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ORIGINAL ARTICLE

EDUCATIONAL ACTIVITY WITH CORONARY ANGIOPLASTY PATIENTS ATIVIDADE EDUCATIVA COM PACIENTES SUBMETIDOS À ANGIOPLASTIA CORONARIANA ACTIVIDAD EDUCATIVA CON PACIENTES SOMETIDOS A LA ANGIOPLASTIA CORONARIA

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ABSTRACT

Objective: to verify the impact of an educational activity on the life habits of coronary angioplasty patients. **Method:** descriptive, exploratory, quantitative study performed with hospitalized patients who had undergone coronary angioplasty through a semistructured interview before the procedure for guidance on coronary angioplasty and healthy life habits. After 30 days, a second interview was conducted to identify the easy and difficult aspects of the changes in lifestyle and the contribution of the guidelines. **Results:** the reports confirmed the importance of the guidance provided on coronary angioplasty and healthy life habits. There was a contribution in the clarification of doubts and changes in the habits of some patients. **Conclusion:** Educational activities contribute significantly to the control of risk factors for coronary artery disease. Information about the disease increases the ability to change attitudes and helps reducing the incidence of new illnesses. **Descriptors:** Nursing Education; Coronary Artery Disease; Health Education.

RESUMO

Objetivo: verificar o impacto de uma atividade educativa sobre hábitos de vida de pacientes submetidos à angioplastia coronariana. **Método:** estudo descritivo, exploratório, de abordagem quantitativa, realizado com pacientes internados submetidos à angioplastia coronariana por meio de entrevista semiestruturada antes do procedimento para orientação quanto à angioplastia coronariana e hábitos saudáveis de vida. Após 30 dias, foi realizada outra entrevista para identificar facilidade e dificuldades nas mudanças no estilo de vida e contribuição das orientações. **Resultados:** os relatos indicaram a importância das orientações fornecidas sobre a angioplastia coronariana e sobre hábitos saudáveis de vida. Houve contribuição no esclarecimento de dúvidas e em mudanças em alguns hábitos dos pacientes. **Conclusão:** atividades educativas contribuem significativamente no controle de fatores de risco para a doença arterial coronariana. Informações sobre a doença aumentam a capacidade de modificar atitudes e auxiliam na redução de novos agravos. **Descritores:** Educação em Enfermagem; Doença da Artéria Coronariana; Educação em Saúde.

RESUMEN

Objetivo: verificar el impacto de una actividad educativa sobre hábitos de vida de pacientes sometidos a la angioplastia coronaria. **Método:** estudio descriptivo, exploratorio, de enfoque cuantitativo, realizado con pacientes internados sometidos a la angioplastia coronaria por medio de entrevista semi-estructurada antes del procedimiento para orientación sobre la angioplastia coronaria y hábitos sanos de vida. Después de 30 días, fue realizada otra entrevista para identificar facilidad y dificultades en los cambios en el estilo de vida y contribuciones de las orientaciones. **Resultados:** los relatos indicaron la importancia de las orientaciones fornecidas sobre la angioplastia coronaria y sobre hábitos sanos de vida. Hubo contribución en la aclaración de dudas y en cambios en algunos hábitos de los pacientes. **Conclusión:** actividades educativas contribuyen significativamente en el control de factores de riesgo para la enfermedad arterial coronaria. Informaciones sobre la enfermedad aumentan la capacidad de modificar actitudes y auxilian en la reducción de nuevos agravios. **Descriptores:** Educación en Enfermería; Enfermedad de la Arteria Coronaria; Educación en Salud.

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INTRODUCTION

Cardiovascular diseases (CVD) account for a large proportion of deaths due to noncommunicable diseases, most notably Coronary Artery Disease (CAD), which remains as the leading cause of death in developing countries.¹ Data from the American Heart Association (AHA) indicate that more than 80 million Americans have some type of CVD, especially CAD.² In Brazil, almost 100,000 deaths are caused by ischemic heart disease every year.³

CAD is a multifactorial disease related to modifiable risk factors such as systemic arterial hypertension (SAH), diabetes mellitus (DM), dyslipidemia, obesity, stress, sedentary lifestyle and smoking, or non-modifiable factors as age, gender and family history.⁴

This aspect of CAD demonstrates the need for an effective approach to the modifiable risk factors.⁵ In this sense, the actions of the nursing team with CAD patients are very relevant.

Health education, widely used by nursing professionals, can be defined as a guided and planned process to stimulate self-care and self-control of the disease. In the current perspective, health education is focused on health promotion with incentive of critical awareness of individuals and with the intention of involving them in the decisions regarding their own health.⁶

The use of educational strategies has become an important tool for the health team, especially for the Nursing team. Properly planned educational activities contribute to the success of the treatment and contribute to an adequate awareness of the health-disease process. This approach enables the selection of appropriate attitudes for the maintenance of individual and collective health and increases the effectiveness of necessary personal changes. Such changes contribute not only to the prevention and/or control of risk factors, but also to a better quality of life for patients.⁷

The construction of knowledge about the health-disease-care process is of great importance as it assures individuals the right to decide on any proposed treatment or care measure in relation to their illness. It is up to the professional to consider the habits and context in which each individual lives to insert him as an active subject in the learning process. It is about valuing and respecting the autonomy of patients in relation to their health.⁸⁻⁹

A qualitative study that sought to describe the perceptions of patients with DM about their disease demonstrated the importance of the nursing team's guidelines in promoting and maintaining self-care among these patients. The assistance provided to diabetic patients in a collaborative and non-prescriptive manner, that is, including them as responsible for their own health, helps in improving their quality of life and values the work of the Nursing team.¹⁰

In professional practice, there is a real need for proper guidance to CAD patients. Many usual attitudes in the daily life of these patients can be harmful to health. This can be due to the lack of adequate and clear information on the risk factors for CAD and the benefits of healthy habits. It is important that health professionals use the time and resources available, not only for the treatment of the disease, but also for providing guidelines that will help to change the behavior of these individuals. Access to information about the disease increases the patient's ability to change attitudes and adopt a healthier lifestyle.⁹

In this context, the use of educational properly planned resources and directed to CVD patients is an option to be considered. Through these resources it is possible to optimize the proposed treatment and increase the likelihood of positive results.¹¹ In a longitudinal study conducted in the United States, 225 CAD patients used educational material for 12 months after coronary angioplasty. The data revealed that the educational material provided practical information to patients, aided in the improvement of specific behaviors and reinforced that healthy behaviors decrease risk factors.¹²

Regarding the limitations caused by CAD and its influence on several aspects of patients' lives, it is necessary to highlight the need for changes in care practices towards the inclusion of social, psychological and cultural aspects in the treatment and rehabilitation and in the educative proposals for this clientele. The question that rises is: have the patients been adequately informed about the angioplasty to be performed and the necessary changes in lifestyle? Can risk factors that are modifiable be impacted when guidelines are provided?

OBJECTIVE

- To verify the impact of an educational activity on the life habits of CAD patients.

METHOD

Descriptive and exploratory study with quantitative approach carried out in a state teaching hospital in the country side of the State of São Paulo, Brazil, in two stages. The study included 45 patients who met the following inclusion criteria: being over 18 years old, male or female, being hospitalized for coronary angioplasty for the first time during the data collection period, being able to communicate through written or verbal expression, and having accepted to participate in the study with the reading and signing of the Informed Consent Term. Cases of rehospitalization for new angioplasty during the collection period, deaths and discontinuity in the interviews were excluded.

The first stage of data collection was performed in the nursing ward, during hospitalization and before coronary angioplasty. A semi-structured interview was conducted to obtain sociodemographic and clinical data, including: age, gender, origin and schooling; presence of CVD-associated risk factors and comorbidities; medications in use; blood pressure values; heart and respiratory rates; weight and height for calculation of Body Mass Index (BMI)¹³; information regarding previous guidance on angioplasty and lifestyle.

After the interview, the patients were clarified about the coronary angioplasty, the access routes used for the procedure, the care measures needed after the procedure and any other doubts they wished to clarify. They were also instructed on healthy life habits,

the importance of adopting a sound and balanced diet and regular practice of physical activities. This moment was ended with the delivery of explanatory leaflets on coronary angioplasty and healthy life habits.

The second stage occurred between 30 and 40 days after the coronary angioplasty, in the return of these patients to outpatient consultations in the hospital or by telephone, in cases in which personal contact in this return was not possible. A second semi-structured interview was conducted with open questions to identify the easy and difficult aspects of lifestyle changes, improvements in quality of life, whether the educational leaflets provided had contributed to such changes and about the guidance provided before angioplasty.

Simple descriptive frequency analyses were performed for the patients' reports on the guidelines.

RESULTS

There was a predominance of patients with a mean age of 60.8 years, being 27 males (60%). The level of schooling was low, with an average of 5.1 years of study. Table 1 shows the main clinical aspects of the patients included in the study, especially the high prevalence of SAH (77.8%) and sedentary lifestyle (71.1%).

Table 1. Clinical variables related to risk factors for CVD and associated comorbidities of patients undergoing coronary angioplasty. Botucatu (SP), Brazil, 2013. (n = 45)

Variable	n (%)
Systemic arterial hypertension	35 (77.8)
Sedentary lifestyle	32 (71.1)
Dyslipidemia	27 (60.0)
Overweight	22 (48.9)
Diabetes mellitus	14(31.1)
Smoking	14 (31.1)
Obesity	9 (20.0)
Alcohol consumption	5 (11.1)
Body mass index*	26.4 (17.6 - 36.4)

* median (minimum and maximum)

When questioned about previous guidance regarding coronary angioplasty, nine patients (20.0%) reported that they received this guidance at some point. Regarding lifestyle guidelines, 14 patients (31.1%) reported having already been instructed about the theme.

Table 2 presents the responses of patients regarding the contribution of the contents of the leaflet on coronary angioplasty and the guidelines received before the procedure.

Table 2. Distribution of the interviewees' reports according to the contribution of the educational leaflet on coronary angioplasty and guidelines. Botucatu (SP), Brazil, 2013. (n = 45)

Answers	n (%)
It is important to know in advance what will happen	20 (44.4)
More peace of mind during the exam	17 (37.8)
Adequate explanation of the procedure	16 (35.6)
Nervousness/anxiety decreased before procedure	15 (33.3)
Fear of the procedure decreased	07 (15.6)
It helped reassuring the family	03 (6.7)
It helped in guiding others	02 (4.4)

All patients reported that the content of the leaflet regarding coronary angioplasty and the guidelines provided had been of great importance.

Regarding the explanatory leaflet on healthy life habits, the study participants also considered it important, as well as the guidelines, as shown in Table 3.

Table 3. Distribution of the interviewees' reports, according to the contribution of the educational leaflet on healthy life habits. Botucatu (SP), Brazil, 2013. (n = 45)

Answers	n (%)
Clarified on the importance of reducing salt in food	21 (46.7)
It clarified the benefits of healthy eating	14 (31.1)
It reinforced information already known	11 (24.4)
It served to guide current feeding	10 (22.2)
It clarified on the importance of the reducing fried/fat food	08 (17.8)
It clarified doubts	06 (13.3)
It showed how incorrect were the feeding habits	05 (11.1)
It helped in guiding other family members	04 (8.9)

Table 4 shows the patients' reports regarding changes in life habits after coronary angioplasty and the guidelines given.

Table 4. Distribution of the interviewees' reports according to changes in life habits. Botucatu (SP), Brazil, 2013. (n = 45).

Answers	n (%)
Reduced intake of fried food/fatty meat	24 (53.3)
Reduced salt in food	20 (44.4)
Increased intake of vegetables	18 (40.0)
Increased consumption of fruits	13 (28.9)
Beginning of physical activity practice	12 (26.7)
Cessation of smoking	09 (20.0)
Decreased consumption of red meat	05 (11.1)
Increased consumption of white meat	04 (8.9)
Reduced intake of sweets	03 (6.7)

Patients were also asked about the difficulties experienced when trying to change some lifestyle habits. More than half of the interviewees (55.6%) reported that the main difficulty was physical activity, followed by difficulty in reducing the amount of salt in the diet (22.2%).

It is important to emphasize that patients, despite reporting difficulties in the search for better life habits, revealed a significant need for guidelines. Most of the study participants had some risk factor or comorbidity that, in many cases, could have been addressed previously.

DISCUSSION

The study population consisted of patients with a mean age of 60.8 years and mostly male (60%), similar to another study performed in a Hemodynamic Service.¹⁴

Several studies indicate that the onset of CVD tends to occur in more advanced age groups, mainly due to the increase of life expectancy of the population. However, in relation to gender, there is a higher prevalence of risk factors in women. This is true mainly for overweight and/or obesity, which are in general associated with predisposition to accumulate visceral fat.¹⁵⁻⁶

Schooling is important not only because of its relation to cardiovascular risk factors, but also due to adherence to the treatment proposed, which may be hampered by lack of understanding.¹⁷⁻⁹ In this study, the low level of schooling was a factor taken into account in the planning and implementation of educational activities. The adequacy of the language facilitates the understanding and improves the communication between the involved parties. The needs, the possibilities

and the potential for recovery/rehabilitation of each individual must also be considered.²⁰

CAD patients do not, for the most part, receive adequate guidance on any procedures to which they are going to be submitted or about healthy life habits. They do not receive important information about their treatment and the measures for prevention and control of CAD. The challenge in this case is to provide adequate information to these patients and sensitize them, valuing the change of habits as part of the treatment and as a way of taking care of one's life.

In a research that sought to investigate the patients' behaviors regarding causes and measures of control of CAD, appropriate guidelines proved to be relevant. Such guidance reflected on behavioral changes, mainly in eating habits such as reduction of salt intake and reduction in fat intake. The establishment of a relationship between health professionals and patients based on understanding, trust and respect for each individual's life history and way of life was also a strong point of the study.²¹

Adherence to the proposed treatment involves sociodemographic, clinical and institutional factors, cultural beliefs and habits, the relationship with health professionals, among others. The understanding of these relationships helps significantly in the determination of the most appropriate methods for the control of symptoms, prevention of aggravations and, mainly, the search for the better quality of life of CAD patients.²²⁻³

It is clear that behavioral change is not simple, because habits are acquired throughout life. It is then up to the professionals to consider the context in which patients are inserted and to use them in the proper instruction provided to them.²⁴

CONCLUSION

Among the 45 participants, most were male, elderly, with low schooling, high prevalence of hypertension, sedentary lifestyle and dyslipidemia, and were overweight, an important risk factor for CAD.

The patients evaluated the educational activity, highlighting the importance of the guidelines provided prior to the angioplasty. This instruction reduced the fear and anxiety experienced by both the patients themselves and their relatives. Guidance on healthy living habits was relevant and had as a high point the change of some eating habits, besides initiatives to practice physical activities and stop smoking. All participants in the survey

reported some change, although sometimes small, in their lifestyle.

The educational activity sought to help CAD patients in the changes necessary to control modifiable risk factors for the disease and, consequently, to improve their quality of life. The appropriate interaction between patients and health professionals make it also possible to improve the care provided and optimize the treatments offered to each individual.

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