# MEANING THE PROCESS OF LIVING THE CORONARY ARTERY BYPASS GRAFT SURGERY: CHANGES IN LIFESTYLE

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#### **ABSTRACT**

The study aimed to understand how patients mean your experience process of living after surgical revascularization. Will be presented in this article, a category and seven subcategories that represent significant changes from that experience, that is, the "consequences" component of the paradigm model, according to Grounded Theory, method of study. Participated in data collection 23 subjects The interviews were semi-structured and took place from October 2010 to August 2011. Significant changes are related to aspects of social and sexual life, work, diet, physical activity and drug treatment. We conclude that surgical revascularization experience encourages the reflection and the (re) think the lifestyle, it has limitations and difficulties that challenge changes in daily habits of patients and families to live a healthier process.

Descriptors: Thoracic surgery. Myocardial revascularization. Nursing. Life style.

#### **RESUMO**

O estudo objetivou compreender como os pacientes significam seu processo de viver após a experiência cirúrgica de revascularização miocárdica. Será apresentada, neste artigo, uma categoria e sete subcategorias, que representam as mudanças significadas a partir dessa experiência, ou seja, as "consequências", componente do modelo paradigmático, segundo a Teoria Fundamentada nos Dados, método do estudo. Participaram, da coleta de dados, 23 sujeitos. As entrevistas foram semiestruturadas e ocorreram no período de outubro de 2010 a agosto de 2011. As mudanças significadas relacionam-se aos aspectos de vida social e sexual, trabalho, alimentação, atividade física e tratamento medicamentoso. Conclui-se que a experiência cirúrgica de revascularização incita o refletir e o (re)pensar o estilo de vida, apresenta limitações e dificuldades que desafiam adaptações nos hábitos cotidianos dos pacientes e familiares para um processo de viver mais saudável.

**Descritores:** Cirurgia torácica. Revascularização miocárdica. Enfermagem. Estilo de vida. **Título:** Significando o processo de viver a cirurgia de revascularização miocárdica: mudanças no estilo de vida.

# **RESUMEN**

El objetivo de este estudio fue entender cómo los pacientes significan su proceso de vivir después de experiencia quirúrgica de revascularización miocárdica. Se presentará, una categoría y siete subcategorías que representan cambios significativos de esa experiencia, es decir, las "consecuencias", el modelo de componentes de paradigma, de acuerdo con la teoría fundamentada, el método de estudio. Participó en la recogida de datos de 23 sujetos. Las entrevistas fueron semiestructuradas en el período de octubre de 2010 a agosto de 2011. Los cambios significativos se relacionan con aspectos de la vida social y sexual, trabajo, alimentación, actividad física y el tratamiento farmacológico. Llegamos a la conclusión de que la experiencia de revascularización quirúrgica anima a la reflexión y a (re pensar en el estilo de vida, tiene sus limitaciones y dificultades por los cambios en los hábitos diarios del pacientes y familiares para un proceso de vivir más saludables.

**Descriptores:** Cirugía torácica. Revascularización miocárdica. Enfermería. Estilo de vida. **Titulo:** Significado del proceso de vivir después de cirugía de revascularización miocárdica: cambios en el estilo de vida.

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# INTRODUCTION

Contemporary world is the era of technology and computerization, in turn, human beings enjoy increasingly sophisticated and advanced health treatments and interventions. The scientific evidence soon indicates coronary artery bypass graft (CABG) surgery as an important surgical resource for the treatment of coronary artery disease, resulting in improved survival and better quality of life (1).

In Brazil, in the years 2005, 2006 and 2007, Unified Health System (SUS) performed 63,529 CRM, which is one of the most common surgeries conducted by SUS, both in public hospitals and in philanthropic or private ones <sup>(2)</sup>. In 2009, cardiovascular diseases represented the third leading cause of hospitalizations at SUS and are responsible for the highest spending on admissions, totaling R\$ 1.9 billion or 19% of the total hospitalizations costs <sup>(3,4)</sup>.

In this perspective, it can be noted that there was a reduction in mortality of hospitalized patients with acute myocardial infarction, from 15-20%, in the eighties, to around 7-5%, in present times <sup>(5)</sup>. It is still added that the profile of these patients also changed with the advent of CABG, mainly because the surgery was performed on those that present conditions of greater complexity and criticality <sup>(6)</sup>. Following this overview, nursing and health professionals rely on technical and scientific knowledge, skills consistent with the multiple and complex changes in the profile and care of these patients.

Because of these assumptions, a study was developed aiming to understand how patients mean their living process after the surgical experience of CABG, seeking to construct a theoretical and explanatory model. This paper will present the category and subcategories that represent the changes meant by the individuals from that experience, i.e. the Consequences, as paradigmatic model guided by Grounded Theory (7), the methodological framework of the study.

### INDIVIDUALS AND METHODS

The scenario for the development of the research was a hospital in the state of Santa Catarina, a referral center for cardiac surgery. We interviewed 23 individuals, including 12 patients who have undergone CABG, 6 health professionals (physicians, nurses, a physical educator, a nurse technician)

and 5 family members, constituting three sample groups and a focus group to validate the data. The participants were selected at random and voluntary participation was authorized by signing the Consent Form. The criterion for selection of the interviewed patients was at least 90 days after discharge.

Data were collected through semi-structured interviews and recorded using digital voice recording, which were performed in the cardiac rehabilitation service of the institution, from the question: Tell me about your experience of having undergone the coronary artery bypass grafting. The remaining questions were addressed by the researchers from the answers of the participants. To guarantee anonymity, the participants were identified by a letter that represents the individual, followed by the ordinal number corresponding to their statements (E1 to patients, F1 to family members and P1 to professionals).

The process of data collection and analysis was guided by theoretical sampling, as recommended by the TFD, whose data were transcribed, coded and when analyzed, they conducted the next gathering and the comparative data analysis successively, until data saturation. The codes were grouped and the categories and subcategories defined and developed in terms of their properties and dimensions, followed by the process of open coding, axial coding and selective coding <sup>(7)</sup>. The analytical process was built in paradigmatic perspective, and that consists of five components (a context, a cause, an intervening condition, strategies and consequences) that explain the phenomenon.

The causal conditions represent the set of events, incidents and happenings that contribute to the emergence of the phenomenon. The phenomenon is characterized as the central idea whose relationships and interactions are interrelated. The context represents a particular group of conditions that enable the strategies of action / interaction. Intervening conditions are the structural bases that are supported by strategies that integrate the phenomenon. The strategies are the resources used to address the phenomenon. Finally, the consequences are defined as the results of actions and interactions of the study participants.

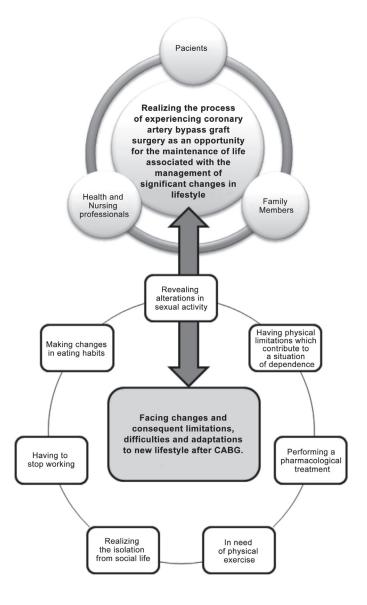
The project was approved by the Ethics Committee on Human Research of the Institute of Cardiology of Santa Catarina (ICSC), under No. 001/2010, in line with ethical standards for research involving human beings according to the

Resolution 196/96, of the National Council of Health, at all stages of the research.

# **RESULTS**

The study identified the phenomenon: Realizing the process of experiencing coronary artery bypass graft surgery as an opportunity for the maintenance of life associated with the management of significant changes in lifestyle, which emerged from comparative interpretation of the set of categories in the essence of their meanings, a logical process of abstraction, visualization and understanding of the movements shows the constitution of the experience of the coronary artery bypass graft surgery.

The following is a presentation and analysis of the category and its respective subcategories that make up the Consequences of the Phenomenon, illustrated in Figure 1.



**Figure 1** – Graphical representation of the relationship between the phenomenon and the category. Institute of Cardiology. Florianópolis, Santa Catarina – from October 2010 to August 2011.

Source: Authors.

Facing changes and consequent limitations, difficulties and adaptations to new lifestyle after CABG.

The category above consists of seven subcategories. The first, called *Making changes in eating habits*, shows that after CABG, it is salutary for the patient to change their eating habits. Although sometimes this change represents the thwarting of cravings for certain foods, for the benefit of their own cardiological health, the patient ends up accepting the new eating habits, how the narratives illustrate below:

Today I'm stuck to that, everything that I'm going to eat, I have to take a look at. I can eat only one candy; I can't fill my pocket "[...]". I am forced to change. So this is my food, completely different than before. I changed my diet, I mean, I can't eat what I like (E8).

The diet changed "[...]" at home there was only that pet food and that unsalted food "[...]". I exaggerated, say so. So far, the food has no salt, no fat. She [wife] always makes a very dry food, without much olive oil, without much grease, really dry (E6).

The second subcategory, entitled *Having to stop working*, concerns the fact of having to abstain from the labor activity. The change in the occupational routine affects the emotional aspect and also the economic and financial condition of the individual, of the family and home, whereas most of the time these individuals were the family financial providers. Consequently, feelings of sadness and discouragement arise, leaving the individual more hostile before their new living process. We may see this according to the testimonies:

When you stop working, it is so difficult. Then I got sad, really sad! The person's routine, their jobs. I worked a lifetime "[...]". So, if you have money, you can buy something, if you don't, you can't ... (E3).

I felt awkward, aggressive, bad "[...]". I just wanted to stay in bed. Nothing was good for me (E2).

Although it was revealed the desire to return to the activities performed before CABG, patients recognize the constraints imposed by the postsurgical moment, i.e., even overcome some difficulties, they would hardly resume habits of living and working (which require physical exertion or cause stress) performed prior to surgery. There are those who express duality of feelings; a disgruntled contentment. And there are those who recognize the improvement in their health conditions, a reason to feel happy, as we can see in the statements:

I wanted to feel active again, even with some difficulty, but, then, this time, I discovered that a really good situation, like it was before, would never happen again (E6).

Today I'm happy! Because if you see the way I was, I'm a new man today. (E1).

Having physical limitations generating dependence is the third subcategory and it refers to physical limitations and consequent dependence on family members for activities that require physical exertion, at the beginning of the cardiovascular rehabilitation. It is a condition that arouses feelings of fear and powerlessness. Because of the proximity, the family members, particularly spouses, contribute to the necessary confrontations and understand the limitations imposed by the surgery, as they manifest:

I do nothing, I sit, I'm afraid of pushing, making effort. I am afraid, afraid, I get upset, because all my life I was independent (E1).

I [wife] had to do the things he [patient] couldn't do. He [patient] had to stay at home and couldn't lift heavy objects (F3).

The fourth subcategory, Revealing changes in sexual practice, presents as a limitation the restriction of sexual activity, a fact that affects the marital relationship, especially when the couple do not talk about it. The wife perceives and understands the difficulty of her spouse in dealing with sexual abstinence, and he tends to the isolation and puts the blame on his partner by abstaining from sexual activity. It can be observed in the narrative:

After the surgery, things didn't happen the way he [patient] wanted, then he [patient] withdrew into himself. He [patient] tried to blame me [wife], but for a man it is difficult. They do not accept it! He [patient] was a very active man, and I got used to the idea [of sexual abstinence] (F7).

It is evident that questions about sexual activity after CABG are not addressed or are poorly

explored at the time of the perioperative guidance by health professionals. This situation is explained by the difficulty shown by patients and by professionals in addressing / discussing this subject, as the statements elucidate below:

They don't ask. There are rare situations in which the [patients] ask something. Only a few situations. But, even so, I approach them in my direction [nurse]. Folks, sexual activity is a basic need of men, women, just as food, socialization, work. So, let's know better, let's understand how it works, what it is possible to do, how we can start, when it should start, so... (P6).

We [nursing professionals] know that talking about sex is not easy for the professional (P2).

One of the purposes of the guidance in health is to assist the patient on the recognition of sexual activity as a basic human need, a practice that can be reinserted after the required time for recovery.

The fifth subcategory, named *Performing the pharmacological treatment*, elucidates the reasons for (non)compliance with the pharmacological therapy. One of them is the non-adherence to treatment by the patient and the other concerns the unavailability of the medicine(s) in the public health service, and the patient has to acquire them with their own resources, a condition that affects the family budget much more since CABG pushes many patients out of their paid work activities. Such reasons are contained in the following statements:

I won't give up drinking beer! Medicine, why to take that? (E1).

I passed a long time without taking the medication for depression and it worsened my situation (E2).

We receive some medications from SUS (Public Health System), we need to buy others. Until today I have to buy one that is over (E6).

In the sixth category, *Realizing the isolation* from social life, the testimonies illustrate that, gradually, the family members perceive the isolation of the revascularized individual from their families, children, grandchildren, friends, and finally, from the social gatherings and parties. This isolation creates a concern among their relatives, as it is elucidated in the lines below:

He walked away, doesn't go to anyone's house, nor daughters'. Once in a while he agrees to go to my relatives' houses, but, after surgery, he stopped. He used to play with his grandchildren, children, then he started to run away from that (F7).

I fear a depression, it's been a while I've been realizing that he is a little still and strange (F3).

The seventh subcategory, *Exercise is needed*, contemplates the difficulty of the cardiac patient to accept the need for doing exercise as part of the recommendations for cardiac rehabilitation. It is possible to see that according to the following testimony:

He is fat because of this, he doesn't walk! He doesn't walk because he is fat, doesn't walk in summer because it's too hot, doesn't walk in winter because it's too cold. Then, when he wants, when he does the exam and sees that diabetes is high, his cholesterol is high, he goes to the kitchen and he makes some tea, he tries to control his eating habits. Walking, he doesn't walk! Tomorrow I'll go, and tomorrow, when he realizes, he didn't walk! (F4).

One of the biggest obstacles faced by revascularized cardiac patients is to adhere to the practice of moderate exercise such as walking, as a new habit of life, considering the absence of this practice before surgery. Through the statements of family members, is it possible to understand that it is easier to enter the diet restricted in fats and sugars than the habit of walking in these individuals' lives.

# **DISCUSSION**

This study reveals the difficulties towards the need to change eating and body habits adopted by patients prior to CABG, considered medically harmful to health <sup>(8)</sup>. Thus, in a study of self-care, after checking the body mass in revascularized patients, it was shown that 51.9% of individuals were obese, one year after the coronary artery bypass surgery <sup>(9)</sup>.

As regards the alimentation, it appears that, for some patients, leaving the intake of meat and fats is difficult because they are palatable and provide a greater satiety, pleasure and satisfaction <sup>(8)</sup>. Knowing the risks inherent to alimentation for the return of heart diseases, such as coronary obstruction, does not guarantee motivation enough to warrant the adoption and utilization of healthy behaviors for some individuals. This condition was

confirmed in a study with revascularized patients <sup>(9)</sup>, in which 42 (80.8%) out of 52 individuals followed a diet based on fruits, vegetables and white meat, and in return, 10 (19.2%) maintained a diet rich in red meat and animal fats.

Physical exercise is characterized as a possibility of maintaining health, weight loss, stress relief, a source of recreation and quality of life. However, some revascularized patients resist to the physical exercises or they practice them occasionally, corroborating with data from a study in which 15 (28.9%) out of the 52 revascularized patients were considered sedentary because they did not exercise. In contrast, from the total of individuals, 37 (71.1%) went for a walk as an exercise for at least 30 minutes, three times a week, a satisfactory minimum weekly frequency for the improvement of heart function (9).

We identified in this study attempts at changing life habits of revascularized cardiac patients, for example, the inclusion of movement in their lives through physical activity, as well as the adoption of a healthier and balanced diet. Such behavioral changes, however, need the support of both health professionals, and especially the family. The involvement of the family in the cardiac rehabilitation of the revascularized patients becomes an important and essential tool to the adoption of promotion and prevention behaviors in the home environment.

Prior to surgery, the patients used the body and physical strength as key tools for work. However, after the surgery, because of the risk of complications and / or imminent death, the use of instrumental functions of the body for work is suppressed, leading to clashes by in the revascularized patients, such as a failure to comply with labor activities, the financial dependence, disability and loss of independence <sup>(8)</sup>.

The removal of labor activities have varied reasons such as old age, family influence, low level of education and skill development and medical guidance. It is noticed that most patients cannot resume labor activities, generating suffering, sadness, discouragement, feelings of worthlessness and a consequent social isolation (8,10).

The impossibility and or the inability to work require(s) a process of rehabilitation, with adjustments to lifestyle, both for the patient and for the family members. In this sense, the support of family and professional guidelines are important in order

to alleviate the suffering and losses, encouraging them to seek alternative activities as leisure and sense of living.

The isolation and alienation from society is a relevant concern, justified by a study conducted on the psychological aspects of cardiac patients, in which it was shown that, of 217 patients, 56 (26%) indicated that they had depressive symptoms, 91 (42%) indicated high levels of anxiety and about 75-108 (35-50%) of patients reported a moderate to high need for help (11). These data reinforce the need for attention and care by the nursing and health professionals with patients after CABG surgery.

Regarding sexual practices, it is identified as a difficult topic of approach for professionals, patients and their spouses who feel intimidated against the questioning of professionals about the return of sexual activities and, in turn, end up avoiding exposition and dialogue.

The knowledge of the patients about heart risks on condition of physical effort, in this case undertaken in a sexual activity, causes concern, even before surgical intervention (12). After CABG, sexual dysfunctions may be intensified and sex life may be compromised. The loss of libido, the fact of not being released by the doctors and the weakness in old ages are some of the reasons justified by patients for the fact of not returning to sexual activity (10), among numerous causes, such as those associated with the disease, the effects of medicines, fear, among others.

Similar studies agree in their findings that the CABG represents, for many patients, negative changes in sexual practice (12). As in other aspects of life, sexual practice interferes with the process of living in the revascularized patient and often requires patience, dialogue and unity by the couple.

The pharmacological treatment after CABG is assisting in preventing new coronary event and / or treatment of associated problems. The medication when not available in the public health service is extra cost to the patient, which may affect the continuity of treatment when their income is already committed. However, even facing financial difficulties, the family prioritizes the acquisition of medicines and the recommended foods by ensuring what they consider to be essential for the maintenance of health status (13).

The medication adherence is an important ally after coronary event, contributing effectively

with surgical treatment <sup>(14)</sup>. However, some patients demonstrate that they do not understand the importance of continuous treatment or are resistant to take medications routinely. This datum was proven by a study on self-care after CABG, in which five patients (9.6%), out of 52 people, take the medicine only when they realize some physiological change <sup>(9)</sup>.

The patients and their families lack information and awareness about the importance of adherence to medication therapy. However, only this understanding does not ensure that the patient adhere to treatment, being highlighted the urgency of the ensuring access to the established therapy. In turn, the public health policies, through health facilities, as well as professionals, have to attend the individual subsidizing their needs, reducing the bureaucratic obstacles and delays when they offer actions and health services to the population (13).

#### CONCLUSION

It is understood that the CABG is as a real possibility for extending the life of patients with coronary artery disease, meaning the increase in life expectancy of these individuals, who by living longer, need to seek better health practices, which add healthier habits and quality of life to their routine, and promote their welfare.

The triad adequate food, medical treatment and physical activity is a possibility to maintain the health of revascularized individuals. However, adapting these habits to the everyday life seems to be the biggest challenge for these individuals. For this reason, it is necessary that professionals, especially those in nursing care reinforce the cares and health guidelines in order to minimize the risks for new events of the disease.

It is noted that the CABG generates changes in the process of living of individuals, related to aspects of social and sexual life, work, alimentation, physical activity and pharmacological treatment, with consequent limitations and difficulties that require adjustments in their lifestyle. Nevertheless, the CABG is able to insert new lifestyles and healthier relationships with themselves, with other people and with their surroundings, re-finding the necessary balance.

Nurses can encourage the required confrontations of the patients at the moment of the perioperative guidance when considering the complexity, individuality and plurality of human beings, enabling a better life during and after surgical rehabilitation, particularly when the changes are revealed.

Moreover, it can be stated that there is a gap in the production of studies focused on the apprehension of experience and changes in lifestyle after the CABG from the perspective of those who experience it. In turn, nursing can contribute to the construction of this and other studies that aim at the improvement of human care, considering the complexity and totality of the human being in their multiple dimensions.

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