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MORBIDITIES AND QUALITY OF LIFE OF URBAN ELDERLY PEOPLE WITH AND WITHOUT HEART PROBLEMS[1]

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ABSTRACT
The presence of changes in health of older people who have heart problems should be investigated and monitored by health professionals. Noteworthy, in this sense, the health hazards related to cardiovascular complications, as they may influence the elderly to become more vulnerable, impacting the pattern of morbidity and quality of life. Thus, this study aimed to describe the socio-demographic characteristics of the elderly according to the presence or absence of heart problems and compare the presence of hypertension, diabetes mellitus and health-related quality of life among elderly people with and without heart problems. It is cross-sectional household survey conducted among 829 elderly with heart problems and 829 subjects without. We used absolute frequencies and percentages, chi-square and *t*-test (p<0,05). They were prevailed females, 60 ├70 years-old, married and income of a minimum wage. There were a greater proportion of older people with heart problems as hypertension and diabetes mellitus. Elderly people with heart problems had significantly lower scores in the physical and psychological facets, higher in death and dying and intimacy. It is highlighted the need for tracking and monitoring health conditions of this population as well as the reflection on the impact on physical and psychological aspects.

Keywords: Elderly. Cardiovascular diseases. Quality of life. Geriatric Nursing.

INTRODUCTION

According to the Instituto Brasileiro de Geografia e Estatística (IBGE), from 1999 to 2009 the percentage of elderly increased from 9.1% to 11.3 %[(1)]. With regard to morbidity in the country, cardiovascular diseases represent 17.3%[(1)] and they are related to other health problems. In a survey conducted with the elderly in 16 Brazilian capitals, 12.6% reported that ischemic heart disease is associated with systemic hypertension and diabetes mellitus[(2)].

Study in Santa Catarina found that the presence of cardiovascular disease is four times higher among those people who have hypertension. For those with diabetes mellitus this chance is three times more[(3)].

It is noteworthy that despite the potential impact of cardiovascular diseases among the elderly, studies related to this issue are rare in the literature, which indicates the need to expand this knowledge[(4)] as well as the impact in the daily life of elderly people, considering the influence on their quality of life (QOL)[(5,6)].

Study conducted among elderly patients with heart problems in Sweden noted that aspects of QoL were most impacted the overall health and vitality[(5)]. Another study in the Netherlands showed lower scores related to physical limitations[(6)]. In Brazil, a research conducted with older adults with heart failure concluded that the factors had a greater impact on QoL were the physical and emotional[(7)].

It is noteworthy that, despite investigations assessing the QoL of elderly patients with heart

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problems, the instruments used are not specific to this age group and, safeguarding the specificities of the location, the results are not congruent[5.7], denoting need for further exploring the issue. Thus, it is necessary to identify whether there are differences in health and QoL of elderly among older adults with and without this morbidity, using specific instrument directed to this population group.

For this study we considered the concept of QOL proposed by a group of scholars supported by the World Health Organization (WHO): "individual's perception of their position in life in the context of culture and value systems in which they live and in relation to their goals, expectations, standards and concerns"[8:1405].

Importantly, nursing actions may contribute to better QOL of people with heart problems. It is fundamental that this professional is knowledgeable about the subject and be prepared to raise awareness initiatives changes in lifestyle, reflecting improvements in the QOL of individuals with heart problems[7]. Thus, it becomes important to identify the changes in the elderly population, particularly with regard to cardiovascular complications that may make them more vulnerable, thus influencing the pattern of morbidity and impact on their QOL[9].

Accordingly, the objectives of this study were to describe the socio-demographic characteristics of the elderly second to the presence or absence of heart problems and compare the presence of hypertension, diabetes mellitus and health-related quality of life among older adults with and without heart problems.

METHODOLOGY

This study is part of a larger research project called "Morbidity, quality of life and functional capacity of elderly in Uberaba-MG", with population-based, cross and household investigation type in the urban area of the municipality of Uberaba. For the elderly population in the city, we used a list of residents of the Center for Zoonosis Control from Uberaba to identify the number of elderly. The proportion of elderly was calculated in each neighborhood, their respective sampling interval and the number of individuals for the sample. The elderly were selected through stratified proportional sampling technique, being randomly drawn the first household to be visited.

The calculation of the population sample found 95 % of confidence, 80 % power of the test, margin of error of 4.0 % for the interval estimates and an estimate of $\pi = 0.5$ for the proportions of interest rate. Starting from a population sample of 2,683 seniors in 2005, 541 seniors were excluded in this study, from them 201 were not found after three visits, 174 refused, 142 died and 25 were hospitalized. Thus, the population sample is 2,142 elderly.

The inclusion criteria of this study were: to be 60 years-old or older; don't have cognitive decline; live in urban areas in Uberaba, and having completed the item regarding the presence or absence of heart problems. Among the 2,142 elderly 829 met the established criteria and self-reported having heart problems.

From this, among 1,313 without heart problems 829 seniors were selected, matched for sex and age according to the order of the interviews. Seniors who self-reported having heart problems (n=829) and elderly without heart problems (n=829): two groups were formed.

Data collection was conducted by 12 interviewers, trained and monitored by researchers at home from August to December 2008.

For socio-demographic characteristics of them (sex: male or female, age in years: 60 ├-70, 70 ├-80 and 80 or more; marital status: single, married or live with a partner, divorced/separated/divorced, widowed; schooling in years 0, 1 ├-4, 4 ├-8, 8, 9 or more; individual monthly income in minimum wages: 0, <1, 1, 1-┤ 3, 3-┤ 5, 6 or more) and identification of morbidities (heart disease, hypertension and diabetes mellitus) used a semi-structured instrument. QOL was assessed by the instruments World Health Organization Quality of Life - BREF (WHOQOL -BREF)[10] and World Health Organization Quality of Life Assessment for Older Adults (WHOQOL - OLD)[11].

Although questionnaires used can be self-report, we opted for the interview, because of the possible difficulty in reading or understanding the questionnaire items and visual problems presented by the elderly.

It was constructed a spreadsheet in Excel® software and the data collected were typed into, in duplicate, and subsequently subjected to verification of consistency between the two data worksheets. The data were transferred to the statistical program "Statistical Package for the Social Sciences" (SPSS), version 17.0, to undertake analysis.

Analysis was performed by absolute frequencies and percentages, chi-square tests to compare categorical variables and *t*-Student for comparison of QOL ($p < 0.05$).

This study was approved by the Ethics Committee on Human Research of Universidade Federal do Triângulo Mineiro, Opinion No. 897 on April 13, 2007. It was only after the consent of the interviewee and signing the consent form that we conducted the interview.

RESULTS AND DISCUSSION

Most seniors were female (65.6%), aged 60 ├-70 (43.5%). Result similar to what was obtained in other studies in Brazil[2,12,13]. The prevalence among individuals 60 ├-70 years-old highlights the need to carry out actions to promote health for the younger population for the prevention of health disorders. The Family Health Strategy (FHS) constitutes a privileged space for this purpose, since it presupposes the link to the enrolled population.

In Table 1, below, there's the distribution of the elderly with and without heart problems second socio-demographic characteristics.

In relation to marital status, in both groups, the highest percentage was for the married ones, 47.2% for those with heart problems and 46% without heart problems (Table 1). Consistent results observed among individuals with coronary artery disease in Salvador-Bahia, in which 52% were married[14]. It is noteworthy that the elderly may have difficulty dealing with the onset of chronic diseases. The presence of the spouse or partner at that time can promote changes in lifestyle, contributing to the prevention of complications.

Regarding education, the elderly with heart problems presented predominantly 4 ├-8 years of education (34.9%) and those without heart problems 1 ├-4 (32.2%) (Table 1). This result may be related to increased access to information and, consequently, the demand for health services among those with higher education. This would happen due to the possibility of knowledge on matters involving heart problems, enabling the detection of the disease.

In both groups, the majority had individual monthly income of a minimum wage, but the proportion of elderly with heart problems who received a minimum wage (60.8%) was higher than those without heart problems (51.4%) (Table 1). It is consistent with that obtained in which prevailed among elderly family income from salary (62.8%)[12]. Income is an important factor to be considered for adherence to drug treatment for elderly people with chronic diseases. In this context, the healthcare team should assess their economic conditions and difficulties in acquiring the necessary medications.

It is important to point out that socioeconomic characteristics can influence the care of the elderly to the disease. These aspects should be considered to guide the planning of interventions and the approach of the individual for improved understanding of treatment[14]. It is believed that the approach of the health professional to the context of the elderly can contribute to the identification of relevant aspects related to their health care and difficulties in controlling the disease.

There is a greater proportion of older people with heart problems presenting hypertension (χ^2=80.823, p<0.001) and diabetes mellitus (χ^2=50.906, p<0.001). The association between heart problems and hypertension has been described in the scientific literature[13]. Whereas this uncontrolled morbidity may contribute to cardiovascular events, it becomes necessary follow-up actions of its health due to its chronicity, absence of symptoms and long-term complications[15]. Thus, it is believed that the elderly should be properly instructed about

the health care for these morbidities and the importance of their control.

It is noted that among those who already have a diagnosis of hypertension, they should reinforce attitudes that support the treatment, among them, to take medicines in trips; to determine times to take the medication and to provide it before finishing, not stop using it by themselves, and not missing appointments[15]. Whereas in this study the highest percentage is married, they can seek the assistance of the spouse in these actions.

The heart problems were also associated with diabetes mellitus in research with elderly in São Paulo (p=0.04)[16]. Thus, it becomes important to control this risk factor since the knowledge of comorbidities, among those with heart problems, and their social determinants may provide grants for prevention of outcomes related to chronic diseases and for the development of public policies with a goal in healthy aging[2,3].

Moreover, health services must be able to provide opportunities for discussion of these subjects with information about the disease and lifestyle aimed at increasing the knowledge and skills about the daily care[16] to postpone the onset of chronic complications that may contribute to the deterioration of health.

It is noteworthy that the cross-cut of this study should be considered a limitation of the findings, however, the association of heart disease with hypertension and diabetes among the elderly reinforces the need for effective public health efforts to reduce mortality and disabilities arising from such morbidities. The Primary Care Units, in the ESF mode or not, should be based on the situation analysis of health and health educational activities proposed in order to discuss this issue. In addition, punctual campaigns as blood pressure, blood glucose, body mass index and waist circumference may contribute to early diagnosis. It is also added the team efforts for the elderly and their families for treatment adherence.

Concerning the self-assessment of QOL in both groups, the majority considered as good, and they were satisfied with their health. The determination of QOL influences the perception of health that encompasses medical conditions, functional disabilities and non-clinical factors such as mood and social networks relations[17]. Thus, this can be considered positive.

In Table 2, below, there are the QoL scores.

Table 1 - Frequency distribution of socio-demographic characteristics of older adults with and without heart problems. Uberaba, 2011.

Variable		With		Without		Total	
		N	%	N	%	N	%
Marital status	Married/live with partner	391	47,2	381	46	772	46,6
	Separated/divorced	66	8	81	9,8	147	8,9
	Widower	330	39,8	321	38,7	651	39,3
	Single	40	4,8	46	5,5	86	5,2
Education	No schooling	194	23,4	159	19,2	353	21,3
(in years)	1 ├ 4	253	30,5	267	32,2	520	31,4
	4 ├ 8	289	34,9	260	31,4	549	33,1
	8	30	3,6	35	4,2	65	3,9
	9 ├ 11	15	1,8	26	3,1	41	2,5
	11 or more	42	5,1	75	9	117	7,1
Individual income	Without income	75	9	97	11,7	172	10,4
(in minimum wages)	< 1	7	0,8	9	1,1	16	1
	1	504	60,8	426	51,4	930	56,1
	1┤ 3	202	24,4	238	28,7	440	26,5
	3┤ 5	24	2,9	34	4,1	58	3,5
	> 5	10	1,2	24	2,9	34	2,1

*The minimum wage corresponded to R$ 415,00 (DIEESE, 2010)[i].

[i] Departamento Intersindical de Estatística e Estudos Socioeconômicos (DIEESE). Salário Mínimo. [Internet] 2008 [citado 2010 Out 20]. Disponível em: http://www.dieese.org.br/esp/salmin.xml.

In QOL measured by WHOQOL-BREF, the highest scores were obtained in the field of social relations for both groups (Table 2). This fact can be justified by the most elderly of this study are married contributing with less impact on personal relationships and social support, assessed in this domain[10].

Table 2 - Distribution of QoL scores of the elderly with and without heart problems. Uberaba, 2012.

QoL Scores	With		Without		*t*	*p*
	Average	Deviation Standard	Average	Deviation Standard		
WHOQOL-BREF						
Physical	55,26	14,86	62,36	16,75	9,121	<0,001*
Psychological	65,86	11,09	67,02	12,84	1,969	0,049*
Social Relationship	69	10,95	68,79	12,51	-0,37	0,712
Environment	63,36	11,07	62,34	12,64	-1,754	0,08
WHOQOL-OLD						
Functioning of the senses	79,99	19,67	80,66	19,42	0,691	0,49
Autonomy	59,9	12,6	61,06	13,69	1,792	0,073
Past, present and future activities	65,92	11,33	65,64	13,9	-0,442	0,658
Social participation	64,9	15,33	64,76	15,19	-0,188	0,851
Death and dying	77,42	24,08	74,89	24,23	-2,136	0,033*
Intimacy	70,05	14,82	67,75	17,53	-2,875	0,004*

*p<0,05.

The lower QoL scores were in the physical domain for those elderly with heart problems (55.26) and the environment for the smooth (62.34) (Table 2). The lower scores in physical appearance may be related to aspects of the disease. As for the elderly without heart problems, the nurse can identify which factors are having greater impact on the environment, such as physical security, financial resources and health care, evaluated in this domain[10]. The lowest level of education among these elderly may be negatively influencing the opportunity to acquire new information and skills also contemplated in the environment[10]. In this context, it is relevant to investigate the influence of education and the everyday opportunities, along with the elderly and family, developing coping strategies to minimize this situation.

In the comparison between the groups it was verified that elderly people with heart problems there were scores significantly lower than those without problems in the physical domain (p<0.001) and psychological (p=0.049) (Table 2). This is similar to results obtained in a study of elderly in Sweden, which showed lower scores among those ones with heart failure in the physical component SF-36 ([5]). This fact may be resulted from feelings of discomfort, fatigue and decreased energy caused by morbidity, aspects measured in this area[10]. It is noteworthy that fatigue and dyspnea are characterized by progressively worsening among those elderly with heart problems[18].

Whereas the percentage of seniors with chronic comorbidities in this research, it is important to highlight that they may be vulnerable to cardiovascular complications due to daily emotional stress, limitations due to health problems and difficulties in the development of physical activity[9], which can limit their daily lives, justifying the lower scores in this area.

From this perspective, health professionals should promote the formation of bonds by providing spaces for the elderly to clarify their doubts, learn to identify changes resulting from comorbidities that affect their daily lives and share their difficulties in dealing with these changes[9].

The biggest psychological impact among the elderly with heart problems is evidenced in the scientific literature[5] by highlighting the fear, insecurity and sadness[18]. Survey among adults and elderly patients with heart failure showed that psychosocial factors are related directly to the disease causing anxiety and depression, interfering in QOL[19]. It is also noted that the limitations imposed by the disease interfere in the ability to work and they may contribute to this situation[19].

However, even if this causes morbidity physical limitations it is essential the adaptation

of individuals to their health condition to prevent complications and improve their QOL. Thus, the nursing consultation plays an important role in raising the real problems of adjustment, and periodic review to monitor the evolution and progression of nursing interventions to adaptive responses[19]. Thus, they can establish, together with the elderly and their families, strategies that contribute to better adaptation to the disease by respecting the individual specificities.

The QOL, measured by WHOQOL-OLD, pointed to higher scores on the facet 'functioning of the senses' and the lowest in 'autonomy' in both groups (Table 2). The higher scores on the facet 'sensory abilities' may be related to the predominance of young elderly group, so that sensory changes are barely noticed.

Among the elderly with heart problems it is inferred that the decrease in autonomy can be related to physical impairment. In this context, it is possible that family constrain the power of decision of the elderly by considering him unable, given the limitations imposed by the disease.

Older people with heart problems had significantly higher means on the facet 'death and dying' (p=0.033) and intimacy (p=0.004) (Table 2). The highest score on the facet 'death and dying' for those with heart problems indicates that these issues are best perceived in this group. The nurse, during their group activities with elderly, may contribute to the formation of a space for exchanging experiences on this topic, especially among those with newly diagnosed chronic diseases.

The highest score on the facet 'intimacy' acquired by the elderly with heart problems obtained in this study may have been favored by the highest percentage of married elderly. And it is also added to the fact that, as a result of health problems, personal relationships of these seniors may be strengthened by the possibility of greater support for coping with the disease. The development of group activities involving elderly and family can encourage closer relations, especially among those without this morbidity. A reflection may be proposed on the quality of these relationships and the factors that are hurting, in order to establish measures to reverse this impact.

CONCLUSION

The association of heart disease with hypertension and diabetes mellitus emphasizes that tracking and monitoring of the health status of this population should be prioritized. By considering the chronicity of these diseases, it is relevant to be investigated with the elderly their presence and conducted adequate control. Nursing can contribute through home visits and individual consultation to the elderly.

It is observed that heart problems have impacted the physical and psychological QOL, reinforcing the need to reflect on the care given to the health of this population. From the monitoring of the elderly, it is possible to identify trends in disease and comorbidities, and to establish actions for facilitating its association with morbidity, such as adaptive strategies in their daily lives to minimize the physical impact.

It is emphasized that as a limitation of the study that due to the cross-sectional design of the study, it was not possible to establish causal relationships between these variables. It is also noteworthy that it is considered the presence or absence of heart problems from self-reports of the elderly, but the diagnosis was not confirmed from clinical and laboratory evaluation.

Nevertheless, this study indicates the need for further studies to identify the risk factors for heart problems to help in the planning of public health according to comorbidities and complications.

MORBIDADES E QUALIDADE DE VIDA DE IDOSOS URBANOS COM E SEM PROBLEMAS CARDÍACOS

RESUMO

A presença de alterações na situação de saúde de idosos com problemas cardíacos devem ser investigadas e acompanhadas pelos profissionais de saúde. Destacam-se, nesse sentido, os agravos de saúde relacionados às complicações cardiovasculares, visto que podem influenciar para que os idosos tornem-se mais vulneráveis, impactando no padrão de morbimortalidade e na qualidade de vida. Assim, esse estudo teve como objetivos descrever as características sociodemográficas de idosos segundo presença ou não de problemas cardíacos e comparar a presença da hipertensão arterial sistêmica, do diabetes mellitus e os escores de qualidade de vida

entre idosos com e sem problemas cardíacos. Trata-se de inquérito domiciliar transversal realizado entre 829 idosos com e 829 idosos sem problemas cardíacos. Utilizou-se frequências absolutas e percentuais, testes qui-quadrado e *t*-Student (p<0,05). Prevaleceu o sexo feminino, 60 ├70 anos, casados e renda de um salário mínimo. Houve maior proporção de idosos com problemas cardíacos apresentando hipertensão arterial sistêmica e diabetes mellitus. Os idosos com problemas cardíacos apresentaram escores significativamente inferiores nos domínios físico e psicológico e superior nas facetas morte e morrer e intimidade. Evidencia-se a necessidade de acompanhamento e monitoramento das condições de saúde desta população bem como a reflexão sobre o impacto nos aspectos físico e psicológico.

Palavras-chave: Idoso. Doenças cardiovasculares. Qualidade de vida. Enfermagem Geriátrica.

MORBILIDADES Y CALIDAD DE VIDA DE ANCIANOS URBANOS CON Y SIN PROBLEMAS CARDÍACOS

RESUMEN

La presencia de cambios en el estado de salud de los ancianos con problemas cardíacos debe ser investigada y supervisada por profesionales de la salud. Se destacan, en este sentido, los agravios de salud relacionados con las complicaciones cardiovasculares, puesto que pueden influir para que los ancianos se vuelvan más vulnerables, impactando en el patrón de morbimortalidad y en la calidad de vida. Con ello, este estudio tuvo como objetivo describir las características socio-demográficas de ancianos según la presencia o ausencia de problemas cardíacos y comparar la presencia de hipertensión arterial sistémica, la diabetes mellitus y los resultados de la calidad de vida entre ancianos con y sin problemas cardíacos. Se trata de una encuesta domiciliaria transversal realizada entre 829 ancianos con problemas cardíacos y 829 sin estos problemas. Utilizamos frecuencias absolutas y porcentajes, chi-cuadrado y *t*-Student (p<0,05). Prevalecieron: el sexo femenino; 60 ├70 años; casados y la renta de un salario mínimo. Hubo un gran número de ancianos con problemas cardíacos presentando hipertensión arterial sistémica y diabetes mellitus. Los ancianos con problemas cardíacos presentaron resultados significativamente inferiores en los aspectos físico y psicológico, y superiores en los aspectos muerte y morir e intimidad. Se constata la necesidad de acompañamiento y monitoreo de las condiciones de salud de esta población, así como la reflexión sobre el impacto en los aspectos físico y psicológico.

Palabras clave: Anciano. Enfermedades cardiovasculares. Calidad de vida. Enfermería Geriátrica.

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