

A Study to Assess the Practical Challenges Faced by Nursing Staff Towards Care of Critically Ill Obese Patients in the Adult Intensive Care Unit of a Tertiary Care Teaching Hospital of Jaipur, Rajasthan.

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Abstract

Obesity is a rising global health challenge, particularly in critical care settings where nursing staff face unique difficulties in managing critically ill obese patients. This study assesses the practical challenges encountered by nursing staff in the Adult Intensive Care Unit (ICU) of a tertiary care teaching hospital in Jaipur, Rajasthan. Employing a descriptive cross-sectional research design, the study identifies physical, emotional, and logistical challenges, alongside resource inadequacies and training gaps. Results indicate significant physical strain, emotional stress, and resource deficits, emphasizing the need for specialized bariatric equipment, training, and systemic administrative support. The findings inform actionable strategies to enhance patient care quality and improve nurses' well-being.

Keywords: Obesity, Intensive Care Unit, Nursing Challenges, Bariatric Care, Critical Care, Resource Allocation

Introduction

Background

Obesity, characterized by a body mass index (BMI) of ≥ 30 kg/m², has emerged as a global epidemic with profound health implications. Critically ill obese patients present unique challenges due to their complex physiological and anatomical conditions. These challenges include increased risks of respiratory failure, cardiovascular strain, infections, and pressure ulcers. In intensive care units (ICUs), nursing staff play a pivotal role in providing continuous monitoring, life-saving interventions, and emotional support. However, managing obese patients imposes significant physical and emotional demands, often exacerbated by inadequate resources and training.

Need for Study

The growing prevalence of obesity in India has placed immense pressure on healthcare systems, particularly tertiary care facilities. Despite advancements in medical technology, ICUs in many regions, including Jaipur, Rajasthan, lack adequate bariatric-specific resources. The physical strain of handling obese patients, coupled with emotional stress and

logistical barriers, affects the quality of care and nurses' job satisfaction. This study addresses these gaps by systematically assessing the challenges faced by ICU nursing staff in managing critically ill obese patients.

Objectives

1. To identify physical challenges faced by nursing staff in managing critically ill obese patients.
2. To explore emotional and psychological stressors experienced by nurses.
3. To evaluate the availability and adequacy of bariatric equipment.
4. To assess the impact of training on nursing staff's ability to manage obese patients.
5. To provide recommendations for improving care delivery and supporting nursing staff.

Literature Review

Lumley et al. (2015) emphasized that obesity increases care requirements and affects safety, dignity, and quality of care. Inadequate resources and training exacerbate these challenges. Makanjuola (2019) demonstrated that evidence-based educational interventions significantly enhance nurses' knowledge and confidence in bariatric care. Esmael et al. (2021) highlighted that obesity negatively impacts nurses' physical well-being, with 47.5% of participants experiencing moderate to severe disabilities. Similarly, Bagheri et al. (2022) reported that patient safety is threatened by inadequate care due to physical strain and insufficient resources.

Carrara et al. (2016) observed that while mortality rates among obese and non-obese ICU patients did not differ significantly, obese patients required higher nursing workloads. Robstad et al. (2017) identified emotional exhaustion and burnout as prevalent issues among ICU nurses, often driven by inadequate staffing and stigmatization of obese patients. Schetz et al. (2019) further explored the "obesity paradox," where moderate obesity may provide some mortality protection, though severe obesity worsens critical illness morbidity.

Heydari et al. (2024) identified factors influencing care quality, including organizational challenges, nurse competence, and availability of bariatric equipment. Ewens et al. (2022) emphasized the need for specialized training and resource allocation to improve care for Class III obese patients.

Angotti Carrara et al. (2016) conducted a comparative study on the morbidity and mortality of obese and non-obese patients in ICU settings. The study highlighted increased nursing workloads for obese patients and identified nursing workload as a risk factor associated with ICU mortality. Hales et al. (2016) focused on the social stigma surrounding obesity, emphasizing the emotional toll it takes on both patients and healthcare providers, particularly in critical care settings.

Elsayed (2022) explored barriers and job satisfaction among critical care nurses managing bariatric patients, identifying staff shortages and physical strain as primary challenges. Additionally, Baqraf et al. (2020) assessed the impact of inadequate equipment, noting that resource limitations significantly hindered care quality for obese patients.

Souza et al. (2024) reviewed strategies for rehabilitation in critical care, emphasizing the importance of early mobilization and multidisciplinary team approaches for obese patients. The study advocated for physiotherapists' involvement to alleviate nurses' workloads.

Sharma et al. (2023) examined Indian ICUs and reported systemic gaps in resource allocation and training, recommending policy-level changes to address these issues.

Research Methodology

Design and Approach

This study employs a descriptive cross-sectional design using a quantitative approach. Data were collected through structured questionnaires administered to nursing staff in the Adult ICU of NIMS Super Speciality Hospital, Jaipur.

Population and Sampling

The study targeted all nursing staff with at least six months of ICU experience in caring for critically ill obese patients. A purposive sampling technique was employed, resulting in a sample size of 60 participants.

Data Collection Tools

A structured questionnaire assessed the following:

1. Demographic information.
2. Physical challenges (e.g., patient handling difficulties).
3. Emotional and psychological stress.
4. Adequacy of bariatric equipment.
5. Training and resource availability.

Ethical Consideration

Approval was obtained from the institutional ethics committee. Participants provided informed consent, and confidentiality was maintained.

Data Analysis

Ms excel software is used for analysis of data

Findings

Demographic Profile

- Majority of participants (65%) were aged 20–30 years.
- Female nurses comprised 66.67% of the sample.
- Most participants held a Diploma in Nursing (60%) and had 1–3 years of experience (36.67%).

Physical Challenges

- 61.6% of nurses reported experiencing physical strain or injuries due to manual handling of obese patients.
- 66.6% faced handling difficulties “sometimes,” highlighting the physical demands of bariatric care.

Emotional and Psychological Stress

- 58.33% experienced emotional stress “sometimes,” and 68.33% reported burnout.
- Emotional challenges were linked to staffing shortages and resource inadequacies.

Resource and Training Gaps

- 36.67% rated bariatric equipment as “very poor,” while only 6.66% considered it “excellent.”
- 48.33% of participants lacked specific training in bariatric care.

Discussion

The study reveals that ICU nursing staff face substantial physical, emotional, and logistical challenges when managing critically ill obese patients. Physical strain is exacerbated by insufficient bariatric equipment, such as hoists and specialized beds. Emotional stress and burnout are prevalent, driven by high workloads, inadequate staffing, and limited administrative support. These findings align with prior research emphasizing the need for systemic improvements in ICU settings.

Recommendations

1. Infrastructure and Resources:

- Procure and maintain bariatric-specific equipment.
- Allocate funds for ICU infrastructure improvements.

2. Training and Education:

- Conduct regular training programs on bariatric care.
- Incorporate simulation-based learning to enhance practical skills.

3. Support Systems:

- Establish counselling services and peer support groups.
- Promote a positive work environment with recognition programs.

4. Policy Implementation:

- Develop hospital policies mandating adequate staffing ratios and resource allocation.
- Monitor and evaluate the impact of interventions.

Conclusion

This study highlights the multifaceted challenges faced by ICU nursing staff in managing critically ill obese patients. Addressing these challenges requires a comprehensive approach, including investment in resources, targeted training, and systemic administrative support. Implementing these recommendations will not only improve patient care outcomes but also enhance the well-being and job satisfaction of nursing staff. Future research should explore long-term impacts and interventions to further support nurses in bariatric care.

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