



Effect of implementing designed nursing guidelines on nurses' performance regarding care of patients with burn injury

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Abstract

This study aimed to evaluate the impact of specifically designed nursing guidelines on the knowledge and practical skills of nurses caring for patients with burn injuries. A quasi-experimental design with pre-test and post-test assessments was employed. The study was conducted in the burn unit of a Main University Hospital in Egypt. A convenience sample of 20 nurses of various ages and both genders participated. Data were collected using two tools: (I) a structured interview questionnaire to assess demographic data and knowledge, and an observational checklist to evaluate practices; and (II) the Designed Nursing Care Guidelines for Burn Patients (a booklet). The intervention involved the implementation of these guidelines. Following the intervention, a significant improvement was observed in both nurses' knowledge and practical skills. The rate of correct knowledge answers increased from a pre-test mean of 72% to a post-test mean of 89%. The percentage of correctly performed practical tasks rose from 11% to 25%. The most substantial improvements were noted among younger nurses (20-30 years) and those holding a bachelor's degree. Furthermore, nurses with 5-10 years of experience in the burn unit demonstrated the highest overall levels of knowledge and practice post-intervention. The designed nursing guidelines were effective in significantly enhancing both the knowledge and practical skills of nurses providing burn care. To sustain and build upon these improvements, a commitment to continuous education and the standardized use of evidence-based protocols is essential. We recommend the establishment of regular training programs, the formal implementation of evidence-based guidelines, and the promotion of interdisciplinary collaboration for comprehensive burn patient management.

Keywords: Burns, Clinical competence, Guideline, Inservice training, Nursing care, Egypt.

Introduction

Burn injuries, caused by thermal, chemical, electrical, or radiation exposure, initiate a complex pathophysiological process that can lead to severe tissue damage and systemic complications [1]. They are among the most devastating forms of trauma globally, constituting a major public health issue and ranking as the fourth most common type of trauma worldwide [2]. The severity of burns can range from superficial skin damage to life-threatening injuries affecting multiple organ systems, often resulting in long-term morbidity, physical disability, psychological distress, and significant economic burden [3].

The global burden of burns is profound, with the [4]. estimating that over 11 million people requiring medical attention for burns annually, resulting in approximately 180,000 deaths. The majority of these

fatalities, over 96%, occur in low- and middle-income countries, highlighting a critical area for healthcare improvement.

The role of the nurse in burn care is particularly challenging and multifaceted. It demands extensive knowledge of the body's response to burns and sophisticated assessment skills to detect subtle changes in a patient's condition [5]. Burn nursing encompasses the entire patient journey, from initial emergency management and acute care through to rehabilitation and community reintegration, requiring expertise in areas such as pain management, wound care, and psychosocial support.

In this context, clinical practice guidelines are indispensable tools. They synthesize high-quality evidence into systematic recommendations that assist healthcare professionals in making informed clinical decisions [6]. For nurses, such guidelines are vital for standardizing care, updating knowledge, and

ultimately optimizing patient outcomes [4]. The significance of this is amplified in settings like Egypt, where high burn mortality rates, reported to be as high as 37-38%, point to a need for improved care protocols [7].

Burn injuries present a critical public health challenge in Egypt. With approximately 300 new cases per day, the consequences are severe: mortality rates reach 38%, largely due to inadequate initial care and delays in receiving proper medical treatment [8,20]. This results in a fatality rate that is dramatically higher than the 5% average seen in neighboring countries [7]. For those who do survive, the aftermath often includes significant physical disabilities and psychological distress that hinder their reintegration into normal life [7].

Therefore, the current study was carried out to evaluate the effect of implementing designed nursing guidelines on nurses' performance regarding care of patients with burn injury.

The aim of the current study was to evaluate the effect of implementing designed nursing guidelines on nurses' performance regarding care of patients with burn injury.

Research hypothesis

-Nurses who receive nursing guidelines will have a higher level of knowledge regarding the care of patients with burn injuries than pre-implementation of nursing guidelines.

-Nurses who receive nursing guidelines will have a higher level of practice regarding the care of patients with burn injuries than pre-implementation of nursing guidelines.

Methods

Research design

Quasi-experimental (Pre / post-test) research design was utilized to conduct this study. It was a one-group pre-test/post-test design.

This study was reported in accordance with the SQUIRE 2.0 guidelines for quality improvement reporting [9].

Theoretical definition

Nursing guidelines are evidence-based recommendations designed to standardize and improve patient care. They are created by systematically reviewing the latest research and weighing the pros and cons of different treatment options. To be effective, these guidelines must be grounded in solid evidence, consider patient preferences, and use clear criteria to ensure they are consistently applied [6,21].

Operational definition:

For the purpose of this research, we defined nursing guidelines as a structured set of evidence-based protocols designed to standardize clinical practice. These guidelines were put into action using three key components: written procedures for consistency, standardized tools for patient assessment, and a system for monitoring how well nurses adhered to the new protocols.

Setting:

The study was conducted in the burn unit at a Main University hospital. Burn unit consists of emergency room, two rooms for patients of second degree burn (each room contains 4 beds) and burn intensive care unit for third degree burn patients (1 room contains 4 beds)

Subjects:

All available nurses (20) nurses worked at burn unit at the University Hospitals during period of data collection which started from April 2024 up to February 2025. Male & female and their age between 20 to 50 years, who are willing to participate in the study.

Tools for data collection:

Two tools were used to achieve the aim of the study:

Tool I: Interview nursing questionnaire sheet

Which was constructed by the researcher after reviewing the literature to assess demographic data, nurse's knowledge and practice about burn injury care, it includes the three parts: -

Part 1: Demographic data of nurses as age, gender, level of education, and years of experience.

Part 2: Nurses' knowledge about nursing care of burns patient: pre/post test

This part contains 80 MCQ questions covering nurses' knowledge in burn management across the emergency phase (30 questions), acute phase (25 questions), and rehabilitation phase (25 questions), including burn assessment, fluid resuscitation, wound management, and infection control practices.

Scoring system for Knowledge assessment:

Total scores of knowledges were developed as one grade for each correct answer and zero for incorrect answer and don't know. For each area of knowledge, the scores of items were summed up and converted into a percentage. The nurses' knowledge was considered unsatisfactory <70% and satisfactory >70 %.

Part 3: Nurses observational checklist: pre/post

The observation checklist was developed by the researcher after reviewing the related national and international literature to assess the nurses' practice regarding care of patients with burn injury and consist of 3 parts (80 observational points). Part I: Base line assessment of burn patient (20), Part II: Burn wound management (30) and Part III: Fluid and electrolyte management (30).

Scoring system for nurse's practices:

Total scores of practices were developed as one grade for each done correct and zero for done incorrect. For each area of skills, the scores of items were summed up and converted into a percentage. The nurses' practice will be considered as inadequate <70% and adequate >70 %.

Tool II: The designed nursing care guidelines for burn patients (booklet):

This tool was designed by the researcher after reviewing current national and international literature to compare nursing practice with the standard guidelines recommendations and concerning knowledge about:

- Brief illustration of the anatomy of the skin.
- Definitions, causes, classification of burn injury, and assessment of burn injury.
- Guidelines for the first 24 hrs followed by the 2nd 24 hrs till disposition which include but not limited to the following, Base line assessment, lab investigation/imaging, burn wound management, fluid and electrolyte management, pain management and continuation of care

Three primary phases comprised the study

Phase (I)- Preparation phase

The hospital's responsible authority, the head of the burn unit, gave formal approval to conduct the study when it was explained what it was going to do. The project complied with clinical research ethics with code 1120230579 dated 26/02/2023, and the local ethical committee of the nursing faculty granted approval, emphasizing that there was no risk to study participants. Tool development: The researchers developed the study instrument by analyzing current and relevant literature. Content validity: A panel of three medical surgical nursing and medical staff specialists evaluated the tool's content for clarity, comprehensiveness, understanding, application, and ease of administration. The reliability of the study tool was assessed using Cronbach's Alpha test; the results showed that the tools were steady and consistent, with a reliability score of 0.95. Prior to data collection, pilot research was carried out on 10% (2 nurses) of the sample size at a Main University Hospital who met the predetermined selection criteria in order to assess the tools' applicability and clarity.

Phase (2): Implementation phase:

The transitional phase in which an official permission to proceed with the proposed study was obtained from the head of the burn unit. At the initial interview the researcher introduced himself to initiate communication, explain the nature and purpose of the study and ask the nurses to fill out the questionnaire sheet to assess nurses' knowledge and the researcher observe nursing practice (tool I part 3) pre-test. The researcher conducted educational sessions regarding the clinical practice guidelines for

burn injury (tool 2) and then evaluates the nurses of the nurse's knowledge and practices, tool 1 part 2 & 3 (post-test).

The researcher implemented performance guidelines for nurses through the following 5 sessions: In every knowledge session, the researcher uses simple, straightforward language. The researcher provides a brief summary at the conclusion of each session, confirming the key themes covered.

Session 1: Theoretical Knowledge for burn patients: This session covers information about the anatomy and function of the skin, definition of burn, causes, burn injury classification, assessment of total surface area and complications of burn, It took about 20 to 30 minutes

Session 2: knowledge about nursing care in emergency phase: it includes knowledge about insertion of intravenous lines, fluid resuscitation and how calculated fluid replacement and types of fluids gave to the patient in emergency phase. It took about 20 to 30 minutes

Session 3: knowledge about nursing care in acute phase: it includes knowledge about pain management, wound management and infection control measures, nutrition, wound complications and its managements. It took about 20 to 30 minutes

Session 4: knowledge about nursing care in rehabilitation phase: it includes knowledge about psychological support, exercises (importance, types, and technique) warning signs and schedule for follow up. It took about 20 to 30 minutes

Session 5: Teach nurses practices about how to perform baseline assessment, fluid and electrolyte management, wound management technique, this final session ensures that the program's objectives are met and provides a foundation for continuous improvement in burn care delivery.

The researcher uses hospital equipment, dolls, exercise therapy photos, and real patient applications during practice session. The researcher provides a brief summary at the conclusion of each session that highlights the key ideas discussed

Phase (3): Evaluation phase:

In the evaluation phase, the researcher assessed the impact of the implemented nursing care guidelines for burn patients using questionnaires and observation checklists. The focus was on measuring improvements in nurses' knowledge and practices pre and post implementing the nursing clinical practice guidelines.

Statistical phase

We used descriptive statistics to analyze the demographic characteristics, knowledge, and practice of nurses in managing burn injuries. For categorical variables, we reported frequencies and percentages, and for continuous variables, we reported means and standard deviations. Furthermore, we performed inferential analysis to evaluate the distribution of nurses' total knowledge and practice after a post-test, employing various statistical tests, including parametric (t-test) tests. We also used t-tests to explore the relationship between nurses' knowledge and their characteristics.

Results

Part I: Demographic characteristics

Table 1. Mean and percentage distribution of demographic characteristics of the studied nurses (n=20)

Variables	No.	%
Age		
20 -< 30 yrs	12	60%
30 -< 40 yrs	5	25%
40 -< 50 yrs	3	15%
Mean ± SD	31±7.5 yrs	
Gender		
Male	8	40%
Female	12	60%
Experience in the burn department		
<5 yrs	1	5%
5 > 10 yrs	10	50%
>10 yrs	9	45%
Mean ± SD	13±7.4 yrs	
Level of Education		
Secondary nursing school	5	25%
Technical nursing institute	11	55%
Bachelor's degree	4	20%

* Significant at (P<0.05) -ANOVA, is a statistical test used to analyze the difference between the means of more than two groups. - independent Samples t Test compares the means of two independent groups

Table (1): As presented, the sample was characterized by a predominantly young and experienced nursing workforce. The majority (60%) were under 30 years of age, with a mean age of 31 ± 7.5 years, and female nurses (60%) outnumbered their male counterparts. A significant proportion of the nurses possessed substantial experience, with half having worked in the burn unit for 5 to 10 years and 45% for over a decade, resulting in a mean experience of 13 ± 7.4 years. Educationally, most nurses (55%) held diplomas from technical nursing institutes, while a smaller segment (20%) had obtained a bachelor's degree.

Part II - Nurses' knowledge:

Table (2): The analysis of knowledge scores for the emergency care phase indicates a significant improvement following the guideline implementation. The proportion of correct answers rose from 74% to 90%. This was reflected in a statistically significant increase in the mean knowledge score from 62.85 ± 1.10 to 74.64 ± 1.14 ($p < .00001$), demonstrating a substantial positive effect of the guidelines on nurses' knowledge of emergency burn care.

Table 2. Mean and percentage distribution of nurses' knowledge about nursing care for burn patients in emergency phase pre and post implementing nursing guidelines (n=20)

Items	Pre- guideline implementation	Post- guideline implementation	p-values
Correct answers	74%	90%	< .00001*
In Correct answers	30%	10%	
Mean total score $\pm$ SD	62.85 ± 1.10	74.64 ± 1.14	
The gap Score	15.79% increase		

* Significant at ($P < 0.05$) -chi-square test

Table (3): As presented, nurses' knowledge regarding acute burn care demonstrated substantial improvement after the guideline implementation. The rate of correct responses increased markedly from 71% to 88%, accompanied by a corresponding rise in the mean knowledge score from 67.08 ± 1.68 to 78.54 ± 1.93 . This enhancement was statistically highly significant ($p < .00001$), confirming the

intervention's positive impact.

Table 3. Mean and percentage distribution of nurses' knowledge about nursing care for burn patients in acute phase pre and post implementing nursing guidelines (n=20)

Items	Pre- guideline implementation	Post- guideline implementation	p-values
Correct answers	71%	88%	< .00001*
In Correct answers	29%	12%	
Mean total score $\pm$ SD	67.08 ± 1.68	78.54 ± 1.93	
The gap Score	14.6% increase		

* Significant at ($P < 0.05$) -chi-square test

Table (4): As shown, the implementation of nursing guidelines led to a significant advancement in knowledge pertaining to the rehabilitation phase of burn care. The mean knowledge score rose substantially from 52.55 ± 0.78 to 66.00 ± 0.50 , representing a 21.1% improvement. This positive shift was further supported by an increase in correct answers from 64% to 76%, a change that was statistically highly significant ($p < .00001$). These findings indicate that the guidelines successfully bolstered the nurses' understanding of rehabilitative care principles.

Table 4. Mean and percentage distribution of nurse's knowledge about nursing care for burn patients in rehabilitation phase pre and post implementing nursing guidelines (n=20)

Items	Pre- guideline implementation	Post guideline implementation	p-values
Correct answers	64%	76%	< .00001*
In Correct answers	36%	24%	
Mean total score $\pm$ SD	52.55 ± 0.78	66 ± 0.50	
The gap Score	21.1% increase		

* Significant at ($P < 0.05$) -chi-square test

Table (5): A comprehensive analysis of the total knowledge scores, as summarized, confirms a significant enhancement following the guideline

implementation. The overall rate of correct answers rose from 72% to 89%, and the mean total score increased from 68.49 ± 7.91 to 82.24 ± 4.37 , reflecting a 20.1% overall improvement. The statistical significance of this knowledge gain was robust ($p < .00001$), underscoring the substantial positive impact of the nursing guidelines

Table 5. Mean and percentage distribution of nurses' total score of knowledge about nursing care for burn patients pre and post implementing nursing guidelines (n=20)

Items	Pre-guideline implementation	Post-guideline implementation	p-values
Correct answers	72%	89%	< .00001*
In Correct answers	28%	11%	
Mean total score $\pm$ SD	68.49 ± 7.91	82.24 ± 4.37	
The gap Score	20.1% increase		

* Significant at ($P < 0.05$) -chi-square test

Table 6. Relation between nurses' knowledge and their demographic characteristics (n=20)

Variables	Mean knowledge score	P-value
Age		
20 -< 30 yrs	84.54 ± 3.13	< .00001*
30 -< 40 yrs	77.48 ± 3.81	
40 -< 50 yrs	82.43 ± 6.33	
Gender		
Male	80.79 ± 4.64	0.0713
Female	84.41 ± 3.02	
Experience in the burn department		
<5 yrs	74.46 ± 9.10	0.0002*
5 > 10 yrs	84.38 ± 2.68	
>10 yrs	79.68 ± 4.91	
Level of Education		
Secondary nursing school	66.30 ± 2.52	< .00001 *
Technical nursing institute	74.12 ± 1.99	
Bachelor's degree	83.54 ± 1.95	

* Significant at ($P < 0.05$) -ANOVA, is a statistical test used to analyze the difference between the means of more than two groups. - independent Samples t Test compares the means of two independent groups

Table (6): As shown, higher knowledge scores were

significantly associated with specific demographic and professional characteristics. These included the attainment of a bachelor's degree, 5 to 10 years of clinical experience in the burn unit, and being under the age of 30. Interestingly, the analysis revealed no significant association between knowledge scores and gender.

Part III - Nurses' practice

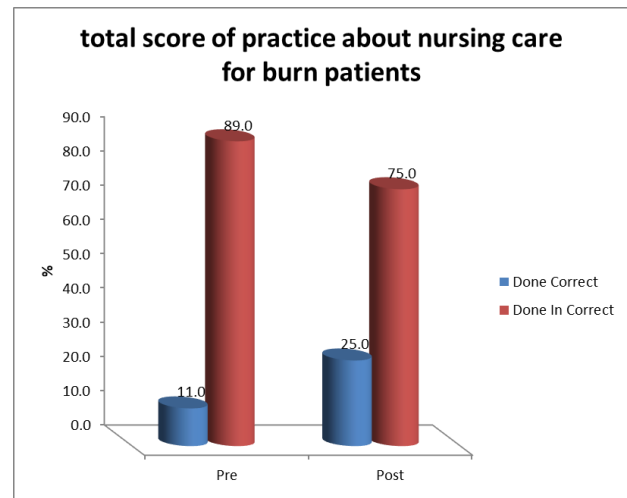


Figure 1. Mean and percentage distribution of nurses' total score of practice about nursing care for burn patients pre and post implementing nursing guidelines (n=20)

* Significant at ($P < 0.05$) -chi-square test

Figure (1): as illustrated, the evaluation of overall practical skills indicated a substantial and statistically significant improvement following the guideline implementation. The mean total practice score more than doubled, rising from 13.49 ± 4.21 to 28.28 ± 5.56 , which corresponds to a 53.9% increase in performance. This enhancement is further evidenced by a rise in correctly performed skills from 11% to 25% ($p < .00001$), confirming a positive shift in clinical practice.

Table (7): As detailed, nurses' performance in conducting baseline assessments demonstrated marked improvement following the intervention. The mean score for this competency nearly doubled, increasing from 13.62 ± 4.18 to 26.20 ± 7.13 —a 49.6% gain. This enhancement was further evidenced by a substantial rise in correctly performed skills, from 11% to 32%, a change confirmed to be statistically significant ($p = .000015$)

Table 7. Mean and percentage distribution of Nurses observational checklist procedure for base line assessment of burn patient pre and post implementing of nursing guidelines (n=20)

Designation	Pre- guideline implementation	Post- guideline implementation	t values	p values
Done Correct	11%	32%	-4.74427	.000015* significant at p < .05
Done In Correct	89%	68%		
Mean total score $\pm$ SD	13.62 $\pm$ 4.18	26.20 $\pm$ 7.13		
The gap Score	49.6% increase			

* Significant at (P<0.05) -chi-square test

Table 8. Mean and percentage distribution of Nurses observational checklist procedure for burn wound management of burn patients pre and post implementing of nursing guidelines (n=20)

Designation	Pre - guideline implementation	Post- guideline implementation	t values	p values
Done Correct	13%	20%	-4.6353	is .000021* The result is significant at p < .05.
Done In Correct	86%	80%		
Mean total score ± SD	15.42 ± 4.25	23.52± 5.35		
The gap Score	31.46% increase			

* Significant at (P<0.05) -chi-square test

Table (8): Analysis of burn wound management skills revealed a clear, statistically significant improvement post-guideline implementation (p = .000021). While the absolute percentage of correctly performed skills remained lower than in other domains, it showed a

meaningful increase from 13% to 20%. This progress is further substantiated by a 31.46% rise in the mean total score (from 15.42 $\pm$ 4.25 to 23.52 $\pm$ 5.35), as presented in Table 8.

Table 9. Mean and percentage distribution of Nurses observational checklist procedure for fluid and electrolyte management of burn patients pre and post implementing of nursing guidelines (n=20)

Designation	Pre guideline implementation	Post guideline implementation	t values	p values
Done Correct	12%	23%	6.39135	< .00001* The result is significant at p < .05
Done In Correct	82%	77%		
Mean total score ± SD	13.87±5.18	28.20±5.98		
The gap Score	27.73% increase			

* Significant at (P<0.05) -chi-square test

Table (9): As presented, a statistically significant improvement was observed in nurses' fluid and electrolyte management skills following the implementation of the guidelines (p < .00001). The

data confirms that the intervention led to a marked enhancement in this critical aspect of burn patient care.

Table 10. The relation between nurses' practice and their demographic characteristics (n=20)

Variables	Mean score of knowledge	P-value
Age		
20 -< 30 yrs	13.88 $\pm$ 1.66	< .00001 *
30 -< 40 yrs	14.77 $\pm$ 4.18	
40 -< 50 yrs	15.15 $\pm$ 1.00	
Gender		
Male	14.47 $\pm$ 2.15	0.0713
Female	15.12 $\pm$ 0.53	

Experience in the burn department		
<5 yrs	13.34±1.99	0.0002*
5 > 10 yrs	14.30±1.95	
>10 yrs	15.11±0.91	
Level of Education		
Secondary nursing school	11.88±1.03	< .00001*
Technical nursing institute	13.28±1.27	
Bachelor's degree	14.97±1.48	

* Significant at (P<0.05) -ANOVA, is a statistical test used to analyze the difference between the means of more than two groups. - independent Samples t Test compares the meaning of two independent groups

Table (10): As detailed, nurses' practical skills were significantly associated with their professional background. Higher levels of practical performance were linked to higher educational qualifications (particularly intermediate training), extensive clinical experience (over 10 years in the burn unit), and older age (over 40 years). In contrast, no significant relationship was identified between practical skill level and gender.

Discussion

Burn injuries represent a significant global health challenge, characterized by complex tissue damage that demands highly specialized nursing care. The severity of these injuries underscores the critical need for standardized, evidence-based protocols to guide clinical practice [4]. This study evaluated the impact of such designed nursing guidelines on the performance of nurses in a burn unit in Egypt. The demographic profile of our sample revealed a workforce predominantly composed of young females under 30 years of age, most of whom held diplomas from technical nursing institutes and possessed considerable clinical experience. This composition aligns with the findings of [11], who also reported a female-majority workforce with technical nursing backgrounds in their setting. In contrast, our findings differ from those of [21], whose cohort was predominantly male and held bachelor's degrees. These demographic discrepancies likely reflect broader regional variations in nursing education systems and workforce composition. The prevalence of young, technically trained nurses in our context highlights the importance of continuous, tailored education programs to bridge potential knowledge-practice gaps and harness their clinical experience.

The central finding of this research is the statistically significant improvement in both knowledge and

practical skills following the implementation of the nursing guidelines. Knowledge scores increased significantly across all phases of burn care—emergency, acute, and rehabilitation. This outcome is consistent with the work of [10], and further reinforces the observations of [11], who noted unsatisfactory knowledge levels prior to educational interventions. The notable gains in knowledge in our study may be attributed to the pedagogical approach employed, which emphasized clear illustrations and a conducive learning environment to enhance comprehension.

Similarly, we observed a substantial enhancement in practical nursing skills, including baseline assessment, wound management, and fluid and electrolyte balance. This finding corroborates the results of [13], who documented significant improvements in nurse performance after implementing instructional guidelines. The hands-on training component of our intervention, which utilized media aids and simulation, was instrumental in translating theoretical knowledge into clinical competence.

Our analysis identified a strong correlation between professional background and performance outcomes. Specifically, higher levels of education and extensive experience in the burn unit were significant predictors of enhanced knowledge and practice. This relationship finds support in [14], who identified qualifications and training as key factors. While [8] also reported a link between knowledge and demographics, including gender, our study found no such correlation with gender, suggesting that contextual and institutional factors may influence these relationships. The critical factor appears to be a combination of foundational education and sustained, specialized clinical exposure.

When situated within the wider literature, the scope of our study becomes clearer. For instance, while our research focused on measurable improvements in nurse competency, [15] addressed technical and ergonomic innovations for managing complex cases, highlighting a different but complementary aspect of burn care improvement. Similarly, our quantitative findings on knowledge gain contrast with the qualitative exploration by [16], which delves into the emotional and psychological dimensions of nursing burn patients.

Furthermore, our results, which show significant post-intervention improvement, offer a different perspective from the baseline assessments reported by [17], who found that most nurses had only moderate knowledge. The success of our structured guidelines aligns with the broader principle emphasized by [18] and demonstrated by [19] in a different clinical specialty: that targeted education is fundamental to improving clinical practice and overcoming resistance to new protocols.

In conclusion, this study demonstrates that systematically designed nursing guidelines are a powerful tool for enhancing both the knowledge and practical skills of nurses caring for burn patients. The findings suggest that clinical proficiency is more closely linked to dedicated training and accumulated experience than to demographic characteristics such as age or gender. Therefore, investing in structured, continuous professional development programs and robust clinical support systems is paramount. Ultimately, excellence in burn care is cultivated not by individual innate traits, but by institutional commitment to fostering a well-trained and continuously supported nursing workforce.

Conclusion

The findings of this study lead to three primary conclusions. First, the implementation of specifically designed nursing guidelines resulted in a statistically significant improvement in both the knowledge and practical skills of nurses providing care for burn patients. Second, the most substantial gains in performance were associated with higher levels of nursing education and focused clinical experience within the burn unit, rather than demographic factors such as age or gender. Finally, the study confirms that standardized, evidence-based protocols are an

effective and essential mechanism for enhancing the quality of nursing care in a specialized burn unit setting. To sustain these improvements and further advance patient outcomes, a committed, long-term investment in continuous professional development and the systematic use of clinical guidelines is imperative.

Recommendations

1. Prioritizing Continuous Education through the institutionalization of regular, hands-on training programs to keep nurses abreast of the latest advancements in burn care.
2. Systematizing Care Delivery by developing, implementing, and routinely updating evidence-based clinical practice guidelines specific to burn management.
3. Enhancing Team-Based Practice by creating formal channels for interdisciplinary collaboration, ensuring that burn care is a coordinated effort among all relevant healthcare professionals to address the multifaceted needs of patients.

Ethical Approval

The study was conducted in accordance with the Declaration of Helsinki and was approved by the Local Ethical Committee of the Faculty of Nursing, (Code: 1120230579, Date: 26/02/2023). Written informed consent was obtained from all nurse participants involved in the study.

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Conflict of Interest Statement

The authors declare that there is no conflict of interest.

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Ethical Approval Statement

The study was approved by the Local Ethical Committee of the Faculty of Nursing, Assiut University (Code: 1120230579, dated 26/02/2023). Written informed consent was obtained from all participating nurses.

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Declaration of Generative AI in Writing:

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