What Do Patients Think About While Waiting for Myocardial Revascularization?

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Objectives: Coronary artery disease constitutes a public health issue involving high mortality rates. The objectives of this study were to evaluate the feelings and perception of patients hospitalized before myocardial revascularization and to explore doctor–patient interactions before cardiac surgery with special attention to existential challenges.

Study Design: A qualitative, exploratory study involving patients admitted to a university teaching hospital in the city of Salvador, Bahia, Brazil, awaiting myocardial revascularization.

Methods: The data were obtained from in-depth interviews that followed a previously defined script based on the study objectives. The data collected at each interview were allocated into content blocks in common with the selected categories and illustrated by quotations from the patients' speech. Twelve patients were interviewed. Data collection was closed when saturation was achieved, in the sense that new main issues did not appear in subsequent dialogues.

Results: The various strategies used by the patients to administer their emotions during the period preceding myocardial revascularization highlight the importance that factors of a subjective nature acquire at this specific time in their lives. The patients recognized the benefit of being able to discuss their heart problems as a means of diminishing their fear and anxiety.

Conclusions: It is vital for the medical team to be more supportive and understanding concerning the emotions experienced by the patients in the period preceding myocardial revascularization. This study emphasizes the importance of the task of helping patients administer their perceptions and feelings and even planning their life while awaiting myocardial revascularization.

Key Words: doctor–patient relationship, myocardial revascularization, patients

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Coronary artery disease constitutes a public health issue with high mortality rates. Treatment is aimed at alleviating symptoms and improving prognosis and encompasses lifestyle changes, pharmacological treatment, and myocardial revascularization. Many patients who would previously have been treated with myocardial revascularization are now candidates for angioplasty. Therefore, heart surgery is reserved for severely ill patients with a higher number of risk factors; consequently, procedures tend to be more complicated.

The wait for myocardial revascularization is a stressful period that involves feelings of fear and anxiety.[1] For many patients, heart surgery is seen as a threatening procedure, rendering it difficult for them to accept the situation.

In the period preceding myocardial revascularization, patients benefit from interventions aimed at providing them with a better understanding of the reasons for their surgery.[2] Such awareness is an important predictor of their progress following the operation.[3] To what extent the patient benefits from heart surgery depends not only on the medical intervention itself but also on the patient's own comprehension of the disease.[4]

The literature has called attention to a lack of detailed knowledge on the demands of patients to be submitted to myocardial revascularization.[4] The objectives of this study were to evaluate the feelings and perception of patients hospitalized before myocardial revascularization and to explore doctor–patient interactions before cardiac surgery with special attention to existential challenges.

METHODS

A qualitative exploratory study was conducted based on data obtained from in-depth interviews with patients admitted to the cardiology ward of the Professor Edgard Santos Teaching Hospital (HUPES) of the Federal University of Bahia. The study was carried out between January and May 2010, while the patients were awaiting myocardial revascularization. Patients receiving vasoactive drugs were excluded.

The population receiving care at the cardiology department of HUPES consists predominantly of individuals of low socioeconomic level with only primary school education. Twelve patients were interviewed. The patients who agreed to participate in the study were interviewed after signing an informed consent form. Before collecting the qualitative data, a questionnaire was used to obtain information on the participants' sociodemographic profile, including data on sex, age, ethnicity, education level, and family income. The study was approved by the institution's internal review board.

Because this was a qualitative study, sample size was defined according to data saturation.[5,6] The methodology used was mainly concerned with conducting an in-depth investigation of specific topics rather than any proposal of scope, generalization, or representativeness in the statistical sense. Data collection was closed when saturation was achieved, in the sense that new main issues did not appear in subsequent dialogues.

Semistructured interviews were carried out in accordance with a previously defined script based on the study objectives.[7] The Brief Illness Perception Questionnaire was administered to assess the patient's beliefs about their illness before surgery.[8] The patients were asked to talk about their health; in general, the symptoms of their heart condition, how their diagnosis and indication for myocardial revascularization had affected their life, the information provided by the medical team, and their expectations on the surgery and outcome.

The interviews lasted between 40 and 60 minutes and were carried out in a quiet, private room. Interviews were recorded using a Philips 2 GB MP4 player. Each recording was listened to by one of the investigators within 48 hours of the interview to verify whether all the topics had been covered and whether any new information had been provided in addition to that predicted in the script. The quality and comprehension of the content were also checked. The recordings were transcribed from audio to text using IBM ViaVoice Pro USB.

After the interviews had been transcribed, they were analyzed using the content analysis technique, based on thematic analysis, as proposed by Minayo.[5] Discourse analysis[9,10] provided perspectives and

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tools for regarding talk as an action and exploring how this action can constitute reality. Discourse analysis is a multidisciplinary tradition with a wide range of approaches, here applied as an analytical perspective focusing on ways of talking about a matter, such as which kind of issues are legitimate themes or what kind of action the words perform.

Each transcription was read in its entirety to verify the representativeness, homogeneity, and pertinence of the data obtained (preanalysis). The data were then separated after 4 stages: reviewing the whole text to identify themes, coding units of meaning, abstracting the meaning, and finally summarizing the content within the coded groups to generalized descriptions and concepts (analysis).

Supported by existential philosophy, patterns of existential basic conditions were identified in the dialogues from the specific clinical context. Existential basic conditions are universal characteristics of human life, comprising fundamental phenomena we cannot avoid or escape as human beings.[11]

RESULTS

The relevant findings from each interview were allocated in blocks of common content to the selected categories and illustrated with quotations from the patients' speech.

Anxiety/Fear/Uncertainties

Some patients expressed difficulty in dealing with their condition and made it clear that they expected the problem to be resolved as quickly as possible. The need to be able to talk about their heart problem as a way of reducing their anxiety was clear in some of the interviews.

> *Some days I went to bed at night and woke up in the early hours to see if I was still alive.*

Fear was mentioned by most of the participants, who also said that it was difficult to admit that they were afraid. This is seen from the contradictory act of denying fear and from the mechanism used by some patients to project this sentiment onto family members or members of the medical team.

> *I am going to have this surgery; I trust in God; I'm not afraid, I'm not afraid at all. You are only afraid before you get the anesthetic; after the anesthetic the person is dead; you don't see anything else.*

> *I trust in God and in you. I'm waiting to be called. My children are afraid I'm going to die.*

Some patients mentioned that the presence of chest pain made routine activities difficult, preventing them from leading a normal life. At each episode of chest pain, they were afraid that it was the onset of a heart attack.

> *When I have a sleepless night, I get chest pain. Sometimes I have a restless night. I keep compartmentalizing my thoughts to make time go by until I can get up.*

> *When I go to bed, I think I won't wake up again because there is a weight on my chest.*

The need to stop working because of heart disease, the consequent loss of his/her role as provider of the family, and the importance of work were mentioned by some of the patients.

> *I am an electrical technician and am now unable to work. When I have to stay at home, I feel bad; it seems as if the day will never end. I feel better when I am working; I don't even feel as if I'm ill.*

Some patients reported uncertainty, which they described as finding themselves in a situation in which they had no alternative except to undergo myocardial revascularization and wait for the outcome.

> *What really gets to me is this situation. I just want to get out of here. I think: Will I go into the operating theater and actually come out again? The problem is not the disease; it's the thoughts, family, children, life expectation that you construct.*

One patient described how he felt vulnerable to the expressions in the eyes of the professionals while he was in the operating theater waiting for surgery to be carried out:

> *Today I went to the operating theater; I was there lying on the stretcher, my file between my legs. A nurse looked at me and looked at my file. Another nurse came over, looked at me and looked at my file. I thought they were thinking: this one is going to go in and not come out again.*

Denial/Faith/Blame

The feelings of denial shown by the patients or projected on the team reflect difficulty in accepting the indication for myocardial revascularization. Between the lines of some of the statements, the patient's difficulty in consciously bringing the subject up and the feelings of anguish involved in the process of waiting for the surgical procedure were perceptible.

> *The doctor talked to my son and I about my surgery. I didn't get upset about it. Everyone who is sick wants to get well. There is no way other than to go ahead with it.*

In some of the participants' speech, the importance of faith was perceptible when they were confronted with uncertainties regarding the outcome of their treatment, with divine protection appearing as an answer to questions.

> *When they told me about the surgery, I honestly did not think anything negative. I ask God to control my anxiety.*

> *I believe in God, in life, I believe in Him and I trust Him. God puts people in our path at the right time. God is perfect and knows what will happen, of course He knows.*

The Need to be Heard and the Benefits of Being Heard

Some patients mentioned that they had played no role in deciding when surgery would be performed and realized that during this time they had been unable to lead a normal life because surgery was always imminent.

> *From one minute to the next, I learned that I was ill. I was admitted to hospital and told that I would have to undergo a surgical procedure of this magnitude. A thousand things have gone through my head.*

> *I think it's important for someone to talk to us, because it clears up any doubts in our head, either a psychologist or a cardiologist. Sometimes they tell the patient that he is going for surgery, the individual is shaved, they put him on a stretcher, but there is no adequate preparation.*

The importance of being able to ask questions about the surgical procedure to be performed and of receiving attention from the surgical team during the evaluation that precedes this intervention was factors emphasized by the participants.

> *I already have my own experience of what myocardial revascularization is like. The first time, the surgeon was kind and answered all my questions. Days before the surgery, he explained everything and drew a little sketch for me.*

DISCUSSION

In the present study, during the period preceding myocardial revascularization, the patients were vulnerable as a result of being exposed to an impersonal environment. The need to be submitted to unknown technical procedures and the sensation of a loss of identity were described by these patients as threatening events.

Feelings of anxiety, fear, and uncertainty permeated the content of the interviews with the patients. The various strategies used by the patients to administer their emotions during this period highlight the importance that factors of a subjective nature acquire at this specific time in their lives.

Coronary artery disease requiring myocardial revascularization is a particularly disturbing condition because culturally the heart is seen as the central organ of the body and the source of life and emotions.[12] For many patients, being submitted to myocardial revascularization represents being in a situation in which there is an immediate risk to their life. Many fail to adapt to it and do not progress as expected, even when the outcome of surgery is favorable.[13] The presence of these alterations in some patients considerably limits the recovery process.[14,15]

Many patients report that the uncertainty and fear during the period preceding surgery are more disturbing than the chest pain itself.[16–18] It is essential to evaluate patients' perception as a generator of stress preceding surgery and to understand the possible effects of this on their mental and somatic recovery.[19,20]

Listening carefully to a demand that cannot for some reason be directly expressed in words but is revealed between the lines of what patients say and through nonverbal mechanisms of communication is of fundamental importance in ensuring a favorable outcome.

Some of the objectives of interventions designed to prepare patients for surgery include reducing anxiety and fear by providing information and psychological support.[21,22] The absence of an opportunity to ask questions, as reported by the patients in this study, leads to a need to reflect on the true meaning of the act of caring by the medical team involved in health care, particularly in life-threatening situations such as those experienced by these patients.

Confronting the unpredictability of life appears to function as a mechanism of emotional discharge on feelings. Understanding and helping the patient in his/her singularity implies overcoming predefined techniques and ideas and, in addition to the patient's physical suffering, taking into consideration the true feeling of abandonment such as that experienced by the patient about to undergo heart surgery.

Although there is no doubt on the importance of the humanization of medicine, in particular of the doctor–patient relationship, medical training is still intensely focused on aspects related to anatomy, physiology, pathology, and clinical medicine in detriment to pay greater attention to the patient's history. Cardiac surgery changes the patient's health condition dramatically, but presurgery illness representations continue to be an important determinant of recovery.[23]

A program of preoperative stress reduction therapy in cardiac surgery patients might provide them with a coping strategy to reduce anxiety and depression, particularly in patients with indications of these problems before surgery.[24–26] Health care should effectively incorporate integrated patient care, which requires not only technical support but, principally, professionals who are sensitive enough to value the subjective aspects of patients' lives, to listen to their complaints, and to find, together with the patient, strategies that will facilitate adaptation to a new lifestyle modified by the disease.

Communication about options, risks, and benefits is essential but challenging. The perspectives of the patients and the doctors are influenced by underlying existential conditions, and the decision-making process might be better understood and dealt with if some of these aspects are given attention and discussed.[27,28]

This study highlights the importance of the task of helping patients administer their perceptions and feelings and even planning their life while awaiting myocardial revascularization. It is evident that the doctor–patient relationship includes not only the doctor's actions and words but, principally, being attentive to the demands expressed in various ways, often indirectly, by the patients.

The results of the present study encourage further studies to be conducted on preoperative evaluation, including the psychological management of patients who will be submitted to myocardial revascularization. The objective of this strategy of caring for the individual was to give value to aspects revealed as being of great importance in managing these patients in the period preceding surgery, with repercussions on the outcome of the surgery itself and on the progress of these patients.

DISCLOSURES

Nothing to declare.

REFERENCES

1. Baker RA, Andrew MJ, Schrader G, et al. Preoperative depression and mortality in coronary artery bypass surgery: preliminary findings. *ANZ J Surg*. 2001;71:139–142.
2. Juergens MC, Seekatz B, Moosdorf RG, et al. Illness beliefs before cardiac surgery predict disability, quality of life, and depression 3 months later. *J Psychosom Res*. 2010;68:553–560.
3. French DP, Lewin RJ, Watson N, et al. Do illness perceptions predict attendance at cardiac rehabilitation and quality of life following myocardial infarction? *J Psychosom Res*. 2005;59:315–322.
4. Stafford L, Berk M, Jackson HJ. Are illness perceptions about coronary artery disease predictive of depression and quality of life outcomes? *J Psychosom Res*. 2009;66:211–220.
5. Minayo MCS. *O Desafio do Conhecimento: Pesquisa Qualitativa em Saúde*. 3a ed. São Paulo: Hucitec/Abrasco; 1994:269–270.
6. Turato ER. *Tratado de Metodologia da Pesquisa Clínico-qualitativa*. Petrópolis, RJ: Editora Vozes; 2003:437–522.
7. Bernard HR. *Research Methods in Anthropology: Qualitative and Quantitative Approaches*. 5th ed. Lanham, MD: Altamira Press; 2011:156–186.
8. Broadbent E, Petrie KJ, Main J, et al. The brief illness perception questionnaire. *J Psychosom Res*. 2006;60:631–637.
9. Cheek J. At the margins? Discourse analysis and qualitative research. *Qual Health Res*. 2004;14:1140–1150.
10. Stevenson C. Theoretical and methodological approaches in discourse analysis. *Nurse Res*. 2004;12:17–29.
11. Yalom ID. *Existential Psychotherapy*. New York: Basic Books; 1980.
12. Bresser PJ, Sexton DL, Foell DW. Patients' responses to postponement of coronary artery bypass graft surgery. *Image J Nurs Sch*. 1993;25:5–10.
13. Magni G, Unger HP, Valfrè C, et al. Psychosocial outcome one year after heart surgery. A prospective study. *Arch Intern Med*. 1987;147:473–477.
14. Peterson JC. Longitudinal course of new onset depression after cardiac bypass surgery. In: *Programs and Abstracts of the 10th Annual International Conference on Mental Health Problems in the General Health Care Sector*. Bethesda, MD: National Institute of Mental Health; 1996 July 15–16.
15. Strauss B, Paulsen G, Strenge H, et al. Preoperative and late postoperative psychosocial state following coronary artery bypass surgery. *Thorac Cardiovasc Surg*. 1992;40:59–64.
16. Bengtson A, Herlitz J, Karlsson T, et al. Distress correlates with the degree of chest pain: a description of patients awaiting revascularisation. *Heart*. 1996;75:257–260.
17. Koivula M, Paunonen-Ilmonen M, Tarkka MT, et al. Fear and anxiety in patients awaiting coronary artery bypass grafting. *Heart Lung*. 2001;30:302–311.
18. Carr JA, Powers MJ. Stressors associated with coronary bypass surgery. *Nurs Res*. 1986;35:243–246.
19. Perski A, Feleke E, Anderson G, et al. Emotional distress before coronary bypass grafting limits the benefits of surgery. *Am Heart J*. 1998;136:510–517.
20. Bryant B, Mayou R. Prediction of outcome after coronary artery surgery. *J Psychosom Res*. 1989;33:419–427.

21. Oxlad M, Stubberfield J, Stuklis R, et al. Psychological risk factors for cardiac-related hospital readmission within 6 months of coronary artery bypass graft surgery. *J Psychosom Res*. 2006;61:775–781.
22. O'Halloran CM, Altmaier EM. The efficacy of preparation for surgery and invasive medical procedures. *Patient Educ Couns*. 1995;25:9–16.
23. Hermele S, Olivo EL, Namerow P, et al. Illness representations and psychological distress in patients undergoing coronary artery bypass graft surgery. *Psychol Health Med*. 2007;12:580–591.
24. Rosenfeldt F, Braun L, Spitzer O, et al. Physical conditioning and mental stress reduction—a randomized trial in patients undergoing cardiac surgery. *BMC Complement Altern Med*. 2011;11:11–20.
25. Tully PJ, Székely A. Anxiety and depression as predictors of cardiovascular outcomes after cardiac surgery. *Am J Cardiol*. 2013;111:1079.
26. Demaria RG, Parry Williams G, Pignay-Demaria V. Should the mind be a matter? The impact of depression and anxiety on cardiac surgery outcomes. *Eur J Cardiothorac Surg*. 2013;43:657.
27. Ladwig KH. [Coronary heart disease: how effective are psychological interventions?]. *Dtsch Med Wochenschr*. 2012;137:2413.
28. Laferton JA, Shedden Mora M, Auer CJ, et al. Enhancing the efficacy of heart surgery by optimizing patients' preoperative expectations: study protocol of a randomized controlled trial. *Am Heart J*. 2013;165:1–7.