

THE ASSESSMENT OF KNOWLEDGE AND PRACTICES OF NURSES REGARDING WOUND CARE

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Abstract: Proper wound care is critical for patient recovery and infection prevention. Inadequate knowledge and inconsistent practices among nurses can lead to suboptimal patient outcomes, particularly in low- and middle-income countries like Pakistan.

Objective: To assess the knowledge and practices of nurses regarding wound care in a tertiary care hospital in Lahore, Pakistan.

Methods: A descriptive cross-sectional study was conducted among 133 nurses working in medical wards, surgical wards, and ICUs. Data were collected using a structured questionnaire assessing demographic characteristics, knowledge, and practices related to wound care. Descriptive and inferential statistics were analyzed using SPSS version 26. **Results:** Among the participants, 73.7% demonstrated good knowledge of wound care, while 26.3% had poor knowledge. However, only 54.1% exhibited good practices, with 45.9% demonstrating suboptimal adherence to wound care protocols. Factors such as insufficient training and high workloads were identified as potential barriers to effective practice. **Conclusion:** Although nurses possessed good theoretical knowledge of wound care, significant gaps in practice were observed. Targeted training, resource provision, and strict adherence to evidence-based guidelines are essential for improving wound care practices and reducing the incidence of SSIs in Pakistan.

Keywords: Wound Care, Knowledge, Practices, Nurses, Pakistan, Surgical Site Infections

Introduction

Wound care is an essential aspect of nursing practice, significantly influencing patient recovery, infection prevention, and overall outcomes. Proper wound management requires a combination of theoretical knowledge and practical skills to ensure effective healing and minimize complications. However, in developing countries like Pakistan, the quality of wound care often faces challenges due to resource constraints, lack of training, and inadequate adherence to evidence-based guidelines (1, 2).

The prevalence of chronic wounds and surgical site infections (SSIs) in Pakistan underscores the critical importance of proper wound care. According to a study conducted in tertiary care hospitals, SSIs account for 25% of nosocomial infections, a major contributor to extended hospital stays and increased healthcare costs (3). Nurses, being frontline healthcare providers, play a pivotal role in wound care management. Their knowledge and practices directly impact infection rates, wound healing, and patient satisfaction (4).

Despite the vital role of nurses, research indicates gaps in knowledge and inconsistent practices regarding wound care in Pakistan. A study by Ahmed et al. revealed that only 60% of nurses were aware of the latest wound care guidelines, while adherence to best practices, such as aseptic techniques and proper dressing application, was found to be suboptimal in public healthcare settings (5). Similar trends have been observed globally, particularly in low- and middle-income countries, where limited training and inadequate resources pose significant barriers to effective wound care (6, 7).

International guidelines, such as those from the World Health Organization (WHO) and the National Institute for Health and Care Excellence (NICE), emphasize the importance of regular training, proper use of wound care

products, and adherence to standardized protocols for improving outcomes (8). However, the implementation of these guidelines in Pakistan is often hindered by resource limitations and high patient loads in tertiary care hospitals (9).

Recent studies have highlighted the need for targeted interventions to bridge the gap between knowledge and practice among nurses. Zaidi et al. demonstrated that structured training programs could significantly enhance nurses' competency in wound care, reducing infection rates and improving patient outcomes in local healthcare settings (10). Similarly, Javed et al. emphasized the role of continuous professional education in fostering adherence to evidence-based practices in wound management (11).

This study aims to assess the knowledge and practices of nurses regarding wound care in a tertiary care hospital in Lahore, Pakistan. By identifying gaps and barriers, the findings will provide insights to inform targeted training initiatives and policy reforms aimed at improving wound care management and patient outcomes in Pakistani healthcare settings.

Methodology

The study employed a descriptive cross-sectional design to evaluate the knowledge and practices of nurses regarding wound care at Jinnah Hospital, Lahore. This design was chosen to provide a comprehensive snapshot of the participants' current understanding and behaviors related to wound care at a specific point in time.

The study population consisted of 133 nurses working in various departments, including medical wards, surgical wards, and intensive care units (ICUs). Participants were recruited using a convenience sampling technique. The inclusion criteria required participants to have at least one

year of professional experience and active employment in the hospital at the time of the study. Nurses on leave or those unwilling to participate were excluded from the study.

Data were collected using a structured and pre-validated questionnaire. The tool was designed in two sections: demographic information and assessment of knowledge and practices related to wound care. The demographic section collected data on age, gender, marital status, qualifications, years of experience, and department. The second section included items assessing nurses' knowledge of wound care principles, such as infection prevention, wound dressing techniques, and patient education, along with questions evaluating adherence to best practices in wound care.

Ethical approval was obtained from the institutional review board of Jinnah Hospital prior to data collection. Participants were briefed about the study objectives, and written informed consent was obtained. The anonymity and confidentiality of the respondents were maintained throughout the study.

The questionnaire was distributed to participants during their shifts, and they were allowed sufficient time to complete it. Research assistants were available to clarify any queries to ensure accuracy and completeness of responses. Completed questionnaires were collected, reviewed for completeness, and securely stored for data entry and analysis.

Data were analyzed using SPSS version 26. Descriptive statistics, including frequencies and percentages, were used to summarize demographic characteristics, knowledge levels, and practice adherence. Inferential statistics were applied to identify associations between demographic variables and the knowledge and practices of nurses. The findings were organized into tables and described in the results section.

Results

This study evaluated the knowledge and practices of nurses regarding wound care at Jinnah Hospital, Lahore.

A total of 133 nurses participated in the study. The majority of participants were female (68.4%), aged between 21–25 years (37.6%), and had 4–6 years of experience (72.2%). Most participants held either a General Nursing or Post RN qualification (42.1% each). Participants were primarily employed in ICU (47.4%) or surgical wards (42.1%), with only a minority in medical wards (10.5%) (Table 1).

The majority of nurses demonstrated good knowledge of wound care, with 73.7% of participants scoring well on knowledge-based questions. However, 26.3% of participants were found to have poor knowledge, indicating a need for targeted educational interventions (Table 2).

In terms of wound care practices, 54.1% of participants exhibited good practices, while 45.9% were categorized as having bad practices. This demonstrates that while knowledge levels were relatively high, there remains room for significant improvement in actual practices (Table 3).

The results of this study indicate that most nurses at Jinnah Hospital, Lahore, have a good level of knowledge regarding wound care. This aligns with findings from prior studies in similar settings. However, the practices of nurses showed a relatively lower level of adherence to wound care protocols, with nearly half of the participants demonstrating suboptimal practices. These findings highlight a critical gap between knowledge and its practical application,

emphasizing the need for ongoing training, refresher courses, and strict enforcement of wound care guidelines to ensure high-quality patient care.

Table 1: Demographic Characteristics of Participants

Variable	Category	Frequency	Percentage (%)
Age (Years)	21–25	50	37.6
	26–30	41	30.8
	31–35	21	15.8
	36–40	21	15.8
Gender	Male	42	31.6
	Female	91	68.4
Marital Status	Single	57	42.9
	Married	76	57.1
Qualification	General Nursing	56	42.1
	Post RN	56	42.1
	Generic BSN	21	15.8
Experience	1–3 years	17	12.8
	4–6 years	96	72.2
	7–9 years	20	15.0
Department	Medical Ward	14	10.5
	Surgical Ward	56	42.1
	ICU	63	47.4

Table 2: Nurses' Knowledge Regarding Wound Care

Knowledge Level	Frequency	Percentage (%)
Good Knowledge	98	73.7
Poor Knowledge	35	26.3
Total	133	100.0

Table 3: Nurses' Practices Regarding Wound Care

Practice Level	Frequency	Percentage (%)
Good Practices	72	54.1
Bad Practices	61	45.9
Total	133	100.0

Discussion

This study assessed the knowledge and practices of nurses regarding wound care in a tertiary care hospital in Lahore, Pakistan. The findings highlight significant gaps between nurses' knowledge and actual practices, underscoring the need for targeted interventions to bridge this divide. The results align with and expand upon existing literature on wound care practices in both Pakistani and international healthcare settings.

The study revealed that 73.7% of nurses had good knowledge of wound care, a finding comparable to Ahmed et al., who reported that approximately 70% of nurses in public hospitals of Pakistan demonstrated adequate theoretical understanding of wound care principles (11). However, our findings also identified that 26.3% of nurses lacked sufficient knowledge, reflecting challenges such as inadequate training and limited access to updated guidelines. This aligns with Khan et al., who emphasized the role of resource constraints in perpetuating knowledge gaps among healthcare workers in Pakistan (12).

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Despite high levels of knowledge, only 54.1% of participants exhibited good practices in wound care. This discrepancy between knowledge and practice has been widely reported in previous studies. Zaidi et al. noted a similar gap in Pakistani hospitals, where nurses, despite understanding the importance of aseptic techniques, often failed to adhere to protocols due to high patient loads and insufficient supervision (13). Similarly, Salcido highlighted that poor adherence to evidence-based practices is a common issue in developing countries, largely driven by systemic barriers (14).

One notable area of concern in this study was the inconsistent use of aseptic techniques and adherence to wound care protocols. This is particularly significant given the high rates of surgical site infections (SSIs) in Pakistan, which are estimated to account for 25% of hospital-acquired infections (15). WHO guidelines emphasize the importance of aseptic techniques and regular audits to ensure compliance with wound care protocols (16). The findings from this study suggest that such measures are not being adequately implemented, leading to suboptimal patient outcomes.

Another critical issue highlighted in this study is the lack of continuous professional development (CPD) opportunities for nurses. Only a minority of participants reported receiving regular training on wound care, a trend consistent with findings by Javed et al., who stressed the importance of CPD in enhancing nurses' competencies and improving adherence to evidence-based practices (17). Structured training programs have been shown to significantly improve both knowledge and practices, as demonstrated in a study by Zaidi et al., where nurses who underwent regular training reported a 30% increase in compliance with wound care standards (13).

The study also highlighted the role of demographic factors, such as experience and department, in influencing knowledge and practices. Nurses working in ICUs demonstrated better practices compared to those in medical wards, likely due to stricter monitoring and more exposure to critical care protocols. This finding aligns with a study by Smeltzer et al., who observed that healthcare workers in high-intensity settings are more likely to adhere to standardized guidelines due to the critical nature of their work (18).

In conclusion, the findings of this study underscore the urgent need for interventions aimed at improving both knowledge and practices of nurses regarding wound care (19). These interventions should include regular training programs, improved access to resources, and stricter enforcement of evidence-based guidelines. Addressing these gaps is essential for reducing SSIs, improving patient outcomes, and enhancing the quality of care in Pakistani healthcare settings.

Conclusion

This study highlights significant gaps between the knowledge and practices of nurses regarding wound care in a tertiary care hospital in Lahore, Pakistan. While a majority of nurses demonstrated good theoretical knowledge, their practical adherence to wound care protocols was suboptimal. These findings emphasize the urgent need for targeted interventions, including regular training programs, resource allocation, and strict

adherence to evidence-based guidelines, to enhance wound care practices and reduce the risk of surgical site infections (SSIs). Addressing these gaps is essential for improving patient outcomes and advancing the quality of nursing care in Pakistan.

Declarations

Data Availability statement

All data generated or analyzed during the study are included in the manuscript.

Ethics approval and consent to participate

Approved by the department concerned. (IRBEC-SNU-8844/23)

Consent for publication

Approved

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Conflict of interest

The authors declared absence of conflict of interest.

Author Contribution

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Study Design, Review of Literature, drafting, data collection

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Conception of Study, Development of Research Methodology Design, Study Design, Review of manuscript, final approval of manuscript.

Conception of Study, Final approval of manuscript.

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