

Reminding the Health Team About What Companions of the Patients Undergoing Gynecological Surgery Should Know: A Qualitative Study

Abstract

Background: Patients' family members often do not receive sufficient information, especially because the reproductive system of women is considered a taboo, providing information becomes problematic. The aim of the current study was to explore the informational-educational needs of companions of the patients who were undergoing gynecological surgery. **Materials and Methods:** This study was conducted using inductive and conventional content analysis method. For data collection, 34 semi-structured in-depth interviews were performed at a gynecology and obstetrics center with purposeful sampling and maximum variation. The participants included patients' companions, nurses, physicians, patients, and service personnel. **Results:** Qualitative content analysis extracted 8 categories, 2 main categories of "Informational needs of companions" and "Educational needs of companions" and a final theme of "the need for knowing." **Conclusions:** According to the results, "the need for knowing" is one of the most important needs of the patients' companions during hospitalization. Knowing companions' needs in the hospital and understanding its deficiencies would assist health care professionals, especially authorities, in providing high-quality care and developing programs to meet the informational needs of patients' companions.

Keywords: *Gynecological surgery procedures, Iran, need, patient care team, patients' companion, qualitative research*

Introduction

Women experience gynecology diseases and surgeries frequently.^[1] Approximately 400,000 colporrhaphy surgeries are carried out in the United States annually; in developing countries, hysterectomy rate has been estimated to be 5.5 per thousand.^[2] Regarding the role of the uterus and ovaries in femininity and community views about the loss of these organs, many gynecological surgeries cause anxiety, fear of losing attractiveness, and feelings of rejection from husband.^[3] On the other hand, the taboo of this area of women's health makes it difficult to receive information about solutions to remedy this problem.^[4] Despite the positive effect of providing perioperative information to the patients undergoing surgery and their companions^[5,6] to deal with anxiety, stress, pain, and complications during hospitalization of the patient^[7,8] and the importance of attending the needs of the patients undergoing gynecological surgery and their companions based on their culture, thoughts, and the degree of confidence,^[9] studies have shown that the information provided by the health team

members would almost be unpleasant for the patients and their families.^[7,10]

Designing new programs and interventions to improve the quality of care and satisfaction of the patients and their families should be based on our knowledge of the perceived experience of patients and their families about health care. Without this information, the system's structure would be based on improving service provision and personnel's good faith, which could be of no or small importance in the view of the patients and their families.^[11] Family members as companions need planned information and knowledge from before until after the surgery.^[5,11,12] However, family members often do not get enough information, and their role in the care of the patients is not regarded.^[13] The number of studies about the needs of family members of patients undergoing gynecological surgery at the time of hospitalization is limited.^[11] Furthermore, it is necessary to study this matter in countries with various religions

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and cultures because surgeries, especially gynecology surgeries, are stressful for patients and their families. Therefore, considering the importance of purposeful need-oriented care, this study was conducted to determine the informational-educational needs of the companions of patients undergoing gynecological surgery.

Materials and Methods

This study was a conventional qualitative content analysis with qualitative approach. Content analysis is a detailed process for systematic data classification and has been used in various nursing studies.^[14] This study was conducted through inductive method at one of the specialized women's centers in Khorramabad, Iran in 2015. The participants were selected through purposeful sampling with maximum diversity in terms of the type of surgery, educational level, marital status, place of residence, and the companion's family relationship with the patients. This study was focused on the experiences of relative companions of patients undergoing gynecological surgery from admission to discharge. Participants included 16 companions, 6 nurses, 4 physicians, 3 patients, and 2 service personnel. Data were collected using 31 interviews and 3 complementary semi-structured in-depth interviews. Interviews were conducted with a mean time of 40 minutes ranging from 20 to 60 minutes. The inclusion criteria were willingness to participate, literacy, having no history of mental disorders, and presence of the companion at the hospital for the patients; for the healthcare team, it was having a working experience of more than 2 years. The time and place of the interview were determined by the participants.

The interviews started with an open and general question "Please talk about your experience about the admission of your patient to the hospital" and then the interviews were proceeded based on participant's responses with subtle questions such as "What do you mean?;" "Please explain with more details;" "Can you provide an example?." The data collection was continued until no new datum was accessed. The interview were recorded by ENERGY MP4 SLIM 3 4GB Multimedia Player (manufactured by energy system). Finally, the obtained information was analyzed using qualitative content analysis and the proposed method of Zang and Wildemuth.^[15] In the first step, to access the deep concepts, audio files of interviews were played several times and using Jet Audio software were transferred into text and then to Word files. In the next step, the unit of analysis included a meaningful sentence, paragraph, or phrase. To achieve the original meaning, sentences were read over and over again. The letters PC was considered for companions, PN for nurses, PD for doctors, PCL for service personnel, and PP for patients. For every comment, interpretive meaning was numerically assigned based on the participant's number. Then, conceptual codes were directly extracted from the original data using inductive

methods. The texts of the interviews were carefully read over and over again, and the final codes associated with each part of the text were recorded next to it. Afterwards, all of the relating interviews and codes were transferred to OneNote environment and conceptual codes were selected. Then, similar concepts were classified, and subsequently, subcategories, categories, and primary categories were formed. The data were read over and over again and two main categories were specified. In the final step, the researcher prepared the study method and the results of the study.

This study employed confirmability, credibility, dependability and transferability to achieve various aspects of rigor.^[16] Confirmability was enhanced through bracketing and maintaining a clear, easy-to-follow audit trail of all the research activities and analysis notes. To strengthen credibility, a peer debriefing and reviewing of the data, codes, subcategories, and categories was conducted by 5 PhD candidates and 3 lecturers of the nursing faculty. The extracted codes and results were retrieved and shared with the participants (5 companions and 2 experienced nurses) to validate the congruence of the codes with their experiences. Dependability was achieved by engaging more than one researcher in data analysis. Recruiting participants with different demographic characteristics promoted transferability of the results.

Ethical considerations

This study was approved by the Ethics Committee of Isfahan University of Medical Sciences by the number of 393767. At the data collection stage, the objectives and methods of the study and the freedom of withdrawal at any stage of the study were explained to the participants. They were assured that confidentiality and anonymity would be preserved in implementation, data analysis, and publishing the results.

Results

The characteristics of participants are shown in Table 1. The participants of the health team had 2–30 years of working experience. The companions had different relationships to the patients. They were companions patients undergoing different surgeries of female genital system. Qualitative content analysis in this study resulted in the discovery and development of 24 subcategories, 8 categories, 2 main categories of "companions' informational needs" and "companions' educational needs," and the theme of "the need for knowing." Table 2 shows the categories and primary categories forming the theme. Each category is explained through participants' quotes:

Informational needs of companions

According to the participants' experiences, it is necessary to regard the informational needs of the companions. This main category included four categories.

Informational needs of companions about physical environment of the hospital

Participants' experience showed that they did not receive enough information about the physical environment of the hospital and this issue caused resentment. In this regard, a participant said: "...When you want your patient to be admitted you should ask about everything. There is no guideline to help you. But this confusion hurts us and sometimes we get involved with personnel" (PC12int1).

Informational needs of companions during the surgery

Participants believed that companions need to be justified about the process and complications of the surgery. In this regard a nurse said: "... The companions need to have comprehensive and complete information about the surgery and its complications ..." (PN41int1). The companions would need to be ensured during the surgery about their

patients' condition in the recovery. In this regard, a participant said: "... If we could see inside the recovery room when our patient gets there, we would be sure that the surgery has ended and our patient is healthy..." (PC16int1).

Needs of the companions during admission and discharge

The companions were not guided at the admission phase and when entering the hospital. One participant said: "From the beginning, there was no one to help us and to admit the patient. There was no one to show us the bathroom and the prayer room ." [PC4int1]. The need to be aware of the discharge process was described by a participant: "The companions only know that the patient would be discharged. They do not know about the process timeline or why this process took so long?" [PCint1].

Informational need of the companions about the medical team at the hospital

During hospitalization, the companions need to obtain and exchange information with nurses and doctors. In this regard, one participant said: "... Doctors would never talk to us. Overall, we are always confused and do not know what would happen later... They do not answer our questions. But they should pay attention to us and answer our questions." [PC9int1]. Quotations showed that patients' companions would need information about different aspects.

Educational needs of companions

The urgent need of the companions was to receive education about what they did not know, including learning how to take care of the disease, especially diseases of the genital tract and awareness of the disease process, and commuting and visiting rules.

The companions' need to receive education about care before and after the surgery and at the time of discharge

According to the participants' experiences, lack of knowledge about the surgery process would cause

Table 1: Demographic characteristics of the participants

Characteristics of participants	Companions	Patients	Health care Team
Age			
20-30	7	1	1
30-40	5	1	4
40-50	3	1	4
50↑	1	0	3
Educational level			
Middle school	4	1	0
Diploma	3	1	2
Associate's degree	2	1	2
Bachelor's degree	5	0	3
Master of science degree	2	0	1
Specialist	0	0	4
Marital Status			
Single	4	0	2
Married	11	3	8
Widowed	1	0	1

Table 2: Process of developing the theme from categories

Category	Main Category	Theme
Informational need of companions about physical environment of the hospital	Informational needs of companions	The Need for knowing
Informational need of companions during the surgery		
Informational need of companions at the time of admission and discharge		
Informational need of companions about treatment team at hospitalization time	Educational needs of companions	
Companions' need to receive education about cares before and after surgery and during hospitalization time		
Educational needs about female genital system surgery		
The need for educating female genital system diseases to promote health culture		
Companions' need for learning the commuting and visiting rules		

stress for the companions. A participant in this regard, said: *“Information about the disease and the surgery should be given to the companions. When enough information is given to them, they are more cooperative and have less stress”* [PD1int1]. One of the companions explained the status after surgery as follows: *“No one came to tell me, not to put pillows under her head, not to give her water. I learned these things through experience”* [PC2int1]. A companion expressed the educational need at the time of discharge as follows: *“I do not know what to do after discharging the patient. They provided us incomplete verbal information at the time of discharge. At home, half of the information would be forgotten. They must give us written guidelines so that we can review them in case we forgot something”* [PC8int1].

Educational needs related to gynecological surgery

Because the surgery would affect women’s fertility and marital life, informing the companions, especially the patient’s husband is considered essential. In this regard, one of the patient’s husbands stated: *“... but taking care of the patient after such operations is mostly relied on the husband, this training should also be provided for the spouse, otherwise, it may cause conflicts and problems in their family life.”* [PC15int1] Another mentioned problem by the companions was that diseases associated with reproductive system are considered taboo. On this issue, a companion said: *“My mother has prolapse of bladder and rectum. Because my mother and other women are very embarrassed, we told my family that she had kidney stone surgery in Khorramabad.”* [PC3int1]

The need for educating about female genital system diseases to promote health culture

The experience of participants indicated difficult acceptance of genital system diseases in the society. In this regard, a participant said: *“It should be cultured in the society, but unfortunately it is not a norm. Gynecological diseases for patients and their companions is shameful. It is better to run programs through media and television for diseases of the genitourinary system so that it will become more acceptable and convenient.”* [PC15int1]

The need to learn about commuting and visiting rules

Due to family ties, commuting of relatives of patients in the hospitals is frequent and would cause crowdedness and problems for the care and treatment of the patients. In this regard, a participant said: *“This is due to the dominant culture of the areas with tribal texture. Emotional dependency is higher among them; sometimes even ten companions are following one patient. These people are the source of infection for the patient.”* [PD3int1]. Based on the experiences of the participants, training should be conducted to improve the quality of care and human relations.

Discussion

According to the results of the current study, it seems that the companions would need proper planning based on the principles of family-oriented care. Experiences of the participants indicated that companions were confused in dealing with the physical environment of the hospital. They considered the need for guiding signs and information acquiring personnel necessary. Studies in line with this study reported the informational need as the most important need of patients undergoing surgery and their families at all the periods of hospitalization.^[17,18] In the study of Abbasi et al. (2008) there were only signposts in 38.3% of the cases from 14 hospitals of Golestan University of Medical Sciences, and there was no service brochure and handbook of the organization in the studied hospitals.^[19] Participants expressed the need of companions for obtaining knowledge regarding the patient’s condition in the operating room. The studied medical center has no waiting room and companions should stand in a place away from the operating room without any communication device to the operating room. Similar studies showed that family members considered it necessary to receive adequate information about the patient’s condition, treatment plan, surgery, and delays in the surgery.^[11,18,20,22]

Being ensured of the patient’s condition in recovery has a positive effect on reducing the stress and anxiety of companions.^[18,21,22] Therefore, the effectiveness and necessity of meeting the patient in the recovery room from the perspective of patients, patients’ relatives, and health care team would indicate the importance and urgency of this need of companions.^[23] Participants indicated the need for accessing reliable sources of information and presence of an informed nurse. The positive effect of a liaison nurse in studies related to the operating room^[24-26] was reported. The results showed that the companions need knowledge and awareness about the process of admission and discharge. Other studies reported that receiving information about the admission process, knowledge of the required premises and documents, information about informed consent, and the need for a guide at the time of admission of patients were the basic needs of patients’ families. Furthermore, the families believed that the discharge process had to be explained to them.^[11,25] Clients’ need to find their intended wards in some cases could cause dysfunction of other units such as reception.^[27]

Companions needed information and education about the basic cares during their patient’s hospitalization. Companions could be helpful for some basic cares during hospitalization such as moving and feeding the patient. The need for training regarding postoperative care and information about the patient’s condition were reported in previous studies.^[25,28] The results of participants’ experiences indicated the need for educating about the care programs before, during, and after the surgery.

Educating before surgery has a significant impact on reducing hospitalization time, postoperative pain, and reduction in request for analgesia. In addition, the companions have expressed the need for knowing the reason to stop oral feeding from the night before the surgery and the method of implementing this order also and the type and effects of anesthesia as educational needs.^[5,25] Hence, nurses usually educate most patients, however, approximately half of the family members of the patients undergoing surgery do not receive enough information.^[29] Because the patient's companion is an important element for improving and maintaining the health of the patients after discharge, they need education at the time of discharge regarding patient care, medication, diet, and orders for future references; if patients' family members are notified, their participation in the care of patients at home would be increased.^[25,28] They would also have better compatibility with the situation, would be more satisfied with the care, and would experience less anxiety.^[26,30] Based on the experiences of the participants, education at the time of discharge were short and verbal. Other studies also reported that educational information has been provided through few short explanations.^[5,29] The importance of educating in the field of gynecological diseases was also one of companions' needs. Based on the behavioral models and human decision-making, knowledge has a critical role in shaping behavior and plays an important role in the ability to form personal protective behaviors. In fact, education services in the area of sexual health has not been provided based on security points at government centers to give people the necessary training.^[31,32] The knowledge of students who are educated and considered the intellectual class of the community on the issues related to fertility and its domains is low.^[4] The educational content of premarriage counseling is not complete and it is necessary to develop more comprehensive information in this area.^[33] How do we expect women with higher age, weaker culture, and lower educational level in the Iranian society to have awareness in the field of gynecology?

The results of the current study showed that people were embarrassed of expressing issues and problems related to gynecology and considered them as a problem in health culture. The taboo of reproductive health issues were the findings of other studies too.^[4] Studies pointed out the role of parents and media in promoting adolescent reproductive health status and the need for planning to upgrade youth-friendly services in resolving the taboo of sexual and reproductive health.^[34,35] Participants considered the need to educate companions in regards to observing the amount of commuting and reducing the number of visits for observing the principles of health care and preserving patients' health. Azizifar *et al.* reported women's ward as one of the most polluted hospital wards because of overcrowding, bustle, and persons' commuting.^[36]

Considering the governing rules in Islamic societies, in obstetrics and gynecology hospitals, all of the health team and patients' companions are women and men are not allowed to enter the ward. Therefore the results only show the needs of female companions.

Conclusion

The study found that the companions during the time of hospitalization of their patients have little information regarding the physical environment and incidents and responsibilities of treatment and care. Hence, it is necessary to provide enough information about the physical environment and medical and treatment processes to them. Obtaining knowledge about their patient and information about the physical environment to facilitate administration and admission and discharge issues and awareness of the policies governing the treatment center will cause resolution of concerns and mental stress. This study as the first and most important step in the planning can be useful in providing health services and planning and satisfying the informational and educational needs of the companions, particularly in countries and regions with a family-oriented culture.

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Conflicts of interest

There are no conflicts of interest.

References

1. Martin DC. Hysterectomy for treatment of pain associated with endometriosis. *J Minim Invasive Gynecol* 2006;13:566-72.
2. Gurtani FM, Fadaei B, Akbari M. Emergency peripartum hysterectomy in Isfahan; maternal mortality and morbidity rates among the women who underwent peripartum hysterectomy. *Adv Biomed Res* 2013;2:20.
3. Ghanbari Z, Parvanehsayar D. Sexual satisfaction in total and subtotal abdominal hysterectomy: A randomized clinical trial. *Teh Univ Med J* 2007;65:31-5.
4. Yari F, Moghadam ZB, Parvizi S, Nayeri ND, Rezaei E. Sexual and Reproductive Health Problems of Female University Students in Iran: A Qualitative Study. *Glob J Health Sci* 2015;7:278-85.
5. Kruzik N. Benefits of preoperative education for adult elective surgery patients. *AORN J* 2009;90:381-7.
6. Pinar G, Kurt A, Gungor T. The efficacy of preoperative instruction in reducing anxiety following gynecological surgery: A case control study. *World J Surg Oncol* 2011;9:38-46.
7. Caress AL, Luker KA, Chalmers KI, Salmon MP. A review of the information and support needs of family carers of patients with chronic obstructive pulmonary disease. *J Clin Nurs* 2009;18:479-91.

8. Karabulut N, Cetinkaya F. The impact on the level of anxiety and pain of the training before operation given to adult patients. *Surg Sci* 2011;2:303-11.
9. Kathryn L. Sexuality. In: Patricia A Potter; Anne Griffin Perry; Patricia Stockert; Amy Hall, editor. *Fundamental of Nursing*. 9th ed. USA: Mosby; 2016. p. 718-28.
10. Alhusban M, Abualrup R. Patient satisfaction with nursing care in Jordan. *J Nurs Manag* 2009;17:749-58.
11. Davis Y, Perham M, Hurd AM, Jagersky R, Gorman WJ, Lynch-Carlson D, *et al.* Patient and family member needs during the perioperative period. *J Perianesth Nurs* 2014;29:119-28.
12. dos Santos TD, de Oliveira Aquino AC, de Pinho Chibante CL, do Espírito Santo FH. The nursing team and the family member accompanying adult patients in the hospital context. An exploratory study. *Invest Educ Enferm* 2013;31:218-25.
13. Paavilainen E, Salminen-Tuomaala M, Kurikka S, Paussu P. Experiences of counselling in the emergency department during the waiting period: Importance of family participation. *J Clin Nurs* 2009;18:2217-24.
14. Graneheim U, Lundman B. Qualitative content analysis in nursing research: Concepts, procedures and measures to achieve trustworthiness. *Nurse Educ Today* 2004;24:105-12.
15. Zhang Y, Wildemuth BM. Qualitative Analysis of Content, Applications of Social Research Methods to Questions in Information and Library, 2009;308:308-19. Available from: http://www.ischool.utexas.edu/yanz/content_analysis.pdf. [Last accessed on 2011 Apr 6].
16. Streubert HJ, Carpenter DR. *Qualitative Research in Nursing: Advancing the humanistic imperative*. Lippincott William and Wilkins; 2011. pp. 48-9.
17. Khalaila R. Patients' family satisfaction with needs met at the medical intensive care unit. *J Adv Nurs* 2013;69:1172-82.
18. Carter AJ, Deselms J, Ruyle S, Morrissey-Lucas M, Kollar S, Cannon S, *et al.* Postanesthesia care unit visitation decreases family member anxiety. *J Perianesth Nurs* 2012;27:3-9.
19. Abasi.A, Yazdani.N, Bahadori.MK. A report of respecting patients program in university of medical sciences. *Iran J Med Ethics History Med* 2008;1:63-74.
20. McCarthy B. Family members of patients with cancer: What they know, how they know and what they want to know. *Eur J Oncol Nurs* 2011;15:428-41.
21. Jones LA. An Investigation of Family Member Comfort Related to Visitation in the Post Anesthesia Care Unit. American: Gardner-Webb University; 2013:24-31.
22. Patelarou A, Melidoniotis E, Sgouraki M, Karatzi M, Souvatzis X. The Effect of Visiting Surgical Patients in the Postanesthesia Care Unit on Family Members' Anxiety: A Prospective Quasi-Experimental Study. *J Perianesth Nurs* 2014;29:221-9.
23. DeWitt L, Albert NM. Preferences for Visitation in the PACU. *J Perianesth Nurs* 2010;25:296-301.
24. Lerman Y, Kara I, Porat N. Nurse liaison: The bridge between the perioperative department and patient companions. *AORN J* 2011;94:385-92.
25. Sayin Y, Aksoy G. The nurse's role in providing information to surgical patients and family members in Turkey: A descriptive study. *AORN J* 2012;95:772-87.
26. Stefan KA. The nurse liaison in perioperative services: A family-centered approach. *AORN J* 2010;92:150-7.
27. Zarei MAZ, Asqari R. Investigating the Client Tribute Plan in Hospitals Related to Yazd Shahid Sadughi University of Medical Sciences. *Sunrise Health*. 2008;7:43-51.
28. Majasaari H, Sarajärvi A, Koskinen H, Autere S, Paavilainen E. Patients' perceptions of emotional support and information provided to family members. *AORN J* 2005;81:1030-9.
29. Andrews SM. Patient Family-Centered Care in the Ambulatory Surgery Setting. *J Perianesth Nurs* 2009;24:244-6.
30. Muldoon M, Cheng D, Vish N, Dejong S, Adams J. Implementation of an informational card to reduce family members' anxiety. *AORN J* 2011;94:246-53.
31. Rahimi-Naghani S, Merghati-Khoei E, Shahbazi M, Khalajabadi Farahani F, Motamedi M, Salehi M, *et al.* Sexual and Reproductive Health Knowledge Among Men and Women Aged 15 to 49 Years in Metropolitan Tehran. *J Sex Res* 2016:1-12.
32. Jafarzadeh-Kenarsari F, Ghahiri A, Zargham-Boroujeni A, Habibi M. Exploration of the counseling needs of infertile couples: A qualitative study. *Iran J Nurs Midwifery Res* 2015;20:552.
33. Pourmarzi D, Rimaz S, Khoii EM, Razi M, Shokoohi M. Comparative survey of youth's sexual and reproductive health educational needs in two stages before and after marriage. *Razi J Med Sci* 2013;20:30-9.
34. Manu AA, Mba CJ, Asare GQ, Odoi-Agyarko K, Asante RKO. Parent-child communication about sexual and reproductive health: Evidence from the Brong Ahafo region, Ghana. *Reprod Health* 2015;12:16.
35. Hosseini ZS, Simbar M, Ramezankhani A. Educational needs and how to provide educational services related to the health of adolescent girls: A qualitative study. *J Mazandaran Univ Med Sci* 2011;20:82-5.
36. Azizifar M, Jabbari H, Naddafi K, Nabizadeh R, Tabaraie Y, Solgi A. Qualitative and quantitative evaluation of airborne fungi different wards KAMKAR Qom. *J Qom Univ Med Sci* 2010;3:25-39.