SELF-ESTEEM OF COMMUNITY-BASED ELDERLY AND ASSOCIATED FACTORS: A POPULATION-BASED STUDY*

Michelle Couto Salerno[1], Alisson Fernandes Bolina[2], Flavia Aparecida Dias[3], Nayara Paula Fernandes Martins[3], Darlene Mara dos Santos Tavares[4]

[1]Nursing Undergraduate. Universidade Federal do Triângulo Mineiro. Uberaba, MG, Brazil.
[2]RN. Ph.D. Candidate in Nursing. University of São Paulo. Ribeirão Preto, SP, Brazil.
[3]RN. Ph.D. Candidate in Health Care. Universidade Federal do Triangulo Mineiro. Uberaba, MG, Brazil.
[4]RN. Ph.D. in Nursing. Faculty at Universidade Federal do Triângulo Mineiro. Uberaba, MG, Brazil.

ABSTRACT: The aim was to assess the self-esteem of community-based elderly and verify its association with socio-demographic and health variables. The epidemiological survey was held in the urban region of Uberaba, a city in the state of Minas Gerais, with 980 elderly people. The Rosenberg Self-Esteem, Katz, Lawton and Short Geriatric Depression Scales were used and, for descriptive analysis, the Mann-Whitney and Kruskal-Wallis tests, Spearman's correlation and multiple linear regression were used ($p < 0.05$). The data were collected between August 2012 and March 2013. The female gender was predominant, 70-80 years, married, income one minimum wage, between four and seven years of education, who lived with their children. The median number of illnesses was five. The median self-esteem score was ten. The predictors of worse levels of self-esteem were higher age ($p < 0.01$), lower education ($p = 0.021$) and signs of depression ($p < 0.001$). The community-based elderly presented high self-esteem and signs of depression were the main predictor of low self-esteem.
DESCRIPTORS: Self-esteem; Aged; Elderly health care; Geriatric nursing.

AUTOESTIMA DE IDOSOS COMUNITÁRIOS E FATORES ASSOCIADOS: ESTUDO DE BASE POPULACIONAL

RESUMO: Objetivou-se avaliar autoestima de idosos comunitários e verificar sua associação com variáveis sociodemográficas e de saúde. O inquérito epidemiológico ocorreu na zona urbana de Uberaba, estado de Minas Gerais, no qual participaram 980 idosos. Utilizaram-se Escalas de Autoestima de Rosenberg, Katz, Lawton e Depressão Geriátrica Abreviada e análise descritiva com testes de *Mann Whitney*, *Kruskal Wallis*, correlação de *Spearman* e regressão linear múltipla ($p < 0,05$). A coleta de dados ocorreu entre agosto de 2012 e março de 2013. Predominou o sexo feminino, 70-80 anos, casados, renda de um salário mínimo, quatro a sete anos de estudo, que moravam com filhos. A mediana foi de cinco doenças. Os escores de autoestima apresentaram mediana de 10. Os preditores dos piores níveis de autoestima foram maior idade ($p < 0,01$), menor escolaridade ($p = 0,021$) e indicativo de depressão ($p < 0,001$). Os idosos comunitários apresentaram elevada autoestima e o indicativo de depressão foi o preditor principal da baixa autoestima.
DESCRITORES: Autoestima; Idoso; Atenção à saúde do idoso; Enfermagem geriátrica.

AUTOESTIMA DE ANCIANOS COMUNITARIOS Y FACTORES ASOCIADOS: ESTUDIO DE BASE POPULACIONAL

RESUMEN: Estudio cuyo objetivo fue evaluar la autoestima de ancianos comunitarios y verificar su asociación con variables sociodemográficas y de salud. La investigación epidemiológica ocurrió en la zona urbana de Uberaba, estado de Minas Gerais. Participaron 980 ancianos. Fueron utilizadas Escalas de Autoestima de Rosenberg, Katz, Lawtone Depresión Geriátrica Abreviada y análisis descriptivo con testes de Mann Whitney, Kruskal Wallis, correlación de Spearman y regresión linear múltiple ($p < 0,05$). Los datos fueron obtenidos entre agosto de 2012 y marzo de 2013. Fueron predominantes el sexo femenino, 70-80 años, casados, renta de un salario mínimo, cuatro a siete años de estudio, que vivían con hijos. La mediana fue de cinco enfermedades. Los scores de autoestima presentaron mediana de 10. Los predictores de los peores niveles de autoestima fueron mayor edad ($p < 0,01$), menor escolaridad ($p = 0,021$) e indicativo de depresión ($p < 0,001$). Los ancianos comunitarios presentaron elevada autoestima y el indicativo de depresión fue el predictor principal de la baja autoestima.
DESCRIPTORES: Autoestima; Anciano; Atención a la salud del anciano; Enfermería geriátrica.

Corresponding author:
Darlene Mara dos Santos Tavares
Universidade Federal do Triangulo Mineiro
R. Jonas de Carvalho, 420 - 38055-440 - Uberaba, MG, Brasil
E-mail: darlenetavares@enfermagem.uftm.edu.br

INTRODUCTION

Self-esteem can be defined as "the feeling, appreciation and consideration a person feels for him/herself, that is, how much that person likes him/herself, sees him/herself and what (s)he thinks about him/herself"[1:48]. These feelings are constructed in the course of life according to the experiences gained[2].

In the elderly population, the situations of dislike and rejection in the family and social sphere further the development of low self-esteem. In addition, the physical, psychological, social and environmental limitations advanced age entails can contribute to this condition[3]. Nevertheless, the elderly can develop strategies to improve their self-esteem, like the valuation of the positive aspects of aging for example, as well as the knowledge gained over the years[4].

A Brazilian study found high self-esteem among elderly who attended a Comprehensive Health Care Center (Md=36)[5]. In another study, self-esteem was associated with positive perceived health (p=0.003) and male elderly aged 70 years and older obtained a higher average than elderly between 60 and 69 years of age (p=0.04). No relation was observed between self-esteem and marital status (p=0.590), education (p=0.316), sex (p=0.352) and income (p=0.602)[2].

An international research of community-based elderly found that the home arrangement was associated with self-esteem; people who lived with their family had higher levels of self-esteem when compared to people who lived alone (p<0.001)[6]. In addition, the scientific literature has suggested that depression, the number of illnesses and functional disability negatively affect self-esteem[2,7].

Nevertheless, Brazilian surveys on the theme were developed with elderly populations who attended community centers[2,5]. This fact can contribute to the high self-esteem in the findings, as a result of socialization possibilities. In this perspective, the need to get deeper into this theme among Brazilian community-based elderly is observed, through population-based epidemiological studies.

Considering that self-esteem is a feeling that helps to overcome the physical, psychological and social limitations deriving from the advancement of age[3], identifying the aspects related to this condition in the community-based elderly can provide support to primary health care professionals in order to plan the health promotion process, with a view to healthy aging.

Hence, the objective was to assess the self-esteem scores of community-based elderly and verify their association with the socio-demographic and health variables.

METHOD

An epidemiological, population-based study with a cross-sectional, observational and analytic design was undertaken in the urban region of a city in the interior of Minas Gerais.

To calculate the sampling population, the confidence level considered was 95%, test power 80%, error margin 4% for estimated intervals and an estimated proportion of ϖ=0.5 for the proportions of interest. The researchers departed from a sample of 2,149 elderly.

The inclusion criteria were: age 60 years or older; without cognitive decline and living in the urban region of Uberaba, a city in the state of Minas Gerais. In total, 980 elderly complied with the inclusion criteria, while those who refused to participate in the study (37), were hospitalized (14), died (266), were not found after three consecutive visits (183), changed address (193) or other reasons (316) were excluded. It is highlighted that 160 elderly presented cognitive decline.

The data were collected at the elderly people's homes between August 2012 and March 2013. To characterize the socio-economic and demographic and health data, a structured tool was used, constructed by the Collective Health Research Group.

To measure the self-esteem, the Rosenberg Self-Esteem Scale was used[1], which contains ten randomly distributed items. Each item is scored between zero and three. When adding up all questions, the sum ranges between 0 and 30 points[1], the lowest scores being associated with high self-esteem and 30 points with the lowest self-esteem.

To assess the functional ability, the version of the Katz (1963) and Lawton (1969) scales validated in Brazil were used[8-9]. The modified Katz scale consists of six objective questions that investigate the Basic Activities of Daily Living (BADL). For each investigated task, alternatives are offered, that is, whether the elderly accomplish the task independently or not. Each positive answer

is equivalent to one point, so that, at the end, the elderly are classified as independent for BADL when they reach 5-6 points; moderately dependent, 3-4; and important dependence, 0-2[8].

The Lawton scale consists of nine Instrumental Activities of Daily Living (IADL). For each question there are three alternatives: performs without help (3 points), performs with partial help (2 points), is unable (1 point). The maximum score is 27, with the following functional classification: 27 to 19 points, considered independent; between 18 and 10 partially dependent; and inferior to nine dependent[9].

To assess the signs of depression, the Short Geriatric Depression Scale was used, adapted to the reality in Brazil[10]. This scale consists of 15 objective questions; scores superior to five are considered positive for signs of depression[10].

The research variables were: sex; age range, in years (60 ├ 70, 70 ├ 80 and 80 or more); marital status (never married or lived with partner; lives with husband/wife or partner; widowed; separated or divorced; education, in years of study (no education, 1 ├ 4, 4 ├ 8, 9 ├ 11, ≥11); monthly individual income in minimum wages (no income,<1, 1, 1 ├ 3, 3 ├ 5, >5); housing arrangement (lives alone, with professional caregiver, with partner only, with another person of same generation, with children, grandchildren, other arrangements), number of illnesses (1 ├ 4, 4 ├ 6, ≥6), functional ability in BADL (bathing, dressing, personal hygiene, transferring, toileting and feeding) and IADL (telephone, shopping, managing finances, preparing one's own meals, cleaning, doing housework, washing and ironing, taking medication correctly and getting beyond walking distance using transportation), number of illnesses (1 ├ 4, 4 ├ 6, ≥6), self-perceived health (very bad, bad, regular, good, excellent) and signs of depression (yes, no).

An electronic worksheet was constructed in Excel®. The collected data were processed in two databases, which were submitted to consistency analysis. In case of inconsistencies, the researchers returned to the original collection form for correction. Next, the data were transported to the software Statistical Package for Social Sciences (SPSS) version 17.0 for analyses.

Descriptive analysis was applied through absolute and percentage frequency distribution. To verify the factors associated with self-esteem, preliminary bivariate analysis was used. The nominal variables were recategorized and were made dichotomous: marital status (without or with partner), income (without or with), domestic arrangement (lives alone or not), signs of depression (yes and no) and functional disability for BADL (yes or no) and IADL (yes and no). The self-perceived health was also recategorized (very bad-bad, regular, good-excellent). The normality of the data was verified using the Kolmogorov-Smirnov test. The tests used were Mann-Whitney, Kruskal-Wallis and Spearman correlation. Variables with $p<0.1$ were included in the multivariate model using multiple linear regression. In this model, statistical significance was set at $p<0.05$.

Approval for the study was obtained from the Ethics Committee for Research Involving Human Beings at Universidade Federal do Triângulo Mineiro, under protocol No. 2.265. The elderly signed the Informed Consent Form before their data were collected.

RESULTS

Most of the elderly (n=980) were female (64.3%); aged 70 ├ 80 years (50%); married (42.6%) followed by widow(er)s (42%); 4 ├ 8 years of education (34.5%), monthly individual income of one minimum wage (50.2%) and lived with their children (35.1%).

Table 1 displays the socio-demographic and economic characteristics of the study population.

Independent elderly prevailed in all BADL (95.8%). The activities with the highest percentage of dependent elderly were toileting (3%) and bathing (1.5%).

In the IADL, partially dependent elderly prevailed (69.6%); higher percentages of dependent elderly were found for the following activities: trips (28%) and housework (19.1%).

Most of the elderly presented good self-perceived health (40.8%), followed by regular (40.2%). Signs of depression represented 25.6%. Table 2 below displays the health characteristics of the research population.

The median number of associated diseases was five, ranging between zero and 17. The median self-esteem score was ten, considered high, ranging from zero to 24.

To verify the factors associated with self-esteem, initially, bivariate analysis was applied. The variables that complied with the criterion established ($p<0.1$) were inserted in the multiple

Table 1 – Frequency distribution of socio-demographic and economic variables of the elderly. Uberaba, MG, Brazil, 2013

Variables	N	%
Sex		
Female	630	64.3
Male	350	35.7
Age range (in years)		
60 ⊢ 70	283	28.9
70 ⊢ 80	490	50
80 years or older	207	21.1
Marital status		
Has never married or lived with a partner	48	4.9
Lives with a partner	417	42.6
Widowed	412	42
Separated/divorced	103	10.5
Education (in years)		
No education	212	21.6
1 ⊢ 4	274	28
4 ⊢ 8	338	34.5
8	48	4.9
9 ⊢ 11	25	2.6
11 or more	83	8.5
Individual income (in minimum wages)		
No income	82	8.4
< 1	15	1.5
1	492	50.2
1 ⊢ 3	310	31.6
3 ⊢ 5	48	4.9
> 5	30	3.1
Did not answer	3	0.3
Housing Arrangement		
Alone	181	18.5
With professional caregiver only	4	0.4
With partner only	221	22.6
With others of same generation (with or without partner)	83	8.5
With children (with or without partner)	344	35.1
With grandchildren (with or without partner)	76	7.8
Other arrangements	70	7.1
Did not answer	1	0.1

Table 2 – Frequency distribution of the elderly participants' health variables. Uberaba, MG, Brazil, 2013

Variables	n	%
BADL		
Independence for all six functions	939	95.8
Dependence for at least one function	41	4.2
IADL		
Complete dependence	6	0.6
Partial dependence	682	69.6
Independent	292	29.8
Self-perceived health*		
Very bad	28	2.9
Bad	56	5.7
Regular	394	40.2
Good	400	40.8
Very good	101	10.3
Signs of depression		
Yes	251	25.6
No	729	74.4

* Did not answer 0.1%.

Table 3 – Regression Model of factors associated with self-esteem of elderly people. Uberaba, MG, Brazil, 2013

Variables	Initial Model		Final Model	
	β	p	β	P
Female gender	0.035	0.254	-	-
Age	0.067	0.024	0.070	0.010
Absence of partner	0.005	0.871	-	-
Absence of education	-0.063	0.027	-0.065	0.021
Absence of income	0.011	0.685	-	-
Functional disability for BADL	0.055	0.056	-	-
Functional disability for IADL	0.006	0.643	-	-
Presence of signs of depression	-0.395	< 0.001	-0.407	< 0.001
Self-perceived health (very bad/bad)	0.092	0.004	0.110	< 0.001
Self-perceived health (regular)	0.117	< 0.001	0.121	< 0.001
Number of diseases	0.022	0.482	-	-

linear regression model: sex (Z=-2.357; p=0.0180), age (r=0.113; p<0.001), marital status (β=-2.526; p=0.012), education (r=-0.114; p<0.001), income (β=-2.344; p=0.019), functional ability for BADL (Z=-4.938; p<0.001) and IADL (β=-2.769; p=0.006), self-perceived health (H=-87.409; p<0.001), signs of depression (Z=-16.364; p<0.001) and number of diseases (r=-0.194; p<0.001).

Table 3 below displays the multivariate linear regression analysis of the factors associated with self-esteem among the elderly in the city of Uberaba, 2013.

In the multivariate analysis, the predictors of worse levels of self-esteem were: higher age (β=0.07; p<0.01), lower education (β=-0.065; p=0.021), presence of signs of depression (β=-0.407; p<0.001) and very bad-bad (β=0110; p<0.001) and regular self-perceived health (β=0120; p<0.001). Signs of depression were the main predictor of worse self-esteem.

DISCUSSION

Most women in this study reflect the Brazilian data (55.7%), which may be related with the higher mortality rates among men[11]. On the other hand, the results evidenced with regard to the age range diverge from Brazilian findings in which 55.5% of all elderly were 60 ├70 years[11]. This divergence can be related with the fact that the Research Group in Collective health has monitored the population in this study since 2005.

The predominance of married elderly was similar to a survey undertaken in São Paulo-SP, in which 58.9% of the elderly lived with a partner(12). The percentage of widow(er)s also supports a study of elderly users of the public health network in Natal-RN (40%)[3].

In Brazil, the predominant domestic arrangement has been elderly living with their children (30.7%)[11], similar to the present research. Brazilian estimates also supported the findings on the monthly individual income, in which most elderly (38.6%) received between half and one minimum wage[11]; at the time of the data collection, the minimum wage amounted to R$678.00[13].

As regards the health characteristics of the research population, the higher percentage of dependent elderly for BADL is in line with a study undertaken among elderly from Lafaiete Coutinho-BA, in which the following prevailed: sphincter control (8.5%), mainly urinary incontinence (7.6%) and bathing (5.4%). For IADL, however, the percentages were higher for dependence when compared to the same study (41%). The authors identified that the activities with the largest proportion of dependent elderly were using the telephone (36.6%) and visiting places alone (25.1%)[14], differently from this study.

The percentage of elderly with good self-perceived health was lower to the surveys in Campinas-SP (64.2%)[12]. This fact may have been influenced by the percentage of elderly in this study who presented functional problems and associated morbidities.

The prevalence of signs of depression is in line with the findings in Montes Claros-MG (20.9%)[15]. This result may be related with the number of associated diseases among the elderly.

The self-esteem scores found in this research (MD=10.0) were in line with a survey conducted in São Paulo-SP with a group of elderly who attended a Physiotherapy Outpatient Clinic (MD=9.91)[16] and users of the public health network in Natal-RN (MD=9.37)[3]. The scientific literature shows that self-esteem is one of the main predictors of successful aging among the elderly. Nursing practice suggests that the actions performed should be capable of promoting a better self-esteem, aiming to enhance the degree of adaptation to aging, despite health problems and personal issues in this phase of life[17].

In spite of the factors associated with worse levels of self-esteem, higher age was associated with low self-esteem, differently from a study undertaken in Florianópolis-SC (p=0,05)[4]. It is known that aging can entail some changes that affect the self-esteem. Among these, memory difficulties stand out, which elderly have reported as one of the factors that interfere negatively in this condition[4].

Therefore, the health professionals should develop group education activities to create spaces for discussion and reflection on the aspects related to aging and senility. These activities do not only favor socialization, but can also contribute to these individuals' empowerment in view of the challenges the aging process itself imposes, minimizing its impact on self-esteem.

On the opposite, in this same research, the authors suggest that the increase of self-esteem as age advances is possibly related to the acceptance of the changes inherent in the aging process itself[4]. In addition, over time, the elderly can develop adaptation mechanisms by valuing

the positive aspects of this phase of life and the knowledge gained over the years[4].

Lower education was a predictor of low self-esteem, but the same was not observed in a survey conducted in Santa Catarina involving physically active elderly (p=0.316)[2]. Nevertheless, it is highlighted that learning contributes to individual development and encourages the search for further knowledge, mainly among people who did not have the opportunity to study. This search for knowledge positively affects the elderly's self-esteem[4]. The education level is associated with access to information, better social opportunities in the course of life, and also facilitates the supply of health services and, consequently, better living conditions[5].

The relation between signs of depression and self-esteem supports results demonstrated in a study among elderly people who performed physical exercise in Florianópolis-SC, which observed that, the higher the depression symptoms, the lower the self-esteem (p<0.001)[1]. This fact has also been evidenced in situations of clinical diagnosis of the disease, as demonstrated in a survey conducted in Santa Catarina, in which elderly people with depression obtained a lower average self-esteem when compared to elderly without clinical symptoms of the disease (p=0.04)[18].

During elderly health care, the health professionals should heed signs of depression. Early detection and appropriate treatment can minimize the impact of this morbidity in terms of health-related aspects as well as self-esteem. Therefore, the geriatric depression scale is highlighted as a valid screening tool that is easy to use in clinical practice[10]. Individuals with positive assessments should be forwarded for diagnostic confirmation and specialized professional monitoring.

Low self-esteem related with a worse perceived health is in line with a study developed in Santa Catarina, in which elderly who positively assessed their health obtained better self-esteem levels when compared to elderly with negative self-perceived health (p=0.003)[2]. This result can be related to the existence of health problems among elderly with negative perceived health, influencing limitations for daily activities[2], interfering negatively in the self-esteem.

It is known that the physical aspects is closely related with the emotional and psychological status, but individuals with chronic conditions and who are sensitized to the control of their health condition are able to develop a balance that satisfies the route towards healthy aging[19]. Therefore, nurses can develop health promotion strategies with this population, aiming for empowerment for self-care and monitoring of the health condition. In that sense, the health team should heed the psychobiological needs, health and living conditions of the elderly, aiming to contribute to their care[20].

CONCLUSION

This survey appointed that the community-based elderly presented high levels of self-esteem and the variables that were associated with low self-esteem were: higher age, lower education, presence of signs of depression and bad and regular self-perceived health. It should be highlighted that the signs of depression were the main predictor of this condition.

This study can contribute to further the knowledge on factors associated with the self-esteem of community-based elderly, but no conclusions can be drawn on causal relations among the research variables due to the cross-sectional design. Another limitation is the lack of scientific research on the theme, especially in the elderly population in general, making it difficult to discuss the study results. Other longitudinal studies are suggested, preferably on a larger scale, aiming to verify the factors that influence the self-esteem of community-based elderly.

REFERENCES

1. Dini GM, Quaresma MR, Ferreira LM. Adaptação cultural e validação da versão brasileira da escala de auto-estima de Rosenberg. Rev Soc Bras Cir Plástica. [Internet] 2004; 19(1) [acesso em 09 jun 2014]. Disponível: http://www.rbcp.org.br/imageBank/PDF/19-01-04pt.pdf

2. Antunes G, Mazo GZ, Balbe GP. Relação da autoestima entre a percepção de saúde e aspectos sociodemográficos de idosos praticantes de exercício físico. Rev Educ Fis UEM [Internet] 2011; 22(4) [acesso em 11 jun 2014]. Disponível: https://dx.doi.org/ 10.4025/reveducfis.v22i4.10825

3. Ferreira CL, Santos LMO, Maia EMC. Resiliência

em idosos atendidos na Rede de Atenção Básica de Saúde em município do nordeste brasileiro. Rev Esc Enferm USP [Internet] 2012; 46(2) [acesso em 10 jun 2014]. Disponível: http://dx.doi.org/10.1590/S0080-62342012000200009

4. Meurer ST, Benedetti TRB, Mazo GZ. Aspectos da autoimagem e autoestima de idosos ativos. Motriz ver. educ. fís. [Internet] 2009; 15(4) [acesso em 10 jun 2014]. Disponível: http://cev.org.br/biblioteca/aspectos-autoimagem-autoestima-idosos-ativos/

5. Costa ECS, Andrade GMM, Jinkings YF, Corrêa RGCF, Aquino DMC. Avaliação da auto-estima em idosos de um Centro Integral à Saúde do Idoso – São Luís-MA. Rev Pesq Saude [Internet] 2011; 12(1) [acesso em 09 jun 2014]. Disponível: http://www.huufma.br/site/estaticas/revista_hu/pdf/Revista_jan-abril-2011.pdf

6. Sok SR, Yun EK. A comparison of physical health status, self-esteem, family support and health-promoting behaviours between aged living alone and living with family in Korea. J Clin Nurs [Internet] 2011; 20(11-12) [acesso em 10 jun 2014]. Disponível: http://dx.doi.org/10.1111/j.1365-2702.2010.03551.x

7. Meurer ST, Borges LJ, Benedetti TRB, Mazo GZ. Associação entre sintomas depressivos, motivação e autoestima de idosos praticantes de exercícios físicos. Rev Bras Cienc Esporte [Internet] 2012; 34(3) [acesso em 11 jun 2014]. Disponível: http://dx.doi.org/10.1590/S0101-32892012000300011

8. Lino VTS, Pereira SRM, Camacho LAB, Ribeiro Filho ST, Buksman S. Adaptação transcultural da Escala de Independência em Atividades da Vida Diária (Escala de Katz). Cad Saude Publica. [Internet] 2008; 24(1) [acesso em 11 jun 2014]. Disponível: http://dx.doi.org/10.1590/S0102-311X2008000100010

9. Santos RL, Virtuoso Júnior JS. Confiabilidade da versão brasileira da Escala das Atividades Instrumentais da Vida Diária. Rev Bras P Saúde [Internet]. 2008; 21(4) [acesso em 10 jun 2014]. Disponível: http://ojs.unifor.br/index.php/RBPS/article/download/575/2239

10. Almeida OP, Almeida SA. Confiabilidade da versão brasileira da Escala de Depressão em Geriatria (GDS) versão reduzida. Arq Neuropsiquiatr [Internet]. 1999; 57(n.2B) [acesso em 10 jun 2014]. Disponível: http://dx.doi.org/10.1590/S0004-282X1999000300013

11. Instituto Brasileiro de Geografia e Estatística (IBGE). Síntese de Indicadores Sociais: uma análise das condições de vida da população brasileira. Brasília-DF: Ministério do Planejamento, Orçamento e Gestão [Internet]. 2012 [acesso em 18 mar 2014]. Disponível: http://www.ibge.gov.br/home/estatistica/populacao/condicaodevida/indicadoresminimos/sinteseindicsociais2012/default_tab_pdf.shtm

12. Lima MG, Barros MBA, César CLG, Goldbaum M, Carandina L, Ciconelli RM. Impact of chronic disease on quality of life among the elderly in the state of São Paulo, Brazil: a population-based study. Rev Panam Salud Publica [Internet]. 2009; 25(4) [acesso em 20 jun 2014]. Disponível: http://dx.doi.org/10.1590/S1020-49892009000400005

13. Departamento intersindical de estatística e estudos socioeconômicos (Dieese). Cesta básica nacional – salário mínimo nominal e necessário. [Internet]. 2013 [acesso em 10 jun 2014]. Disponível: http://www.dieese.org.br/analisecestabasica/salarioMinimo.html

14. Freitas RS, Fernandes MH, Coqueiro RS, Reis Júnior WM, Rocha SV, Brito TA. Capacidade funcional e fatores associados em idosos: estudo populacional. Acta Paul Enferm [Internet]. 2012; 25(6) [acesso em 20 jun 2014]. Disponível: http://dx.doi.org/10.1590/S0103-21002012000600017

15. Hoffmann EJ, Ribeiro F, Farnese JM, Lima EWB. Sintomas depressivos e fatores associados entre idosos residentes em uma comunidade no norte de Minas Gerais, Brasil. J Bras Psiquiatr [Internet]. 2010; 59(3) [acesso em 20 jun 2014]. Disponível: http://dx.doi.org/10.1590/S0047-20852010000300004

16. Chaim J, Izzo H, Sera CTN. Cuidar em saúde: satisfação com imagem corporal e auto-estima de idosos. O Mundo da Saúde [Internet]. 2009; 33(2) [acesso em 08 jun 2014]. Disponível: http://www.saocamilo-sp.br/pdf/mundo_saude/67/175a181.pdf

17. Cha NH, Seo EJ, Sok SR. Factors influencing the successful aging of older Korean adults. Contemp Nurse. 2012; 41(1):78-87.

18. Mazo GZ, Krug RR, Virtuoso JF, Streit IA, Benetti MZ. Autoestima e depressão em idosos praticantes de exercícios físicos. Revista Kinesis. [Internet]. 2012; 30(1) [acesso em 20 ago 2014]. Disponível: http://cascavel.ufsm.br/revistas/ojs-2.2.2/index.php/kinesis/article/download/5724/3399

19. Silva ACS, Santos I, Berardinelli LMM. Body image of the elderly in the reflex of self-care for healthy aging: A social-poetic study. Online Braz J of Nursing [Internet]. 2010; 9(1) [acesso em 09 jun 2014]. Disponível: http://dx.doi.org/10.5935/1676-4285.20102779

20. Garbaccio JL, Garcia TF, Cândida DA. Avaliação da independência de idosos atendidos por uma estratégia de saúde da família. Cogitare enferm. [Internet]. 2013; 18(4) [acesso em 11 jun 2015]. Disponível: http://dx.doi.org/10.5380/ce.v18i4.34914