Perioperative Medicine

RESEARCH

Open Access

Clients' experiences in their first entry to the operating room: a descriptive phenomenological study

Nasim Alipour[1], Amir Jalali[2*], Rostam Jalali[3] and Alireza Khatony[3]

Abstract

Background The unfamiliar atmosphere of the operating room, waiting for anesthesia, and the process of surgery and anesthesia are some of the factors causing fear and anxiety in patients. It leads to physical and psychological pressure on patients. Better understanding of patients' feelings, beliefs, or fears and recording their experiences for optimal care after surgery is helpful. This study explains the experiences of clients in the first entry to the operating room.

Methods This qualitative study was conducted using a descriptive phenomenological method. In this study, 17 patients who had the experience of entering the operating room for the first time as an elective surgery under general anesthesia over the last 6 months were purposefully selected as participants. Then, they underwent an in-depth and semi-structured interview. After conducting the interview, the participants' statements were qualitatively analyzed using the seven-step Colaizzi method. During the steps of this study, Lincoln and Guba's four reliable criteria were observed.

Results By continuous analysis of interviews about patients' experiences, 308 codes, 10 sub-themes, 6 primary themes, and 3 general themes were obtained. Themes included unpleasant emotions experienced, unpleasant atmosphere factors, and the induction of relaxation and hope.

Conclusion Patients' exposure to an unfamiliar place with new and unknown equipment, personnel with different clothing, stress, worry, psychosomatic reactions following stress, and annoying environmental factors can lead to an unpleasant experience for patients, if they are not managed. Also, the effective communication of the surgical team with the patients leads to reducing or removing the stress and complications caused by it.

Keywords Clients' experiences, First entry to the operating room, Qualitative study

Introduction

Health care should be provided in line with the needs of society and respond to these needs. The effectiveness of this care should always be considered (Kwame and Petrucka 2021). In this regard, evaluating patients' experiences in healthcare and treatment systems and providing effective and safe care can help the overall process of care through the development and evaluation of quality indicators (Bastemeijer et al. 2019). Hospitalization is a frightening experience for patients (Haldar et al. 2016). Performing diagnostic and therapeutic procedures is mostly associated with pain and fear for the patient and

*Correspondence:
Amir Jalali
jalali_amir@yahoo.com
[1] Student Research Committee, Kermanshah University of Medical Sciences, Kermanshah, Iran
[2] Substance Abuse Prevention Research Center, Research Institute for Health, Kermanshah University of Medical Sciences, Kermanshah, Iran
[3] Department of Nursing, School of Nursing and Midwifery, Kermanshah University of Medical Sciences, Kermanshah, Iran

his or her family (Gheshlaghi et al. 2021). Moreover, the surgical process is a stressful situation for patients and imposes severe physical and mental pressure on them (Sigdel 2015; Sundqvist et al. 2016). Their reactions vary depending on their understanding, knowledge, and even the type of surgery (Sigdel 2015). In this regard, Sundqvist et al. believe that patients in the operating room are concerned about their privacy and need more information and attention (Sundqvist et al. 2016).

Patients worry about several issues before surgery including their underlying diseases, the success of the operation, the unknown nature of the process (Yilmaz et al. 2020), the possibility of medical errors leading to disability or death, pain, economic loss, anesthesia, or awakening during anesthesia, bleeding, etc. (Aust et al. 2018; Bansal et al. 2016). The operating room environment, waiting for anesthesia, and the start of surgery increase the anxiety level of patients, making them more vulnerable and fragile (Karlsson et al. 2012; Kent et al. 2015). The unfamiliar environment of the operating room, the alarms of the monitoring device, and the noise related to surgical instruments also cause fear and anxiety in patients (Jindal et al. 2010; Jovanovic et al. 2022).

In the study by Yesilyaprak and Ozsaker, 18.1% of patients described the operating room as terrifying, 15.7% described it as technological, 10.3% described it as a slaughterhouse, 4.4% described it as cold, and 58.8% described it as normal traffic in the operating room (Eskici and Özer 2017). Several studies indicate that patients' expectations affect surgical outcomes. The patient's experience of the received care is as crucial as the patient's care (Rozario 2019). Thus, evaluating patients' experience can be a crucial part of monitoring the performance of health services (Çengel and Andsoy 2022). A better understanding of patients' feelings, beliefs, or fears can help healthcare providers manage patients in the postoperative period (Gobbo et al. 2020; Walton et al. 2023). Additionally, recording the experiences of patients who have previously undergone surgery can also contribute to optimal postoperative care (Larsson et al. 2022). One should pay attention to patients' worries, beliefs, and views to understand their experiences (Babaii et al. 2021; Moudatsou et al. 2020). In this regard, qualitative studies provide the conditions to gain insight into people's behaviors, attitudes, motivations, desires, culture, experiences, lifestyle, and even knowledge (Oranga and Matere 2023). In this regard, phenomenological research is mostly used to describe the structures of experiences obtained to achieve a deeper understanding of any phenomenon (Cigdemoglu et al. 2011). Given the significance of the subject and the negative impacts of unpleasant experiences of patients, the present study explained the experiences of patients when they first enter the operating room.

Materials and methods

Design

The present qualitative study was conducted using the descriptive phenomenological method (Speziale et al. 2011) to explain the experiences of patients from their first entry into the operating room from June 2023 to September 2023.

Settings

The research setting of this study was all public and private hospitals in Hamadan City. Five public hospitals and one private hospital are operating in Hamadan City under the supervision of Hamadan University of Medical Sciences. Specialized and super-specialized services are provided in all fields of medicine in these centers. Approximately 40 operating rooms are actively providing services to elective and emergency patients currently in these hospitals. In addition to providing services to the people of Hamadan province, they also cover the patients of other provinces adjunct to Hamadan.

Participants

A purposeful sampling method was used to select the clients (Shaheen and Pradhan 2019). In selecting the participants, maximum variation was observed and the participants were selected from different ages, education levels, and gender groups and at different times from the hospitals of Hamadan City.

The inclusion criteria of the study included having the first experience of entering the operating room over the last 6 months, elective surgery under general anesthesia, consciousness at the time of entering the operating room, not suffering from a chronic or malignant disease, at least 18 years old, and a maximum of 60 years old, willingness to participate in the study, and the ability to speak Persian language (Table 1).

Initially, 23 patients were included in the study. However, 4 patients were excluded because they were unable to effectively share their experiences, and 2 patients withdrew due to a lack of willingness to continue participation. Ultimately, the final group consisted of 17 patients who had undergone elective surgery with general anesthesia for the first time within the last 6 months and were willing to participate in the study.

Data gathering

A semi-structured and in-depth interview was used to gather data. The interviews were conducted by the first author who was fluent in the local language and dialect

Table 1 Characters of participant in the study

No	Age (year)	Gender	Marital statue	Educational level	Job
1	41	Male	Married	Bachelor's degree	Freelance
2	37	Female	Single	Master's degree	Employee
3	20	Male	Single	Bachelor's degree	Student
4	33	Female	Married	High school Diploma	Housewife
5	42	Female	Married	High school Diploma	Housewife
6	50	Female	Married	High school Diploma	Housewife
7	29	Female	Married	Associate degree	Employee
8	41	Female	Married	High school Diploma	Housewife
9	21	Male	Single	High school Diploma	Freelance
10	22	Male	Single	High school Diploma	Freelance
11	38	Male	Married	Middle school	Freelance
12	22	Male	Single	High school Diploma	Freelance
13	44	Female	Married	High school Diploma	Housewife
14	24	Male	Single	Associate degree	Employee
15	21	Female	Single	High school Diploma	Housewife
16	38	Male	Married	Middle school	Farmer
17	28	Male	Single	Bachelor's degree	Employee

and had completed qualitative research courses through various workshops. After selecting the participants, sufficient information was provided to them regarding the nature and objectives of the study. After gaining the participants' trust and ensuring their confidentiality, the interview was conducted face-to-face in a quiet and private environment at a location and time specified by them, specifically in the educational classes of hospitals in Hamadan City. All interviews were conducted individually and in person, with the first author serving as the interviewer while the patients participated. At the beginning of the study, three interviews were conducted as a pilot and the data were evaluated so that the interview process could be modified if necessary. The duration of the interview varied between 50 and 60 min based on the ability of the participants, to achieve the goal of the interview, i.e., to reach the experiences of the clients. All interviews were conducted in one session. Observations were also recorded during the interview and audio recording was done according to the consent of the participants. Also, the interviewees were free to withdraw from the interview whenever they wanted. During this process, guiding questions were used (the validity of these questions was confirmed by content validity and using the opinion of 7 experts and academic staff members of nursing, anesthesia, and various surgical specialties). These questions included the following:

"How was entering the operating room for you?"
"How did you feel in the operating room before the surgery?"
"How do you think sleeping on an operating room bed is for different people?"
"How did you feel while you were in the operating room?"

During the interview, open questions were asked to clarify the details of their answers based on the answers of the participants. If the participants started to speak freely, the researcher would guide the interview toward more clarification of the desired phenomenon with a probing question plan at the right time.

Data analysis

Colizzi's seven-step method was used to analyze the data (Edward and Welch 2011). The data were managed using MAXQDA Software. All stages of data analysis were performed by the second and third authors who had sufficient mastery of qualitative research. In the first stage, all the explanations of the participants were carefully studied. For this purpose, all interviews were recorded and then transcribed on paper. Then, they were read several times to get their meanings. To obtain their connection with the data, the researcher read the explanations several times to gain sufficient mastery in the general understanding of the interview.

The second stage: extraction of important sentences: in this stage, phrases or sentences relating directly to the desired phenomenon were extracted from the interviews. These extracted sentences are called important sentences. In this stage, important words and phrases relating to the patient's experience from the first appearance in the operating room were extracted from the interview texts.

The third stage: formulating the known meanings: in this part, the meaning of each important sentence was extracted and noted in the margin of the interview text. They are known as regularized meanings or "codes".

The fourth stage: data classification: after reviewing the descriptions of the participants, common concepts were placed in specific thematic categories. Accordingly, the primary themes were explained.

The fifth stage: integrating the results in the form of a comprehensive description: in this stage, the primary

themes were grouped and categorized and the primary themes were obtained.

The sixth stage: clear and explicit statement of the basic structure of the study phenomenon: Finally, by formulating a comprehensive description of the study phenomenon, a general picture of the inherent structure of the phenomenon was presented.

The seventh stage: the final validation of the results: The validity of the results was ensured by referring to several participants and asking them about the results (Carel 2010; Husserl 2017).

Rigor

To ensure the accuracy and reliability of qualitative data, Lincoln and Guba's criteria, including credibility, transferability, dependability, and confirmability were used (Kim 2017). Accordingly, the researcher established a long-term relationship with the research setting, leading to the trust of the participants and a better understanding of the research environment. Member check was used to confirm the correctness of data and codes. To increase the reliability of the data, a maximum variation of patients was used in sampling. To confirm the results, the researcher tried to fully explain all the stages of the research, including data collection, analysis, and formation of themes, so that they could be audited. The researcher tried to fully explain the context of the research to check transferability. This helped the reader to comment on the transferability of the results. In addition to the researchers, the extracted codes and classes were examined by several faculty members related to the subject.

Results

In the present study, 17 interviews were conducted with patients who were in the age range of 18 to 60 years and met the inclusion criteria. In this study, 8 female and 9 male clients participated in the interviews. Among them, were single, and 9 were married (Table 1). After continuously analyzing the interviews about patients' experiences, 308 codes, 10 sub-themes, 6 primary themes, and 3 general themes were obtained. The themes included unpleasant feelings experienced, unpleasant environmental factors, and the induction of relaxation and hope (Table 2).

Unpleasant feelings experienced

One of the axial concepts extracted from the data is the unpleasant feelings experienced, which included three subcategories of *new and unfamiliar experiences, worry, and stunned.*

New and unfamiliar experiences

"Patients' perceptions of the operating room and emotions experienced in the operating room" were subthemes of this theme. The patients' first entry to the operating room and observing and experiencing the new space and equipment and personnel with different clothing led to the creation of different perceptions. Some patients considered the operating room similar to their mental images of the operating room. However, for another group, the actual space of the operating room did not match their mental images.

In this regard, the statements of the participants include the following:

> *"We see in the movies that there is a no-entry sign in front of the operating room door, and there is nothing inside the operating room. However, when we go inside and touch the operating room corridors, the operating room tiles and ceramics, the operating room equipment, and the personnel, we realize that our mental images are different from what we observe in the operating room..."(Participant no. 1).*

> *"The operating room space was different from my imagination. I used to think that the operating room had green doors and walls, or something very scary, but it was not like that. The people around me had a significant impact on improving my imagination..."*

Table 2 Themes and sub-themes

Sub-themes	Themes	Main-themes
Patients' perceptions of the operating room	New and unfamiliar experiences	Unpleasant emotions experienced
Emotions experienced in the operating room		
Fear in the operating room	Worry	
Anxiety in the operating room		
Psychosomatic reactions	Stunned	
Physical problems in the operating room	Pain caused by intervention	Unpleasant atmosphere factors
Annoying environmental factors in the operating room	Daunting atmosphere	
Possible problems in the operating room		
Relaxing attitudes of physicians and nurses	Inducing a feeling of relaxation by the personnel	The induction of relaxation and hope
Empathy of nurses		

(Participant no. 15).

"The operating room was like my imagination since I had seen it on TV. It was a big room with a big lamp. I had seen the tools and equipment. It was almost as close to my imagination as it was in the movie…" (Participant no. 4).

A great number of patients have referred to the attractiveness of the space, equipment, and personnel coverage.

One of the participants stated:

"The lights above my head were interesting. Thenurses' clothes and hats, and their sleeves that were rolled up were interesting…" (Participant no. 5).

"Emotions experienced in the operating room" was another sub-theme mentioned by patients. In this regard, the patients also mentioned different feelings, including the feeling of loneliness, especially when in the waiting room, the feeling of relaxation when entering the operating room, communicating with the staff, and conveying negative feelings due to seeing blood and betadine in the operating room.

The participants expressed their feelings as follows:

"All I was thinking was, God, what's the operating room like, how is the environment, does anyone visit me, especially when I was alone in the waiting room…" (Participant no. 13).

"I was more scared in the unit, but when I went to the operating room, I was much relaxed and calmer. I said this situation has to pass whether I want it or not. At least we should relax mentally ourselves since we can get anywhere with stress…" (Participant no. 9).

"When one sees a stretcher, goes to the operating rooms, sees the spilled blood or betadine, a strange shock is created, making the person feel extremely stressed and afraid…" (Participant no. 1).

Worry

This theme includes two sub-themes "fear in the operating room andanxiety in the operating room". The majority of the patients experienced fear and stress more when they were in the waiting room, but their fear and worry decreased after being in the operating room and communicating with the staff.

The factors of fear in the operating room from the patients' viewpoint included: the atmosphere of the operating room, fear of pain, and the surgery outcome. Some patients described the operating room as "terrible".

The participants' statements in this regard:

"When I entered the operating room, I was more afraid. I said "God willing itdoesn't hurt; I wish the surgeon does it slowly…" (Participant no. 10).

"When I passed through the corridors and saw the operating room, my whole body trembled with fear…" (Participant no. 15).

"I was afraid. I was afraid of what would happen? How many hours would it take? I just wanted it to end soon…" (Participant no. 14).

Factors of stress and anxiety in patients caused by anesthesia, surgery and its related consequences, medical errors, family, and the first experience of being in the operating room and facing unknown things, thinking about the steps of the operation, the complications of the surgery, the atmosphere of the operating room, the personnel clothing, and the educational nature of the hospital were mentioned in this regard.

Most cases that the patients mentioned during the interview as the cause of worry and stress were related to anesthesia, surgery, and its related outcomes, family, and facing unknown cases.

The participants expressed their stress and worry as follows:

"I had much stress. I was worried that Iwouldn't regain consciousness. I was stressed about the operation outcome. I was also afraid of anesthesia. Well, I didn't know what was going to happen since I had never had such an experience…" (Participant no. 3).

"I was constantly thinking about my children. God, how long is it going to take? What are my children doing? My husband and my mother were waiting for me outside, they were worried. Will my hand be fine like before? It was very stressful…" (Participant no. 4).

"Well, everyone who enters the operating room has anxiety. When you enter that space, there is something special, the green doors and walls that we have never seen before. One has fear. One hardly regains his consciousness…" (Participant no. 11).

Stunned

Stunned was another theme that included the subtheme of "psychosomaticreactions". The participants talked about their feelings of worry, stress, and fear in the operating room. It caused them to experience physical and psychological symptoms. Hypertension, heart

palpitations, body tremors, etc. were among the symptoms mentioned by the patients.

For example: "I was stressed, my blood pressure was high, my heart was beating fast, I was afraid of the operation…" (Participant no. 5).

Unpleasant atmosphere factors

Unpleasant environmental factors were another theme that was explained by the two themes of "pain caused by intervention and daunting atmosphere".

Pain caused by intervention

Another factor that caused patients to complain was pain caused by the intervention. It includes the sub-theme of "physical problems in the operating room".

Examples of these problems include postoperative pain, postoperative hypertension, and pain caused by tourniquet inflation, etc., which are caused by the surgical procedure.

One of the participants described the pain caused by tourniquet inflation as follows:

> *"That device they attach to one's leg like a belt and then inflate it was very painful…" (Participant no. 12).*

Daunting atmosphere

Patients entering the operating room for the first time described it as a frightening environment. The clients mentioned two cases of "annoying environmental factors in the operating room" and "possible problems in the operating room" in this regard.

The sound of the monitoring device, the sialic light, the surgical bed, the noise of the environment, the inattention of the staff, and the excessive use of mobile phones were among the factors that caused unpleasant and annoying feelings in the patients.

Another factor that caused frightening feelings and apprehension in the patients was the problems that the patients thought might happen to them while in the operating room, such as the possibility of suffocation, death, not regaining consciousness, bleeding, nausea, vomiting, and the possibility of mistakes during the operation due to surgery performed by assistants.

Some of the participants' statements in this regard:

> *"There is more likely that he will not regain his consciousness. I think anyone who comes to the operating room should tell the physician everything he has taken, or he has eaten, because it is dangerous, it can cause suffocation and death…" (Participant no. 11).*

> *"Well, the person who performs my surgery may be a physician's assistant and he may not be able to do his job well, lest my nose become worse than it is and I regret the surgery…" (Participant no. 13).*

Inducing a feeling of relaxation and hope

Another concept inferred in this study is the induction of a feeling of relaxation and hope. It is derived from a subtheme of "Inductiona feeling ofrelaxation by personnel".

Inducing a feeling of relaxation by the personnel

When patients enter and stay in the operating room, they experience a high level of stress and worry due to facing an unfamiliar and new environment, previous perceptions about the operating room, concerns about surgery, and many other cases mentioned. This stress leads to many physical and mental problems in patients. Also, if this stress and anxiety are not managed in the operating room, it will lead to an unpleasant memory and experience of the operating room.

By analyzing the statements of patients, it can be seen that "relaxing attitudes of physician and nurses" and "empathy of nurses" significantly reduce the stress of patients, so all the patients stated that the communication of the personnel with them, explaining the surgical and anesthesia process, their appropriate behavior, inducing relaxation, encouraging the patient, respecting, and consoling them lead to reducing their stress and anxiety.

The participants expressed their opinions in this regard as follows:

> *"I don't think it's bad to talk to someone first. Tell them that this is like other rooms, don't worry, you'llbe fine. Let the stress go.Don't worry about what is going to happen now…" (Participant no. 4).*

> *"It is just an experience. Ihadn't been there. I hadn't seen it. When you enter for the first time, you get an unconscious anxiety that they want to cut your hand open with a surgical blade. They were comforting me, and I calmed down a lot. As soon as the physician asked, "How old you are, where you are, and what do you do", my anxiety decreased…" (Participant no. 11).*

> *"They should talk to the patient and comfort them and explain about the operation. For example, if the patient asks if the operation is dangerous,don't say yes, but comfort the patient… (Participant no. 3).*

> *"I was stressed about my operation, but the nurses were nice and kind, they comforted me. Saying nothing,don't be afraid, and my dear calmed me down. When I lay down on the bed, my stress decreased because they talked to me…" (Participant no. 5).*

Discussion

This qualitative study was conducted to explain the experiences of the clients in the first entry to the operating room using the descriptive phenomenology method. In this study, unpleasant feelings experienced, unpleasant environmental factors, induction of relaxation and hope were the primary experiences of patients when they were in the operating room. The results revealed that one of the things experienced by the patients entering the operating room for the first time is "unpleasant feelings experienced", which include new and unfamiliar experiences, fear and anxiety, and worry. In this regard, the results of other studies confirmed the results of the present study (Yilmaz et al. 2020; Aust et al. 2018). The results of a study by Yilmaz et al. revealed that the participants often describe the operating room as a scary and strange place, and they feel confused, anxious, and worried in the operating room. They attribute anxiety in the operating room to the unknowns and fear of the previous anesthesia (Yilmaz et al. 2020). The results of the study by Aust et al. also indicated the fear, anxiety, and stress of patients regarding the result of surgery and anesthesia (Aust et al. 2018).

In explaining the results, it can be stated that patients' anxiety may be caused by various reasons such as the unknown nature of the surgical procedure in the operating room, the possibility of medical errors leading to disability or death, pain, economic problems, fear of anesthesia problems, and consciousness during anesthesia (Bansal et al. 2016). Thus, identifying the understanding of patients regarding nursing care in the pre-surgery period can help the nurse in proper interaction with the patient and support the patient (Ascari et al. 2013).

Studies have also indicated that the history of surgery in people can affect their experiences and stress, and cause them comfort and relaxation (Pinto et al. 2016; Powell et al. 2016). Thus, the lack of knowledge about the surgical process and the environment of the operating room creates a high level of anxiety and fear in patients (Erbaş et al. 2023). The stress and worry that patients experience in the operating room may lead to physical-psychological problems for them (Gobbo et al. 2020; Larsson et al. 2022). In this regard, Bayrak et al. concluded that preoperative anxiety may cause hemodynamic problems in the intraoperative period, increase the need for painkillers, and reduce the postoperative satisfaction of patients in the postoperative period, and it is better to resolve the problem by consulting with anesthesiologist, surgeon, and nurses (Bayrak et al. 2019). Based on the results of the present study and several other studies, it can be concluded that the presence of patients in the operating room, especially if it is their first experience, exposure to a new and unfamiliar environment and equipment, worry about surgery, anesthesia, medical errors, etc., lead to stress and worry, and they finally lead to unpleasant feelings and experiences in patients. Another experience that the patients of the present study stated is "unpleasant environmental factors". In this regard, they referred to the pain caused by the interventions and the frightening environment. The results of other studies also indicate patients' unpleasant experiences and feelings from the operating room environment (Erbaş et al. 2023) and severe fear and anxiety (Yilmaz et al. 2020) from the operating room environment, so they compared to it a slaughterhouse and morgue (Eskici and Özer 2017; Erbaş et al. 2023).

In explaining the results, it can be stated that the results of the present study and other related studies indicate that the factors that cause patients to describe the operating room environment as unpleasant, frightening, and terrifying (Yilmaz et al. 2020; Eskici and Özer 2017; Erbaş et al. 2023) are caused by the experience of pain and physical problems caused by surgery and lack of timely pain control by personnel, thoughts unrelated to the occurrence of possible events, complications due to surgery and anesthesia (Walton et al. 2023; Jones et al. 2017), unfamiliarity with the environment, features of the operating room, and observing equipment and other patients (Jovanovic et al. 2022; Akutay and Ceyhan 2023; Chen et al. 2023). The results revealed that the induction of relaxation and hope is a primary theme. Analyzing the experiences of patients indicated that the relaxing attitudes of physicians and nurses, and the empathy of nurses significantly reduce the stress and anxiety of patients.

The results of several studies also confirm the effect of proper behavior of the treatment team with the patient in reducing anxiety and inducing hope in patients in the operating room (Çengel and Andsoy 2022; Legg et al. 2015). In this regard, the results of a study by Jones et al. indicated that proper therapeutic communication between the patient and the treatment team caused "good communication" and "transfer of information", and it finally increased the patient's trust in the treatment team (Jones et al. 2017). Therefore, proper counseling, providing information to patients, and having proper interaction with patients can reduce their fear, anxiety, and worry about surgery (Babaii et al. 2021; Sillero and Zabalegui 2018). In explaining the results, it can be stated that establishing effective communication between the personnel and the patients, providing the necessary explanations about the anesthetic and surgical processes, encouraging the patients, and allowing the patients to express their worries can reduce their stress and worries.

Limitations

This study was conducted in hospitals of Hamadan City and the patients' statements and experiences were analyzed based on their perceptions of the operating room and interaction with the treatment team. Thus, one of the limitations of the study is the inability to establish proper communication between the treatment team and the patients, which can affect the patients' experiences in the operating room. Also, the inability to generalize the results is one of the limitations of qualitative studies, like this study.

Conclusion

The results generally revealed that the exposure of patients to an unfamiliar environment with new and unknown equipment, personnel with different clothing, stress, and worry for many reasons (including worry about the outcome of surgery, anesthesia, family, etc.), psychological reactions following stress and annoying environmental factors, if not managed, can lead to negative feelings and unpleasant experience for patients. Also, according to the results, the effective communication of the treatment team with the patients leads to the reduction or elimination of stress and the resulting complications.

Therefore, paying attention to patients' experiences and implementing measures to improve their time in the operating room leads to better quality of care and increased patient satisfaction. Understanding patients' experiences can help bridge the gap between their perspectives and those of healthcare professionals, enhancing care and support from the patient's viewpoint. Additionally, given the limited number of studies on patients' experiences in the operating room, the findings of this study will contribute to future research and the development of healthcare services.

Acknowledgements

We sincerely appreciate the cooperation of the participants, researchers, colleagues, and the Vice Chancellor's Office for Research and Technology at Kermanshah University of Medical Sciences. Their involvement was crucial and important for this study. We would also like to express our gratitude to all the participants, as well as other individuals and organizations, for their contributions to this study.

Authors' contributions

All authors were involved in the conceptualization of the project and reviewed and edited the manuscript. N.A. and A.J. led the study and were responsible for data curation, formal analysis, methodology, data visualization, and drafting the original manuscript. R.J. and A.K. were responsible for data analysis. All authors have reviewed and approved the final manuscript.

Funding

None.

Data availability

No datasets were generated or analysed during the current study.

Declarations

Ethics approval and consent to participate

The present study was approved by the Ethics Committee of Kermanshah University of Medical Sciences (IR.KUMS.REC.1401.557). To conduct this study, after explaining the purpose of the study, informed consent was obtained from all the participants for interviewing and audio recording. The participants were assured that their statements would remain confidential, and except for those who were participating in the study, no one would access them. The names of the participants were also revealed only to the researcher. All data, audio tapes, manuscripts, and notes were marked with a numerical code instead of the participant's name. The participants were assured that they would not be exposed to any physical or mental harm in this study. The stages of this study were conducted by observing the ethical codes of Helsinki.

Consent for publication

Written informed consent was obtained from the individual(s) for the publication of any potentially identifiable images or data included in this study.

Competing interests

The authors declare no competing interests.

Received: 27 December 2023 Accepted: 13 January 2025
Published online: 27 January 2025

References

Akutay S, Ceyhan Ö. The relationship between fear of surgery and affecting factors in surgical patients. Perioperative Medicine (London, England). 2023;12(1):22. https://doi.org/10.1186/s13741-023-00316-0.

Ascari RA, Neiss M, Sartori AA, Martins Da Silva O, Ascari TM, Silva Bernadi Galli K. Perceptions of surgical patient during preoperative period concerning nursing care. J Nurs UFPE on line. 2013;7:1136–44.

Aust H, Eberhart L, Sturm T, Schuster M, Nestoriuc Y, Brehm F, et al. A cross-sectional study on preoperative anxiety in adults. J Psychosom Res. 2018;111:133–9. https://doi.org/10.1016/j.jpsychores.2018.05.012.

Babaii A, Mohammadi E, Sadooghiasl A. The meaning of the empathetic nurse-patient communication: a qualitative study. Journal of Patient Experience. 2021;8:23743735211056430. https://doi.org/10.1177/23743735211056432.

Bansal T, Akanksha J. Preoperative anxiety-an important but neglected issue: A narrative review. Indian Anaesth Forum. 2016;17:37–42. https://doi.org/10.4103/0973-0311.195955.

Bastemeijer CM, Boosman H, van Ewijk H, Verweij LM, Voogt L, Hazelzet JA. Patient experiences: a systematic review of quality improvement interventions in a hospital setting. Patient Related Outcome Measures. 2019;10:157–69. https://doi.org/10.2147/prom.S201737.

Bayrak A, Sagiroglu G, Copuroglu E. Effects of preoperative anxiety on intraoperative hemodynamics and postoperative pain. J Coll Physicians Surg Pak. 2019;29(9):868–73. https://doi.org/10.29271/jcpsp.2019.09.868.

Carel H. Phenomenology and its application in medicine. Theoretical medicine and bioethics. 2011;32(1):33–46. https://doi.org/10.1007/s11017-010-9161-x.

Çengel K, Andsoy II. The effect of an operating room nurse visit on surgical patient anxiety. Journal of Perianesthesia Nursing : Official Journal of the American Society of PeriAnesthesia Nurses. 2022;37(1):80–5. https://doi.org/10.1016/j.jopan.2021.06.004.

Chen R, Chen Y, Yang M, Liu Y, Zhang X, Li J, et al. Patients' caring experience during procedures under regional anesthesia in Mainland China: a phenomenology study. Heliyon. 2023;9(10): e20330. https://doi.org/10.1016/j.heliyon.2023.e20330.

Cigdemoglu C, Arslan HO, Akay H. A phenomenological study of instructors' experiences on an open source learning management system. Procedia - Social and Behavioral Sciences. 2011;28:790–5. https://doi.org/10.1016/j.sbspro.2011.11.144.

Edward K-l, Welch T. The extension of Colaizzi's method of phenomenological enquiry. Contemp Nurse. 2011;39(2):163–71. https://doi.org/10.5172/conu.2011.163.

Erbaş DH, Koç Bİ, Yalın H, Aslan FE. A qualitative study: patients' operating room experiences. Perioper Care Oper Room Manag. 2023;33:100352. https://doi.org/10.1016/j.pcorm.2023.100352.
Eskici V, Özer N. Patients' Opinions of OR Nurses and Environments in the Postoperative Period. J Perianesth Nurs. 2017;32(4):312–9. https://doi.org/10.1016/j.jopan.2016.07.003.
Gheshlaghi PA, Farahani ZB, Anboohi SZ, Nasiri M, Ziapour A, Garosi VH. Effect of family presence on pain and anxiety levels among patients during invasive nursing procedures in an emergency department at a public hospital in Western Iran. African Journal of Emergency Medicine : Revue Africaine De La Medecine D'urgence. 2021;11(1):31–6. https://doi.org/10.1016/j.afjem.2020.11.003.
Gobbo M, Saldaña R, Rodríguez M, Jiménez J, García-Vega MI, de Pedro JM, et al. Patients' experience and needs during perioperative care: a focus group study. Patient Prefer Adherence. 2020;27:14:891–902. https://doi.org/10.2147/PPA.S252670.
Haldar S, Filipkowski A, Mishra SR, Brown CS, Elera RG, Pollack AH, et al. Scared to go to the hospital: inpatient experiences with undesirable events. AMIA Annu Symp Proc. 2016;2016:609–17.
Husserl E. Ideas: General introduction to pure phenomenology; Martino Fine books; USA; 3th edition. 2017;466.
Jindal P, Patil V, Pradhan R, Mahajan HC, Rani A, Pabba UG. Update on preoperative evaluation and optimisation. Indian J Anaesth. 2023;67(1):39–47. https://doi.org/10.4103/ija.ija_1041_22.
Jones C, O'Neill S, McLean K, Wigmore S, Harrison E. Patient experience and overall satisfaction after emergency abdominal surgery. BMC Surgery. 2017;17(1):1–8. https://doi.org/10.1186/s12893-017-0271-5.
Jovanovic K, Kalezic N, Sipetic Grujicic S, Zivaljevic V, Jovanovic M, Savic M, et al. Patients' fears and perceptions associated with anesthesia. Medicina (Kaunas, Lithuania). 2022;58(11). https://doi.org/10.3390/medicina58111577.
Karlsson A-C, Ekebergh M, Mauléon AL, Österberg SA. "Is that my leg?" Patients' experiences of being awake during regional anesthesia and surgery. J Perianesth Nurs. 2012;27(3):155–64. https://doi.org/10.1016/j.jopan.2012.02.005.
Kent C, Posner K, Mashour G, Mincer S, Bruchas R, Harvey A, et al. Patient perspectives on intraoperative awareness with explicit recall: report from a North American anaesthesia awareness registry. Br J Anaesth. 2015;115(suppl_1):i114-21. https://doi.org/10.1093/bja/aev211.
Kim Y-K. Complications associated with orthognathic surgery. J Korean Assoc Oral Maxillofac Surg. 2017;43(1):3–15. https://doi.org/10.5125/jkaoms.2017.43.1.3.
Kwame A, Petrucka PM. A literature-based study of patient-centered care and communication in nurse-patient interactions: barriers, facilitators, and the way forward. BMC Nursing. 2021;20(1):1–10. https://doi.org/10.1186/s12912-021-00684-2.
Larsson F, Strömbäck U, Rysst Gustafsson S, Engström Å. Postoperative recovery: experiences of patients who have undergone orthopedic day surgery. J Perianesth Nurs. 2022;37(4):515–20. https://doi.org/10.1016/j.jopan.2021.10.012.
Legg AM, Andrews SE, Huynh H, Ghane A, Tabuenca A, Sweeny K. Patients' anxiety and hope: predictors and adherence intentions in an acute care context. Health Expectations : an International Journal of Public Participation in Health Care and Health Policy. 2015;18(6):3034–43. https://doi.org/10.1111/hex.12288.
Moudatsou M, Stavropoulou A, Philalithis A, Koukouli S. The role of empathy in health and social care professionals. Healthcare (Basel, Switzerland). 2020;8(1). https://doi.org/10.3390/healthcare8010026.
Oranga J, Matere A. Qualitative Research: Essence, Types and Advantages. Open Access Library Journal. 2023;10:1–9. https://doi.org/10.4236/oalib.1111001.
Pinto A, Faiz O, Davis R, Almoudaris A, Vincent C. Surgical complications and their impact on patients' psychosocial well-being: a systematic review and meta-analysis. BMJ Open. 2016;6(2): e007224. https://doi.org/10.1136/bmjopen-2014-007224.
Powell R, Scott NW, Manyande A, Bruce J, Vögele C, Byrne-Davis LM, et al. Psychological preparation and postoperative outcomes for adults undergoing surgery under general anaesthesia. The Cochrane database of systematic reviews. 2016;2016(5):Cd008646. https://doi.org/10.1002/14651858.CD008646.pub2.
Rozario D. How well do we do what we do, and how do we know it? The importance of patient-reported experience measures in assessing our patients' experience of care. Can J Surg. 2019;62(1):E7. https://doi.org/10.1503/cjs.006618.
Shaheen M, Pradhan S. Sampling in qualitative research. Qualitative techniques for workplace data analysis: IGI Global; 2019. p. 25–51.
Sigdel S. Perioperative anxiety: a short review. Glob Anesth Perioper Med. 2015;1(4):107–8. https://doi.org/10.15761/GAPM.1000126.
Sillero Sillero A, Zabalegui A. Satisfaction of surgical patients with perioperative nursing care in a Spanish tertiary care hospital. SAGE Open Med. 2018;6:2050312118818304. https://doi.org/10.1177/2050312118818304.
Speziale HS, Streubert HJ, Carpenter DR. Qualitative research in nursing: Advancing the humanistic imperative: Lippincott Williams & Wilkins; 2011.
Sundqvist A-S, Holmefur M, Nilsson U, Anderzén-Carlsson A. Perioperative patient advocacy: An integrative review. J Perianesth Nurs. 2016;31(5):422–33. https://doi.org/10.1016/j.jopan.2014.12.001.
Walton LL, Duff E, Arora RC, McMillan DE. Surgery patients' perspectives of their role in postoperative pain: a scoping review. International Journal of Nursing Studies Advances. 2023;5:100124. https://doi.org/10.1016/j.ijnsa.2023.100124.
Yilmaz E, Toğaç HK, Çetinkaya A, Toğaç S. A qualitative study of the operating room experience of patients who underwent surgery under spinal anesthesia: "It was like an adventure." Nurs Health Sci. 2020;22(3):648–57. https://doi.org/10.1111/nhs.12708.

Publisher's Note