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O PERCURSO DE PACIENTES PÓS-ENFARTE DO MIOCÁRDIO NA PROCURA DA OTIMIZAÇÃO DA SUA CONDIÇÃO DE SAÚDE THE ITINERARY OF MYOCARDIAL POST-INFARCTION PATIENTS IN SEARCH FOR THE OPTIMIZATION OF THEIR HEALTH CONDITION

EL ITINERARIO DE LOS PACIENTES POST-INFARTO DE MIOCARDIO EN BUSCA DE LA OPTIMIZACIÓN DE SU ESTADO DE SALUD

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#### **RESUMO**

**Introdução:** O enfarte do miocárdio é uma doença aguda cujo cuidado deve ser imediato e a optimização da sua situação clínica está relacionada com as próprias crenças e a maneira como as pessoas vivenciam o processo de doença.

**Objetivo**: Compreender o caminho percorrido pelas pessoas que vivenciam um enfarte agudo do miocárdio na procura da sua melhor condição de saúde.

**Métodos:** Pesquisa qualitativa descritiva, realizada no período de fevereiro a maio de 2018, com 12 adultos jovens. Para a coleta de dados foi utilizado um questionário semi-estruturado, um roteiro de entrevista com questões abertas e diário de campo. Realizou-se análise de conteúdo temático, após tratamento dos dados, em software de pesquisa qualitativa.

**Resultados:** Emergiram três temas centrais, que foram caraterizados como: experiências de saúde e adoecimento (compreensão da doença), percepção do risco e interação com as instituições.

**Conclusão:** Verificou-se a demora no reconhecimento dos sinais e sintomas do enfarte agudo do miocárdio, facto este que impediu a pronta procura de cuidados de saúde.

Palavras-chave: enfarte agudo do miocárdio; saúde do adulto; doença crônica

### **ABSTRACT**

**Introduction:** Myocardial infarction is an acute disease whose care must be immediate and the optimization of its clinical situation is related to beliefs and the way people experience the disease process.

**Objective:** To understand the path taken by people who experience an acute myocardial infarction in search of their best health condition.

**Methods:** qualitative descriptive research, carried out from February to May 2018, with 12 young adults. For data collection, a semi-structured questionnaire, an interview script with open questions, and a field diary were used. Thematic content analysis was performed, after data treatment, using qualitative research software.

**Results:** three central themes emerged, which were characterized as experiences of health and illness (understanding of the disease), perception of risk, and interaction with the institutions.

**Conclusion:** there was a delay in recognizing the signs and symptoms of acute myocardial infarction, which prevented the prompt search for health care.

**Keywords:** acute myocardial infarction; adult health; chronic disease

### **RESUMEN**

**Introducción:** El infarto de miocardio es una enfermedad aguda cuya atención debe ser inmediata y la optimización de su situación clínica está relacionada con sus propias creencias y la forma en que las personas viven el proceso de la enfermedad.

**Objetivo:** comprender el camino recorrido por las personas que sufren un infarto agudo de miocardio en busca de su mejor estado de salud.

**Métodos:** investigación descriptiva cualitativa, realizada de febrero a mayo de 2018, con 12 adultos jóvenes. Para la recolección de datos se utilizó un cuestionario semiestructurado, un guión de entrevista con preguntas abiertas y un diario de campo. El análisis de contenido temático se realizó, después del tratamiento de datos, utilizando software de investigación cualitativa.

**Resultados**: surgieron tres temas centrales, los cuales se caracterizaron como: vivencias de salud y enfermedad (comprensión de la enfermedad), percepción de riesgo e interacción con instituciones.

**Conclusión:** hubo un retraso en el reconocimiento de los signos y síntomas del infarto agudo de miocardio, lo que impidió la búsqueda inmediata de atención médica.

Palabras Clave: infarto agudo de miocardio; salud de adultos; enfermedad crónica

### **INTRODUCTION**

Acute Myocardial Infarction (AMI) and Stroke (CVA) are the most common cardiovascular diseases (CVD) worldwide (Pan American Health Organization - PAHO, 2017). In Brazil, ischemic heart disease represents the first cause of mortality in the age group between 40 and 59 years old, in both genders (Brasil, 2018).

Generally, AMI affects the highest age groups, regardless of social and economic class but the most vulnerable groups are most severely affected, although its development in young adults is not uncommon (Lima et al., 2019).

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The evolution of AMI in young people occurs through family inheritance of the food level due to the high consumption of processed foods and low levels of physical activity, which in the long term cause damage to the heart structure, starting sometimes in childhood and becoming stronger in adolescence and progress to adulthood (Souza, Rigon, Moraes, Goldmeier, & Pellanda, 2015).

To combat this problem, we justify the elaboration of a care plan based on integrality and interdisciplinarity, with actions aimed at promoting, recovering, and restoring the health of these people so that they can expand their skills, autonomy, and standard of wellobeing (Cestari et al., 2016).

The study of Costa et al. (2018) in Brazil identified that there is a high rate of morbidity and mortality due to AMI in the intrahospital and extra-hospital contexts, caused by the difficulty of accessing specialized services after the first signs of worsening clinical condition or the late access to primary health care. Thus, there is a lack of specific guidance or the lack of effective service in public services, which assist most of the Brazilian population at all levels of care.

The knowledge about the paths taken by people affected by AMI can help in understanding the actions and interactions with the different care systems, the context that surrounds them, the meanings of health and illness understood by the individuals that make up the sample, providing a reflection on this process with health professionals to improve the care network.

This study aimed to understand the path taken by people who experience an acute myocardial infarction when searching for their best health condition.

## 1. MÉTHODS

The methodology used in this study derived from a master's thesis. It is the qualitative descriptive method, whose data were analyzed in the perspective of understanding the path followed by people after AMI and contemplated the guidelines of the "Consolidated Criteria for Reporting Qualitative Research" (COREQ).

The inclusion criteria were being a resident of the municipality where the research was carried out, having been seen at an emergency care unit and transferred to the referral hospital in cardiology. In the exclusion criterion, we used the Mini-Mental State Examination (Mini-Mental), with the cut-off point being the minimum required score of 13 for illiterates, 18 for low education and medium education, and 26 for high education.

We considered as low education level, the values of one to four years of study (incomplete elementary school); medium education level, from four to eight incomplete years (complete elementary school); and high education level with more than eight years (from high school) (Bertolucci, Brucki, Campacci, & Juliano, 1994).

The identification of possible participants in the research was substantiated by the principal investigator through daily analysis of the admission and transfer lists. After identifying the possible participants, we contacted them by telephone and scheduled a home visit to present the research project, at a place, date, and time defined by the participant.

The instrument used was a semi-structured form with sociodemographic, clinical variables, and data on the participants' lifestyle habits. We also used an interview script with 10 open questions and the field diary, in which we recorded aspects of the physical environment, family interaction, and verbal and non-verbal expressions. The researcher recorded the interviews, with an average duration of 60 minutes, with the prior consent of the participants.

The testimonies were transcribed in full and analyzed with the support of the Interface software of *R pourles Analyzes Multidimensionnelles de Textes et de Questionnaires* (IRAMUTEQ\_0.6-alpha3®), through which they were coded for content analysis.

The content analysis of the testimonies was carried out according to the steps proposed by Creswell (2014): 1) pre-analysis, 2) exploration of the material or coding and treatment of the results and 3) interpretation. Tables show the characterization of the participants with absolute and percentage frequencies using Microsoft Excel® 2010.

We transcribed and read the interviews in full to extract from them all the basis for seeking health care, at the time of the episode of AMI.

Three central themes emerged, which were characterized as experiences of health and illness (understanding of the disease), perception of risks, and interaction with the institutions.

The study was submitted to the Research Ethics Committee of a southern Brazilian state and approved under the opinion of  $N^{\circ}$  3,178.58. All recommendations of Resolution 466/2012 of the National Health Council were met. To carry out the study, the authorization form was obtained from the Municipal Health Secretariat of the city where the data were collected.

The Informed Consent Form was read and signed by the participants and any questions were promptly clarified by the main investigator. We transcribed the interviews in full and later we provided a copy of the transcript to the participant so that they could be read, with confirmation or the need to correct any part of the text.

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### 2. RESULTS

We carried out twelve home visits between February and May 2018. Eight of the participants were men and four women, with an average age of 50 years old. Regarding the level of education, complete elementary education prevailed (83%). Regarding self-reported family income, 75% of participants had a higher income than two minimum wages.

Regarding the demand for health care, participants used the Unified Health System at the first moment and complemented care with private services. In terms of lifestyle, the consumption of alcoholic beverages in eight of the twelve participants stood out; two participants used tobacco and showed that they did not perform regular physical activities.

According to Kleinman (1980), there are different ways of interpreting the disease by people, the concept of understanding "being" sick has biopsychocultural influences, caused by macrosocial forces (economies, policies, and institutions) that when they are misaligned, can likewise generate illness in people, and impair the demand for health care.

In the "experiences of health and illness" category, we observed that the perception of the disease was acquired throughout the acute episode, insofar as the signs and symptoms that resulted in the search for health care appeared, which is evident by the reports of EP\_2 and EP\_5.

"In 2013, I always measured the pressure in pharmacies and it was always high. And I went to the Health Center and consulted the doctor. [...] I started taking medicine, however, [...] from time to time. I never took it straight. I took it when I saw that the pressure was high and then I took two pills" (EP\_2).

"I felt tired [...], I had a blood test for cholesterol and triglycerides and it was wrong, but I didn't do anything about it. [...]. I didn't take it seriously. And I got bored. Wow, if I had an idea of what was going to happen, but never, I would have gone long before, because it is very bad that way" (EP\_5).

In the category "Perception of risk", the narratives of the participants showed the difficulty in understanding the risk factors, as observed in the EP\_3 and EP\_13 narratives. Although the heart attack for EP\_5 was not the primary event, he did not feel safe in the drug therapy and health care, and how to deal with the disease.

"I don't think smoking and drinking is a problem. [...] Well, I'm not going to tell you that the cigarette did super well, and the drink did well, no. But I don't think it was because I didn't drink that much time" (EP-3).

"[...] Actually, I only found out that I had a heart attack because he asked me for a blood test. Only the four times that I had the heart attack I felt the same symptoms, you know. [...] it's been ninety-few days since I had the surgery, and I still don't know if the drugs are still not adequate, or what is happening, but I still don't feel well" (EP\_5).

"Well, the truth is, I didn't worry because I didn't know what it was. [...]. I had never been hospitalized at all, [...], when you see heart attack on TV [...] you don't pay much attention, or change the channel" (EP\_13).

In the category "Interaction with the institutions", there is a delay in attending health services, a long waiting time for resolution, and the devaluation of the complaint presented, which generated anguish and suffering for the participants.

"It took SAMU to arrive. [...] it runs away. [...] when I arrived at the emergency care unit [...] he told me to lie down to do the exam, and I didn't stay still. They identified the infarction [...] I was referred to the hospital [...]" (EP\_1).

"I called SAMU, and they measured the pressure. [...]. They said that the pressure was normal and did not want to take me to the PAC. So, my brother-in-law took me to the UPA. [...] It took me about 20 minutes, I couldn't stand the pain and invaded the doctor's room. The doctor told me to sit down. No, you are having a heart attack, so he threw me on a stretcher and then he said it was serious [...]" (EP\_2).

"I went alone to the health center. I went at dawn to get a form at the health center and I couldn't, the first time or the second time, the next day I went earlier and I did it". [...] and he sent me to UPA, at dawn at UPA [...] he said I was starting to have a heart attack [...] he told me to sit down and it was already stopping. [...] I sat on the stretcher and put my hand on my heart and I didn't see anything else and I fell" (EP\_4).

"[...] look, I arrived around four-thirty, [...] when they went to see [...] it was more or less, close to eight or so, and it takes a while to assist me." [...] I was almost crying, [...] I spoke [...] for God's sake I have something bad and I don't know what it is. [...] I went to the doctor [...] I can't stand the pain, the pain here, [...]. until I took the exams, and I was there with that pain. [...] When the doctor saw the exams, he already warned that I was going to the hospital [...] when I saw him, I was already undergoing angioplasty. [...] I came home, [...] at night I was bad again. That same symptom, the same thing, I was worried. I called SAMU and they sent me back to the hospital, I went straight there. When I arrived, I even showed the paper, it comes out well now ... only if it is private [...], back to

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the UPA again. I went back to PAC again, I waited for a while until they answered, and then the ambulance came and took me to the hospital again" (EP\_13).

### 3. DISCUSSION

The profile of the sample in this research corroborates the sociodemographic changes that have occurred in Brazil in recent years, characterized by both a reduction in the fertility rate and a decrease in mortality in older age groups (Zanon, Moretto, & Rodrigues, 2013). Regarding the education level, the data found oppose other studies, which point out that Chronic Noncommunicable Diseases more affect the low-income population (Dietrich, Colet, & Winkelmann, 2019), although the sample of this study is very small to conduct a comparative study.

Regarding the physical activity, we observed that all participants did not perform any type of physical exercise. A sedentary lifestyle is one of the factors that contribute to obesity and consequently in the alteration of blood pressure, as the practice of physical activity promotes circulatory dynamics, respiratory and musculoskeletal function, also contributing to the non-medication control of hypertension arterial (Freire et al., 2017).

Regarding the categories identified in the study, we observed that the category "Experiences of health and illness" reflects the understanding of the disease by the people affected. Through the reports, we could observe the lack of knowledge related to the signs and symptoms of the AMI episode, the difficulty in continuing therapy at home, and maintaining healthy lifestyle habits.

Non-adherence to medication results in complications and degradation of their clinical conditions, resulting in urgent and emergency care and hospitalization for these people (Mantovani, Ruschel, Souza, & Rabelo-Silva, 2015). This fact is corroborated by the study by Kripalani et al. (2015) that 70.7% of people with an acute coronary syndrome or acute heart failure, after hospital discharge, reported that at some point they did not use the correct medication, resulting in a new hospitalization, which was also evidenced in this study.

The difficulty in overcoming the disease or even overcoming its limitations causes a loss of quality of life (Ammouri, Kamanyires, Raddaha, Achora, & Obeidat, 2017). According to Oliveira and Püchel (2013), people with AMI understand the events related to their health to improve the quality of life, as these are fundamental for rehabilitation and treatment. However, isolated knowledge is not enough to that a lifestyle change occurs, this means that a joint offer with other health promotion strategies is necessary.

The difficulty in understanding the disease also influences the recognition of the risks for AMI, as evidenced in this research, emerging the category "Perception of risks", in which the difficulty by the participants in recognizing the risk related to the acute event of the myocardium.

The participants had difficulty in perceiving the signs and symptoms and even denied the seriousness of the situation, which was also identified in a study developed in Turkey with 600 participants in 2012, which demonstrated that despite the symptoms and some signs presented by the patients, they took between 15 minutes to 10 days to seek health care (Koc, Durna, & Akin, 2017). In this aspect, some researchers emphasize the importance of finding strategies to help identify the signs and symptoms of AMI at an earlier stage, by carrying out educational actions that can develop health literacy, and make people active participants in their care process (Paz, Mantovani, Mercês, Mazza, & Silva, 2020).

According to Stuchi et al. (2017), the concept of health is formed by the personal experience of each one and. Thus, it has a close relationship with the beliefs, values, and feelings that align biomedical rationality with popular rationality, and both influence the adherence or not to drug therapy and lifestyle changes.

The fact is that even having access to regular medical follow-up and receiving guidance regarding care for the disease, lifestyle changes are still incipient such as the practice of physical activity and care with food for loss or maintenance of the weight. This is a worrying reality and reaffirms the central role of health policy management (Zangirolani, Assumpção, Medeiros, & Barros, 2018).

In the category entitled "Interaction with the institutions", we can understand the path taken by the patient who is going through an acute event of a cardiac complication and the disarticulation between health services, difficulty in care and communication failures, issues also perceived by Melo et al. (2020) in a study carried out with people undergoing myocardial revascularization.

This corroborates the study carried out by Ferreira (2015), in which the path is taken by people in search of health care evidence the flaws in the hospital referral network such as problems of access and integrality of care. Thus, knowing these experiences and trajectories can help in the construction of a more effective and resolving care.

In this context, we emphasize the importance of health literacy so the person is informed and better know his health condition, he develops capacities and potentialities to better manage his condition, be it in the day to day or the acute moment, when he needs a quick and resolute decision making. Health literacy goes far beyond the hospital inpatient environment, where health care is provided, as it encompasses the way people relate and the trajectory they take in the search for self-care (Magnani et al., 2018).

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The path followed in the search for care is built through the experiences of the patient, which is influenced by the beliefs, values, and habits of life, incorporated throughout their existence, coming to reflect on how they understand the disease and adhere to the treatment (Coelho, Barros, Matheus, & Domingues, 2016).

### **CONCLUSION**

We identified that the perception of signs and symptoms and the risk of being affected by an AMI depend on how each person sees his body and health, which also influences the demand for health care. When going through a path directed at health care during the acute event, the sample of this study found barriers and the devaluation of the signs and symptoms presented at the time of arrival at the health service by the professionals, which implied delay in identifying the institution suitable for the recovery health status of these patients.

The results found showed the path followed by the participants in search of care and the barriers they had, allowing health professionals, especially nurses, to understand the factors that permeate the patients' choices and to address the gaps found in access to effective and efficient care, reducing the delay in attending and enabling the response on time, minimizing the risk of complications associated with the acute event.

The limitations of this study are related to the low number of participants, hindering the comparison with other studies. The methodology used allowed an analysis of aspects related to the understanding of post-AMI patients, about the path taken by them in the search for health care at the time of the acute myocardial episode.

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