements applicable at the University of Lahore and with respect for participants' autonomy, privacy, and confidentiality. Written informed consent was obtained from all participants. Participation was voluntary, identifying information was kept confidential, and participants were informed that they could withdraw from the study at any stage without penalty. Study information was handled anonymously in the analysis and reporting process.

RESULTS

A total of 67 clinical nurses were included in the analysis. The mean age was 22.93 ± 1.20 years, with participants ranging from 21 to 25 years. Most participants were male (68.7%), and nearly half had more than three years of nursing experience (47.8%). Participants aged 23 years constituted the largest age group (34.3%).

Table 1. Demographic and professional characteristics of participants (N=67)

Characteristic	n (%) or Mean $\pm$ SD
Age, years	22.93 $\pm$ 1.20
21	10 (14.9)
22	13 (19.4)
23	23 (34.3)
24	14 (20.9)
25	7 (10.4)
Gender	
Male	46 (68.7)
Female	21 (31.3)
Nursing experience, years	
1-2	14 (20.9)
2-3	21 (31.3)
>3	32 (47.8)

SD, standard deviation.

Responses to the 12 clinical performance items were generally concentrated in the agree and strongly agree categories, although the magnitude varied between individual performance indicators. The highest mean item score was observed for respect for the roles and contributions of healthcare team members (4.06 ± 1.26 ; valid n=66), followed by prompt and effective response to emergencies (4.04 ± 1.21). Empathy in patient interactions and support or mentorship of colleagues both had mean scores of 4.00. In contrast, proficiency in clinical skills and procedures had the lowest mean score (3.10 ± 1.56), followed by involvement of patients in decisions about their care (3.43 ± 1.58).

Table 2. Distribution of responses to the Nurses Clinical Performance Evaluation Questionnaire

Clinical performance item	n	Strongly disagree, n (%)	Disagree, n (%)	Neutral, n (%)	Agree, n (%)	Strongly agree, n (%)	Mean $\pm$ SD (1-5)
Communicates effectively with patients and families	67	5 (7.5)	7 (10.4)	7 (10.4)	19 (28.4)	29 (43.3)	3.90 $\pm$ 1.28
Demonstrates empathy and understanding in patient interactions	67	2 (3.0)	8 (11.9)	9 (13.4)	17 (25.4)	31 (46.3)	4.00 $\pm$ 1.17
Involves patients in decisions about their care	67	15 (22.4)	5 (7.5)	7 (10.4)	16 (23.9)	24 (35.8)	3.43 $\pm$ 1.58
Ensures patients understand their treatment and follow-up plans	67	5 (7.5)	10 (14.9)	7 (10.4)	20 (29.9)	25 (37.3)	3.75 $\pm$ 1.31
Demonstrates proficiency in clinical skills and procedures	67	17 (25.4)	10 (14.9)	5 (7.5)	19 (28.4)	16 (23.9)	3.10 $\pm$ 1.56
Responds promptly and effectively to emergencies	67	4 (6.0)	6 (9.0)	5 (7.5)	20 (29.9)	32 (47.8)	4.04 $\pm$ 1.21
Maintains up-to-date knowledge of nursing practices and protocols	67	7 (10.4)	6 (9.0)	6 (9.0)	16 (23.9)	32 (47.8)	3.90 $\pm$ 1.37
Ensures patient safety during care delivery	67	6 (9.0)	9 (13.4)	5 (7.5)	12 (17.9)	35 (52.2)	3.91 $\pm$ 1.40
Works effectively with other healthcare team members	67	6 (9.0)	6 (9.0)	9 (13.4)	18 (26.9)	28 (41.8)	3.84 $\pm$ 1.31
Actively participates in team discussions and decision-making	67	7 (10.4)	6 (9.0)	5 (7.5)	21 (31.3)	28 (41.8)	3.85 $\pm$ 1.34
Respects the roles and contributions of other team members	66	5 (7.6)	5 (7.6)	5 (7.6)	17 (25.8)	34 (51.5)	4.06 $\pm$ 1.26
Supports and mentors colleagues when needed	67	7 (10.4)	3 (4.5)	6 (9.0)	18 (26.9)	33 (49.3)	4.00 $\pm$ 1.31

SD, standard deviation.

Combined agreement was highest for responding promptly and effectively to emergencies, for which 52 of 67 participants (77.6%) selected agree or strongly agree. Respect for the roles and contributions of team members also showed a high level of agreement, with 51 of 66 valid respondents (77.3%) selecting agree or strongly agree,

followed by support and mentorship of colleagues (51/67, 76.1%). Active participation in team discussions and decision-making was endorsed by 49 participants (73.1%).

Patient-centered communication was also rated positively. Effective communication with patients and families and empathy and understanding during patient interactions were each endorsed by 48 participants (71.6%). For patient safety, 35 participants (52.2%) selected strongly agree, while the combined agree or strongly agree proportion was 70.1%. More heterogeneous responses were observed for patient involvement in care decisions, where 40 participants (59.7%) agreed or strongly agreed but 15 (22.4%) strongly disagreed. The lowest combined agreement was observed for proficiency in clinical skills and procedures, with 35 participants (52.2%) selecting agree or strongly agree and 17 (25.4%) selecting strongly disagree.

Table 3. Distribution of overall clinical performance levels (N=67)

Performance level	n (%)
Low ($\leq 35\%$)	7 (10.4)
Moderate ($>35\%$ to $<83\%$)	26 (38.8)
High ($>83\%$)	34 (50.7)
Total	67 (100.0)

Based on the reported aggregate performance classification, 34 of 67 participants (50.7%) were categorized as having high clinical performance, 26 (38.8%) as having moderate performance, and 7 (10.4%) as having low performance.

DISCUSSION

The present study found that self-reported clinical performance among nurses at the study hospital was generally favorable, with approximately half of the participants classified within the study-defined high-performance category and most of the remainder classified as having moderate performance. The strongest self-reported areas were related to teamwork, respect for colleagues, emergency responsiveness, mentorship, patient safety, and empathy, whereas comparatively weaker responses were observed for perceived proficiency in clinical skills and involvement of patients in care decisions. These findings suggest that the participants perceived themselves as functioning particularly well in collaborative and safety-oriented aspects of nursing practice, while some aspects of technical confidence and patient participation may require greater attention. Because the study was cross-sectional and relied on self-report, these patterns should be interpreted as perceived performance characteristics rather than objective measures of clinical competence or causal effects of individual factors.

The relatively favorable findings for teamwork, respect for professional roles, and participation in collaborative decision-making are clinically relevant because nursing performance is influenced by how effectively nurses function within multidisciplinary healthcare environments. Ariga et al. reported that appropriate nursing deployment and organizational conditions were related to nursing performance, emphasizing the importance of the work environment in supporting effective clinical practice (1). Similarly, Abdullah et al. demonstrated relationships among internal service quality, employee well-being, job satisfaction, organizational commitment, and nurses' performance, indicating that professional performance is embedded within broader organizational and interpersonal conditions rather than being solely an individual attribute (14). The strong teamwork-related responses in the present study may therefore reflect a clinical environment in which collaboration and mutual professional support are perceived positively, although organizational determinants were not directly measured.

Patient safety and emergency responsiveness were also among the strongest areas of self-reported performance. This is encouraging because safe clinical practice requires nurses to recognize changing patient conditions, respond appropriately to urgent situations, follow established procedures, and work effectively with other members of the healthcare team. Evidence from acute-care settings has shown that nurses' safety attitudes are associated with important patient-care outcomes and organizational safety processes (3). Nevertheless, the present findings represent nurses' own assessments of their performance and should not be interpreted as equivalent to independently observed emergency competence or objectively measured patient-safety outcomes. Future assessments combining self-report with supervisor ratings, clinical audits, or objective performance indicators would provide a more comprehensive evaluation of these domains.

Perceived proficiency in clinical skills and procedures received the lowest mean item score among the 12 performance indicators, with a substantial minority of participants expressing disagreement with this statement. This finding is important because clinical competence depends on maintaining current knowledge, repeated practical exposure, skill reinforcement, and opportunities for continuing professional development. King et al. found that the impact of continuing professional development in nursing depends on factors such as relevance to clinical practice, organizational support, professional engagement, and opportunities to translate learning into practice (16). The present pattern therefore supports the practical value of ongoing competency-based education and skills development, although the study did not evaluate training exposure or establish that additional education would directly improve performance.

Patient-centered care was generally rated positively, particularly communication with patients and families and the demonstration of empathy. However, involvement of patients in decisions about their care showed greater response variability than most other items, indicating that shared participation in clinical decision-making may be less consistently practiced or perceived. Registered nurses contribute substantially to patient management, continuity of care, education, and health outcomes across healthcare settings (2). Effective patient-centered nursing therefore requires not only clear communication and empathy but also meaningful participation of patients in decisions affecting their care. The lower and more variable responses to patient involvement may reflect differences in clinical context, institutional practices, patient acuity, professional autonomy, or individual communication approaches. These explanations remain plausible interpretations rather than factors demonstrated by the present data.

Clinical nursing performance can also be influenced by occupational demands that were discussed in the broader literature but were not directly evaluated in the present Results. Long and rotating shifts have been associated with sleep disruption, reduced predicted cognitive effectiveness, exhaustion, burnout, and chronic health consequences among nurses and other healthcare workers (4–7). Work-related musculoskeletal disorders are also common in nursing populations and have been associated with reduced work performance, physical limitations, and occupational burden (8–10). In addition, occupational stress and employee well-being can influence the way nurses function within demanding clinical environments (14,15). These findings from previous research provide an important context for interpreting nursing performance, but they should not be treated as determinants identified by the present study because shift patterns, musculoskeletal conditions, occupational stress, and related exposures were not included in the reported statistical analysis.

The demographic composition of the sample should also be considered when interpreting the findings. Participants were concentrated within a narrow age range of 21–25 years, which limits the extent to which the results can represent the wider nursing workforce. Evidence involving older nurses indicates that physical capacity, professional experience, workplace expectations, and organizational support may change across the nursing career trajectory (12,13). The present study was therefore unable to meaningfully examine age-related differences across early-, middle-, and later-career nurses. Although gender and nursing experience were described, the available analysis did not test their statistical relationships with clinical performance. Consequently, the study supports a descriptive characterization of performance but does not establish which demographic factors independently predict better or poorer performance.

The findings have practical implications for nursing management and quality improvement. The generally favorable responses regarding teamwork, emergency responsiveness, patient safety, empathy, and professional support suggest areas of perceived strength that may be reinforced within clinical practice. At the same time, the relatively lower ratings for clinical skill proficiency and the variability in patient involvement indicate potential areas for focused competency development, reflective practice, mentoring, and patient-centered communication initiatives. Such interventions should be guided by further assessment rather than being interpreted as treatments proven effective by the present cross-sectional study.

A strength of the study is its assessment of several clinically relevant components of nursing practice across patient-centered care, clinical competence, and teamwork, allowing performance to be examined at the individual-item level rather than through a single global judgment. However, several limitations should be considered. The cross-sectional design prevents determination of temporal or causal relationships. Participants were recruited using convenience sampling from a single teaching hospital, limiting external generalizability. The relatively small

sample and restricted age distribution further reduce the ability to represent nurses across different institutions and career stages. Performance was based on self-report and may therefore be influenced by social-desirability bias, recall, and individual differences in self-assessment. The brief 12-item instrument also limits direct comparability with studies using established objective or externally rated performance measures. In addition, no multivariable or participant-level association analyses were available to determine whether age, gender, experience, occupational characteristics, or health-related factors were independently associated with performance. One performance item also contained one fewer valid response than the remaining items. These limitations indicate that the findings are most appropriately interpreted as a descriptive assessment of perceived clinical nursing performance within the study setting.

CONCLUSION

Clinical nurses in this study generally reported moderate-to-high levels of performance, with the strongest perceived performance observed in teamwork, respect for colleagues, emergency responsiveness, patient safety, empathy, and professional support, while clinical skill proficiency and patient involvement in care decisions showed comparatively less favorable or more variable responses. These findings identify specific domains of perceived clinical strength and potential areas for professional development within the study setting, but the cross-sectional descriptive data do not establish which individual, occupational, or health-related factors independently determine nursing performance.

RECOMMENDATIONS

Healthcare institutions should prioritize continuing competency-based education and practical skills development for clinical nurses, particularly in areas related to clinical procedures and patient participation in care decisions. Structured mentoring, simulation-based training, regular competency assessment, and patient-centered communication initiatives may help strengthen these aspects of nursing practice. Existing strengths in teamwork, emergency responsiveness, patient safety, empathy, and professional support should be maintained through supportive supervision and collaborative workplace practices. Future multicenter studies with larger and more diverse samples should use validated performance instruments and objective performance measures and should examine the independent associations of demographic, occupational, organizational, and health-related factors with clinical nursing performance using appropriate inferential and multivariable analyses.

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