Tabari Biomedical Student Research Journal

OPEN ACCESS

ORIGINAL: Examining the Clinical Experiences of Patients in the Preoperative Phase: A Phenomenological Study

Bahare Rozgard MSc student of Operating room, Department of Anesthesiology and Operating room, Medical Student research Committee, School of Allied Medical Sciences, Mazandaran University of Medical Sciences, Sari, Iran

Maryam PouramnYan MSc student of Operating room, Department of Anesthesiology and Operating room, Medical Student research Committee, School of Allied Medical Sciences, Mazandaran University of Medical Sciences, Sari, Iran

Ebrahim Nasiri-Formi Associate professor, PhD, Department of Anesthesiology, Operating room, Associate professor, PhD , Faculty of Allied Medical Sciences, Traditional and Complementary Medicine Research Center, Addiction Institute, Mazandaran University of Medical Sciences, Sari, Iran

ARTICLE INFO

Submitted: 02 Oct 2023
Accepted: 08 Nov 2023
Published: 02 Dec 2023

Keywords:
Patient Experience;
Surgery;
Phenomenology

Correspondence:
Ebrahim Nasiri-Formi, Department of Anesthesiology, Operating room, Associate professor, PhD , Faculty of Allied Medical Sciences, Traditional and Complementary Medicine Research Center, Addiction Institute, Mazandaran University of Medical Sciences, Sari, Iran.
Email: rezanf2002@yahoo.com
ORCID: 0009-0003-3659-3580

Citation:
Rozgard B, PouramnYan M, Nasiri-Formi E. Examining the Clinical Experiences of Patients in the Preoperative Phase: A Pheno-menological Study. Tabari Biomed Stu Res J. 2023;5(4):11-19.

10.22034/5.4.11

ABSTRACT

Introduction: Understanding the clinical experiences, emotions, beliefs, and attitudes of patients before surgery is crucial for improving the quality and effectiveness of medical services, especially considering cultural, perspective, and behavioral differences. This study aims to identify the clinical experiences of patients before surgery.

Material and Methods: A qualitative phenomenological study was conducted with 21 patients undergoing surgery, employing purposive sampling to achieve information saturation. Data were recorded, collected, and registered through semi-structured interviews. After a meticulous examination of the interview text, codes were extracted, and content analysis using a conventional or contractual approach was applied to analyze the data.

Results: From the 21 preoperative interviews, 380 codes, 15 sub-categories, 6 main categories, and an internal category were derived. The main categories identified were "internal concerns of the patient," "stress management," "concerns about the surgical process," "prior surgical experiences," "acceptance of surgery," and "doubts about hospital indicators." The primary internal category identified through data analysis was “operative anxiety.”

Conclusion: While anxiety is a prevalent issue before surgery, contributing factors may vary. This study highlights concerns related to the surgical and anesthesia process, potential equipment weaknesses, and perceptions of caregiver capabilities as significant considerations.

Introduction

The patient experience encompasses a wide range of interactions within the healthcare system, involving physicians, nurses, and hospital staff during the course of treatment. The assessment of the patient experience involves evaluating factors such as responsiveness to individual preferences, needs, and values, including effective communication with healthcare providers, access to information, and timely healthcare delivery (1). Understanding the patient experience is a crucial step towards achieving patient-centered care. The transition from treatment-centered care, characterized by unstructured and disjointed care where patients lack agency and choice, to patient-centered care—a cohesive, coordinated approach with patients actively

participating in their care—requires a comprehensive understanding and evaluation of clinical service experiences, particularly those centered around patients (e.g., surgical procedures, heart disease, and chronic respiratory diseases), leading to improved clinical outcomes (2).

Effective communication between healthcare providers and patients holds the potential to decrease medication errors, enhancing patient safety. Such communication also facilitates better coordination of medical care, ensuring the precise implementation of medication orders and, consequently, improved quality and effectiveness of medical services (3). Surgical procedures, among the most significant events in life, witness approximately 234 million surgeries performed annually worldwide (4). In Iran, around 4,894,000 surgical and invasive medical procedures are conducted annually, a number on the rise due to technological advancements (5, 6).

Given that surgery poses threats to bodily integrity and life, it often induces anxiety in patients and their families (7). Notably, in Iranian hospitals, certain tests and consultations in the preoperative phase are traditionally conducted by surgeons. Meetings with anesthesia specialists are limited to brief interviews lasting no more than 2-3 minutes, often occurring inside the operating room. Consequently, this short interview time not only lacks a thorough examination but also neglects emotional needs, patient experiences, and viewpoints on the surgical procedure (8).

Accurate identification of contributing factors allows for appropriate recommendations to enhance the health and quality of life for patients and their caregivers (9). A search using keywords such as phenomenology, patient experience, and surgery in databases revealed no relevant studies in Mazandaran province. Considering that patient understanding is influenced by their experiences of the disease and its treatment, the absence of qualitative research examining patient experiences before surgery is noteworthy. Existing studies have focused on specific surgeries, and foreign study results may not be generalizable to our country due to socio-cultural differences. Hence, this study aims to identify and determine the experiences of patients before surgery.

Methods

Research Methodology

The researchers, with over 14 years of clinical experience in the operating room, conducted a qualitative study using a phenomenological approach to explore the experiences of patients undergoing surgery. Content analysis, a systematic research method, was utilized to describe and quantify specific phenomena based on verbal, visual, or written data, aiming to derive valid inferences (10).

In this approach, predetermined categories were avoided, allowing categories and their names to emerge organically from the data. The researchers fully immersed themselves in the data to gain new understanding or insight (11). The study employed a qualitative content analysis approach, conducted in a saturation manner, involving 21 patients undergoing surgery at 17 Shahrivar Hospital in Amol, affiliated with Mazandaran University of Medical Sciences.

Inclusion Criteria

Participants were individuals over 18 years of age who signed an informed consent form, understood and spoke Persian, and had suitable psychological and physical conditions. Purposive sampling was used based on the study's objectives and volume.

Data Collection

Data were collected through semi-structured interviews conducted in a designated room after obtaining informed consent. The main interview questions included inquiries about the patients' feelings when surgery was first discussed and their experiences related to the surgery and their relatives. Guiding and exploratory questions were used as needed, and non-verbal and emotional behaviors were recorded for continued communication.

Interview Process

Interviews were recorded using a mobile phone recording application, and word-for-

word transcriptions were performed using a Word file. The interview duration varied based on participants' willingness and conditions until the maximum amount of information was obtained.

Data Analysis

Data analysis followed the method proposed by Grandeheim and Lundman (12). The process involved writing down the entire interview after each session, multiple readings for complete understanding, identifying meaningful units using codes, classifying similar codes into categories, and extracting main categories and themes.

Coding Approach

Open and axial coding were employed. Audio files were transcribed into written texts, and meaningful units were extracted after several readings of expressed experiences. Codes were assigned to each participant, and units with similar meanings were categorized based on their content. Main categories and themes were then derived through reflection on these categories.

Data Validity

To ensure validity, data review occurred immediately after interviews with participants, and codes were analyzed by two authors. The study received approval from the ethics committee of Mazandaran University of Medical Sciences (IR.MAZUMS.REC. 1401.117) in April 2021 and was conducted at Shahrivar Hospital in Amol. Participants with diverse ages, genders, education levels, marital statuses, and types of surgeries were included to achieve maximum data

Results

The findings of this study involved 21 patients, comprising 11 females and 10 males, who were interviewed for a duration ranging from 20 to 70 minutes. The age range of participants was between 24 and 72 years old. ***Table1*** displays the demographic characteristics of the participants.

Table 1. Demographic Characteristics of Participants

Variable		percentage frequency
Sexuality	man	47/6
	Woman	52/4
Age	Less than 40	33/4
	Between 40 and 55	42/8
	More than 55	23/8
Education level	below diploma	47/6
	Diploma	28/6
	University	23/8
Marital status	Single	30/1
	Married	69/9
Type of surgery	Orthopedic	33/4
	Ophthalmology and ENT	19
	General Neurosurgery	19

After data analysis, 380 codes, 15 subcategories, 6 main categories, and one underlying content were identified under the theme of "anticipation of high anxiety for surgery." The main categories of this study were "patient's internal concerns, stress management, concern about the surgical process, previous surgical experiences, acceptance of surgery, and skepticism about hospital indicators," as shown in ***Table2*** and ***Figure1***.

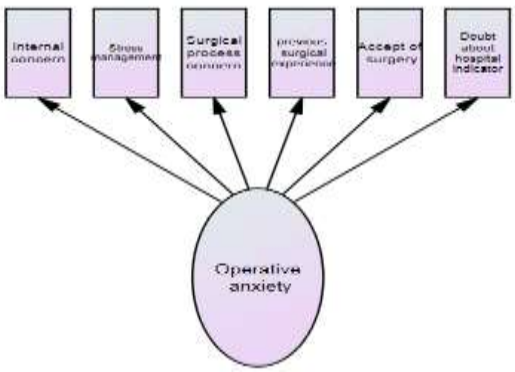

Figure 1. Categories of Operative Anxiety

Table 2. Extracted concepts from qualitative data analysis

Main content	Categories	Sub- categories
Operative Anxiety	Internal concern of the patient	being sensitive to the name of the operating room
		The patient's view of the operating room
		Insurance and treatment
	Stress management	Behavioral changes
		Relaxation techniques
		Stress management
	Concern about the Surgical process	Concern about the prognosis of surgery
		Concern about anesthesia
		Concern about post-operation period
	Previous surgical experience	History of surgery
		The experience of those around the patient
	Acceptance of surgery	Relief from pain and illness
		The disease of divine providence
	Doubt about hospital indicator	Hospital materiel
		Confidence in the doctor's performance

1. Sensitivity Towards the Operating Room Name

1-a) Fear and Anxiety Associated with the Operating Room Name:

- Participant 4 expressed extreme stress from the operating room, stating, "I cannot even express how much stress I have from the operating room. The name itself scares me to death, and my body shakes."
- Participant 6 highlighted the immediate association of the operating room name with dissection and exposed organs, triggering unsettling thoughts.
- Participant 9 shared the terrifying nature of the operating room, emphasizing the cold temperature, hands tied, and a sense of suffocation, even during a simple stitch.

1-b) Patient's Perspective on the Surgical Room Environment:

- Patients form their own apprehensions about the surgical room, contributing to internal anxiety.
- Participant 10 described a fearful imagination of knives and scissors on the operating table, causing stress.
- Participant 5 depicted the rapid transition to unconsciousness on the operating table and waking up in pain afterward.
- Participant 8 conveyed a perception from television, associating the operating room with sterility, cleanliness, and professionalism.

1-c) Insurance and Treatment:

- Health insurance alleviates financial burdens for patients, providing a sense of security.
- Participant 8 acknowledged the significance of health insurance in easing financial pressure related to surgery.

2. Stress Management

2-a) Behavioral Changes:

- Patients experience time dilation while waiting for surgery and engage in activities to alleviate stress.
- Participant 11 expressed impatience and engaged with friends to pass the time, reducing anxiety.
- Participant 13 opted for a walk in the hospital courtyard to clear their mind.

2-b) Relaxation Techniques:

- Prayer, Quran recitation, and sharing positive moments with others serve as stress-relief measures.
- Participant 21 used prayer beads for calming effects, emphasizing the stress-reducing impact of reciting prayers.
- Sharing happy memories and jokes with fellow patients created a joyous atmosphere.

2-c) Stress Management:

- Patients recognize the need to manage stress for a smoother surgical experience.
- Participant 6 emphasized individual responsibility in stress management during surgery.
- Positive interactions with healthcare staff or improved visibility of the operating room are

suggested to reduce stress (Participant 17).

3. Concerns About the Surgical Process

3-a) Concerns About Surgery Notification:

- Patients express worries about post-surgery outcomes and recovery.
- Participant 18 articulated concerns about full recovery and the overall outcome after surgery.
- Specific concerns about the impact of thyroid surgery on the voice were raised (Participant 18).

3-b) Concerns About Anesthesia:

- Fear of not waking up from anesthesia and concerns about its side effects create anxiety.
- Participant 17 expressed fear of not waking up after anesthesia, especially with young children to care for.
- Participant 9 exhibited more stress about anesthesia than the surgery itself, citing a bad smell and prior negative experiences.

3-c) Concerns About the Postoperative Period:

- Patients worry about the recovery period and its impact on daily activities.
- Participant 10 expressed concerns about being separated from a dependent child during the recovery period.
- Employment-related concerns were voiced by Participants 2 and 7.

4. Previous Surgical Experiences

4-a) History of Surgery:

- Familiarity with the operating room environment can influence stress levels.
- Positive and negative experiences from past surgeries impact patients' current perceptions.
- Despite familiarity, some patients still harbor fear and anxiety (Participant 1).

4-b) Experiences of Patients' Acquaintances:

- Patients' perceptions of the operating room are influenced by the experiences of relatives.
- Positive feedback from close ones fosters confidence in the hospital staff and the surgical process.

5. Accepting Surgery

5-a) Freedom from Pain and Disease:

- Despite pre-surgery difficulties, patients express relief and optimism after surgery.
- The belief that surgery is the best solution for their problems prevails among participants.

5-b) Divine Will and Illness:

- Viewing surgery as part of divine will helps participants accept the risks and outcomes.
- Trusting in God's plan, participants surrender themselves to the surgery process.

6. Doubts About Hospital Indicators

6-a) Hospital Equipment:

- Patient concerns include the readiness and quality of surgical equipment.
- Queries about zero-gravity bags and laser machines highlight the importance of advanced equipment.

6-b) Confidence in Physician Performance:

- Choosing a skilled physician is crucial for reducing patient doubts and anxiety.
- Positive communication experiences with healthcare providers contribute to patient confidence.

6-c) Patient Communication and Experiences:

- Patient satisfaction with communication contributes to peace and assurance.
- The exchange of thoughts and concerns with an interviewer was perceived positively by participants.

Discussion

Surgery, acknowledged as a psychological stressor, triggers both physiological and psychological reactions, often inducing anxiety among hospitalized patients at varying levels (13). The internal concerns of patients in this study were shaped by factors such as sensitivity to the operating room name, the patient's perspective on and beliefs about the care team, the operating room environment, financial concerns, and payment issues. Notably, health insurance emerged as a factor contributing to the patient's peace of mind. The study aligns with

Theoretical et al.'s findings, emphasizing preoperative worries, stressful environmental factors, and concerns about hospital costs as significant anxiety-inducing factors (7). However, the present study underscores health insurance as a point of hope, differentiating it from the approach of paying hospital costs in installments as observed in Theoretical et al.'s study.

Post stress management, changes in behavior and stress-coping methods were evident among patients awaiting surgery. Common methods included engaging in conversations with family and friends, relying on faith, and engaging in prayer and Quran reading to alleviate stress and mental anxiety during the waiting period. Similar findings were noted in Trim et al.'s study, where beliefs played a facilitating role in easing the waiting period, and participants preferred spending this time talking with family and friends (14). Effective communication with the care team was also identified as a stress-relieving solution, aligning with Jooybari et al.'s study, which emphasized the comforting role of nurses with technical competence and human interaction (15).

Concerns related to the surgical process encompassed the patient's mental anxiety about the surgery's outcome and consequences, coupled with the belief that surgery would improve their condition. This aligns with Theoretical et al.'s study, emphasizing anxiety about the surgery's outcome and achieving complete recovery (16,7). Information provision by the surgeon about potential complications and consequences emerged as a crucial stress-relieving factor in Theoretical et al.'s study, correlating with the present findings. Additionally, concerns about anesthesia and the postoperative period were common, including fears of not waking up, complications of anesthesia, and the duration of returning to daily activities. Such concerns were also noted in Nasiri et al.'s study (17) and Wengert et al.'s study (18), emphasizing the importance of providing sufficient information to guide patients through the treatment process.

Patients with prior surgical experience may harbor concerns about the postoperative period and returning to daily activities, influenced by their previous opinions about the healthcare team and the quality of postoperative care. Identifying and gathering accurate information about the patient's surgical history is crucial for providing optimal care and alleviating anxiety. Previous surgical experience may not always mitigate anxiety, and individualized education is essential for success, as noted in Shahavi et al.'s study (19,20) and Basampour et al.'s study (21).

Patients may also express concerns about the surgical experiences of their family members, relatives, and acquaintances. These concerns encompass various aspects, including the operating room environment, the operating room's efficacy in patient treatment, and appreciation for hospital staff. Family perceptions significantly impact patients, emphasizing the need for informative measures to alleviate family anxieties, consistent with Shabanizadeh and Nasiri's study (22).

Acceptance of surgery involves relief from pain, illness, and a recognition of divine will. Despite the anxieties associated with surgery, patients ultimately view it as the best solution, expecting relief and positive outcomes. This aligns with Velayati et al.'s study, where patients felt relief from pain and discomfort after surgery (23). The satisfaction and relief experienced by patients often result from surgery being perceived as a more effective solution than medication or the presence of a disease causing disruptions in personal and professional life. Patient satisfaction with surgery is a critical goal of the healthcare system (24).

Accepting surgery as divine will, influenced by factors such as unawareness of the surgical procedure, perceived high risks, and religious beliefs, is prevalent among Muslim participants. Islamic beliefs emphasize the duty of healthcare professionals to provide care and pain relief, framing pain and illness as trials from God. This aligns with Nouri Saeed et al.'s study, which highlighted the higher level of religious outlook among

patients compared to healthy individuals (25,26,27).

Concerns about hospital indicators, such as the availability of operating room equipment and necessary tools, are prevalent among participants. Trust in the physician and timely responsiveness play significant roles in reducing patient stress, in line with Sabahi et al.'s study (28,29). Hospitals, as part of the healthcare system, bear the mission of providing quality care and meeting patient needs and expectations.

Conclusion

In conclusion, candidates for surgery admitted to hospital wards encounter a diverse array of mental concerns alongside preoperative anxiety, with individual perspectives on fellow patients varying. The study's findings, including regional conditions, codes, and extracted main themes, present a valuable framework for discerning the educational requirements of preoperative patients. This framework is especially relevant for caregivers, encompassing personnel such as the circulation person, scrub, surgical and anesthesia teams, as well as surgical ward nurses. It can be effectively utilized in continuous education programs or as part of hospital educational policies.

It is crucial to emphasize the importance of supporting patients and ensuring their physical and mental comfort while addressing their basic needs. Education initiatives should prioritize these needs, implementing measures to prevent psychological issues and alleviate anxiety prior to surgery. Specific considerations in preoperative education encompass the type of surgery, health insurance details, pre- and post-operative care, awareness of the operating room environment tailored to the patient's tolerance level, fostering a serene atmosphere, and providing opportunities for patients to express their concerns before and after surgery. Supportive counseling can also play a vital role in this regard.

While preoperative anxiety is a common issue, it is imperative to recognize that its underlying factors may vary. As revealed in this study, concerns related to the surgical and anesthesia process, potential equipment weaknesses, and caregiver inadequacies are particularly significant. Therefore, a comprehensive and tailored approach to preoperative education and support is essential to address the diverse needs of surgery candidates and enhance their overall well-being throughout the surgical process.

Acknowledgments

We express our gratitude to Mazandaran University of Medical Sciences for their valuable contribution to this study.

Conflicts of interest

The authors declare no conflict of interest.

Authors' contributions

All authors were involved in the conception and design, analysis and interpretation of the data, drafting of the manuscript and revising it critically for intellectual content, approved the final version for submission, and agreed to be accountable for all aspects of the work.

Funding

This research received no external funding.

References

1. Doyle C, Lennox L, Bell D. A systematic review of evidence on the links between patient experience and clinical safety and effectiveness. BMJ open. 2013;3(1): e001570.
2. Luxford K, Safran DG, Delbanco T. Promoting patient-centered care: a qualitative study of facilitators and barriers in healthcare organizations with a reputation for improving the patient experience. Int J Qual Health Care. 2011;23(5):510-5.
3. Anhang Price R, Elliott MN, Zaslavsky AM, Hays RD, Lehrman WG, Rybowski L, et al. Examining the role of patient experience surveys in measuring health care quality. Med Care Res Rev.

2014;71(5):522-54.
4. Azarfarin R, Totonchi Z, Babaei M, Alizadehasl A, Ghadrdoost B, Najafikhah M, et al. Effectiveness of an "information card" in reducing family members' anxiety in the waiting room during heart surgery and angiographic procedures. Iranian Heart Journal. 2018;19(2):65-70.
5. Babashahy S, Rashidian A. Payments of physicians employed in public and private hospitals after modification of surgical and invasive services tariffs. Hakim Research Journal. 2012;15(1):38-43.
6. Sadeghi T, Dehghan Nayeri N, Abbaszadeh A. Experience of Families for Waiting during their Patients' Surgery: A Qualitative Research. Journal of Qualitative Research in Health Sciences. 2020;3(1):27-36.
7. Nazari-Vanani R, Rahimi-Madiseh M, Drees F. Evaluation of preoperative anxiety and stress, and ways to modify it, the patients in Kashani hospital operating room in 2013. Journal of Clinical Nursing and Midwifery. 2014; 2(4):53-60.
8. Darzi A, Mackay S. Assessment of surgical competence. Qual Health Care. 2001;10 Suppl 2(Suppl 2):ii64-9.
9. David Vainberg L, Vardi A, Jacoby R. The Experiences of Parents of Children Undergoing Surgery for Congenital Heart Defects: A Holistic Model of Care. Front Psychol. 2019;10:2666.
10. Bengtsson M. How to plan and perform a qualitative study using content analysis. NursingPlus open. 2016;2:8-14.
11. Elo S, Kyngäs H. The qualitative content analysis process. J Adv Nurs. 2008;62(1):107-15.
12. Graneheim UH, Lundman B. Qualitative content analysis in nursing research: concepts, procedures and measures to achieve trustworthiness. Nurse Educ Today. 2004;24(2):105-12.
13. Matthias AT, Samarasekera DN. Preoperative anxiety in surgical patients-experience of a single unit. Acta Anaesthesiol Taiwan. 2012;50(1):3-6.
14. Trimm DR, Sanford JT. The process of family waiting during surgery. J Fam Nurs. 2010;16(4):435-61.
15. Laila J, Haq SFssf, Fazlullah A. Nursing nurse: experience and perspective of hospitalized patients. journal of iran university of medical Sciences. 2004:49-68.
16. Bailey L. Strategies for decreasing patient anxiety in the perioperative setting. AORN J. 2010;92(4):445-57.
17. Nasiri E, Esmaeili R. Examining the attitude of patients in the pre-anesthesia stage regarding the need for their education. Iranian Journal of Medical Education. 2004;5.
18. Weingart SN, Pagovich O, Sands DZ, Li JM, Aronson MD, Davis RB, et al. What can hospitalized patients tell us about adverse events? Learning from patient-reported incidents. J Gen Intern Med. 2005;20(9):830-6.
19. Abedini N, Pourfathi H, Sakha H, Tawfighi S, Parish M. Prevalence and factors of the preoperative anxiety in the patients and their family in Shohada Hospital, Tabriz. Iran Anesthesiology and Special Care Association Journal. 2019:16-24.
20. Shahavi R, Runak, Rostami, Khosravi, Frangis, Rana'i, et al. Mothers' lived experience of choosing cesarean delivery: a phenomenological study. Iranian Journal of Women, Obstetrics and Infertility. 2014;17(104):1-10.
21. Basampur SS. The effect of pre-operative training on the level of anxiety of patients undergoing open heart surgery. Payesh (Health Monitor). 2004;3(2):139-44.
22. Nasiri E, Shabanzad S. Identification of family expectations of patients undergoing surgery: a qualitative study. Depiction of Health. 2021;12(2):140-8.
23. Wali, Sinai, Kalhor, Maryam M, farmer N, Wali, et al. Surgical experience in men with benign prostatic hyperplasia: a qualitative content analysis. Quarterly journal of nursing, midwifery and paramedicine. 2015;1(1):1-14.
24. Hudak PL, McKeever PD, Wright JG. Understanding the meaning of satisfaction with treatment outcome. Medical care. 2004:718-25.
25. Zahedifar M, Tavakoli BJ. End of life ethical Issues and Islamic views. 2007:5-15.
26. Nourisaeed A, Salari A, Rouhi Balasi L, Moaddab F, Akbari B. Comparison of

religious attitudes in patients with coronary artery disease and healthy people. IJNR . 2015;10(3):18-25.
27. Roehrborn CG, Bartsch G, Kirby R, Andriole G, Boyle P, De La Rosette J, et al. Guidelines for the diagnosis and treatment of benign prostatic hyperplasia: a comparative, international overview. Urology. 2001;58(5): 642-50.
28. Souverein P, Erkens J, de la Rosette J, Leufkens H, Herings R. Drug treatment of benign prostatic hyperplasia and hospital admission for BPH-related surgery. European urology. 2003;43(5):528-34.
29. Bidgoli S, Muhammad, Mousavi, Abbas SG, Cobra, CD, et al. Investigating the quality of hospital services from the perspective of patients hospitalized in Kashan University Hospitals during 2017. Faiz scientific research journal: Kashan University of Medical Sciences. 2011;15(2):146-52