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Facilitating and Impeding Factors in Care of Patients with Obesity

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ABSTRACT

Aims Nurses caring for patients with obesity face difficulties in providing services. The difficulty of care causes inaccurate and incomplete care and sometimes not receiving care, which can lead to many complications for the patient. For this purpose, this study was conducted to explain nurses' experiences facilitating and impeding factors in providing care to patients with obesity.
Participants & Methods In this qualitative conventional content analysis study, 20 nurses and 6 patients with obesity in two large hospitals affiliated with Mashhad University of Medical Sciences were interviewed. The participants were selected by purposeful sampling, and the interviews were conducted in-depth and semi-structured. Data analysis was done using content analysis & MAXQDA software.
Findings The facilitating and impeding factors in providing care to patients with obesity in the hospital were divided into four categories; "cooperation versus passivity in the process of self-care," "influential level family involvement at the patient's bedside," "organizational challenges in care," and "nurse competence level in care."
Conclusion Organizational changes such as creating collaborative care in difficult situations, considering the patient classification system for patients with obesity, providing large-sized welfare and treatment equipment, increasing the skill level of nurses, and ways to improve interaction with the patient and his family can be practical solutions in providing care to patients with obesity.

Keywords Obesity; Nursing Caring; Experience; Facilitating Factors; Barriers; Patient Care

CITATION LINKS

[1] Epidemiology of obesity in adults: ... [2] Why obesity, hypertension, diabetes, and ethnicities are common ... [3] Obesity and mortality, length of stay and hospital cost among patients with sepsis: ... [4] Obesity prolongs the hospital stay in patients affected by ... [5] The impact of severe obesity on post-acute rehabilitation ... [6] A systematic review of the literature concerning the relationship ... [7] The impact of severe obesity on hospital ... [8] Nurse's experiences of care challenges of admitted patients with ... [9] Confidently caring for critically ill overweight and ... [10] Obesity: An emerging concern for patients ... [11] Clinical outcomes for the obese hospital inpatient: An ... [12] Patient safety incidents associated with obesity: A review of reports to ... [13] Missed nursing care, non-nursing tasks, staffing adequacy, and job satisfaction ... [14] Causes of missed nursing care in emergency departments in selected ... [15] Are hip fracture patients with high or low body mass index at ... [16] Three approaches to qualitative content ... [17] Essentials of nursing research: Appraising evidence for ... [18] Study of nurses' willingness to patient participation in ... [19] A model of patient participation with chronic disease in ... [20] Challenges in caring for the morbidly obese: Differences by practice ... [21] Challenges that nurses face in caring for morbidly obese ... [22] Risks to healthcare organizations and staff who manage obese (Bariatric) ... [23] Challenges in nursing care of morbidly obese patients: nurses' ... [24] Are nurses willing to provide care to obese ... [25] Nurses' competency in clinical settings and its related ... [26] Kozier and Erb's Fundamentals of ... [27] The bed following syncope in a hospital in Iran: A Case ... [28] Nurses' weight bias in caring for obese patients: Do weight controllability beliefs influence ... [29] Maintaining dignity of patients with morbid obesity in the ... [30] Why publish a medical case ... [31] The obesity problem in the US ... [32] Critical care of the bariatric ...

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Introduction

Today, with the increasing prevalence of obesity worldwide [1] and consequently the likelihood of involvement of multiple body organs and resulting diseases [2], we are faced with an increase in hospitalization rates of these patients [3-7]. As primary caregivers in the healthcare team, nurses encounter unique care conditions due to the patient's excessive weight and adipose tissue. They face challenges in patient monitoring, such as one of the simplest nursing procedures [8], assessing the patient's respiration and observing anatomical landmarks [9], palpating the carotid pulse during cardiopulmonary resuscitation, and so on [10]. In some circumstances, care becomes so challenging that providing certain treatments to the patient, such as intubation, cardiopulmonary resuscitation, or patient relocation, becomes impossible. The consequence of this care situation is patient harm, as some care procedures are not performed correctly [8], resulting in inadequate patient treatment and possible treatment delays. Consequently, this leads to an increase in hospitalization time [11], the occurrence of complications such as infection, ulcer formation, delayed wound healing [10], patient falls due to incorrect handling [9], and even death [12]. For instance, Fosco *et al.* reported an increase in hospitalization time for obese patients compared to non-obese patients (8.7 versus 5.2), admission to the intensive care unit (ICU) (17.2 versus 7.6%), ICU length of stay (116.8 versus 100.4), and higher rates of readmission within 28 days (8.1 versus 5.4) [11]. Another issue is neglected care. Nurses reported that the most frequently omitted actions for all patients were basic procedures such as repositioning, oral care, nutrition, and, more importantly, care actions such as medication administration, registration, and patient training [13].

In the study by Karimi *et al.*, the reasons for missed care in the emergency department were stated in the order of human, material, and communicational domains. In the human resources area, the shortage of human resources and unexpected increase in patient numbers were reported as the primary reasons, with an average of 3.58. In the material resources area, the unavailability of supplies and equipment during patient care was reported with an average of 2.83. In the communication area, lack of support from the treatment team members was reported as the most significant reason for missed care, with an average of 3.04, categorized by area [14]. Pedersen & Kristensen stated that missed care in orthopedic surgery, particularly in patients with obesity, was slightly higher than in patients with normal weight [15]. Therefore, there is a higher expectation of missed care in these patients due to the difficulty of caregiving.

It is important to understand what factors can positively or negatively impact this complex and challenging care. Given the complex nature of caring for these patients and the different clinical environments in Iran regarding facilities and equipment, awareness of these factors can help nurses and healthcare professionals take measures to facilitate care. Therefore, these factors can be identified by accessing nurses' experiences in care through a qualitative study. So, the researchers conducted the present study to elucidate nurses' experiences regarding facilitating and inhibiting factors in providing care for obese patients.

Participants & Methods

This qualitative study used the conventional content analysis method in 2022. Content analysis is an appropriate method for generating knowledge, presenting facts, and providing practical guidance for action by obtaining rich and in-depth information from participants' perspectives without any specific theoretical bias [16].

The samples were selected through purposive sampling among clinical nurses working in the teaching hospitals affiliated with Mashhad University of Medical Sciences who met four criteria; having three years of clinical experience, experience in caring for obese patients, willingness to participate in the study, and ability to express their experiences. Then, the theoretical sampling method was used with maximum diversity (based on employment in different departments and work experiences). In this study, 26 participants were involved, and 27 interviews were conducted, including a supplementary interview with a nurse.

Data was collected through semi-structured interviews. Initially, the interviews started with questions related to general information (age, work experience, etc.). They were followed through questions such as "In your experience of caring for obese patients, what factors would lead to better care for the patient?", "What obstacles do you face in providing care for obese patients?". Similarly, patients were asked, "How was the care provided to you in the hospital?" "What factors affected the quality of your care?". The study adhered to ethical principles, including ensuring the confidentiality of participants' information, obtaining informed consent forms from participants, allowing interview recordings, and ensuring participants' freedom to withdraw from the study at any stage.

All interviews were recorded with participants' permission and immediately transcribed after each session. After analyzing each interview, the next interview was conducted. The location of the interviews for nurses was preferably in the staff break room at their suggested time, and for patients, it was in the patient's room next to the bed in a calm and suitable space. The duration of interviews for nurses ranged from 20 to 62 minutes, and for

patients, it ranged from 24 to 47 minutes. Interviews were stopped when data saturation was reached.

Data analysis was conducted using an inductive approach by Graneheim & Lundman without any preconceived notions by the researcher [16]. MAXQDA 10 software was used for data analysis. Each interview constituted a unit of analysis, and sentences and paragraphs were considered units of meaning, with open codes identified as initial codes. After extracting open codes, primary categories, subcategories, conceptual categories, and main themes were formed.

The trustworthiness of the data throughout the research was assessed using the criteria of Guba & Lincoln, including credibility, dependability, confirmability, and transferability [17]. A combination of methods was used for data collection to enhance credibility. Codes were reviewed with participants to ensure dependability. Reports and notes provided to other team members and reviewers ensured confirmability. A sufficient data description allowed interested parties to transfer the findings, ensuring transferability.

Findings

The study participants included 20 nurses (17 females and 3 males) with a mean age of 38.0±9.0 and work experience of 13.5±3.2 years, and 6 obese patients (5 females and 1 male) with a mean age of 53.2±7.1 and body mass index ranging from 35 to 56. 324 primary codes were extracted from the interviews, which were categorized under 15 sub-categories. These were assigned to four categories: "collaboration vs. passivity in self-care process," "influential level family involvement at the patient's bedside," "organizational challenges in care," and "nurse's competency level in providing care services" (Table 1).

Table 1. Summary of the formation process of subthemes, themes, and overall facilitators and barriers to care for the PWO

Primary Codes (No.)	**Subcategory**	**Category**
83	The patient's cheerful demeanor energized care actions Ineffective patient interaction leads to more challenging care Minimal self-care effort Negligence in self-care leading to complications	Cooperation against passivity in self-care
69	Increased attention to patient companions and complication reduction in patients Increased family involvement in individual patient health management Companion's inability to care for the patient Negligence of accompanying person in patient care	Influential level family involvement at the patient's bedside
94	Managerial attention to more care services for patients with obesity Teamwork development in care Reduced access to medical and comfort facilities for obese patients Lack of properly categorized the obsess patients in the patient classification system	Organizational challenges in care
78	Nurse competency in care Nurse's low capability and care abandonment Seeking assistance in care	Level of nurse competence in care

Collaboration vs. Passivity in Self-Care Process

Patients' cheerful disposition energized the care process, while their ineffective interaction made care more challenging. Patients' minimal effort or negligence in self-care and the occurrence of complications were factors contributing to collaboration versus passivity in the self-care process.

One of the identified factors in this study, based on nurses' experiences, was the level of patient collaboration in the care process and the patient's self-care ability.

The better the patient cooperated, made efforts in self-care, and maintained positive communication with staff in the hospital, the higher the likelihood of receiving better and safer care.

Conversely, if the patient did not cooperate in self-care, showed occasional negligence, or lacked good interaction with staff, their care was compromised, sometimes leading to complications.

Nurses stated that caring for obese patients was complex, challenging, and exhausting, and the lack of patient cooperation made this situation even more complex and challenging, ultimately disrupting the desired care for them.

"An elderly lady patient had a pleasant personality, she would get out of bed and walk a few steps with a walker, we enjoyed working with her. But we had another obese patient who kept ringing the bell all the time. It frustrated our nursing assistants. She wouldn't get out of bed. No one wanted to work with her. She stayed in bed so much that she developed bedsores" (Participant No. 7).

"The patient who had a better temperament, my colleagues endured the difficulty of inserting an IV for him. But the patient who had a bad temperament, my colleague asked me to help him insert the IV. I said if he doesn't scream, I'll come and insert it, but if he wants to scream, I won't come" (Participant No. 7).

Influential level family involvement at the patient's bedside

The subcategories of increased attention accompanied by reduced patient complications, increased family participation in the patient's health management, inability to cooperate in patient care, and evasion in patient care caused the influential level of family involvement at the patient's bedside.

According to the experiences shared by nurses, another influential factor in providing care for obese patients was the level of family participation in caring

for the patient. When the level of family participation in collaboration with the medical team was higher, the provision of better and safer care increased. Conversely, when families were less cooperative, the conditions for ensuring safe care decreased. Nurses reported that some families had lower levels of cooperation in care, due to the patient's excessive weight. In some other cases, families perceived hospitalization as an opportunity for their rest and refrained from collaborating in care to reduce the burden on themselves, essentially evading patient care. However, family cooperation and participation could serve as good support in caring for obese patients and actions such as managing the patient's health. This could help uncover potential risks during the patient's hospitalization, as accompanying the patient, due to spending a lot of time at the patient's bedside and paying attention to the patient, allowed them to notice any minor changes and played an effective role in nurse awareness and reducing complications for the patient.

"... Family members don't cooperate much with obese patients. For example, they don't change the patient's position. They say we can't do it alone. Interestingly, even our assistants go, they still say we can't turn him. I mean, they can't help us or don't want to. Sometimes they can't or think that now they've brought their patient here and left them, they should rest a bit" (Participant No. 1).

"... When the companion said, I swear I feel embarrassed to ask you to come and dress the wound. This kind of support boosts your morale and relieves fatigue. Although I changed the dressing for his patient several times during my shift. But if he says: Don't you see my patient needs dressing! This kind of behavior affects my spirit. It affects my caring attitude towards his patient" (Participant No. 2).

Organizational challenges in providing care services

Under the category of organizational challenges in patient care, the subcategories included managerial attention to the business of obese patients, team development in care, reduced access to medical and welfare facilities for obese patients, and the lack of patient allocation in the patient classification system. The experiences shared by nurses highlighted the influential and significant factors of organizational challenges. Organizational processes such as attention or lack of attention to issues such as considering obese patients as busy patients and reducing the allocation of patients to nurses with obese patients, rotating the provision of care to obese patients among staff during their hospitalization days, adequacy or inadequacy in personnel distribution, attention or lack of attention to incentive policies for nurses providing care, access or lack of access to medical and welfare facilities suitable for large-sized patients in the hospital, and the presence or absence of clinical guidelines for this high-risk group could act as facilitators for providing care and increasing safety or barriers to providing safe care.

"... For obese patients who are busier, colleagues requested that the nurse for these patients be divided among the staff in rotation. This way, no one objected, and pressure was not placed on one person" (Participant No. 7).

"... Bathing this patient was so difficult that I gave incentives to our helpers. Because they bathed him conscientiously, the next time an obese patient came, they didn't shy away from caring for that patient" (Participant No. 14).

"... This patient was very heavy, and the ward colleagues couldn't move him and had to bring him to the ward with the same bed. Due to the lack of space for a capsule on the bed, they placed the oxygen capsule next to him and connected the patient to a ventilator. This was an unprofessional and unsafe practice. If we had a suitable bed for this patient, we wouldn't have transferred the patient like this" (Participant No. 6).

The subcategories leading to nurse competency in care included nurse expertise in simplifying the challenges of difficult care, low nursing capability and care relief, and seeking assistance in care.

Nurse's competency level in providing care services

The subcategories leading to nursing competency in care include simplifying challenging care difficulties, low nursing competency, liberation from care, and seeking help in care. According to nurses' experiences, the level of nursing competency is also one of the most influential factors in providing care to obese patients. In the provision of specialized care services, both low and high skills, the use of one's own and others' experiences, and clinical reasoning and judgment were mentioned as influential factors in maintaining patient safety. The more experienced and skilled nurses with better reasoning and clinical judgment skills can make caring for these patients easier and provide care in a safer and more confident manner. Nurses with high competency can perform specialized procedures such as intubation, venipuncture, bladder catheterization, and others successfully, while lack of readiness or low competency of nurses may lead to barriers in providing these specialized care interventions and may prompt the patient to seek help or abandon care. Nursing incompetence is often attributed to lack of experience and skill, inadequate knowledge, lack of time, slow pace, low willingness to care, stress, and hopelessness. Sometimes a competent nurse may be unable to provide necessary care due to lack of access to medical or welfare equipment. One patient stated in this regard:

"... A nurse inserted a catheter, and I suffered for several days. It burned as long as the catheter was in place because it was not properly inserted. It hadn't happened like this before when I was hospitalized. They should have someone who knows how to do it properly for me" (Participant No. 1).

"...We had a patient whom the resident tried to intubate three times but failed. I managed to intubate him on the first try. The patient was in a bad condition, and his treatment measures were promptly implemented" (Participant No. 20).

Discussion

The results indicate that facilitators and barriers in providing care to obese patients include "collaboration versus passivity in self-care processes," "influential level family involvement at the patient's bedside," "organizational challenges in care," and "nursing competency level in care."

Among the factors influencing the provision of care to obese patients in hospitals, "collaboration versus passivity in self-care processes" and "influential level family involvement at the patient's bedside" are significant. Collaboration between the patient and their family, as well as caregivers, can be a positive and influential aspect of care when they work together as a team. Nurses, in their statements, referred to various situations where ease of care was evident when the patient and their family behaved appropriately and cooperated in care, which is supportive of caregiving. In these situations, nurses utilized supportive behaviors such as compassion, patience, and empathetic communication to understand the patient's distress during care delivery.

Studies also highlight patient participation as an important and influential element in improving the quality of services and patient safety. Increased patient participation facilitates treatment and is associated with fewer adverse events [18]. In care models, patient participation is a fundamental theme in care and treatment, depending on the patient's physical ability, cultural background, patient knowledge, previous experience, and the nature of the illness [19].

In a study by Baker *et al.*, nurses reported that 51% of patient personality influences care in healthcare settings [20]. Lack of patient cooperation may be due to psychosocial aspects of the patient, as some obese patients may be more dependent and have unrealistic expectations. Sometimes, they expect services similar to a 5-star hotel from the hospital, often without motivation and in need of assistance, feeling helpless like patients [21]. Caring for these patients can be more difficult and exhausting for nurses and can affect the provision of safe and comprehensive care. Studies have also reported that non-cooperation from patients can lead to greater harm to nurses [22].

Today, there is a significant emphasis in studies on the importance of active patient and family involvement in caregiving and treatment activities for individuals with chronic illnesses. When family members feel a greater sense of responsibility, they inform nurses and other care team members of changes in their patient's condition by actively establishing communication. Therefore, patient and family involvement in practical activities with nurses can have a positive impact on patient care [19]. In this regard, nurses should focus on improving interaction with the patient and their family and encouraging their cooperation in care through education.

Another mediating factor affecting the care process for hospitalized obese patients is the level of nursing competence in patient care. A nurse with sufficient clinical skills can perform caregiving actions even in challenging situations. However, sometimes competent nurses cannot provide care due to the lack of appropriately sized medical or comfort equipment for the patient. Young and inexperienced nurses, when faced with the inability to perform clinical skills, may resort to strategies such as abandoning care as an incorrect strategy, while requesting assistance from colleagues is considered a desirable strategy.

Foroozesh *et al.* [23] and Ogras *et al.* [24] stated that insufficient skill and inadequate training in caring for obese patients were influential factors leading to improper execution of caregiving techniques, resulting in incomplete and low-quality care for patients.

According to a study in Iran, the level of clinical competence among nurses was reported as 65% high, 32.5% moderate, and 2% low. Nurse competence is a crucial factor in providing safe care, ultimately enhancing quality care. Decreased clinical competence can lead to patient dissatisfaction, errors, endangerment of patient lives and staff health, reduced productivity, and incomplete clinical activities. According to the International Council of Nurses, competence encompasses professional, ethical, and legal performance, patient management, and professional development [25]. These studies corroborate the significant impact of this factor in the present study.

One of the influential mediators affecting the care process for obese patients is organizational challenges in healthcare. Factors such as attention or lack of attention to considering obese patients as high-demand individuals in patient allocation to nurses in the management system, providing facilities and treatment options, and clinical care guidelines for obese patients were identified as facilitators or barriers to providing care and increasing safety.

Studies have highlighted organizational factors impacting care delivery, including understaffing and lack of necessary equipment [26]. Deckly & Hardly surveyed clinical nursing managers and concluded that 85.6% of samples emphasized the presence of care barriers when providing care to obese patients, most of which were organizational. Obstacles such as equipment shortages (75%), understaffing (65.2%), lack of training (57.6%), absence of guidelines (46.2%), lack of clinical support (38.5%), and managerial support (20.5%) were reported. Most

managers (74.4%) stated they did not have guidelines for their performance when caring for obese patients. Additionally, there was a low level of clinical training in mobility and a lack of clear systems for ordering equipment for obese patients. Furthermore, 93.2% of managers desired additional training for obese patients [27]. However, in the study by Tanneberger & Ciupitu-Plath, the majority reported creating fair to good opportunities for education for obese patients [28]. In the present study, one organizational reason was the mismatch between the workload of nurses and the number of nurses available. In Tanneberger & Ciupitu-Plath, nurses rated the proportion of staff to patients and shifts as 40% average and 38% poor. Baker *et al.* also mentioned reduced specialized knowledge and reduced healthcare resources as barriers to care delivery, as reported by nurses [20].

Based on the findings, identifying facilitators and barriers in care delivery can be useful for managers and nurses. It compels them to eliminate obstacles and strengthen facilitators, ultimately enhancing the quality of care for obese hospital patients. In this regard, some measures are recommended, such as enhancing respectful communication between patients and nurses [29], adopting a collaborative team approach to care providing [30], and teamwork development [31]. Additionally, some measures can prevent adverse health outcomes and missed nursing care in these patients and lead to improved safe care for them, these measures include the increasing number of personnel [10, 23] for caring obese patients, focusing on nurse education [31] regarding the specific care needs of obese patients such as hygiene, toileting, nutrition, mobility changes, and safety precautions [10], developing protocols for care providing to obsess patients [29], enhancing nurses' clinical skills [23], procuring appropriate care and comfort equipment proportional to the body dimensions of these patients in hospitals [10, 23] such as beds, air mattresses, commode chairs, shower chairs, patient transfer aids like ceiling lifts and standing lifts, friction-reducing devices, and grab bars [10], establishing a specialized obesity team for consultation on mobility and care issues for these patients [29], and using the ABCD approach for managing critically ill obese patients (airway and respiratory management, reducing back injuries for nurses, increasing awareness of issues such as vascular access problems, pressure ulcer risk, differences in drug dosing and metabolism, etc.) [32].

Limitations of this study included simultaneous sampling and the COVID-19 epidemic, as well as the unwillingness of some nurses or their time constraints for interviews. However, the appropriate participants were selected over time, and the research process continued. Nurses and nursing managers, when they properly understand the factors affecting the provision of care to this group of patients, can develop appropriate and fair care plans for these vulnerable patients. Measures such as encouraging patient and family cooperation, enhancing constructive interaction between nurses and patients, improving clinical nursing skills, promoting teamwork in care, and raising managerial awareness of caring for these patients as challenging and demanding care can be facilitative. Based on the study results, the impact of interventions focused on fostering interaction between patients (patient and accompanying individual) and nurses, as well as the effect of nurse empowerment programs regarding care for obese patients, can be evaluated in future research.

Conclusion

The facilitators and barriers in providing care to obese patients are influenced by collaboration versus passivity in self-care processes, family involvement at the patient's bedside, organizational challenges in care, and nurse competence in care.

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