



ISSN: 2230-9926

Available online at <http://www.journalijdr.com>

IJDR

International Journal of Development Research

Vol. 12, Issue, 03, pp. 54435-54440, March, 2022

<https://doi.org/10.37118/ijdr.24171.03.2022>



RESEARCH ARTICLE

OPEN ACCESS

QUALITY OF LIFE OF PEOPLE UNDERGOING CORONARY ARTERY BYPASS GRAFT SURGERY: FUNDAMENTAL RESEARCH FOR NURSING

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ARTICLE INFO

Article History:

Received 08th January, 2022

Received in revised form

26th January, 2022

Accepted 11th February, 2022

Published online 19th March, 2022

Key Words:

Quality of Life, Coronary Artery Disease; Myocardial Revascularization; Nursing.

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ABSTRACT

Goal: To assess the quality of life of people undergoing coronary artery bypass graft surgery. **Materials and method:** Correlational, cross-sectional study with a quantitative approach. Data collection was carried out from May to September 2018, through secondary data from medical records with the survey of sociodemographic and clinical data and primary data through the application of the generic instrument Quality of Life Index generic version III of Ferrans and Powers for quality of life (QoL) assessment. **Results:** The study included 30 people who underwent coronary artery bypass graft surgery from February 2017 to February 2018. The patients had good quality of the pathway after coronary artery bypass graft surgery (CABG). Low-income and less educated patients had a better QoL assessment in the Family domain ($p=0.02$ and $p=0.01$). Age was statistically significant in the Socioeconomic domain ($p<0.01$). Not having arterial hypertension presented a statistical probability of being correlated with a better QoL in the physical domain ($p=0.06$). **Conclusion:** Quality of life is a subjective parameter, which can vary from person to person and even for the same person throughout life, therefore, its accurate assessment is a task as difficult as conceptualizing it. In this study, the best assessment of QoL in people with lower purchasing power and education was highlighted. The instrument used in the study evaluates QoL based on people's satisfaction with issues that they deem important for their lives, thus, it is possible to conclude that there is a greater appreciation on the part of these people for simple things in life, such as personal relationships and of affection and this is reflected in the higher QoL index in the Family domain. Therefore, it is up to health professionals to recognize in these relationships, great allies for treatment and improvements in QoL.

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Citation: Lygia Buosi Correia, Patrícia Moita Garcia Kawakame, Rodrigo Guimarães de Almeida Santos, Maurício Caxias de Souza et al., "Quality of life of people undergoing coronary artery bypass graft surgery: fundamental research for nursing", *International Journal of Development Research*, 12, (03), 54435-54440.

INTRODUCTION

Cardiovascular Diseases (CVD) are the leading cause of death worldwide, accounting for more deaths than any other cause. In 2015, it is estimated that these diseases were responsible for 17.7 million

deaths, which represents 31% of all deaths globally [1]. Among the CVDs, Coronary Artery Disease (CAD) has a high prevalence, especially in the elderly population, which requires peculiarities in its treatment [2]. Myocardial Revascularization Surgery (CABG) consists of the surgical treatment that aims to improve the Quality of

Life (QoL), especially in individuals with CAD. The changes required by CAD and surgical intervention can have repercussions on the physical, mental and social status of patients, compromising their QOL as a whole [3]. Good QoL implies the person's ability to normally carry out their daily activities, and to be satisfied with their ability to perform these activities, this includes preserving physical mobility, independence, sufficient energy for self-care activities, social contacts, emotional stability, absence of pain and other discomforts, adequate sleep and rest [4]. Studies that assess QOL have received increasing attention and are being used to assess clinical efficacy and patient prognosis. Currently, there has been a greater concern, not only with increasing survival, but also with how the patient lives and how satisfied he is with his own life [5, 6]. As stated above, a person's QOL can be defined as the feeling of well-being and satisfaction or dissatisfaction in areas of life that are important to him or her. In this sense, Ferrans and Powers 2005 developed and validated a QOL assessment instrument, called the "Quality of Life Index, which allows the assessment of QOL through the person's level of satisfaction with items that he/she considers important for his/her life". This instrument was translated into Brazilian Portuguese and validated by Kimura e Silva in 2009 and was used as a theoretical framework for this study [7]. This study aims to evaluate the Quality of Life Index (IQV) of people undergoing CABG.

MATERIALS AND METHOD

In accordance with the provisions of Resolution No. 466/2012, on research involving human beings, this study underwent analysis and appreciation by the Research Ethics Committee - CEP of the Federal University of Mato Grosso do Sul - UFMS, located in the Municipality of Campo Grande, MS, Brazil, and by the Research Ethics Committee of the Hospital Universitário Maria Aparecida Pedrossian – HUMAP, through CAAE 79921317.4.0000.0021, opinion nº 2,519,203 was approved, the research only started after its approval.

"Quality of Life Index" generic version III by Ferrans and Powers, which was validated and translated into Brazilian Portuguese by Kimura and Silva in 2009. This instrument was applied individually, through reading with the patient at home. It is a generic instrument, composed of 33 questions in each part, to which the subjects assign values on an increasing scale of satisfaction and importance, ranging from 1 to 6, with the first scale being very dissatisfied (1) to very satisfied (6) and on the second scale from not at all important (1) to very important (6). The 33 items are distributed in 4 dimensions or subscales of the instrument: Health/functioning (13 items), Socioeconomic (8 items), Psychological/spiritual (7 items) and Family (5 items). Each item in the first part of the instrument (satisfaction) corresponds to the same item in the second part (importance), therefore, for the calculation of scores, each item of satisfaction is weighted by its corresponding importance. This process results in combined values, where the highest values represent high satisfaction and high importance and the lowest values represent less satisfaction and less importance, respectively. In order to centralize the zero of the scales, to assign the scores, it is first necessary to recode the score of each item. For this, 3.5 is subtracted from the answers for each satisfaction item, resulting in scores of -2.5, -1.5, -0.5, +0.5, +1.5 and +2.5, replacing the previous answers of 1, 2, 3, 4, 5 and 6. After the recoding, the recoded value (satisfaction) is multiplied by the answer of the same item of the second part related to importance. Then, the total score is calculated by adding the weighted values of all items and dividing by the number of answered items, the possible variation is from -15 to +15, so that negative scores are eliminated in the final score, sum 15 is added to the values obtained, resulting in the total score of the instrument, which can range from 0 to 30. Lower values indicate a lower quality of life, and higher values indicate a better quality of life. The QLI was validated and translated into Brazilian Portuguese by Kimura e Silva in 2009 [8]. In table 1, it is possible to visualize the items that make up each domain of the study instrument. Data collection began after approval of the project, it was carried out from May to September 2018, primarily through the survey of patients who underwent CABG in the

Table 1. Items and domains of the generic instrument Quality of Life Index by Ferrans and Powers

Health and Functioning (13 items)	Socioeconomic	Psychological / Spiritual (7 items)	Family (5 items)
1. health	13. friends	27. peace of mind	8. family health
2. health care	15. people support	28. faith in God	9. children
3. pain	19. neighborhood	29. personal goals	10. family happiness
4. energy (fatigue)	20. place of residence	30. happiness	12. spouse
5. physical independence	21/22. Work/ not have work	31. life satisfaction	14. family support
6. control over the own life	23. schooling	32. personal appearance	
7. long life	24. financial needs	33. with oneself (self)	
11. sex life	* items 21 and 22 are mutually exclusive		
16. responsibilities relatives			
17. be helpful to people			
18. concerns			
25. leisure activities			
26. possibility of happy future			

Source: Ferrans and Powers Quality of Life Index – Kimura and Silva 2009.

This is a cross-sectional, analytical-observational and correlational study, with a quantitative approach. It was carried out in a Cardiological Intensive Care Unit of a Public Teaching Hospital located in the Municipality of Campo Grande, MS. During the period established for the research, 43 patients underwent myocardial revascularization surgery, but three died, one was deaf, did not communicate verbally or in writing, two were traveling without a return home, and seven were unable to establish contact by telephone, therefore, the population of this study consisted of 30 patients. Inclusion criteria: patients aged 18 years or older who underwent coronary artery bypass graft surgery from 120 days after the surgery described above, from February 2017 to February 2018. Exclusion criteria: indigenous people and people with a disability or sequel that made them unable to respond to the research instrument. Two instruments were used for data collection. The first was a semi-structured questionnaire for the characterization of social, demographic, economic and clinical data, prepared by the researchers themselves. The second was a QOL assessment instrument, the

stipulated period. After this survey, the collection of secondary data from the institution's medical records began by completing the sociodemographic and clinical questionnaire developed by the researchers. through the application of the QOL assessment instrument. The data were coded and typed in Excel spreadsheets, the final data base was analyzed quantitatively, statistically and descriptively, using the Statistical Analysis System - SAS 9.2 program. To relate the variables of interest with the domains of the instrument, the ANCOVA analysis of covariance was used, which, in addition to comparing groups, allows the adjustment of covariates. $P < 0.05$ was considered statistically significant.

RESULTS

Regarding sociodemographic data, the age ranged from 31 to 78 years old, with an average of 62.63 years old, the prevalent age group was from 50 to 69 years old.

The male sex was predominant in the study population, with only five women among the subjects. In Table 1, it is possible to observe the main sociodemographic findings. Regarding the clinical aspects (Table 2.), most 93.1% have Systemic Arterial Hypertension (SAH), 32.1% have Diabetes Mellitus (DM), 23.3% had a diagnosis of Dyslipidemia (DLP) in the medical records, and 16.7% had Hypothyroidism. It is noteworthy that 27 (90%) of the people in the study had a positive family history for CAD. It was considered as a smoker, a person using tobacco, regardless of the amount, in the population studied, most of the subjects 60%, were ex. smoker, of those, one of them besides being ex. smoker, also worked in charcoal, 13.3% were smokers at the time of hospitalization, 13.3% deny tobacco use, however, of these, two patients used a wood stove throughout their lives. Regarding alcohol consumption, those who reported consumption below what was considered abusive, that is, below 5 drinks for men and 4 drinks for women on the same occasion in the last 30 days were considered social consumers [9]. In Table 3., it is possible to observe data related to the length of hospital stay, number of grafts performed in CABG, CPB time and presence of complications. Lesions greater than 50% in main vessels were considered, most patients (36.3%) had three or more lesions. Regarding the CPB time, the majority (53.3%) lasted around 60 to 120min.

Table 1. Characterization of participants according to sociodemographic variables (n=30), Campo Grande/MS, 2018

Variables	n	%
Age (years)		
31 to 49	7	23,3
50 to 69	12	40,0
Above 70	11	36,6
Sex		
Male	25	83,3
Ethnicity		
White	25	83,3
Brown	4	13,3
Black	1	3,3
Years of study		
> 8 years	10	33,3
< 8 years	20	66,7
Occupation		
Employee	1	3,3
Retired	17	56,7
Unemployed	3	10,0
INSS benefit	3	10,0
autonomous	6	20,0
Family income		
<2 minimum wages (SM)		continua...
>2 SM	26	86,7
	4	13,3
Marital status		
With partner	22	73,3
No with partner	8	26,7
With children		
With children	27	90,0
Without children	3	10,0
Provenance		
Campo Grande	18	60,0
Anastácio	4	13,3
Aquidauana	2	6,7
Rio Verde	1	6,7
Água Clara	1	3,3
Maracaju	1	3,3
Nova Alvorada do Sul	1	3,3
Paranaíba	1	3,3
Londrina-PR	1	3,3

Note: *Monthly family income based on the value of the minimum wage corresponding to the year 2017 (R\$ 937.00).

The main complications related to the medical records were surgical site infection (SSI) which was present in three patients and the occurrence of Pressure Injury (PPL) which occurred in two patients, both in the sacral region. It should be noted that 86.7% of the patients in this study had no complications in the postoperative period. As for the average length of stay, the majority (63.3%) was up to 20 days, however, patients who developed complications had a longer length of stay, reaching 45 days.

Table 2. Characterization of the study population according to clinical variables, personal history, (n=30), Campo Grande/MS, 2018

Variables	n	%
Comorbidities (n=30)		
Systemic Arterial Hypertension (SAH)	27	93,1 continua...
Diabetes Mellitus (DM)	18	32,1
Dyslipidemia (DLP)	7	23,3
Hypothyroidism	5	16,7
Life habits (n=30)		
Smoker	4	13,3
Ex. smoker	18	60,0
Never smoked	8	26,7
Abusive use of alcohol	4	13,3
Ex. alcoholic	10	13,3
Social consumption	12	33,3
Never drank	25	40,0
Sedentary		83,3
Positive family history for CAD (n=30)	27	90,0
Total Cholesterol CT (n=28)		
Less than 190mg/dl	15	53,6
Greater or equal to 190mg/dl	13	46,4
Missing 2		
Low density lipoprotein-LDL (n=28)		
Less than 130mg/dl	20	71,4
Greater of equal 130mg/dl	8	21,6
Missing 2		
High-density lipoprotein-HDL (n=28)		
Less than 40mg/dl	20	71,4
Greater of equal 40mg/dl	8	28,6
Missing 2		
Triglycerides (n=26)		
Less than 150mg/dl	13	50,0
Greater of equal 150mg/dl	13	50,0
Missing 4		
Number of Injuries (n=30)		
Up to 2 injuries	6	20,0
Three arteries	11	36,7
Several arteries	13	43,3
Ejection fraction (FE%) (n=30)		
Less than 50%	5	16,7
Greater of equal 50%	25	83,3

Table 3. Characterization of the population regarding clinical variables, number of grafts, time on cardiopulmonary bypass and presence of complications (n=30), Campo Grande/MS, 2018

Variables	n	%
Number of grafts		
Up to 2 grafts	11	36,7
3 Grafts or more	19	36,3
CEC time		
Without CEC	6	20,0
Up to 60min	7	23,3
From 61min to 120min	16	53,3
Over 121min	1	3,3
Complications		
Hassle free	26	86,7
Surgical site infection (SSI)	2	6,7
Pressure Injury (PPL)	1	3,3
ISC and LPP	1	3,3
Length of hospital stay		
Up to 20 days	19	63,3
Over 21 days	11	36,7

Table 4 shows the results of the mean and standard deviation of the health and functioning, socioeconomic, psychological/spiritual and family domains. Regarding the scores of the facets on a scale from 0 to 30 of the Quality of Life Index (IQV), the results that correspond to the physical domain are: health (24.2), your health care (23.71), the how much pain you have (24.28), amount of energy for daily activities (21.8), your ability to take care of yourself (27.41), how much control you have over your life (26.30), chances of a long life (27.06), sex life (18), ability to take care of family responsibilities (27.5), usefulness to others (26.28), amount of worries in life (22.48), leisure activities (23.86), chances of a happy future (26.23). As for the

socioeconomic domain, the corresponding facets are: friends (25.1), emotional support received from people (26.85), neighborhood (26.79), housing (27.61), their job (26.3), lack of employment (22.07), education (21.13). Regarding the spiritual domain, the corresponding items are: state of mind (27.91), faith in God (28.96), achievement of personal goals (24.61), happiness in general (26.7), life in the general (27.76), your personal appearance (25.2), yourself in general (self) (27.36).

The items corresponding to the family domain are: family health (24.9), children (28.55), family happiness (27.65), partner (26.70), emotional support from the family (28.3). Regarding the scores by domain, the best QOL index was represented in the Family domain (27.27), followed by the Psychological/spiritual domain (23.93), Socioeconomic (25.1) and Health/functioning (24.58), however, in general, the study population had good QoL after coronary artery bypass graft surgery, since the total score was 27.27 and, according to

Table 4. Distribution of the mean and standard deviation of the quality of life assessment in the health and functioning, psychological/spiritual, socioeconomic and family domains (n=30), Campo Grande/MS, Brazil, 2018

Domain	m*	dp**	min***	max****
health and functioning	24,58	3,97	14,31	30
Socioeconomic	25,1	4,09	15,07	30
Psychological / Spiritual	26,93	3,68	17	30
Family	27,27	3,18	17,01	30
Total Score	25,61	3,23	17,48	30

Average grade; **Standard deviation; ***Minimum value; ****Maximum value.

Table 5. Assessment of quality of life as a function of sociodemographic and clinical variables in the Health/Functional and Socioeconomic Domains (N=30), Campo Grande/MS, Brazil, 2018

Covariáveis	Saúde e Funcionamento			Socioeconômico		
	Análise Bruta					
	Estimativa da diferença	IC 95%	p	Estimativa da diferença	IC 95%	p
Variáveis Sociodemográficas						
Idade	-0,04	-0,16 0,09	0,53	0,18	0,07 0,29	<0,01
Sexo			0,22			
Male	2,40	-1,53		0,74	-3,41	0,72
Female		6,32			-1,38	
education						
Over 8 years	0,005	-3,20	0,99	1,84	-1,38	0,25
Less than or equal to 8 years		3,21			5,07	
Family income						
Greater than 2 SM	-3,78	-7,94	0,07	-1,44	-5,96	0,52
Less than 2 SM		0,39			3,09	
Marital Status						
With partner	-0,46	-3,87	0,78	0,84	-2,67	0,63
no mate		2,94			4,34	
Clinical Variables						
With SAH	5,47	11,09	0,06	-2,58	3,54	0,40
Without HAS		-0,15			-8,70	
With DM	0,47	3,61	0,76	-1,51	1,68	0,34
Without DM		-2,67			-4,69	
Number of grafts	0,08	-1,79 1,95	0,93	-0,23	-2,16 1,69	0,80
Number of injuries	-0,30	-2,17 1,56	0,74	-0,65	-2,56 1,26	0,49
FE	-0,07	-0,22 0,08	0,33	-0,05	-0,20 0,10	0,21

Table 6. Assessment of quality of life as a function of sociodemographic and clinical variables in the Psychological/Spiritual and Family Domains (N=30), Campo Grande/MS, Brazil, 2018

Covariates	Psychological / Spiritual			Family		
	Gross Analysis					
	Difference estimation	IC 95%	p	Difference estimation	IC 95%	p
Sociodemographic Variables						
Age	0,02	-0,10 0,14	0,77	-0,05	-0,15 0,05	0,34
Sex						
Male	1,16	-2,62	0,53	0,65	-2,65	0,69
Female		4,93			3,92	
education						
Over 8 years	-1,64	-4,59	0,26	-2,91	-5,25	0,02
less than 8 years		1,30			-0,57	
Family income						
Greater than 2 SM	-2,93	-6,92	0,14	-5,42	-8,31	<0,01
Less than 2 SM		1,07			-2,54	
Conjugate situation						
with partner	-1,68	-4,82	0,28	-1,09	-3,83	0,42
No partner		1,46			1,65	
Clinical Variables						
With SAH	2,95	-2,59	0,28	1,96	6,79	0,41
without SAH		8,49			-20,87	
With DM	-1,31	4,22	0,36	-1,62	0,86	0,19
no DM		1,60			-4,09	
number of injuries	-1,39	-3,06 0,28	0,10	-0,27	1,79 1,24	0,72
number of grafts	-1,05	-2,76 0,66	0,22	-0,16	-1,68 1,35	0,83
FE (%)	-0,07	-0,20 0,07	0,33	-0,09	-0,20 0,03	0,12

the authors Ferrans and Powers, the closer to the maximum value (30), the better is the QOL. In table 5, it is possible to observe the correlation between the sociodemographic variables and the clinical variables with the IQV in the Health/Functional and Socioeconomic domains. In relation to the Health/functioning domain, not having SAH is highlighted as a higher probability of better QoL (p0.06) compared to those with SAH. In the Socioeconomic domain, there was statistical significance related to age (p<0.01). In table 6, sociodemographic and clinical data are also correlated with the IQV in the Psychological / Spiritual and Family domains. In the Family domain, there was statistical relevance to family income below 2 minimum wages (p<0.01) and less than 8 years of schooling (p0.02), showing that people with lower purchasing power and less education had better QOL in this population, when comparing people with higher income and education, in the Psychological/spiritual domain, no variable was statistically significant.

DISCUSSION

A predominantly elderly population from the Municipality of Campo Grande, MS, was evidenced, since the average age was 62.63 years, mostly male, of white ethnicity, with low income, and little schooling. These findings corroborate other studies, such as the one carried out in Finland [10] with 508 participants on QOL after 12 years of CABG, in which most participants were male, with a mean age of 62 years, a study carried out in Canada [11] with 425 patients, being (79%) men, with a mean age of 65 years, and another study carried out in England with 66 patients [12], most of them men, in the same age group. These results can be explained by the fact that CVDs manifest themselves mainly in men over 55 years of age, with age and sex being known risk factors for these diseases. Regarding low income and education, these results were also found in a study carried out in Brazil [3], with 44 elderly individuals aged between 60 and 80 years of both sexes, with coronary artery disease undergoing cardiovascular intervention, in this study most were composed of men (59.1%), white (38.3%), without schooling (31.8%), with a partner (43.2%) and who received less than one minimum wage (68.2%). The presence of comorbidities was also investigated in other studies on QoL after CABG. A study on the subject carried out in Brazil in 2017 with 75 patients found that 100% of the patients in the sample had SAH, most had PLD and were sedentary [3]. Another study carried out with 243 patients [4] showed that the sample was composed mainly of men, married, hypertensive and dyslipidemic, most of them smokers and with hereditary factors. SAH was also present in most participants in the sample of other studies [13, 14, 15].

As in this study, Diabetes Mellitus (DM) was found in most of the sample of some studies on QOL and CABG. In a study carried out with 57 patients of both sexes undergoing CABG, it was found that the most prevalent risk factors in the studied sample were SAH, DM and smoking [15], these data corroborate another study carried out [16] in which the characteristics clinical conditions and the most prevalent risk factors in the study population (78 patients) were SAH (77%), overweight (72%), DLP (58%), smoking (64%) and DM (38%). Results also found in another study [10], in which most patients were hypertensive (74.8%), dyslipidemic (89.9%), smokers (60%) and diabetics (35%). Still in relation to risk factors, as shown in Table 2, in which 27 (90%) participants had a positive family history of CAD, other studies also investigated this data [6, 17, 18].

In relation to risk factors, low levels of high-density lipoprotein cholesterol (HDL) are also highlighted below the recommended value of 40mg/dl according to the New Cholesterol Targets of the Dyslipidemia Guideline of the Brazilian Society of Cardiology [19]. This result was also found in a cross-sectional study carried out in the municipality of Cambé, PR, with 1180 people over 40 years of age on cardiovascular risk factors, physical inactivity probably contributed to this finding in these populations [20]. According to the number of lesions described in Table 2, and the number of grafts performed (Table 3), it is possible to infer that some patients had incomplete surgeries, due to the presence of very thin vessels, which made

grafting impossible. A study carried out in China with 210 patients, compared the QOL of people who underwent complete and incomplete CABG and concluded that both can bring improvements to the QOL of multivessel patients in the short and long term, however, when the surgery is performed completely, it can produce better results [6]. However, in the population studied, in this study, there was no statistically significant correlation between the number of lesions or number of grafts and improvement in QOL. As for the ejection fraction (EF), most 25 (83.3%) had an EF greater than 50%, which is probably the reason why there were no hemodynamic repercussions and consequently affected the QOL of these people. A study that evaluated the QoL of 160 participants one year after acute myocardial infarction, and correlated it with echocardiographic data, showed that the increase in EF leads to a statistically significant increase in QOL scores in all subscales or domains, showing a better QoL predictor [21]. This study agrees with other studies that evaluated the QOL of patients undergoing CABG and found an improvement in QOL, since in the population studied, there was a total score of 25.61 in the IQV of Ferrans and Powers, which denotes a good QOL, because according to the authors, the closer to the maximum score 30, the better the QOL. A multicenter study conducted in North America concluded that CABG provided clinically important improvements in QOL over medical therapy alone for up to 36 months in patients with ischemia or left ventricular dysfunction [17].

CABG fulfills its role in improving QoL, since there is improvement in most dimensions and functional capacity compared to preoperative values. Another study carried out with 208 patients undergoing CABG found that QOL improved significantly even two years after the procedure, in all sections compared to the preoperative period, they were defined as predictors of better QOL, severe angina, no load hereditary, male gender and absence of DM [5, 10]. In this study, it was observed that the lowest satisfaction corresponds to item 11-sexual life, belonging to the Health and functioning domain, in which the mean score was 18. Sexual activity is a significant aspect of health, considerably influencing the judgment of QOL by the population in this study. A study that evaluated the return to sexual activity of patients who had coronary intervention after cardiac ischemia concluded that the cessation of sexual activity is related to lower QoL, depression, higher level of anxiety and lower acceptance of the disease [22]. Unlike the study by Araújo et al. 2017, in which a worse assessment of QoL was observed in low-income patients, and the study by Shad et al. 2017 in which individuals with a lower educational level had a worse assessment of QoL in the physical component, in this study, statistically significant values were highlighted in the Family domain of people with low income and less education (Table 5). This fact can be explained by the use of a QOL assessment instrument that verifies the person's satisfaction with items that he/she deems relevant to his/her life, therefore, it can be inferred that in this population, there is a satisfaction and appreciation of relationships social, especially family members [23]. Age was also statistically significant in the Socioeconomic domain, this finding was also found in the study [3], in which it was concluded that the elderly population may have benefits after cardiovascular intervention, with improvement in QoL, data also observed by Peric et al. 2015, in which the most noticeable improvement in QOL six months after CABG was found in elderly patients. The absence of SAH proved to be significant for QOL, a study carried out with 296 patients undergoing CABG with comorbidities, found that 69% of individuals with CAD had at least one other disease, such as DM or SAH, the physical and were better in patients without comorbidities, concluding that multimorbidity affects the QoL of patients with CAD.

CONCLUSION

A good QoL was found in all domains of the instrument used in this study. The correlation between older age and improved QOL in the Socioeconomic domain was highlighted, and low purchasing power and lower schooling with better QOL in the Family domain, probably these people value family relationships and find in them the strength

to continue, and the motivation necessary to overcome the difficulties of their lives, thus promoting personal satisfaction and consequent improvement in QOL. Therefore, it is up to health professionals to recognize in these relationships, true allies for prevention, promotion, and recovery of health, with better adherence to treatment and improvement of QOL.

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