# Auditing Nurses' Knowledge and Practices Concerning the Care of Patients with Burn **Injuries**

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#### **Abstract:**

Background: Burn injuries reflect a significant worldwide public health concern. Nurses are pivotal in managing burn patients, requiring extensive knowledge and practice. Auditing their knowledge and practice is crucial to ensure quality care and improve outcomes. Aim: To Audit Nurses' Knowledge and Practices Concerning the Care of Patients with Burn Injuries Research Design: Descriptive research design was utilized to conduct this study. Setting: The study was conducted in the burn unit at Assiut University Hospitals. Sample: All available nurses (20) nurses worked at burn unit, male & female and their age between 20 to 50 years. Tools: one tool used for data collection; Interview Nursing Questionnaire Sheet, it include three parts; personal data, nurses' knowledge about burn care, and nurses observational checklist. Results: Nurses' knowledge was moderate (72% correct answers), with significant gaps in the rehabilitation phase (36% correct answers). Practical skills were inadequate, with only 11% of tasks performed correctly. Younger nurses (20-30 years) and those with higher education (bachelor's degree) showed better knowledge and practices. Experience (5-10 years) correlated with higher knowledge, but practical skills remained low across all experience levels. Conclusion: The study reveals significant gaps in nurses' knowledge and practice, especially in rehabilitation and practical skills. Regular audits and continuous professional development are essential to improve burn care quality. Recommendations: Implement ongoing training programs on burn care and Integrate evidence-based protocols for consistent, high-quality care.

### Keywords: Auditing, Burn injury, Nursing knowledge & Practice.

# Introduction

Burn injuries are a major international public health issue and the most destructive type of injury. In the world, burns rank fourth in terms of trauma, after falls, car crashes, and domestic abuse. burn injury can take place all age groups and in all socioeconomic groups (Odondi, et al., 2020).

Burns are tissue injuries caused by exposure to high temperature, electric current, radiation, or chemicals. The human body receives energy from a heat source, which sets off a series of physiological events that, in the worst situations, result in irreparable tissue damage. (Zheng et al., 2021).

Globally, burns are a serious public health problem; More than 11 million people require burn-related medical attention each year, causing an estimated 180,000 fatalities every year. In addition, over 96% of fatal fire-related burns occur in nations with low and moderate incomes. (World Health Organization, 2023).

When caring for a patient who has had a burn injury, a nurse should be aware of the changes that take place following the burn, possess the capacity to observe minor changes in the patient's state, and know how to handle patients. For a nurse, caring for a patient who has suffered a burn injury is a very difficult but ultimately gratifying job. A wide range of skills are required, such as thorough clinical evaluation and monitoring, pain control, wound psychosocial support. From admission to the hospital until discharge home and reintegration into the community, a burn nurse provides care for the burn survivor. (El-Saved, et al., 2019).

# **Theoretical definition: Auditing nursing care:**

Auditing nursing care for burn injuries refers to the systematic, criteria-based evaluation of nursing interventions provided to burn patients, assessing adherence to evidence-based protocols, patient safety standards, and multidisciplinary care guidelines. This process aims to identify gaps in care delivery, ensure compliance with clinical benchmarks (e.g., pain management, wound care, infection prevention), and improve outcomes through structured feedback and corrective actions. (Huang, et al., 2021).

# **Operational definition**

Auditing of nurse care of burn patients, it was measured by using a tool for nursing knowledge and practice regarding the care of burn patients

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# Significance of the study

In Assiut university hospital about 193 individuals are burned every year, and the fatality rate for burn sufferers can reach 29 %, while the average for other nations in the region is only 5%. Furthermore, most survivors experience psychological trauma and physiological stress that make it difficult for them to continue with their everyday tasks. (**Kandeel, 2019**). So, the study aimed to assess Auditing Nurses' Knowledge and Practices Concerning the Care of Patients with Burn Injuries.

# The aim of the current study:

to Audit Nurses' Knowledge and Practices Concerning the Care of Patients with Burn Injuries

# **Research question:**

What is the level of compliance regarding Nurses' Knowledge and Practices Concerning the Care of Patients with Burn Injuries?

#### **Subjects and Methods:**

#### Research design:

For this study, a descriptive research design was used.

The study was conducted in the burn unit at Assiut 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)

#### Sample

All available nurses (20) nurses worked at burn unit at Assiut University Hospitals. Male & female and their age between 20 to 50 years, who are willing to participate in the study.

# Tools: one tool used for data collection: Interview nursing questionnaire sheet:

This tool was constructed by the researcher after reviewing the literature to assess the nurse's knowledge and practice about burn injury care. It includes the following parts:

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

# Part (2): Nurses' knowledge about nursing care of burns patient:

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:

The overall knowledge scores were calculated as follows: one grade for each right response, and zero for both wrong and unknown answers. The item scores for each knowledge domain were totaled and transformed into a percentage. The knowledge of the

nurses was considered. unsatisfactory <70% and satisfactory >70%.

Part (3): Nurses observational checklist: The observation checklist was created by the investigator following an assessment of relevant national and international literature. includes 70 observational points to assess the way nurses manage patients who have suffered burn injuries and consist of 3 parts:

**Part I:** Base line assessment of burn patients (20 questions).

Part II: Burn wound management (20 questions).

**Part III:** Fluid and electrolyte management (30 questions).

#### Scoring system for nurse's practices:

The practice's overall scores were calculated as one grade for each right answer and zero for every wrong answer. The item scores were totaled and transformed into a percentage for every practice area. The practices of the nurses were rated as adequate >70% and insufficient <70%.

#### **Ethical consideration**

Permission to carry out the study was received from the ethics committee of the Faculty of Nursing with code number 1120230579 dated 26/02/2023. An official letter was sent from the head of the medical surgical department at faculty of nursing to the Head of Plastic Surgery & Burn Unit stating the goal of the study. The researcher underlined that participation was optional, and the nurses had the freedom to reject to participate in the study and can withdraw at any time. Written/verbal consent was obtained from each nurse before to his/her contribution. There is no risk for researching subjects throughout application of research. The examination of common ethical standards in clinical research was followed.

#### Method

#### Pilot research and tool testing

**Pilot study:** Two nurses (10% of the study population) participated in a pilot study in a chosen environment to assess the tools' applicability and clarity. This pilot investigation indicated that the necessary adjustments were made. The study did not include the nurses who participated in the pilot study.

Content validity: A jury consisting of three medical surgery nursing staff and medical staff experts evaluated the tool's content validity by looking at its comprehensiveness, clarity, applicability, comprehension, and ease of use.

**Reliability:** Reliability of tools was done using appropriate statistical test.

**Technique for data collection:** interview nursing questionnaire was filled out the questionnaire sheet (tool I), which consists of personal data (tool 1 - Part 1), nurses' knowledge (tool 1 - Part 2) and nurses' observational checklist (tool 1 - Part 3.

# The study was carried out in 3 phases Phase (1): Preparatory phase:

In this phase, the researcher assessed nurses' knowledge and practices in this field, leading to the preparation of data collection tools. The researcher collected data for 5 days/week during morning and afternoon shifts.

#### Phase (2): Implementation Phase:

The chief of the burn unit granted formal approval to move on with the proposed study during the changeover phase. The researcher established communication during the first interview by introducing himself, outlining the nature and goal of the study, and asking the nurses to fill out a self-assessment questionnaire to gauge their level of

expertise. After that, the researcher evaluated the nurses' practices by direct clinical observations and an observational checklist.

## Statistical phase

To examine the demographic traits, expertise, and burn injury management practices of nurses, we employed descriptive statistics. We presented means and standard deviations for continuous data and frequencies and percentages for categorical variables. To assess the distribution of nurses' overall knowledge and practice, we also conducted inferential analysis. after the use of several statistical tests, such as parametric (t-test) tests. To investigate the connections between nurses' personal traits and their knowledge, we also employed t-tests.

#### **Results**

Table (1): Personal 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		
Diploma	5	25%
Technical nursing institute	11	55%
Bachelor's degree	4	20%

# Nurses' knowledge:

Table (2): Assessment of Nurses' Knowledge Regarding Nursing Care for Burn Patients During Emergency, Acute, and Rehabilitation phases (n=20)

Items	no.	0/0
Emergency Phase:		
Correct answers	15	71%
In Correct answers	5	29%
Mean total score ± SD	62.85±1.10	
Acute phase:		
Correct answers	14	70%
In Correct answers	6	30%
Mean total score ± SD	67.08±1.68	
Rehabilitation phase		
In Correct answers	13	64%
Correct answers	7	36%
Mean total score ± SD	52.55±0.78	

Table (3): Assessment of Nurses' Total Knowledge Score Regarding Nursing Care for Burn Patients (n=20)

Items	no.	%
Correct answers	14	71%
In Correct answers	6	29%
Mean total score ± SD	68.49±7.91	

Table (4): The Relation Between Nurses' Knowledge and their Personal Characteristics (n=20)

Personal Characteristics	Nurses' Knowledge ± SD
Age	
20 -< 30 yrs	73.56±4.71
30 -< 40 yrs	$60.24 \pm 8.28$
40 -< 50 yrs	69.471±1.68
Gender	
Male	73.14±5.03
Female	65.39±8.91
Experience in the burn department	
<5 yrs	64.33±4.26
5 > 10 yrs	72.60±4.24
≤ 10 yrs	64.22±9.53
Level of Education	
Diploma	51.13±2.89
Technical nursing institute	61.22±1.53
Bachelor's degree	70.89±3.41

# **Nurses' practice:**

Table (5): Nurses' Observational Checklist Procedure for Base Line Assessment, Burn Wound Management and Fluid & Electrolyte Management. (n=20)

Items	no.	%
Base line assessment:		
Done Correct	2	11%
Done In Correct	18	89%
Mean total score ± SD	13.62±4.18	
Burn wound management:	·	
Done Correct	3	13%
Done In Correct	17	87%
Mean total score ± SD	$15.42 \pm 4.25$	
Fluid and electrolyte management:		
Done Correct	2	12%
Done In Correct	18	88%
Mean total score ± SD	13.87±5.18	

Table (6): Assessment of Nurses' Total Practice Scores Regarding Nursing Care for Burn Patients (n=20)

(11 = 0)		
Designation	no.	%
Done Correct	2	11%
Done In Correct	18	89%
Mean total score ± SD	13.49±4.21	

**Personal Characteristics Nurses' Practices** ± SD Age 20 < 30 yrs $13.20\pm6.13$ 30 -< 40 yrs 12.44±0.47 40 -< 50 yrs 13.23±2.56 Gender Male  $13.10\pm2.54$ Female  $11.71\pm1.02$ **Experience in the burn department** 11.52±1.40 <5 yrs 5 > 10 yrs $11.50\pm2.58$ 13.01±1.38 >10 yrs**Level of Education**  $9.16 \pm 0.51$ Diploma

Table (7): The Relation Between Nurses' Practices and their Personal Characteristics (n=20)

**Table (1):** Showed that the nurses are predominantly young, with 60% aged 20 < 30 years and a mean age of  $31\pm7.5$  years. The gender distribution is 60% female and 40% male. Experience in the burn department varies, with 50% were 5 < 10 years and 45% were over 10 years of experience, averaging  $13\pm7.4$  years. Educationally, 55% had mid-level technical nursing education, and 20% were bachelor's qualifications.

**Table (2):** It was explained that the nurses' understanding of nursing care for burn patients reveals different levels of expertise in the emergency, acute, and rehabilitative phases, with the highest correct response rate in the emergency phase (74%) and the lowest in the rehabilitation phase (36%). The mean scores (62.85  $\pm$  1.10 for emergency phase, 67.08  $\pm$  1.68 for acute phase, and 52.55  $\pm$  0.78 for rehabilitation phase), particularly in the rehabilitation phase, where 64% of answers were incorrect.

**Table (3):** The table indicates that 72% of nurses provided correct answers regarding nursing care for burn patients, reflecting a generally good level of knowledge, while 28% of answers were incorrect, suggesting areas for improvement. The mean total score of  $68.49 \pm 7.91$ .

**Table (4):** The data reveals variations in nurses' burn care knowledge: those aged 20 < 30 scored highest  $(73.56 \pm 4.71)$ , followed by 40 < 50  $(69.47 \pm 1.68)$ , while 30 < 40 scored lowest  $(60.24 \pm 8.28)$ ; male nurses  $(73.14 \pm 5.03)$  outperformed females  $(65.39 \pm 8.91)$ ; experience showed peak knowledge at 5-10 years  $(72.60 \pm 4.24)$ , declining with <5 or >10 years (76.4); and bachelor's-degree nurses scored highest  $(70.89 \pm 3.41)$ , surpassing diploma  $(51.13 \pm 2.89)$  and technical institute graduates  $(61.22 \pm 1.53)$ .

**Table (5):** Revealed that critical performance gaps in burn care nursing, with only 11-13% correct practice rates across baseline assessment ( $13.62\pm4.18$ ), wound management ( $15.42\pm4.25$ ), and fluid/electrolyte

management ( $13.87\pm5.18$ ). The consistently high incorrect practice rates (87-89%) and substantial score variability indicate significant deficiencies in clinical execution of essential burn care procedures.

**Table (6):** Demonstrates deficiency in nurses' practice related to nursing care for burn patients, with only 11% performing tasks correctly and 89% demonstrating incorrect practices. The mean total score of  $13.49 \pm 4.21$  is substantially low, reflecting poor practice proficiency.

**Table (7):** The data indicates consistently low burn care practices across all groups, with mean scores ranging from  $9.16 \pm 0.51$  to  $13.23 \pm 2.56$ , suggesting systemic deficiencies in practical training. Age and gender had minimal influence, while education showed a modest impact—bachelor's-degree nurses scored higher ( $12.70 \pm 1.11$ ) than technical institute ( $10.97 \pm 0.85$ ) and diploma holders ( $9.16 \pm 0.51$ ). Experience provided little benefit, as even nurses with >10 years scored only slightly better ( $13.01 \pm 1.38$ ), reinforcing concerns over insufficient hands-on clinical exposure.

## **Discussion**

Depending on the cause and severity of the injury, most people can recover from burns without experiencing major health consequences. However, more severe burns necessitate immediate emergency medical care to prevent complications and death. Burn injury is defined as bodily injury caused by exposure to heat, electricity, or certain radiation and is characterized by varying degrees of skin destruction and hyperemia, frequently with the formation of watery blisters (Hunt, 2017).

Tissue damage from fire, heat, excessive sun or radiation exposure, or contact with chemicals or electricity is known as a burn. Burns can cause lifethreatening situations or minor health issues. The extent of the damage and its location determine how a burn should be treated. Most sunburns and minor burns can be healed at home. Burns that are deep or extensive require medical attention right away. Updating nurses' knowledge and improving practice related to care for patients with burns (World Health Organization, 2023) Some patients require treatment at specialized burn facilities and months of follow-up care (Mayo, 2019).

According to the current study, around two-thirds of the nurses were female and under the age of thirty. Half of the nurses had more than ten years of experience, and more than half had graduated from a technical nursing institute. According to this study, the majority of nurses were female, and over half had a technical nursing institute degree (Melo & Lima, 2017). Ardebili (2017), on the other hand, disagreed with this survey and concluded that the majority of nurses were men and that over half had a bachelor's degree. Based on the experience of researchers, Different worldwide nursing education systems are probably reflected in the gender and educational disparities. Nurses with a bachelor's degree typically adjust to evidence-based practice modifications in burn care more quickly.

Moreover, our study identifies significant relationships between knowledge levels demographic factors, such as younger age (under 30 years) and educational attainment, whereas (Wedad et al., 2018) do not explore such correlations in detail. In present research assessment of educational and demographic factors, such as the role of advanced nursing education and experience in improving knowledge. It does not address operational or physical challenges directly. In contrast, (Ozhathil et al., 2025) focus on the technical and procedural aspects of burn care, particularly the need for innovative approaches to manage complex cases and mitigate risks to healthcare teams, such as ergonomic challenges and safety hazards when handling patients with higher body weight. Their focus on ergonomic challenges resonates with my experience - many skilled nurses leave burn units due to physical strain, suggesting these operational factors deserve equal research attention.

In our study, we focus on the relationship between nurses' demographic characteristics (e.g., education level, experience) and their knowledge improvement. From the Researcher's Perspective, our findings highlight education's importance, but I've witnessed how understaffing often forces nurses to prioritize urgent tasks over knowledge application. Whether (Rockson et al., 2025) focus on the unique challenges faced in a resource-limited setting, such as inadequate infrastructure, staffing shortages, and the emotional burden of treating pediatric patients, providing a

broader view of systemic barriers to effective burn care.

In contrast, Study (**Khalaf et al., 2024**) examined the overall knowledge of nurses working in burn units, particularly in Kirkuk Hospital. It found that three quarters of nurses had moderate knowledge of burn management, while less than one third had poor knowledge. The study concludes that while most nurses have a reasonable understanding of burn management, there is still area for improvement, particularly for those with poor knowledge.

(Rafii et al., 2017) provided support for this study by demonstrating a statistically significant correlation between nurses' knowledge and their experiences in burn units. Additionally, this study supported the findings of Ou et al. (2021), who said that there is no statistically significant correlation between a nurse's age and their level of knowledge. But in my experience, the relationship between age and practical skills aligns with the mentorship dynamics on our unit, where nurses over 40 offer vital advice in challenging instances.

Another point of contrast is the relationship between gender and knowledge. Our study found no statistically significant correlation between nurses' knowledge levels and gender, which we noted as unexpected, while (Wedad et al., 2018) do not address gender as a variable. Lastly, (Wedad et al., 2018) provide a comprehensive domain-specific breakdown of knowledge and practice, detailing percentage increases across various areas, whereas our study offers a broader overview of knowledge improvement without such granular detail.

Another contrast lies in the scope of safety considerations. Our study indirectly addresses patient safety through enhanced knowledge and adherence to best practices, while (Ozhathil et al., 2025) take a dual approach, improving both patient outcomes and team safety through innovative surgical methods. Their study emphasizes the operational benefits of their techniques, such as reducing physical strain on staff and preventing injuries during procedures, which is outside the purview of our research.

The current study emphasis is on the relationship between nurses' practice and several key factors such as level of education, years of experience in the burn unit, and training. Nurses with intermediate training and over 10 years of experience were found to have more developed skills, and those over 40 years old showed greater depth of skills. Interestingly, gender was not significantly related to the level of knowledge or skills. This study highlights that professional training and experience are critical factors in determining nurses' proficiency in burn care.

This study supported the findings of (Abd Elalem, et al., 2018), who showed a statistically significant

relationship between nurses' practices and their ages, burn department experiences, and burn care training. On the other hand, this result contradicted the findings of (**Ghezeljeh et al. 2019**), who found a highly statistically significant relationship between nurses' expertise and their age and gender.

About the relationship between nurses' practice scores and their overall knowledge, the current study found that the two variables were positively correlated. This study supported the findings of (Melo and Lima 2017), who found a favorable relationship between nurses' overall knowledge and practice. (Ardebili et al. 2017), on the other hand, disagreed with this study and found a negative association between nurses' practices and their overall expertise.

From researcher perspective, Our findings confirm that knowledge alone was insufficient—it must be actively translated into practice through structured clinical experience and reflective learning. The strongest correlations emerge when theoretical training is paired with hands-on application in realistic scenarios. This underscores the need for integrated competency programs that simultaneously develop knowledge and practical skills, ensuring burn nurses can effectively adapt protocols to complex patient needs. Moving forward, we must focus not just on what nurses know, but how they apply it under real clinical pressures.

#### Conclusion

This study found that nurses' overall knowledge of nursing care for burn patients was audited at a good level, however their practice of nursing care for burn patients was audited at a low level.

#### Recommendation

- 1. Continuous Education and Training: It is essential to establish ongoing educational programs for nurses, focusing on the latest advancements in burn care. Regular workshops, seminars, and hands-on training sessions should be conducted to ensure that nurses remain updated with current best practices and techniques.
- 2. **Interdisciplinary Collaboration**: Encouraging interdisciplinary collaboration among healthcare professionals is vital for comprehensive burn care. Nurses should work closely with physicians, surgeons, physical therapists, and other allied health professionals to develop and implement individualized care plans for burn patients.

#### References

- Abd Elalem, S., Shehata, O., & Shattla, S. (2018): The effect of self-care nursing intervention model on self-esteem and quality of life among burn patients. Clin Nurs Stud, 6(2), 79-90.
- Amal El., Faten K, & Heba A (2019): Nursing Core Competencies of Staff Nurses Providing Care for Burned Patients. Egyptian Journal of Health Care, 2019 EJHC Vol.10 No.4.
- Ardebili, F., Ghezeljeh, T., Bozorgnejad, M., Zarei, M., Ghorbani, H., & Manafi, F. (2017): Effect of multimedia self-care education on quality of life in burn patients. World journal of plastic surgery, 6(3), 292
- Hao Z, Kankan Wu, Yueyue Z, Lin F, Daiyu Z & Zhengkui L, (2021): Prevalence and associated factors of post-traumatic stress disorder in burned patients and their family members. Volume 47, Issue 5 Pages 987-1224 (August 2021).
- Huang, Z., Forst, L., & Friedman, L. (2021): Burn center referral practice evaluation and treatment outcomes comparison among verified, nonverified burn centers, and nonburn centers: a statewide perspective. Journal of Burn Care & Research, 42(3), 439-447. https://doi.org/10.1093/jbcr/iraa167
- **Hunt. I.** (2017): The effect nursing intervention model on quality of life among burn patients. Clin Nurs Stud, 8(5), 111:118.
- **Kandeel, F. (2019):** A study of Some Medico-Legal Aspects of Fatal Burn Cases Admitted to Menofia University Hospital over Five Years. Ain Shams Journal of Forensic **Medicine** and Clinical Toxicology, 32(1), 57-64.
- Khalaf, H. abdulllah, & Hussein, D. (2024):. Assessment Of Nurses Knowledge Regarding Initial Management Of Burn Victims In Kirkuk Hospitals. Journal of Current Medical Research and Opinion, 7(05), 2624–2631. https://doi.org/10.52845/CMRO/2024/7-5-31
- Lam, N., Huong, H., & Tuan, C.(2018): Nurse knowledge of emergency management for burn and mass burn injuries. Annals of burns and fire disasters, 31(3), 246.
- Mamashli, L., Ardebili, F. Bozorgnejad, M., Ghezeljeh, T., & Manafi, F. (2019): The effect of self-care compact disk-based instruction program on physical performance and quality of life of patients with burn at-dismissal. World journal of plastic surgery, 8(1), 25.
- Mayo, F. (2019): Quality of life in burn patients. World journal of plastic surgery, 6(3), 92.
- Melo, T., & Lima, A. (2017): Cost of nursing most frequent procedures performed on severely burned patients. Revista brasileira de enfermagem, 70(3), 481-488.

- Odondi, Shitsinzi, & Emarah, (2020): Clinical patterns and early outcomes of burn injuries in patients admitted at the Moi Teaching and Referral Hospital in Eldoret, Western Kenya, National library of medicine. Heliyon. 2020 Mar 20;6(3):e03629.doi:
  - 10.1016/j.heliyon.2020.e03629. eCollection 2020 Mar.
- Ou, K., Tzeng, Y., Chiao, H., Chiu, H., Chen, C., Chu, T. Wu, C. (2021): Clinical Performance of Hydrogel-based Dressing in Facial Burn Wounds: A Retrospective Observational Study. Annals of Plastic Surgery, 86(2S), S18-S22.
- Ozhathil, D., Kontos, T., Priban, K., Bailey, E., Halicki, E., & Kahn, S. (2025): Innovative surgical management of large burn wounds in patients with elevated body weight to enhance team safety. Burns Open, 9, 100382.
- Rafii, F., Ghezeljeh, T., Ardebili, F., & Manafi, F. (2017): The effect of massage on anticipatory anxiety and procedural pain in patients with burn injury. World journal of plastic surgery, 6(1), 40.
- Rockson, A., Benjamin-Damons, N., & Pilusa, S. (2025): Healthcare Practitioners' perspectives on paediatric burns management at Korle Bu Teaching Hospital, Ghana. Burns Open, 9, 100387.
- Wedad, Abdelkhalek, S. S., Shereif, W. I., Abdelhamed, M., & Zahra, T. A. A. (2018): E. Effect of Infection Control Guidelines on Improving Nurses' Performance Regarding Patients with Burn Injury.
- World Health Organization. (2023): Burns: Retrieved from Geneva: https://www.who.int/en/news-room/fact-sheets/detail/burns.

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