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Using Focus Groups to Explore Expectations of Open-Heart Patients

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ABSTRACT

Purpose: The purpose of this research was to explore patient expectations of open-heart surgery and recovery using focus group techniques.

Methods: A convenience sample (*N* = 18) was recruited from a hospital in rural, western Pennsylvania. The sample included participants who underwent CABG or valve replacement surgery for the first time. Subjects participated in one of three focus groups and were asked to discuss their expectations of open-heart surgery and recovery.

Findings: Five common themes described the patient's surgical event. Theme one, acknowledging the disease, focused on fear and shock as patients learned of their diagnosis and need for surgery. Theme two related to the preoperative perceptions that patients formed while waiting for surgery. Theme three, identifying expectations, centered on patients' specific expectations of surgery and recovery. Theme four, health and illness transitions, described limitations and transitions that occurred during home recovery. Theme five related to acceptance of recovery.

Conclusions: The findings support the need for improved teaching methods that focus on realistic outcomes and follow-up services that continue after discharge. Additional research is needed to compare expectations before and after surgery, and to examine the relationship between unrealistic expectations, physical limitations, and feelings of depression during recovery.

Keywords: expectations, open-heart surgery, recovery

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Introduction and Literature Review

Coronary heart disease (CHD) has affected approximately 16 million people in the United States and remains the leading cause of mortality for both sexes. The American Heart Association defines CHD as a diagnosis of acute myocardial infarction, acute and chronic ischemic heart disease, angina, and /or atherosclerotic heart disease.[1] Management of this chronic condition with myocardial revascularization options such as coronary artery bypass graft (CABG) surgery has become a conventional method of treatment. Heart surgery has also been used for the treatment of vavular disorders contributing to over half a million open-heart surgical procedures performed each year.[1] Open-heart surgery such as CABG and valve replacements have been used to improve patient outcomes related to cardiac symptoms, prolonged life, and health-related quality of life.[2] Although these surgical outcomes are beneficial, research has suggested that the experience and recovery process after open-heart surgery may be more complex than anticipated and presents challenges that continue well after discharge.[3,4]

Recovery after open-heart surgery may be further complicated by patients' expectations. It is known that patients develop specific expectations about their surgical experience,[5] but research has not fully explored this idea. Conceptual definitions of expectations have also varied providing inconsistent explanations. The concept of expectations has been primarily linked to patient satisfaction,[6] but insufficient data exist to support that conclusion. In addition, few studies have examined expectations outside of the paradigm of satisfaction or in relation to specific patient populations such as open-heart surgery patients.

Despite the need to understand patient expectations and recovery after open-heart surgery, a review of the literature yielded few studies. Staniszewska and Ahmed's[7] study of cardiac patients found that patients described specific expectations of their care. The study identified four main types of expectations: expectations of the nurse, the doctor, the patients' participation in care, and outcomes of care. Hunt[8] examined patients' experiences and expectations after CABG surgery and concluded that unanticipated expectations such as recovery delays resulted in apprehension and disappointment. The findings from both studies provided relevant information related to patient expectations, but the studies measured expectations in relation to patient satisfaction. Lindsay et al.[3] examined patients' perceptions of their health and expectations of benefits after CABG surgery. The study found that CABG patients were not prepared for the magnitude of the surgical event and experienced distress and anger with unrealistic expectations. These findings suggest that incongruent preoperative expectations and postoperative reality have resulted in negative outcomes

affecting patients' recoveries. Research studies that have focused on recovery after open-heart surgery have noted that patient needs continued after discharge and patients struggled with unmet expectations, unexpected complications, and slow recoveries.[9-11] These findings support that recovery after open-heart surgery can be a complicated process that continues well after discharge.

Although a few studies have explored patient expectations, significant gaps still exist. Expectations need to be studied separate from patient satisfaction of care and in relation to patient recovery after open-heart surgery. Therefore, the purpose of this study was to explore patient expectations of open-heart surgery and recovery using focus group techniques.

Methods

Sample

In the spring of 2006, a convenience sample (*N*=18) was recruited from the Cardiac Rehabilitation and Wellness Department at a mid-size teaching hospital in rural, western Pennsylvania. The sample included participants who underwent CABG or valve replacement surgery for the first time (See Table 1). The sample consisted of 13 males and 5 females with the majority of subjects (89%) between the ages of 50 and 79. All participants (100%) were Caucasian which was representative of the geographical area where the study took place. Most participants underwent CABG surgery (83.3%), two subjects had valve replacement, and one had combined CABG/valve surgery.

Procedures

Institutional review board (IRB) approval was obtained. Informational flyers were posted in the department to recruit potential subjects. The cardiac rehabilitation staff obtained informed consent of interested participants and then notified the primary investigator. Subjects participated in one of three focus group sessions that were held in a private conference room within the department. Group sessions were audio-taped and additional field notes were taken by the moderator/principal investigator.

Each session began with an introduction and explanation of the research study. All participants were encouraged to respond to questions as they felt comfortable. The moderator asked clarifying questions when needed to further explore participant responses. The focus group questions were developed for this study in an attempt to fully explore patient expectations of open-heart surgery. Introductory questions were used to prompt participants' discussion of their first thoughts about open-heart surgery and four key questions addressed expectations of surgery (See Table 2).

Several steps were taken to ensure reliability and validity of the focus group data as recommended by Steubert-Speziale and Carpenter.[12] First, the same moderator was used for all three focus groups to ensure equivalence or consistency. Second, stability of the focus groups was maintained because the groups met only once. Finally, the principal investigator assumed the primary role in the analysis of the data to ensure internal consistency with data coding. Upon completion of the focus group sessions, the tape-recorded interviews were transcribed verbatim. The transcribed interviews were coded and thematically analyzed. Similar responses were grouped together into categories. The data was further analyzed for relationships among the categories. Conceptual themes emerged from patterns and relationships within the data. Validation of the themes occurred after repeated reviews with a co-investigator as recommended by Polit and Beck.[13]

Results

Data from the categories described the patients' diagnosis of heart disease and need for surgery, the time before surgery, expectations of surgery and recovery, unrealistic expectations, and changing expectations. Five common themes emerged from the categories and were consistent with all three focus groups. The themes described the surgical experience from initial preoperative diagnosis through recovery after hospital discharge.

Theme one, acknowledging the disease, focused on feelings of fear and shock as participants confronted their new diagnosis and treatment options. During this time, patients described surprise at being diagnosed with coronary artery disease (CAD) and requiring surgical intervention. Many had formed expectations of a normal catheterization or being treated with angioplasty and stents. One participant described his thoughts of the cardiac catheterization and surgery:

In my case, I never really thought too much about having a heart condition… I felt shocked, I was really surprised, it was the last thing I thought about. I knew some people who had open-heart surgery, but I didn't know I needed surgery, just the catheterization, and I asked people and they said oh, you probably just need a stent, but it didn't work out that way.

This theme explained how patients' initial expectations of a normal catheterization changed as they were confronted with an unplanned diagnosis and surgery.

Theme two related to the preoperative perceptions that patients formed while waiting for surgery. Many subjects described thoughts of being anxious while others recalled feelings of peace. Anxious thoughts were mediated for some by trust in their physician or God. One subject explained "I kind of felt that everything was out of my hands and had turned it over to God… and felt pretty

comfortable going to the operating room." Another participant shared "I'm a Christian man and I just put it in the Lord's hands."

The cognitive perceptions of the upcoming surgical event were based on prior experiences, knowledge, and beliefs. Several subjects related to others who had recovered from cardiac surgery. One participant remembered his parents' experience, "What scared me at first is that I had seen my mum and dad go through that procedure… I had seen him right out of surgery in the intensive care." Others based their understanding on preoperative teaching, "I expected to go home in four to five days, [because] that's what the pamphlet said." Although this waiting period was often less than 24 hours, subjects used prior experiences and knowledge to form initial perceptions of their upcoming surgical event.

Theme three, identifying expectations, centered on patients' specific expectations of surgery and recovery. These expectations emerged when subjects were asked to describe what expectations were most important to them. "I expected to be alive. That's [what was] most important to me." Another participant prioritized his recovery, "My expectations were to have the surgery, recover, and get back to work." Further analysis revealed that these expectations held hierarchical ranking that was consistent among the groups: to survive surgery, get better, care for self, and return to prior routines including work. Participants shared that they expected to "be alive" and "make it through." Others talked about recovery and "being able to care for yourself." One woman shared "my girls were home and they bathed me and did everything, but you're a mother for your kids and you're used to taking care of yourself." Patients also focused on returning to work. "My biggest expectation was to get back to work as soon as possible."

The fourth theme, health and illness transitions, was directed at the adjustment period during home recovery. Most subjects described limitations and transitions that occurred after discharge. "I expected to go back and do like I used to do." Many subjects struggled with unrealistic expectations and experienced frustration with their functional status such as independently caring for themselves, completing chores, and returning to work. Participants described disappointment when trying to perform activities that required assistance from others or additional time for completion. One subject reported feeling discouraged when attempting to mow the lawn:

When I first tried to cut the grass it's like, my God, I'm not going to ever get this finished, it used to take me an hour and fifteen minutes to do it and now it's taking me three hours.

This incongruence between their expected and actual abilities resulted in feelings of anger, disappointment, and despair. "You try to do it and you can't do it and it gets you so damn down." Another subject further explained:

I felt good in the hospital and I thought I can't wait till I get out of here, but when I got home we pulled up in front of the house…I couldn't even get out of the car and I sat there and cried.

The emotions that patients experienced during this time reflected the consequences of unrealistic expectations and incongruent outcomes.

Finally, theme five related to acceptance of recovery. This included allowances of new limitations and feelings of not reaching their prior expectations at this point in recovery. During this time many patients realized that some initial expectations were unrealistic.

"That was hard, that was really hard … that you're going to have at least two months or maybe a little longer before you can actually be at the level where you were before [surgery]." Several patients also acknowledged unanticipated limitations of recovery.

I wanted to get back to driving a truck…I'm on disability because it pays the bills. I had my own business…I enjoyed what I did, I made nice money, I could give to my boys and now the big thing is the extra money ain't there and that's what hurts. I wish I could get back and I can't and I have a hard time with that and that's what's tough.

Although subjects have described acceptance with their limitations, this theme suggested that recovery for some patients may take longer than anticipated or presents new obstacles that result in life-compromising changes.

Discussion

The results of this pilot study revealed relevant findings related to patients' expectations of surgery and recovery. First, patients began forming expectations prior to surgery. Thompson and Sunol's[6] classic review of expectations defined "predicted expectations" as anticipated outcomes of health services. The findings from this study support their theory that patients begin to form expectations of their surgical experience before the event occurs and base these cognitive beliefs on prior experiences and information.

Second, patients expressed feelings of frustration, disappointment, and despair with unrealistic expectations. Research has found similar findings for patients after CABG surgery when the outcome was less than expected during the recovery process.[3,8] Third, the results revealed that a gap exists when transitioning to home after open-heart surgery. Subjects identified that this transition period evoked feelings of frustration that resulted from limitations in activities that were most important to them, such as completing chores and returning to work. These expectations of functional status contributed to negative feelings when discrepancy occurred between the patients' perception of the ideal

and actual recovery. Another possible factor may be that patients were also experiencing symptoms of depression. Gardner et al.[14] noted a number of emotions including depression following open-heart surgery and reported that surgery and delayed recovery affects psychological status during the hospital stay and after discharge. Specifically, decreased functional ability has been linked to anxiety, depression, and poorer health perception.[15,16] For subjects in this study, functional limitations caused significant negative emotions, and may have also contributed to feelings of depression, although further research is needed to explore this relationship.

Finally, patients learned to accept differences between their initial expectations and actual experiences including new limitations. Lindsay et al.[3] found similar results as patients described that CABG surgery presented a greater challenge than anticipated and that returning to “normality” required an extended period. Patients may also experience life-altering changes. Of the participants in this study, one third never returned to work after their surgery, even though this was identified as one of the most important expectations. Gardner et al.[14] reported that surgery and recovery represent a life changing event for some patients where quality of life may improve, but important sequelae remain including failure to return to full function.

Based on the study’s findings, several nursing implications may be implemented to better prepare patients for a more realistic perioperative surgical experience. Preoperative instructions and teaching materials need to prepare patients for in-hospital recuperation and continued recovery after discharge. The time from cardiac catheterization to surgery limits the amount of teaching that may be completed preoperatively. Furthermore, patients experiencing anxiety before surgery may not fully comprehend their preoperative teaching. Nurses need to recognize these limitations and plan for education that continues during the post-operative period. Health care providers should consider new protocols such as routine follow-up phone calls to monitor patient progress and provide continued teaching after discharge.[14] Lenz and Perkins[17] provided a psychoeducational intervention to assist open-heart surgery patients. The study recognized the need for continuing education and assistance as patients’ transition from hospital to home.

Standard post-operative teaching materials should be reviewed for current relevance and content. Patient teaching should include specific guidelines for recovery and address activity limitations and other restrictions that continue after discharge from the hospital. The study findings revealed surprising results as patients anticipated routine recoveries, only to be disappointed by unrealistic outcomes, complications, and delays. Nurses need to remind patients that all patients recover differently and that time frames may change based on complications or unanticipated delays. Patients should also know that functional limitations may continue for some time.

Finally, patients should receive additional referrals after discharge such as home health nursing and cardiac rehabilitation, to assist them with physical and psychosocial adjustments during this transition period. Follow-up services are beneficial to identify any potential postoperative complications and to provide encouragement after discharge. In addition, home health nurses or cardiac rehabilitation staff can screen patients for postoperative depression, especially patients with complicated or delayed recovery.[14] Cardiac support groups and cardiac rehabilitation services can also provide patients with an opportunity to share their personal experiences with others and receive long-term encouragement that extends beyond the patients' initial recovery.

Limitations and Future Research

There were several limitations of this study. The study used a convenience sample of subjects from the Cardiac Rehabilitation and Wellness Department. Because all the subjects participated in cardiac rehabilitation their responses may be different than subjects who did not to participate in rehabilitative services after open-heart surgery. Although the sample size was appropriate for a pilot study and focus group techniques, a larger sample is needed for future research. The use of focus groups in this study provided valuable information related to patient expectations of open-heart surgery, but the technique is also a limitation. Some participants may be uncomfortable sharing their thoughts in front of a group, or group discussions may limit individual comments depending on the dynamics of the group and the topic of discussion.[13] The limitations with this technique can restrict the generalizability of the findings. Finally, the length of time from the patients' surgery to participation in the study is a limitation. Two thirds of participants underwent open-heart surgery within the past 2-5 years. This length of time from surgery and recovery may have altered the subjects' recollection of the surgical experience. Future research should limit the inclusion criteria to subjects who have had open-heart surgery within the past year.

Several areas should also be considered when planning future studies. Additional research should include a longitudinal approach to examine expectations of recovery before and after surgery. This design will provide a better understanding of what expectations are formed prior to surgery and how those expectations change throughout recovery. Future studies should consider using a triangulated approach to measure expectations to obtain richer data that is more generalizable. Finally, additional research should also include preoperative and postoperative measurements of depression and functional status to determine if a relationship exists between unrealistic expectations, physical limitations, and feelings of depression during postoperative recovery.

Conclusion

This pilot study provided beginning insights regarding patients' expectations of recovery after open-heart surgery. The study also provided preliminary data

measuring patient expectations separate from satisfaction with care. The findings suggested that patients moved through different phases during their perioperative experience with specific expectations of recovery. The transition from hospital to home provided significant challenges as patients confronted unrealistic expectations that resulted in feelings of despair and frustration. Continued research is needed to further explore the gaps that exist during this transition period and to better understand the impact of patient expectations on recovery outcomes.

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Appendix A

Table 1
***Demographic Characteristics of the Sample* (*N* = 18)**

Characteristic	n	%
Sex		
Male	13	72.2
Female	5	27.7
Age		
40-49	1	5.5
50-59	4	22.2
60-69	6	33.3
70-79	6	33.3

80-89	1	5.5
Race		
Caucasian	18	100.0
Education		
Did not graduate from high school	1	5.5
High school graduate	12	66.6
College education	4	22.2
Graduate education	1	5.5
Employment		
Employed	5	27.7
Not employed	13	72.2
Type of open-heart surgery		
CABG	15	83.3
Valve	2	11.1
Both	1	5.5
Date of open-heart surgery		
< 6 months	5	27.7
6 months – 1 year	1	5.5
2-3 years	4	22.2
4-5 years	8	44.4

Experience with anyone having open-heart surgery		
Yes	11	61.1
No	6	33.3
Did not answer	1	5.5
Family history of heart disease		
Yes	13	72.2
No	5	27.7

Appendix B

Table 2
Focus Group Questions

Introductory Questions	• Describe how you first felt when you were told you needed open-heart surgery. • When you think of the time before surgery, what comes to mind?
Key Questions	• Think back to the expectations that you had about your open-heart surgery and tell me about them. • What expectations were most important about your surgery? • Can you think of any unrealistic expectations that you had? • Describe if your expectations changed over time during your surgical experience.
Closing Question	• I'm trying to better understand expectations of open-heart patients. Is there anything else that you would like to share with me?