THERAPEUTIC ITINERARY OF A PATIENT SUBMITTED TO MYOCARDIAL REVASCULARIZATION: REPERCUSSIONS TO CARE MANAGEMENT

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Objective: To understand the reason why a person submitted to myocardial revascularization looks for health care and the mechanisms of care management through the Therapeutic Itinerary. Method: it is a single case study, descriptive exploratory, with a qualitative approach developed from Narrative Interview and the data treatment was guided by Content Analysis in the thematic mode, which permeated the processes of organization of analysis, coding, categorization and inferences. In this process, the event was considered the unit of record and the context unit of action. Results: The Therapeutic Itinerary is presented from its graphical representation and subdivided into two thematic categories: "slow support and centered on specialized attention" and "marks of (contra) regulation in a care experience with disjointed lines". Conclusion: The situation analyzed revealed the Therapeutic Itinerary, the failures in the communication process and the difficulties in being redirected to the appropriate services due to the different spaces visited by the user, culminating in his pilgrimage to health services that directly affects the management of care in its individual, systemic and corporate dimensions. It made it possible to identify the person’s misdirection through the health system in search of resolution, which consequently has negative implications in his daily life by prolonging the journey since the beginning of the illness, as well as the interferences he was subjected to in ensuring comprehensive care.

Keywords: Myocardial Revascularization, Chronic Disease, Integrality in Health, Health Management...

INTRODUCTION

In Brazil, excluding external causes, cardiovascular diseases (CVD) are responsible for 31.8% of deaths, until 2019 it was considered the main cause of death, mainly among the elderly individuals(1,2), a group in which about 85% of deaths occur from acute myocardial infarction (AMI) (3). The decrease in these rates can be reversed through comprehensive health promotion and early detection interventions, with timely treatment in an appropriate place, reduction of risk factors, in addition to improved health care (3).

In this scenario, some conditions, such as obstructive coronary atherosclerotic disease and structural diseases of the heart and extra-cardiac vascular bed, require diagnostic and therapeutic procedures of high technological density (4), making it necessary to refer articulated and coordinated by the Family Health Strategy (FHS), so that people do not get lost in the comings and goings of the different services of the Unified Health System (SUS). CVD-related procedures have been progressively increasing worldwide (5), including myocardial revascularization surgery for the treatment of obstructive coronary artery disease (5), performed in approximately 80.0% by SUS in the country (6).

In order to face these health conditions, investments in the management of assistance...
flows are necessary, which implies the integration of different actions that consider the capacity of the health system and the trajectory of people through the different units. In this sense, the Care Line (CL) represents this strategy when establishing care paths, organizing the flow of individuals according to possible health needs\(^7\).

The Therapeutic Itinerary (TI) also emerges as a resource since it allows analysis and disclosure of the weaknesses in the use of a given therapeutic system with a focus on the chain of events in a given situation, such as the search for health care\(^8\).

The CL intends safe and effective assistance flows in the health system, while the TI reflects the path of the search for health care, with consideration to individual, family and socio-cultural issues, proposing visibility to the dialogical and intersubjective relations that pass through the movements of people in search of care, including with regard to health services\(^9,10,11\).

When it is observed to establish a specific CL, the TI can result in a process of recognition of dialogical and intersubjective relationships that permeate the search for individuals who participate in the daily routine of health services and are outlined by the successive meetings that guide the walk through care places\(^9\).

The ordering and coordination of care is prospected for Primary Health Care (PHC), especially under the FHS model. However, when the CL does not guarantee the person's permeability through the care environments and facilitates their TI, the credibility of the service is reduced, including interfering in the bond and the loss of credibility\(^12\).

Currently, the way in which several services have acted for people's health needs demonstrate inefficient practices of low resolution and which interfere with the course of illness, including prolonging treatment\(^13\). With this, the adequacy and valorization of the TI help in the reaffirmation of SUS principles, especially the doctrinal ones that advocate centrality in the person\(^14\).

This study was justified due to the need for research involving chronic conditions and considering the path taken in different health services, allowing for reflections to improve the process of building a LC to, in this case, in particular, a person undergoing myocardial revascularization.

With all the difficulties, the path traced in search of care may not correspond to that established by the health system, raising the question, in the southern region of the state of Mato Grosso, after analyzing the TI of a person with CVD: “how’s the implementation of CL perceived and analyzed in relation to individual needs?”

In response to this question, the present study aimed to understand - through TI - the search for health care for people undergoing myocardial revascularization and the care management mechanisms.

**METHOD**

It is an unique, descriptive, exploratory case study with a qualitative approach, developed from Narrative Interview (NI). This type of case study, in addition to showing interest in a unique situation, due to the analysis of the particularities, allows to broaden the view so that a broader situation can be understood\(^15\); in this research, to analyze the case of a person submitted to revascularization of the myocardium that used different health services, thus making it possible to broaden the view to understand TI and CL.

Qualitative studies seek not only to describe, but also to explain the phenomena, being able to reveal patterns and processes related to them\(^16\). In turn, NI, in addition to reaching the expected depth, provides the narration of a history that can be analyzed\(^17\), which, associated with TI, makes it possible to identify the path in the health system and thus obtain apprehension of the limits of CL, understood as an organizational act of the work process, as well as the provision of services to meet health needs\(^14\).

As a conceptual framework, health care management was used in its individual, systemic and societal dimensions\(^18\). The individual dimension integrates taking care of oneself and the choices in making ways of living in the face of adversity, making autonomy stand out; the systemic dimension focuses on the establishment of formal connections between health services; the company, in turn, permeates the meeting of

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society and the state, producing citizenship\(^\text{18}\).

Data collection took place in the first semester of 2018 with delimitation and choice of the participant, unit-case\(^\text{15}\), intentionally, due to the complexity of the situation experienced by the research participant and his movement of constant search for care, for coping health condition. The first author of the study was inserted in the cardiac surgery outpatient clinic; the place of recurrence of the person analyzed in this case, which is why the study was designed.

All ethical procedures for research involving human beings were followed, including free and informed consent for participation after signing the Free and Informed Consent Form (FIC). The study was registered, assessed and approved by the Ethics Committee under the opinion of number 2,571,546. The invitation to participate was made via telephone contact and the location for data collection was the participant's home. The NI was the strategy adopted for data collection triggered by the open question: "Tell me about your experience in the health system since you’ve started to notice your illness". The choice was based on the fact that it favors the revelation of the informant's perspective on events and on himself\(^\text{17}\). The interview lasted 60 minutes and was recorded in audio form, and its ending was based on the participant's own indication of the completion of their contributions to the narrative.

The treatment of data, with selection, analysis and interpretation\(^\text{15}\) was guided by Bardin's Content Analysis in the thematic mode, which permeated the processes of organization of analysis, coding, categorization and inferences. In this process, the event and the action were considered as units of record and context, respectively\(^\text{19}\). In order to preserve the anonymity of the participant, the unit that constitutes the case, a fictitious name was assigned (Jonas), as well as to the professionals present in his narrative: medical cardiologist (Wanessa); cardiovascular surgeon (Wallacy); and infectious disease physician (Marcos). At the end, constituting the report\(^\text{15}\), the participant's narrative was retrofitted to the cultured norm of the Portuguese language to facilitate the understanding and graphic representation of his TI.

RESULTS

The research participant was a 76-year-old individual, who is retired, initially diagnosed with hypertension, and live with a partner in the same residence. Jonas has visited the health services so many times, considering the different services, as shown in Figure 1. Initially, due to the diagnosis of unstable angina, he underwent myocardial revascularization surgery, having presented bleeding and infection as surgical complications.

The graphic representation of Jonas's TI is in the form of a web, which makes it impossible to
visualize an articulated flow, making the figure representative of how complicated the search for care was, full of comings and goings with insufficiencies in meeting the needs health of the participant.

The IT is presented from its graphic representation and from two thematic categories: “slow support and focused on specialized care” and “marks of (contra) regulation in a care experience with disjointed lines”.

**Slow support and focused on specialized care**

For Jonas, his TI began in 2017, from a consultation by the FHS to monitor his health, with attention to the issue of arterial hypertension. The altered result in an exam requested by that service (and not needed by the patient) determined his referral to a cardiologist. The intention of the FHS general practitioner, in Jonas’ words, was to support a clinical decision. The doctor requested exams, including cardiac catheterization, performed in Cuiabá - MT, 219km from her municipality. At the time, referral was necessary due to the non-contractualization of this procedure by SUS in the health region to which it belonged (south region). After waiting a month since the catheterization, he received the result, an opportunity in which the cardiologist diagnosed coronary artery disease and informed that Jonas would undergo a coronary artery bypass surgery.

When she looked at my exam, she said - "So, Mr. Jonas, [...] you need a heart surgery". - I realized that my case was serious. (Jonas)

Due to the severity of the case because of the risk of cardiac involvement, surgery was scheduled. He was quickly hospitalized in his municipality of residence, admitted on one day and submitted to myocardial revascularization on the following day. Between the date of diagnosis and the performance of the surgery, he waited less than a week.

In the first days after the surgical procedure, there was complication so that Jonas had to return to the operating room for the insertion of a mediastinal drain, due to the constant excretion of blood and secretion in the surgical incision, in the sternum region. After that procedure, he remained hospitalized for twenty-three days and was discharged.

[...] I underwent the surgery, and after two or three days it ‘opened and closed’ again [...] with twenty-three days I spent there, the doctor released me and I came home. (Jonas)

To support the post-operative period, the cardiology service includes a cardiac surgery outpatient clinic. In every time he looked for this service, he related to feeling the suffering as a high-intensity burning at the surgical incision site.

During the time that Jonas stayed home, the patient return visits to the cardiac surgery outpatient clinic were weekly. At no time he was guided to seek the FHS, remaining linked to the specialized service, in attendance with cardiovascular surgery. Although easily accessible, the enterprises shown to be insufficient to deal with the complaints he presented.

**Marks of (contra) regulation in a care experience with disjointed lines**

As a result of the first and second surgeries, Jonas was going through the second phase of his treatment, characterized by fifty-eight days of comings and goings to the consultations at the cardiac surgery outpatient clinic, with only a cardiovascular surgeon, with no solution for the pain he had been feeling. In view of this fact, in the routine of that SUS outpatient clinic and in view of the needs he presented, it was suggested that he seek the private office of an infectious disease physician so that he could be evaluated more quickly.

At the consultation, the cardiovascular surgeon said ... - "So ... you make a private appointment with Dr. Marcos, he is a very good infectologist; he knows what can be done". (Jonas)

Through this indication, the first (contra) regulation of the public health system begins in his trajectory, with an improper practice of referral, since the service to this specialty was offered by the municipality. Jonas went to the infectologist’s private office, performed laboratory tests (not specified during the narrative) and took them for evaluation by that professional in a return visit, an occasion that detected a serious infection that required monitoring.
I went to the consultation, and then I went to take the exams. [...] when I went back there and gave the results, Dr. Marcos said: "[...] you have a very strong bacterium". [...] and sent a "letter" to the cardiovascular surgeon. When I arrived there, I gave it... he looked and said - "it's hospitalization". - Then I got admitted. [...] I was supposed to stay in the hospital for forty-two days, but I stayed seventy-six days. (Jonas)

At the beginning of the treatment, forty-eight days of hospitalization were scheduled, but Jonas remained for seventy-six days hospitalized, being diagnosed with osteomyelitis of the sternum. After a long period of hospitalization by SUS at the reference hospital in his municipality for drug treatment of osteomyelitis with Imipenem associated with Cilastatin, the lesion at the site of the surgical incision remained and Jonas was subjected to the third surgical procedure of thoracotomy to remove the placed metal wires in the first surgery.

After this procedure, back home, Jonas continued to experience burning pain, intense, in the thoracic region, until the cardiovascular surgeon suggested treatment through a hyperbaric chamber, bringing another mark of (contra) regulation in this TI, once who, according to Jonas, said it would be easier to get this procedure if they asked for mediation by a politician. With difficulty in political articulation, one of his daughters decided to finance his treatment in São José do Rio Preto - SP, for living in that municipality and since he would be able to pay half the price for the same procedure there.

I went to São José do Rio Preto. I had twenty-two sessions. [...] but the antibiotic I got it here, I didn't get it there. I didn't have a prescription, so I had to buy it. (Jonas)

There were twenty-two treatment sessions with the help of the hyperbaric chamber, however, in contrast, the main antibiotic used in his municipality (Imipenem) was not obtained free of charge in his daughter's city. The treatment brought pain relief, although without the antibiotic it would no longer progress. The physician advised him to return to his municipality to start using the antibiotic again.

The doctor from São José do Rio Preto said - “Look, Mr. Jonas ... I’m not going to lie... You are paying for a treatment for getting well and you will not. If you want to go there, to continue with the antibiotic and try the session there, it would be better”. (Jonas)

Back in his municipality, in search of treatment with the help of the hyperbaric chamber, he frequently sought the central regulator. He reported that the staff of the center of consultations did not give "hope" of getting an appointment. Then he went to the cardiovascular surgeon and, after a few attempts, managed to schedule an appointment at the clinic. At the consultation, the surgeon suggested that Jonas move to another city and that he had nothing else to do.

[...] he said - "I also can't do anything. Sir, look for another way or go back to São José do Rio Preto [...] why don't you go live there? " - I said - “Dr. Wallacy, I am not leaving my home, my family here ..."-“Yeah, but I can't do anything. There is no help in looking for me, because I can't do anything”. (Jonas)

The only solution proposed by the cardiovascular surgeon was to perform a sternectomies, which was not accepted by Jonas, because he was afraid. The patient returned to his private consultation with the infectious disease physician who disagreed with this procedure and suggested seeking care with another doctor in the private sector in another municipality.

But Dr. Wallacy doesn't agree. He only agrees if it is to remove the sternum. Then, I went to Cuiabá, and paid for another appointment [...] and had the appointment. The doctor said the same thing as the infectologist... you don't really need to remove the sternum. (Jonas)

When he returned to his municipality, he consulted again with the infectologist and said what the surgeon in Cuiabá thought. Since then, due to the feeling of hopelessness that was aroused in the outpatient consultation, Jonas changed his treatment to the private service.

**DISCUSSION**

It is evident in this process the failure to carry out the management of this complex case by the FHS, which would enable the team to be involved in a possible discussion of a clinical case and the consequent construction of a
therapeutic project, in a multi-professional character.

It is also evident in the TI undertaken by Jonas the disarticulation between the services he sought. It is possible to assume that the care management in the experience described was not coordinated by the PHC, since this articulation by the PHC is not evident through the speech of Jonas. Situations like the one analyzed in the present work are capable of unveiling weaknesses in the municipal health system in relation to the systemic dimension\(^{(18)}\), due to the difficulty in establishing connections between health services.

The participant of this research had regular consultations in the family health unit that detected the alterations in the exams and then he was referred for the evaluation of a cardiologist. After the exams and evaluation of the cardiologist, the need for surgical intervention was detected, being regulated to the reference hospital.

In the case of people who need myocardial revascularization, the form of entry into the health system is mediated by the PHC, which is responsible for referral to secondary care, that is, for the evaluation of a cardiologist. On these occasions, after identifying the need for invasive diagnostic procedures or performing surgical intervention, people are inserted into the municipal regulation system and regulated to the reference hospital\(^{(20)}\).

On the other hand, most people only seek care when there is an aggravation of symptoms that interferes with their daily lives. While some seek such care in the FHS, others go to specialized clinics. In the context of prevention and early diagnosis, people do not usually have periodic consultations and, therefore, health prevention. They usually look for care when there is a worsening of the chronic condition, prioritizing hospital care, as they believe it is the safest and most resolute access in comparison to other health services\(^{(21)}\).

With regard to hospitalization, a study reveals that the long waiting period between diagnosis and surgical intervention is perceived by the participants in a negative way. At the time, the delay occurred due to the unavailability of a place in the Coronary Unit (COU), the cancellation or postponement of the surgery\(^{(22)}\), contrasting the findings of this study in which the period between diagnosis and intervention occurred in less than seven days.

The care management observed by the individual dimension - which enabled favorable outcomes such as the performance of the necessary procedures - reveals one of its main characteristics: weave new ways of living in the face of adversity, in search of individual achievements related to self-care\(^{(18)}\). Regardless of their motivations, the prolongation of hospitalization occurred due to the complication of surgical intervention in the post-surgical period, which caused a significant change in their daily lives.

Soon after the two hospital discharges, his follow-up was restricted to the cardiac surgery outpatient clinic of the referral hospital in his municipality and hospital care. Situations like the ones he experienced reinforce the need for investments in care management, the observance of a systemic dimension\(^{(18)}\), and re-articulation of services, rescuing the role of reordering and coordinating care by PHC\(^{(23)}\), necessary in all cases.

Health taken as a social and systemic issue, organized based on services and actions, manifests conceptual and operational duplicities characterized by the individual and collective interactions, Government and market, and by the public (Universal, however it is deprecated) and private\(^{(24)}\) interactions. In the situation presented, the Government's attributions are insufficient to meet health needs, demonstrating in this aspect the need for care management through the societal dimension, identified by the meeting of the individual and society with the State, a factor that affects the production of citizenship\(^{(18)}\). As much as the search for the private sector has occurred frequently, discouraging this practice consists of encouraging the search for the guarantee of constitutional rights.

When assessing the relation between public and private service at some points in their trajectory, the research participant was referred to private services. When asked for an evaluation by an infectious disease physician, he accepted the opinion of another surgeon and had to seek treatment in the private network in another state. The individual dimension of care management was evidenced in the search for
private services, so that when he found the barriers to access the services he needed, he envisioned alternative choices in the face of adversity, making his autonomy stand out\textsuperscript{(18)}. This practice, although common, in this case brought losses in the direction of his trajectory, resulting from the deprivation of rights.

Failure to perform counter-referral to PHC resulted in a search for private services with regard to specialized care, weakening the PHC coordination capacity in which he was linked. In this sense, there are many barriers to be overcome with regard to health services, always aiming at comprehensive and, in fact, effective care\textsuperscript{(25)}.

Multiple connections between the various dimensions of care management are part of the construction of a complex and formal CL, although full of shortcuts, possibilities and paths. Thus, understanding the trajectory in the light of these dimensions allowed us to understand the difficulties in articulating care to interweave the health needs presented with the offer of actions and services in the daily practice of health\textsuperscript{(18)}.

This research was able to contribute to the identification of the care management needs of this singular and complex case, using important analysis tools such as TI and CL permeated by conceptual exploration, enabling the understanding that the organized assistance flows may imply in a qualified offer of actions and services.

It has favored the reflection on the search for care undertaken by the person using the SUS, presenting empirical evidence of the (dis) paths of the trajectory in this path, permeated by barriers in the access and non-observation of health needs, a factor that tensioned the demand by the private sector.

**CONCLUSION**

The analyzed situation revealed the Therapeutic Itinerary, the failures in the communication process and the difficulties for a patient to be redirected to the appropriate services in the different places he went, culminating in the provision of health services that directly affects the management of care in its individual, systemic and corporate dimensions. It made it possible to identify the person's misdemeanors through the health system in search of resolution that, at the time, had negative implications in his daily life by prolonging the journey since the beginning of the illness, as well as the interferences to which he submitted in guaranteeing comprehensive care.

As for the implications for care management, the chronic condition management models, when articulated through CL, benefit the person and their family, which may lead to the strengthening of PHC actions as a coordinator in the management of different cases, in order to adapt the TI according to health needs and thus reduce negative changes in daily life.

The limitations for the study are concentrated on the methods, since the data collection through the Narrative Interview can contain the participant's memory bias, as well as judgment bias during the analysis of the analyzed content. This unique case study did not allow opposition to the perception of the manager, the health professional, the community agent or other actors involved. Thus, it is suggested the use of other interview techniques inspired by phenomenology or oral history, as well as the analysis of records in medical records, which allow the identification and documentary exploration for comparative analysis of the TI, favoring a better argumentation and validation of the findings.
analizada desvelou o Itinerário Terapêutico, as falhas no processo de comunicação e as dificuldades em ser reorientado aos serviços adequados devido às diferentes áreas geográficas. Elas culminaram com a sua peregrinação por serviços de saúde que repercutem diretamente na gestão do cuidado nas suas dimensões individual, sistémica e societária. Possibilitou identificar os descaminhos do processo de gestão de saúde em busca de resolutividade, que consequentemente acarreta implicações negativas em seu cotidiano ao prolongar o percurso desde o início do adoecimento, bem como as interferências a que foi submetido na garantia do cuidado integral.


ITINERARIO TERAPÉUTICO DE PERSONA SOMETIDA A LA REVASCULARIZACIÓN MICOCÁRDICA: REPERCUSSIONES PARA GESTIÓN DEL CUIDADO

RESUMEN

Objetivo: comprender por medio del Itinerario Terapéutico la busca emprendida por el cuidado en salud de persona sometida a la revascularización del miocardio y los mecanismos de gestión del cuidado. Método: estudio de caso único, descriptivo exploratorio, de abordaje cualitativo desarrollado a partir de Entrevista Narrativa y el tratamiento de los datos fue guiado por el Análisis de Contenido en la modalidad temática, que permitió los procesos de organización del análisis, codificación, categorización e inferencias. En este proceso, se consideró como unidad de registro el acontecimiento; y como unidad de contexto la acción. Resultados: el Itinerario Terapéutico está presentado a partir de su representación gráfica y subdividido en dos categorías temáticas: “accedida lenta y centrada en la atención especializada” y “marcas de la (contra)regulación en una experiencia de cuidado con líneas desarticuladas”. Conclusión: la situación analizada reveló el Itinerario Terapéutico, las lagunas en el proceso de comunicación y las dificultades en ser reorientado a los servicios adecuados debido a los distintos espacios recorridos por el usuario, culminan con su peregrinación por servicios de salud que repercuten directamente en la gestión del cuidado en sus dimensiones individual, sistémica y societaria. Posibilitó identificar los descaminos de la persona por el sistema de salud en busca de resolución, que consecuentemente conlleva consecuencias negativas en su cotidiano al alargar el recorrido desde el inicio de la enfermedad, así como las interferencias a las que fue sometido en la garantia del cuidado integral.


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