

# Evaluation of Operation Times in The Burn Center Operating Room and The Importance of Surgical Nursing with Its Versatile Contribution to Treatment; An Observational Retrospective Study

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**ABSTRACT:** Operating room nurses take an active and complementary role in the entrance to the operating room, surgical intervention and post-surgical procedures. In our study, it was aimed to emphasize the importance of burn nurses in the burn operating room and the contribution of burn nurses to the process by evaluating the operation times. The operations performed in the burn operating room between 01.11.2020 and 01.11.2021 were examined. The durations of the procedures performed before, during and after the surgery were evaluated. The mean duration of 432 operations was 66 minutes. It was determined that in 9.72% (N=42) of the operations, debridement was applied to the intubated patients in the hydrotherapy room before the operation, and the debridement time was 16 minutes on average. The average postoperative dressing time of all surgeries was 21 minutes, and it was determined that the operating room nurses played an active role in this process. Since burn center operating room nursing will be studied in more than one area, care and attention will undoubtedly play an active role in infection control and treatment success. In this study, it was observed that the burn operating room nurses contributed positively to the success of the patient's treatment in many areas, from the preparation of the operation in a burn center.

**Keywords :** Burn center, operating room nursing, operating time

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## 1. INTRODUCTION

Purpose: Nurses are healthcare professionals with professional values who provide health care services and receive training [1]. Nursing values are based on certain principles by the American Nurses Association and the International Nurses Association. These; Benefit, sacrifice, equality, freedom, human dignity, justice and truth are gathered under 7 main headings. Benefit has been stated as the most basic value [2,3].

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Operating room nurses take a broad active role and responsibility before, during and after the operation. Operating room nurses are responsible and active duty during the entrance of the patients to the operating room, premedication stage, operation period, awakening of the patient and transfer to the clinic or intensive care unit [4-6].

While providing medical services, success can be achieved with all the components of physical and spiritual activation, teamwork, experience and training. Operating room nursing, as a work area that requires stress and high attention, is a work area where sacrifice is added to all these. Operating room nurses are health workers who are responsible for all areas of the operating room and ensure that the system works well, quickly and safely. Success can be achieved with all of the components of teamwork, experience and being educated. Operating rooms are work areas that include attention, sacrifice and difficult working conditions, and they are places where the fastest results can be obtained in patient treatment and do not accept mistakes. Operating room nurses take responsibility for the patient when the patient is anxious, has no consciousness under anesthesia, and has limited physical functions [6-9].

Operating room nurses play an active role in providing the necessary environment for the operation, preparing the equipment, following the postoperative tools and equipment, cleaning and sterilizing them [10- 12].

Burn center is a multidisciplinary nursing branch that includes operating room nursing, operating room, intensive care, debridement and dressing of burn patients. Burn Center Nursing trainings, which have been intensified in our country in recent years, continue in accordance with this purpose. It is an important factor that the nurses working in the Burn Center operating rooms have both training and experience in burn treatment and operating room nursing. Burn surgeries are specific surgeries. They are areas with their own protocols before entering the operating room. Nursing service plays the main role in this area. Collaboration between burn care team members plays an active role in the treatment of the patient. In this team, coordination is arranged with the burn nurse.

Burn centers are inclusive areas established in tertiary hospitals with polyclinics, clinics, intensive care and operating rooms. Burns operating rooms are special areas, and they are directly connected to the hydrotherapy room, dressing room and intensive care unit in the center. It is one of the rare areas that can start in a sterile state before entering the operating room. Operating room nurses take an active and complementary role in the entrance to the operating room, surgical intervention and post-surgical procedures. Burn surgeries are specific surgeries. They are areas with their own protocols before entering the operating room. Nursing service plays the main role in this area. Collaboration between burn care team members is important in the follow-up and treatment of burn patients. This team coordinates with the burn nurse. The process is long and tedious. In our study, we aimed to emphasize the importance of the contribution of burn operating room nurses to the process by evaluating the operation times in the operating room of the burn center.

## 2. MATERIALS AND METHODS

The operations performed in the burn operating room of Eskişehir City Hospital Burn Center between 01.11.2020 - 2021 were examined. General surgery specialist, 3 burn operating room nurses, anesthesiologist, technician and operating room personnel participated in the operations. The recorded operation times were evaluated retrospectively from the patient file; the durations of the procedures performed before, during and after the surgery were evaluated.

## 3. RESULTS

The mean duration of 432 operations was 66 minutes. In 42 of the operations, it was determined that the patients who were intubated were debrided in the hydrotherapy room before the operation, and the debridement time was 16 minutes on average. The average postoperative dressing time of all surgeries was 21 minutes, and it was determined that the operating room nurses took an active role in all of these processes (table 1).

**Table 1:** Number of transactions and average duration of transactions

	Counts (%)	Operation time (average)
Operation Counts	432 (100%)	66 minutes (42-94)
Debridement in the Hydrotherapy Room	42 (9,72 %)	16 minutes (7-28)
Postoperative Dressing	432 (100%)	21 minutes (18-24)

## 4. DISCUSSION AND CONCLUSION

The good quality of nursing care increases the discipline in the operating room, the success of the patient's surgical intervention and provides the comfort of the employees [6]. Burn operating room nursing is one of the nursing services with high physical and mental fatigue, which requires a lot of self-sacrifice and extensive knowledge in professional nursing.

Areas where nurses play an active role in burns; evaluation of the deterioration of the patient's skin integrity, infection risk and follow-up, fluid volume deficiency, monitoring of physical movements, recognizing the anxiety in the patient, and informing the patient after discharge [13]. The applications in hydrotherapy performed under general anesthesia before the operation should be considered as a guide and facilitator for the surgical intervention to be performed during the operation of the patient. Damaged skin can be evaluated more easily, foreign harmful substances and dead tissues that may cause the patient's infection can be partially removed.

Burn operating room nursing requires absolute multidisciplinary training. Experience, physical and mental strength are important parameters. In a study conducted with operating room nurses, 69.7% of the nurses were women, 48.4% were between the ages of 36-40, 59.3% were at the undergraduate level, 71.3% had 11-15 years of professional experience, and 82% liked the profession. it was observed that he did it voluntarily [1,14]. In burn nursing, education, counseling and informing the patient about the post-treatment period contribute positively to the treatment in the course of the disease so that the patient's physical and mental quality of life is not adversely affected [13,15].

Nursing services progress holistically in the treatment of patients in the burn center. The burn center operating room nurse is an important element of the team that requires active work in the burn intensive care unit, patient room, hydrotherapy area and operating room, located in a wide area, with the knowledge of burn treatment and operating room nursing. Nurses undoubtedly play an active role in infection control and treatment success, with careful attention and care, as more than one field will be studied one after the other. In this respect, studies on regulating working conditions and workload are as valuable as training qualified burn center operating room nurses. This retrospective observational study has shown that burn operating room nurses make a positive contribution to the success of the patient's treatment in many areas, from the operation preparation of the operations in a burn center to the procedures in the postoperative process. In this respect, we think that the arrangements to be made regarding the working conditions and workload are important.

### **Conflict of Interest**

Author has no personal financial or non-financial interests.

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