NUTRITIONAL STATUS AND QUALITY OF LIFE IN ADULTS AND OLDER ADULTS WITH DEPRESSION

Estado nutricional e qualidade de vida em adultos e idosos com depressão

Estado nutricional y calidad de vida de adultos y mayores con depresión

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ABSTRACT

Objective: To assess nutritional status and quality of life in adults and older adults with and without depression. **Methods:** This is a quantitative cross-sectional study of 79 users of Primary Health Care Centers located in the municipalities in the Vale do Taquari, Rio Grande do Sul. To determine the scores of the Quality of Life (QoL) domains (physical, psychological, environmental and social) we used the World Health Organization Quality of Life-Bref questionnaire and a socioeconomic questionnaire (age, income, education and marital status). Anthropometric measurement included weight, height, Body Mass Index, Waist Circumference (WC) and Neck Circumference (NC). Diagnosis of depression was given by psychologists. The maximum significance level assumed was 5% (p≤0.05) and the analysis was performed using SPSS version 22.0. The Mann-Whitney test, the Pearson's correlation coefficient and the Chi-squared test were used. **Results:** There was a direct correlation between age and the physical (p=0.017), psychological (p<0.01), social (p=0.001) and environmental (p=0.003) domains. Men scored significantly higher in the environmental domain (p=0.009) compared with women. Patients without a diagnosis of depression scored significantly higher in the physical (p=0.035) and psychological (p=0.042) domains. As for nutritional status, thinness and normal weight were associated with higher mean scores in the physical domain (p=0.015). **Conclusion:** The best perceptions of QoL domains were observed among men, older adults and participants without a diagnosis of depression. There was a direct correlation between age and all the domains, and depressive participants were mostly obese and presented cardiovascular risk, but without risk of presenting excess weight.

Descriptors: Nutritional Status; Quality of Life; Depression.

RESUMO

Objetivo: Avaliar o estado nutricional e a qualidade de vida em adultos e idosos com e sem depressão. Métodos: Estudo quantitativo e transversal, com 79 usuários das Unidades Básicas de Saúde de municípios do Vale do Taquari, Rio Grande do Sul. Para determinar os escores dos domínios (físico, psicológico, ambiental e social) de qualidade de vida (QV) foi aplicado o questionário World Health Organization Quality of Life-Bref e um questionário socioeconômico (idade, renda, escolaridade e estado civil). A avaliação antropométrica contemplou peso, estatura, Índice de Massa Corporal, Circunferência da Cintura (CC) e Circunferência do Pescoço (CP). O diagnóstico de depressão foi realizado por psicólogas. O nível de significância máximo assumido foi 5% (p≤0,05), análise realizada através do software SPSS versão 22.0. Utilizaram- se os testes Mann-Whitney, correlação de Pearson e qui-quadrado. Resultados: Verificou-se correlação direta entre idade e domínio físico (p=0,017), psíquico (p<0,01), social (p=0,001) e ambiental (p=0,003). Os homens obtiveram média superior e significativa no domínio ambiental (p=0,009) em relação às mulheres. Os pacientes sem diagnóstico de depressão apresentaram média significativamente superior nos domínios físico (p=0,035) e psicológico (p=0,042). Em relação ao estado nutricional, a magreza e eutrofia apresentaram média superior no domínio físico (p=0,015). Conclusão: As melhores percepções sobre os domínios de QV foram observadas entre os homens, idosos e participantes sem diagnóstico de depressão. Verificou-se correlação direta entre a idade e todos os domínios e que os participantes depressivos eram, em sua maioria, obesos, com risco cardiovascular e sem risco de excesso de peso.

Descritores: Estado Nutricional; Qualidade de Vida; Depressão.

RESUMEN

Objetivo: *Evaluar el estado nutricional y la calidad de vida de adultos y mayores con y sin depresión.* **Métodos:** *Estudio cuantitativo y transversal con 79 usuarios de las Unidades Básicas de Salud de los municipios del Vale de Taquari, Rio Grande do Sul. Se ha aplicado el cuestionario World Health Organization Quality of Life-Bref y un cuestionario socioeconómico (edad, renta, escolaridad y estado civil) para determinar las puntuaciones de los dominios (físico, psicológico, ambiental y social) de la calidad de vida (CV). En la evaluación antropométrica se ha incluido el peso, la estatura, el Índice de Masa Corporal, la Circunferencia de la Cintura (CC) e la Circunferencia del Cuello (CC). El diagnóstico de depresión ha sido realizado por psicólogas. El nivel de significación máxima asumido ha sido del 5% (p≤0,05) y el análisis ha sido realizado a través del software SPSS versión 22.0. Se utilizaron las pruebas de Mann-Whitney, la correlación de Pearson y el chi-cuadrado.* **Resultados:** *Se verificó la correlación directa entre la edad y el dominio físico (p=0,017), el psíquico (p<0,01), el social (p=0,001) y el ambiental (p=0,003). Los hombres tuvieron la media superior y significativa para el dominio ambiental (p=0,009) en comparación a las mujeres. Los pacientes sin el diagnostico de depresión presentaron la media significativamente superior para los dominios físico (p=0,035) y el psicológico (p=0,042). Respecto el estado nutricional, la delgadez y la eutrofia presentaron media superior para el dominio físico (p=0,015).* **Conclusión:** *Las mejores percepciones de los dominios de CV han sido observadas entre los hombres, los mayores y los participantes sin el diagnostico de depresión. Se verificó la correlación directa entre la edad y todos los dominios y que los participantes depresivos eran, en su mayoría, obesos, con riesgo cardiovascular y sin riesgo de exceso de peso.*

Descriptores: *Estado Nutricional; Calidad de Vida; Depresión.*

INTRODUCTION

The first reports of depression dated 500 years before Christ[1]. It is a serious mental disorder with symptoms associated with decreased self-esteem, changes in sleep and appetite, fatigue, feelings of ineffectiveness, decreased interest or pleasure, and lack of concentration[2]. Depression is a major cause of health problems and disability in the world. The World Health Organization (WHO) estimates that more than 322 million people have this disease, with an increase of 18% in cases diagnosed between 2005 and 2015. Mental disorder can lead to suicide, which is the second major cause of death among people aged 15-29 years. Approximately 800,000 people die due to suicide every year[3].

The WHO has reported that lack of support for people with mental disorders, fear of social stigma and lack of resources and trained professionals are obstacles for many people to have or seek access to the treatment needed to keep their lives healthy[4]. Less than half of the people receive adequate treatment[3] despite the existence of effective treatments to tackle depression and the health promotion strategy of the Unified Health System (*Sistema* Único *de Saúde – SUS*), which focuses on the health-disease process in Brazil and on possible forms of intervention[5].

The improvement in the quality of life of people with depressive disorders is a result of the reduction of social inequalities in health, which activates the expenditures of the health system when associated with the provision of mental health services and educational actions[6]. Services in Primary Health Care Centers (*Unidade Básica de Saúde – UBS*) are provided by a multiprofessional team that is responsible for a set of individual or collective activities aimed at promoting health protection through disease prevention, harm reduction, diagnosis, treatment intervention and health maintenance, with the aim of delivering comprehensive care that will have an impact on the health status and autonomy of users[7].

The quality of life (QoL) of a population is directly related to their experiences and their access to some economic and social systems such as employment and income, basic education, adequate food, good health services, basic sanitation, and housing and transport, if the definition of QoL indexes is considered[8].

The concept of health is broad and therefore encompasses people in their various dimensions. Thus, it is directly linked to individuals' way of living, which is motivated by the knowledge, the physical environment, and the social, economic and cultural contexts of each citizen[9]. Moreover, this concept is related to well-being, as people mention being healthy when they feel well and are able to perform their daily activities[10]. Given that, ensuring democratic access to health services is one of the main challenges of the public sector, especially in countries that are experiencing increasing demands caused by increased life expectancy and longevity[11].

The present study aimed to assess nutritional status and quality of life in adults and older adults with and without depression served in Primary Health Care Centers (*Unidades Básicas de Saúde – UBS*).

METHODS

This quantitative analytical cross-sectional study was carried out in the UBS of the Municipalities of Travesseiro, Marques de Souza and Arroio do Meio located in the Vale do Taquari region, State of Rio Grande do Sul, Brazil. These municipalities were selected because they provide psychological care in the UBS. Convenience sampling was used. First, the Psychologists invited their patients of both sexes aged over 18 years who received psychological care in the UBS to participate in the study and to sign the Informed Consent Form (*Termo de Consentimento Livre Esclarecido – TCLE*). Patients who did not attend the centers on the day scheduled for data collection or who for some reason gave up participation were excluded.

Of the 200 patients treated in the period from 2015 to 2016, 79 accepted to participate. They were men and women aged 28-79 years with and without a diagnosis of depression. The study participants were categorized into depressive and non-depressive by the UBS Psychologist.

After selecting the participants, we administered the World Health Organization Quality of Life questionnaire (WHOQOL-BREF), which consists of 26 questions focused on four domains of quality of life: physical, psychological, environmental and social[12]. It is a short version of the World Health Organization Quality of Life-100 (WHOQOL-100), which was first developed to be used with older adults and later validated and translated into Portuguese to include comprehensive characteristics and a simple applicability, with each domain composed of questions with scores ranging 1-5[13]. The means of the values constitute the final scores of each domain and consider the answers to the questions, thus generating scores on a scale of 4 to 20[14]. The scores for each domain of the WHOQOL-BREF questionnaire were transformed into scales of 0 to 100, where higher scores indicate better quality of life[12].

The physical domain is composed of questions about pain and discomfort, energy and fatigue, sleep, mobility, daily activities, use of medication, and work capacity. The psychological domain includes questions about feelings, learning, memory, concentration, self-esteem, appearance and religion. The environment domain is composed of questions about safety and security, financial resources, opportunities for acquiring new information and skills, leisure activities, traffic and transport. Finally, the social relations domain addresses family and social relationships and sexual activity[15].

Next, we administered a structured questionnaire composed of closed-ended questions about sex, age, income, education and marital status. The anthropometric assessment included weight, height and Body Mass Index (BMI) measurements classified according to the World Health Organization (WHO)[16] for adults and according to the Pan American Health Organization (PAHO)[17] for older adults. Adults and older adults were grouped according to their nutritional status and age group. Waist circumference (WC) was measured with the participant standing upright and the measurement was taken in the abdominal region at the minimal waist and at the end of expiration. The cutoff points for classification of risk of cardiovascular diseases were equal or greater than 94cm for men and 80cm for women. Neck circumference (NC) was measured with the participant standing upright and the measurement was taken at mid-neck height. The cutoff point for selection was equal to or greater than 37cm for men and greater than 34cm for women. People with NC measures below these values were considered without risk of excess weight[17].

Anthropometric data were collected using a Plenna® portable digital scale with a maximum capacity of 180 kg and with a precision of 100g. The Sanny® professional portable stadiometer, with an accuracy of 1 millimeter, was used to measure height. Waist and neck circumferences were measured using a Cardiomed® inelastic measuring tape with a maximum length of 150 cm.

Results were considered significant at a maximum significance threshold of 5% ($p \leq 0.05$) and the Statistical Package for the Social Sciences version 22.0 was used for data analysis. The Mann-Whitney U test, Pearson's correlation analysis and the Chi-squared test were used.

The study was approved by the Research Ethics Committee of the University of Vale do Taquari (*Universidade do Vale do Taquari – UNIVATES*) under Approval No. 1.230.745.

RESULTS

Most of the study population was female, 75.9% (n=60), adult 55.7% (n=44) and had no depression 51.9% (n=41). They presented a mean height of 1.61m (±0.08), weight of 76.45Kg (±16.52), Body Mass Index of 29.35Kg/m² (±5.80), WC of 90cm (±12.27) and NC of 33.41cm (±3.32).

With regard to the domains of quality of life, the mean scores were 54.75 (±19.58) for the physical domain, 56.65 (±17.52) for the psychological domains, 67.72 (±16.36) for the social relations domain and 61.75 (±12.45) for the environment domain.

Most of the study population had a household income between 1 and 2 minimum wages (84.8%, n=67) and incomplete primary education (75.9%, n=60), were married and/or lived in a common law marriage (68.4%; n=54), were obese (40.5%, n=32), presented WC measures that suggested risk of cardiovascular diseases (67.1%, n=53) and were at no risk of excess weight according to NC measures (69.6%; n=55) (Table I).

Table I - Socioeconomic and anthropometric characterization of adults and older adults served by Primary Health Care Centers in the municipalities in the Vale do Taquari. Rio Grande do Sul, Brazil, 2017.

Variable	Response	n	%
Income	Less than 1 minimum wage	11	13.9
	1-2 minium wages	67	84.8
	3 or more minimum wages	1	1.3
Education	Incomplete primary education	60	75.9
	Complete primary education	7	8.9
	Incomplete secondary education	2	2.5
	Complete secondary education	7	8.9
	Incomplete higher education	2	2.5
	Complete higher education	1	1.3
Marital Status	Single	6	7.6
	Married/common-law marriage	54	68.4
	Widowed	15	19.0
	Separated	4	5.1
BMI Classification	Thinness	3	3.8
	Normal	21	26.6
	Overweight	23	29.1
	Obesity	32	40.5
WC Classification	Cardiovascular risk	26	32.9
	No cardiovascular risk	53	67.1
NC Classification	No risk of excess weight	55	69.6
	Risk of excess weight	24	30.4

WC: Waist circumference; NC: Neck circumference; BMI: Body Mass Index

Men presented a significantly higher mean score in the environment domain (p=0.009). As for the other domains, there were no significant differences between sexes, but the mean scores were also higher among men.

The comparison of patients with and without a diagnosis of depression revealed significantly higher mean scores in the physical (p=0.035) and psychological (p=0.042) domains among non-depressed patients. The mean scores in the environment (p=0.102) and social relations (p=0.066) domains were also higher among non-depressed participants, but the differences were not significant.

Older adults had significantly higher mean scores in the physical (p=0.006), psychological (p≤0.01), social relations (p=0.016) and environment (p=0.001) domains compared with adults (Table II).

Overweight and obese participants had significantly lower mean scores in the physical domain (p=0.015) compared with participants who presented thinness or normal weight. As for the other domains, there were no significant differences in nutritional status. With regard to cardiovascular risk measured by WC and risk of excess weight measured by NC, the mean scores were higher among the participants who were not at risk, but the results were not significant in any of the domains (Table III).

In regard to age (Table IV), there was a direct correlation between age and all the domains. However, there was an inverse correlation between BMI and the physical, psychological and environment domains. WC and NC were not significantly correlated with the domains.

Table II - Comparison of quality of life domains in relation to sex, clinical diagnosis of depression and age of adults and older adults in Primary Health Care Centers in the municipalities of the Vale do Taquari. Rio Grande do Sul, Brazil, 2017.

Domain	Sex	n	Mean ± SD	p*
Physical	Women	60	52.80±18.83	0.146
	Men	19	60.90±21.14	
Psychological	Women	60	55.07±19.23	0.322
	Men	19	61.62±9.17	
Social	Women	60	65.83±17.27	0.062
	Men	19	73.68±11.54	
Environment	Women	60	59.74±13.16	0.009
	Men	19	68.09±6.95	
Domain	Diagnosis	n	Mean ± SD	p*
Physical	Depressed	38	49.25±19.63	0.035
	Non-depressed	41	59.84±18.33	
Psychological	Depressed	38	52.52±18.11	0.042
	Non-depressed	41	60.47±16.25	
Social	Depressed	38	64.04±17.66	0.066
	Non-depressed	41	71.14±14.45	
Environment	Depressed	38	59.70±11.57	0.102
	Non-depressed	41	63.64±13.07	
Domain	Age group	n	Mean ± SD	p*
Physical	Adult	44	49.03±21.07	0.006
	Older adult	35	61.94±14.93	
Psychological	Adult	44	49.53±19.36	p<0.01
	Older adult	35	65.60±9.06	
Social	Adult	44	63.07±18.01	0.016
	Older adult	35	73.57±11.87	
Environment	Adult	44	57.32±13.05	0.001
	Older adult	35	67.32±9.11	

*Mann-Whitney U test; SD: standard deviation

Although the correlations were not significant, depressive participants were obese, presented cardiovascular risk according to WC measures and were not at risk of excess weight according to NC measures. Non-depressed participants were at normal weight, presented cardiovascular risk according to WC measure and were not at risk of excess weight according to NC measures (Table V).

Table III - Comparison of quality of life domains in relation to nutritional status measured by the Body Mass Index, risk of excess weight measured by neck circumference, and cardiovascular risk measured by waist circumference of adults and older adults in Primary Health Care Centers in the municipalities of the Vale do Taquari. Rio Grande do Sul, Brazil, 2017.

Domain	BMI	n	Mean ± SD	p[*]
Physical	Thinness	3	66.67±12.54	0.015
	Normal	21	64.97±14.09	
	Overweight	23	51.86±20.54	
	Obesity	32	49.00±20.06	
Psychological	Thinness	3	66.67±8.33	0.148
	Normal	21	61.90±13.84	
	Overweight	23	56.70±16.08	
	Obesity	32	52.21±20.30	
Social	Thinness	3	63.89±4.81	0.372
	Normal	21	70.24±12.79	
	Overweight	23	70.29±17.19	
	Obesity	32	64.58±18.33	
Environment	Thinness	3	68.75±3.13	0.178
	Normal	21	65.77±11.07	
	Overweight	23	62.23±11.07	
	Obesity	32	58.11±13.93	
Domain	Classification of cardiovascular risk measured by WC	n	Mean ± SD	p[*]
Physical	No cardiovascular risk	26	59.48±20.80	0.078
	Cardiovascular risk	53	52.43±18.73	
Psychological	No cardiovascular risk	26	58.33±15.41	0.637
	Cardiovascular risk	53	55.82±18.55	
Social	No cardiovascular risk	26	68.59±15.15	0.811
	Cardiovascular risk	53	67.30±17.05	
Environment	No cardiovascular risk	26	62.74±10.11	0.810
	Cardiovascular risk	53	61.26±13.52	
Domain	Classification of risk of excess weight measured by NC	n	Mean ± SD	p[*]
Physical	No risk of excess weight	55	57.08±19.48	0.060
	Risk of excess weight	24	49.40±19.15	
Psychological	No risk of excess weight	55	58.11±16.50	0.256
	Risk of excess weight	24	53.30±19.62	
Social	No risk of excess weight	55	68.94±15.99	0.293
	Risk of excess weight	24	64.93±17.20	
Environment	No risk of excess weight	55	63.35±11.23	0.102
	Risk of excess weight	24	58.07±14.48	

[*]:Mann-Whitney U test; WC: Waist circumference; NC: Neck circumference; BMI: Body Mass Index

Table IV - Correlation of quality of life domains with age, Body Mass Index, Waist Circumference and Neck Circumference of adults and older adults in Primary Health Care Centers in the municipalities of the Vale do Taquari. Rio Grande do Sul, Brazil, 2017.

Variable	Physical Domain		Psychological Domain		Social Domain		Environment Domain	
	r	p	r	p	r	p	r	P
Age	0.268	0.017	0.409	p<0.01	0.359	0.001	0.328	0.003
BMI Kg/m²	-0.292	0.009	-0.257	0.022	-0.215	0.058	-0.267	0.018
WC (cm)	-0.139	0.222	-0.105	0.356	-0.002	0.989	-0.175	0.122
NC (cm)	-0.115	0.312	-0.028	0.809	0.016	0.891	-0.069	0.545

r: Pearson's correlation test; BMI: Body Mass Index; Kg/m²: kilograms per square meter; WC: Waist circumference; NC: Neck circumference; cm: centimeters

Table V - Comparison between depressed and non-depressed patients with regard to nutritional status based on Body Mass Index, Waist Circumference and Neck Circumference of adults and older adults in Primary Health Care Centers in the municipalities of the Vale do Taquari. Rio Grande do Sul, Brazil, 2017.

Variable	Response	Type of patient				p*
		Depressed		Non-depressed		
		n	%	n	%	
BMI Classification	Thinness	-	-	3	7.3%	0.094
	Normal	7	18.4%	14	34.1%	
	Overweight	12	31.6%	11	26.8%	
	Obesity	19	50.0%	13	31.7%	
WC Classification	No cardiovascular risk	9	23.7%	17	41.5%	0.093
	Cardiovascular risk	29	76.3%	24	58.5%	
NC Classification	No risk of excess weight	25	65.8%	30	73.2%	0.476
	Risk of excess weight	13	34.2%	11	26.8%	

*: Chi-squared test; WC: Waist circumference; NC: Neck circumference

DISCUSSION

The data collected in the present study showed that the majority of the participants were overweight or obese. However, the best mean QoL scores were observed among the participants who presented thinness or normal weight. BMI was inversely correlated with the domains of QoL. Men, older adults and and non-depressed participants had higher mean scores in all the domains of QoL. QoL is related to changes in customs, intervention, policy, and attitudes that contribute to improvements in the health of the population. Therefore, it should be emphasized that health promotion is related to these concepts as the environment influences the habits of a community[18].

With regard to nutritional status, the majority of the participants in the present research were classified as obese followed by overweight. These findings corroborate a study carried out with 11 older women in a private higher education institution in the city of Itabuna, Bahia, in which 42.32% of the participants presented normal weight and 46.15% were overweight[19]. A study of 155 adults conducted in a UBS found that 36.1% of the participants were overweight and 29.0% were obese[20]. In another study of 156 older participants of senior group, 43.6% of the older adults were either overweight or obese[21].

These results reiterate the fact that Brazil ranks fourth in obesity prevalence worldwide. This situation is associated with several cardiovascular diseases. Therefore, it is important to emphasize that this condition can be avoided by implementing actions to prevent behavioral risk factors, such as inadequate diets, sedentary lifestyle and excessive drinking and/or smoking[22]. In this regard, the National Health Promotion Policy (*Política Nacional de Promoção da Saúde – PnaPS*) emphasizes the importance of health promotion, food and nutrition security, poverty reduction, social inclusion and human rights to adequate and healthy food as part of possible strategies[23].

In the present study, 67.1% of the participants presented cardiovascular risk according to the classification of WC. This rate is lower than that reported by a study conducted in Itabuna, Bahia, with women. In this study, 80.76% of the participants were at risk of developing cardiovascular diseases[19]. This rate is higher than that reported by a study that found 54.8% of people with increased WC[20]. A study of 120 women aged 20 to 49 living in the municipality of São José de Ribamar, Maranhão, found that 55% of the participants were at an increased risk of developing cardiovascular diseases according to WC data[24]. Knowing that cardiovascular disease is a major cause of death in Brazil, accounting for 30% of deaths, it is necessary to implement health strategies in primary and secondary care facilities with a focus on the prevention of risk factors[25].

The mean scores in the domains of quality of life of adults and older adults were: social relations 67.72, environment 61.75, psychological 56.65 and physical 54.75. Thus, they were lower than those found in a study with 930 adult and older patients attending a UBS in Belo Horizonte, where the mean scores were 68.2 in the social relations domain, 52.4 in the environment domain, 66.5 in the psychological domain and 63.0 in the physical domain[26]. When compared with the results of the present study, the mean scores found in a study carried out with adult and older people covered by income transfer programs in the countryside of São Paulo were lower in all the domains: social relations (53.4), environmen (43.0), psychological (54.9) and physical (54.1)[8].

In the present study, men presented significantly higher mean scores in the environment domain compared with women, thus demonstrating that men have greater satisfaction with safety, financial resources, transport and acquisition of goods[27], which may be related to men's greater appreciation of these issues. In another study, only the scores in the psychological domain differed significantly (p≤0.002)[26], with men presenting higher scores in this domain. This may be explained by the fact that women have a perception of depression that is twice as high as that of men, which can be influenced by physiological and hormonal differences, low levels of education and income, culture, and different ways of handling moments of stress[28].

The mean scores in the physical and psychological domains were significantly higher among non-depressed participants compared with depressed participants in the present study. A study of 1,560 adults in the city of Pelotas, Rio Grande do Sul, using the Mini-International Neuropsychiatric Interview (MINI) method for the diagnosis of depression and the Medical Outcomes Study Short-form General Health Survey (SF-36) to asssess quality of life, found similar results, with higher and significant mean scores in the physical and social relations domains among people without the diagnosis of depression[29]. Depression is seen as one of the main causes of disability in the world, decreasing physical, personal and social functioning and worsening clinical conditions such as heart disease, diabetes, obesity and cancer[30]. Thus, it is extremely important to encourage health promotion with the aim of improving the quality of life of the population by favoring the creation of social strategies and intersectoral actions to be taken by multidisciplinary teams[7].

The comparison of the quality of life domains in relation to age showed that older adults had significantly higher mean scores in the environment, psychological and physical domains when compared with adults. Another study found that when compared with young adults aged 18-39 years, older adults presented higher mean scores in the environment domain only; and when compared with adults aged 40-59 years, older adults had higher mean scores in all the domains[26]. In a study of 77 institutionalized older adults, the young-old who participated in daily activities presented, in general, a better perception of QoL, which might have been be related to the care and attention they received[31].

In order to guarantee the well-being of the older population, the SUS organizes health care strategies targeted at older people based on a comprehensive health care model, which highlights the importance and potential of networking with a view to caring for the older people and adpting the service to their needs. Strategies like these are extremely valuable as they are based on increasing life expectancy. The aging of the Brazilian population has brought about demands that involve responses from social policies and hence require planning new forms of care, especially in prolonged cases and home care. The combination of financial support, adequate food and health interventions has improved older adults' adherence to health programs[32]. The healthy aging process improves with a good QoL, which leads to a decreased risk of acquiring diseases, good physical performance, active status for daily activities and good mental functioning[33]. On the other hand, the adult population values factors related to work and family and is concerned with financial issues, family formation and the search for material assets, focusing on financial stability, daily situations related to the lack of time to perform leisure activities and financial dissatisfaction – different from the older population. These issues may influence older adults' perception of QoL[34].

The onset of depression is directly related to daily routine and psychosocial, emotional and economic factors. The participation of the older person in community activities is extremely relevant as non-engagement in a community is one of the possible causes of diagnosed cases of depression[35].

The participants who presented thinness and normal weight had significantly higher mean scores in the physical domain. This finding is similar to that reported in a study of 370 older people conducted in a city in Southeastern Brazil, where overweight older people presented significantly lower scores in the physical domain when compared with those who were not overweight[36]. In another study of 156 older adults, the mean scores in the physical domain were significantly lower among individuals with a high BMI[21]. The physical domain includes questions related to pain and discomfort, energy and fatigue, sleep and rest, mobility, daily activities, use of medication/treatment and capacity for work[37]. Given that, it is assumed that excess weight considerably interferes with these issues and negatively influences the functional capacity of these individuals[25].

With regard to the diagnosis of depression and nutritional status, 50% of the depressed participants were obese and 31.6% were overweight. In a study of 49,025 adult individuals with and without depression, the depressed participants exhibited higher prevalence rates of health-harming behaviors. The analysis of the association between depression and nutrition showed that all indicators related to unhealthy eating were more prevalent in depressive individuals[38]. This finding is in agreement with the findings of the present study, in which the participants with depression presented lower QoL scores.

Depression may facilitate the development of obesity due to changes in eating habits and decreased physical activity. Likewise, obesity can influence the onset of depression due to the negative perception of body image[39]. Thus, health interventions target the problems and needs of the population and therefore focus on the development of actions and services that involve the prevention of diseases taking into account living conditions and encouraging healthy choices[5].

The present study has limitations. It should be noted that the results may not be representative for all the population served by Primary Health Care Centers as the study sample comprised only patients receiving psychological care. Therefore, there is a need for further research with the population served by public psychology services with the aim of promoting health, quality of life and well-being through comprehensive care and respecting the specificities of each individual in the construction of therapeutic plans[23].

CONCLUSION

Men, older adults and non-depressed participants had better perceptions of the domains of quality of life. There was a direct correlation between age and all the domains and depressed participants were mostly obese, presented cardiovascular risk and were not at risk of having excess weight.

CONTRIBUTIONS

Aline Rodrigues Godoy and **Fernanda Scherer Adami**: Study conception and design; acquisition, analysis and interpretation of data; drafting of the manuscript.

CONFLICTS OF INTEREST

The authors declare that there is no conflict of interest regarding this research.

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