Exploring expectations and needs of patients undergoing angioplasty

CrossMark

Sanaz Aazami, PhD, Molouk Jaafarpour, MCS, and Mosayeb Mozafari, PhD

This study aimed to explore needs and expectations of Iranian patients who undergone angioplasty procedures. Coronary artery disease is the leading cause of morbidity and mortality worldwide. Recently, Percutaneous Coronary Intervention (PCI) has frequently been used as a substitute for coronary artery surgery, representing a less invasive and more cost-effective procedure. However, little information is known about the experiences and needs of patients undergone PCI. This research involved a qualitative study that employed the content analysis method. A semi-structured in-depth interview protocol was carried out using a face-to-face approach. Researchers reached to theoretical saturation by interviewing 18 patients who undergone angioplasty. Constant comparison analysis was used with simultaneous data collection. Three themes emerged from this study including Uncertainty, Procedural knowledge and Social Support. The findings from this study enhance our understanding on expectations and needs of patients who undergone PCI. These findings help nurses and health-care providers to develop and provide pre and post-procedural care according to each individual needs and experiences. This Iranian study not only contributes to other international study but also, emphasizes on the need for pre-procedural awareness and post-procedural support of patients who undergone PCI. (J Vasc Nurs 2016;34:93-99)

Coronary artery disease is the leading cause of morbidity and mortality worldwide. Percutaneous coronary intervention (PCI) has been recently used as a substitute for coronary artery surgery which is known to represent a less invasive treatment and more cost-effective procedure.[1-4] Coronary artery disease represents the leading cause of death in Iran, accounting for 24.7% of the annual deaths, around 100 deaths of 1,000 people.[5] According to the report from Shahid Rajaie Cardiovascular, Medical and Research Center,[6] angioplasty procedure begin on 1991 in Iran. The frequency of PCI in Iran has been reported as 1,260 per month.[7] It has been reported that 14,100 PCI procedures was performed in 50 hospitals of Iran during year 2003.[8] Considering this high frequency of PCI procedures, identifying outcomes and consequences of patients undergoing PCI will result in reducing incidence of side effects. However, majority of studies on the PCI outcomes have mainly focused on reducing hospital admission and readmission, arrhythmia, myocardial infarction (MI), bleeding, pseudoaneurysm, recurrent coronary thrombosis,[9] and the subsequent effects of inserted stents.[10] Little effort has been devoted to assess preoperative preparation,

From the Department of Nursing; Department of Midwifery, Faculty of Nursing and Midwifery, Ilam University of Medical Science, Ilam, Iran.

Corresponding author: Mosayeb Mozafari, PhD, Department of Nursing, Faculty of Nursing and Midwifery, Ilam University of Medical Science, Banganjab, Ilam, Iran (E-mail: mozafaric@yahoo.com).

postprocedure care, and patients' expectation from PCI.[11] Patients undergoing PCI may consider this approach as a therapeutic procedure that reduce heart attack and increase survival.[12-15]

Providing patients with comprehensive knowledge about the procedure, music therapy, educational tours about the procedure may effectively reduce anxiety symptoms.[16,17] The main barrier in providing patients pre-and post-PCI education is short duration of hospitalization and short average time of hospital discharge.

There are multiple postprocedure challenges for patients after PCI, including symptom management, short- and long-term side effects, and changes in lifestyle and social roles. However, little evidence is available about the possible mechanisms of social support and family dynamics in the rehabilitation of patients after PCI.[11] It is believed that the healthcare system has neglected and underestimated the postprocedural and to some extent, the preprocedural educational and supportive needs of patients. The National Institute for Clinical Excellence in the United Kingdom reported that at least 85% of the discharged patients after PCI and MI need to receive education in cardiac rehabilitation programs.[18] Furthermore, the World Health Organization recommended that outpatient services are suited the best in providing cardiac rehabilitation programs for patients suffering from cardiac diseases.[19,20]

A classic qualitative study by Gulanick et al[21] revealed that patients after angioplasty accept the uncertainty nature of their disease. Some patients cope with this uncertainty through different strategies, including philosophic coping approaches and lifestyle modification, while others were fearful of an early death. In addition, those patients who have adopted lifestyle modifications reported a wide range of feelings, from satisfaction to frustration and disappointment. Lunden et al[22] interviewed patients who had PCI and found that the main reason for feeling anxious was fear of negative outcome and uncertainty of

treatment options, while the main reason for feeling calm was related to trust in their caregiver.

Little evidence is available regarding the extent of patients' knowledge and expectation about PCI. Therefore, patients' knowledge gaps, expectations, and concerns about PCI need to be understood. These issues can be addressed by providing educational and counseling support for decision-making and providing preprocedural and postprocedural care, which eventually increase patients' deliberate contribution to the rehabilitation process. On the other hand, proper understanding of the expectations may lead to more successful therapeutic intervention, the development of patient-centered cares, and the promotion of better outcomes.

Despite the high prevalence of coronary artery disease in Iran, it has not been focused on patients' needs and expectations after PCI. Thus, this study aimed to explore the needs and expectations of Iranian patients after angioplasty procedures.

METHODS

Design

This qualitative study used the "content analysis method." Content analysis is a method of carrying out contextualized interpretation of textual data through a systematic classification process of coding that leads to recognition of patterns and themes.[23] Qualitative analysis can be used to describe humans' daily experiences, and individuals would rather be selected based on the contexts within which human experiences occur.[24] Our sample was chosen among patients undergone coronary artery angioplasty. Individuals were informed about their voluntary right to participate in this study, and a written consent was obtained before actual data collection. The inclusion criteria in this study were patients who undergone PCI at least 20 days ago, aged more than 45-year old and ability to communicate either in the Persian or Kurdish language.

Data collection was carried out in a period of 11 months from June 2013 through April 2014. A semistructured in-depth interview was carried out using a face-to-face approach. The interview was conducted based on participant preference: 13 in home and five in hospital and interviews ranged from 33 to 120 minutes. On obtaining the participants' approval, interviews were tape-recorded and transcribed at the earliest possible time after the interview. In addition, we collected information regarding reactions and emotions that was shown by the clients during interview. Interview was initiated through an open-ended question, and the main questions were as follow: "What is your expectation of angioplasty? What were your requests and needs before and after the angioplasty?" Then, the interviews were completed with a series of complementary questions such as the following: "What was your concern after angioplasty? Have your expectations of the angioplasty procedure been met? Please explain." After reconstruction of the taped interviews, three interviews were repeated due to inadequate data. We reached theoretical saturation after interviewing 16 patients. However, additional two patients were interviewed to ensure data saturation is met. Therefore, totally 18 individuals participated in this study.

Data analysis

Constant comparison analysis was used simultaneously during data collection. After careful consideration of each transcript and reading the data word-by-word, key concepts or thoughts were

TABLE 1	
DEMOGRAPHIC CHARACTERISTICS OF PARTICIPANTS	
Variables	**N *(%)***
Gender	
Male	12 (66.7)
Female	6 (33.3)
Marital status	
Married	15 (83.3)
Widowed	2 (11.1)
Divorced	1 (5.6)
Occupational status	
Unemployed	1 (5.5)
Employed	17 (94.5)
Educational status	
Primary school	2 (11.1)
Secondary school	2 (11.1)
High school	6 (33.3)
Diploma	3 (16.7)
Bachelor	4 (22.2)
Postgraduate	1 (5.6)

identified, and a code was assigned to each key concept. Next, the emerged codes were labeled using either author-developed terms or the participants' keywords. Consequently, codes were sorted into categories based on how they were conceptually related and linked to each other. These developed categories were used to form and group meaningful clusters. Finally, themes were emerged by careful contemplation and comparison of the clusters.

The rigor of this qualitative research was evaluated in relation to its credibility, transferability, dependability, and confirmability. To ensure credibility, peer-debriefing process was done, and constructive comments from three experts were obtained and applied throughout the research stages. The experts were qualified in medical-surgical nursing and critical care nursing who verified that transcripts were accurate and data grouped into the correct categories. In addition, accuracy of recorded information checked and verified with six participants. The diversity of the sample was maintained via participants' diverse educational status, age, marital status (married, divorced, or widowed), gender (including both male and female), occupational status (employee, worker, and retired), place of origin (Tehran, Ilam, Kermanshah, Kerman, or Mazandaran province), and three educational hospitals at which participants were recruited. Transferability was established by in depth and thick description of findings as fully as possible. Confirmability of our study was established by providing enough information about research. Furthermore, we accurately recorded the details of our research stages to ensure the reliability of the study and to provide an avenue for future researchers who are interested in this topic.