

RELATIONSHIP OF SELF-ESTEEM WITH HEALTH PERCEPTION AND SOCIODEMOGRAPHIC CHARACTERISTICS OF ELDERLY PRACTICING PHYSICAL EXERCISE

Giselli Antunes¹, Giovana Zarpellon Mazo², and Giovane Pereira Balb ³

¹Master's Bachelor in Physical Education from Santa Catarina State University.

²Doctor. Professor at the Department of Physical Education of Santa Catarina State University.

³Master in Human Movement Sciences from Santa Catarina State University

ABSTRACT

The purpose of the present study was to compare self-esteem and health perception with sociodemographic aspects of elderly who practice physical exercise, by gender. The sample was composed of 165 elderly practitioners of physical exercise aged, on average, 69.14 years old (SD=6.04). Self-esteem was assessed through the Rosenberg self-esteem scale, and health perception and sociodemographic aspects, through structured questions. Descriptive statistics and non-parametric tests were used, with $p<0.05$. The elderly have presented high self-esteem. Significant difference in self-esteem and health perception has been observed between elderly women and men. In conclusion, elderly women with positive perception on their health status and men aged equal to or over 70 years old, practitioners of physical exercise, present higher self-esteem.

Key-words: Self-esteem. Elderly. Physical exercise.

INTRODUCTION

Considered as an important aspect in life, self-esteem is a feeling of judgment, appreciation, valuation, well-being and satisfaction that an individual has about himself, expressed through the attitudes he has in relation to himself (ROSENBERG, 1965). Self-esteem relates to some aspects in the day-by-day of older people, such as social and family relationships, morbidity, physical or mental health problems (MAZO; CARDOSO; AGUIAR, 2006; LUZ; AMATUZZI, 2008), becoming a central aspect of health and psychological well-being (SONSTROEM, 1997).

Among studies on self-esteem, a longitudinal research by Collins and Smyer (2005) is worthy of attention. It investigated 1,278 American elderly, verifying positive changes in their self-esteem throughout three years. Participation in physical exercise groups was one of the positive strategies adopted by the participants of the study that contributed to this result. In Brazil, Meurer, Benedetti and Mazo (2009) also observed that participating in physical exercise programs could be beneficial to the self-esteem of elderly, although they mention other aspects that contribute to the elevation in this variable.

Among these aspects, health perception stands out. A study developed by An et al. (2008) with 121 Korean elderly women, residents of the community, verified the occurrence of association between higher self-esteem and those elderly women who perceived themselves as healthy. Moreover, other studies (CHUNG; KIM; LEE, 2000; KIM; PARK, 2000; VITORELI; PESSINI; SILVA, 2005) point that gender, income and level of schooling, among other factors, also may influence the self-esteem of elderly.

In face of that, analyzing self-esteem by relating it to sociodemographic aspects and health perception becomes relevant to understand how these variables behave in active elderly, since researches in this area are used to study the elderly community in general. Also, men and women age in different ways; for this reason, analyzing these variables by gender is quite pertinent. These results are important for professionals of Physical Education and other health-related areas to know what sociodemographic and health perception variables associate to better self-esteem of elderly who practice physical exercise, by gender.

Thereby, this study aimed to compare self-esteem with health perception and sociodemographic aspects of elderly who practice physical exercise, by gender.

METHODS

This is a cross-sectional and comparative study (VIEIRA, 2003). The population was composed of 263 elderly who participated in physical exercises program of the “Grupo de Estudos da Terceira Idade” [Third Age Study Group] (GETI), of Santa Catarina State University, UDESC. The physical exercises program of the GETI offers several modalities, including water aerobics, swimming, yoga, dance, gymnastics, bodybuilding and walking. There are classes twice a week, with duration of 60 minutes per section and moderate intensity, except for bodybuilding and walking, which are carried out three times a week. The program emphasizes different physical qualities, especially strength, balance, flexibility, coordination and aerobic endurance.

The sample was selected in an intentional and non-probabilistic way. As inclusion criteria, the participants should be aged equal to or over 60 years old, have being participated in the aforementioned physical exercise projects during the application of the instruments in March 2009 and accept participating in the research voluntarily.

Thereby, the sample was composed of 165 elderly (132 females and 33 males), with average age of 69.14 years old (SD=6.04).

A diagnostic form developed by researchers of the area linked to the Gerontology Laboratory, LAGR/UDESC was used, aiming to identify sociodemographic characteristics of the sample (age group, gender, monthly family income, marital status and level of schooling).

Health status perception was assessed through the following question: “How do you perceive your current health status?” This question was part of the diagnostic form, having as options for answer *very bad*, *bad*, *regular* and *very good*.

Self-esteem was assessed through the Rosenberg self-esteem scale (1965), translated to Portuguese (DINI, 2000). This instrument assesses, with 10 closed-ended questions, positive attitudes and feelings related to the subject himself (appreciation, personal satisfaction, pride and respect, qualities and skills), negative attitudes and feelings (failure, dissatisfaction and uselessness). Likert scale was used, and each of the answers ranged from 1 (one) to 4 (four) points. The total sum of the items in the scales is between ten and forty points; the higher the scoring, the higher the self-esteem of the subject assessed (AVANCI et al. 2007).

The Ethics Committee of Santa Catarina State University (UDESC) approved the research, under protocol No 185/2007. Previously to the application of the research, the participants were informed about the objectives, application, data disclosure and anonymity; to confirm their agreement, they signed an informed consent form.

First, the elderly were contacted, an occasion in which the day of interview was scheduled. The interviews - conducted by the researchers and dully-trained students – were carried out at the Health and Sports Science Center (CEFID/UDESC), in March 2009, with individual application of the diagnostic form for the identification of sociodemographic characteristics and health perception, followed by the self-esteem scale.

Data were stored and processed in the statistical software SPSS, version 17.0. Descriptive statistics (mean and standard deviation) and inferential statistics were used. The answers on health status perception were grouped into two categories: positive “good and very good”, and negative “very bad, bad and regular”.

The Kolmogorov-Smirnov test was employed, verifying the non-normality of data ($p < 0.05$). To compare self-esteem between both groups (health perception, gender and age group), the Mann Whitney U test was applied, and for the other variables, with three or more categories (level of schooling, marital status and monthly family income) the H Kruskal Wallis test was used, with confidence interval set at 95%.

RESULTS

Regarding sociodemographic characteristics, most of the subjects were female (80%), aged between 60 and 69 years old (55.8%), married (55.2%), had 1-8 years of school (41.8%) and monthly family income of five or more minimum wages (46.7%). As for health perception, most of them perceived it as positive (62.4%), as shown in Table 1

Table 1 - Frequency (n), percentage (%), median (Md) and interquartile range (IQR) of the comparison of self-esteem, and sociodemographic and health perception characteristics of the sample researched

Variables	Total= 165	Self-esteem		P
	n (%)	Md (IQR)	Mid-range	
Gender				
Male	33(20)	37.00(5)	89.89	0.352
Female	132(80)	36.00(6)	81.28	
Age group (years)				
60 a 69	92(55,8)	35.50(6)	77.92	0.124
> 70	73(44,2)	37.00(6)	89.40	
Level of schooling** (years of school)				
Illiterate	4(2.4)	32.00(8)	39.25	0.316
1-8	69(41.8)	37.00(6)	83.39	
9-11	53(32.1)	35.50(8)	85.47	
>12	39(23.6)	36.00(5)	83.44	
Marital status**				
Single (a)	25(15.2)	36.00(6)	88.00	0.590
Married (a)	91(55.2)	36.00(6)	79.59	
Widower (a)	49(29.7)	36.00(5)	86.79	
Monthly family income (minimum wage¹) **				
<1	3(1.8)	36.00(-)	101.67	0.602
1 a <3	38(23)	34.00(8)	75.09	
3 a <5	47(28.5)	36.00(5)	86.98	
>5	77(46.7)	36.00(6)	83.75	
Health perception				
Positive	103(62.4)	36.00(4)	91.43	0.003*
Negative	62(37.6)	34.00(6)	69.00	

*p≤0.05; **Kruskal Wallis test; ¹Minimum wage= R\$ 465.00, referring to the period of data collection

When analyzing the self-esteem of the sample, overall, high values have been observed (Md=36 points; IQR=6; min=22; max=40 points). In the comparison between gender and age group no significant difference has been observed (U=1950.50; p=0.352 and U=2891; p=0.124, respectively), although men and the group of older seniors (70 years old or over) have presented higher values (Table 1). In relation to self-esteem and health perception of the elderly researched, a significant difference has been observed (U=2325; p=0.003); elderly with higher self-esteem were those who perceived their health as positive. Regarding self-esteem and level of schooling (H=3.536; p=0.316), marital status (H=1.055; p=0.590) and monthly family income (H=1.861; p=0.602), there was no statistically significant difference, as shown in Table 1.

Towards a better understanding of the relationship between self-esteem and the variables investigated, comparisons stratified by gender were performed (Table 2). In the comparison of self-esteem with sociodemographic variables (marital status, monthly family income and

schooling) by gender, there was no significant difference. The results were similar to those displayed in Table 1, therefore we have chosen not to present them.

Table 2 - Frequency (n), percentage (%), median (Md) and interquartile range (IQR) of the comparison of age group and health perception with self-esteem, by gender

Variables	Self-esteem				Self-esteem			
	Men (n=33)			P	Women (n=132)			P
	n (%)	Md (IQR)	Mid-range		n (%)	Md (IQR)	Mid-range	
Age group (years)								
60 a 69	15(45.5)	34.00(5)	13.27	0.040	77(58.3)	36.00(6)	64.66	0.512
≥ 70	18 (54.5)	38.00(4)	20.11		55(41.7)	36.00(6)	69.07	
Health perception								
Positive	24 (72.7)	36.50(5)	17.31	0.759	79(59.8)	36.00(4)	74.97	0.002*
Negative	9 (27.3)	37.00(5)	16.17		53(40.2)	34.00(6)	53.87	

*p≤0.05

When self-esteem and age group were compared by gender (Table 2), a significant difference has been observed among men (p=0.04); the highest self-esteem was found among elderly men aged 70 years old or over (Md=38.00; IQR=4). There was also a statistical difference (p=0.002) between self-esteem and positive health perception (Md=36.00; IQR=4)

DISCUSSION

Our study has identified an elevated self-esteem, which agrees with other researches conducted with elderly who practice physical exercise (MAZO; CRDOSO; AGUIAR, 2006; MEURER; BENEDETTI; MAZO, 2009).

Some authors (JARDIM; MEDEIROS; BRITO, 2006; CHAIM; IZZO; SERA, 2009) considered that a good self-esteem could be seen as an adequate form of understanding and living the aging process. With aging, self-esteem tends to change among those people concerned with their biopsychosocial well-being, trying to control and maintain their health (MAZO, 2008).

From this perspective, our study has observed a significant difference among elderly regarding health perception and self-esteem: females showed negative health perception (regular/bad/very bad) and lower self-esteem values. It is believed that this result is linked to a worse health status of elderly women, according to data of the National Household Sample Survey (PNAD) in 2003, since elderly women reported a worse health status in comparison with men (IBGE, 2009). According to recent researches (BRASIL, 2009) on the monitoring of risk factors and protection regarding chronic diseases, conducted through telephone survey with individuals aged over 65 years old, 8.4% of the subjects investigated perceived their health status as bad (negative), a percentage that is higher among females (10.6) than among males (4.8%).

As for the practice of physical activity, a research with elderly women observed that those who proved more active and without diseases had a better self-esteem and lower perception of negative feelings (PINQUART; SÖRENSEN, 2001). Mazo, et al. (2005) found a relationship between level of physical activity and presence of diseases in older women participating in recreational groups for elderly. According to the authors, less active older women have diseases, and their health status make the practice of physical activities difficult. According to Freitas et al. (2007), elderly can understand that their health means more than absence of disease, and that they, even with their limitations, feel accomplished and face firmly the difficulties of their lives, which provide them with physical, mental and social well-being.

Thus, it is possible to observe that the existence of health problems, which are present mostly in older women, are the main factor for lower self-esteem in the group with negative perception on their health. Another hypothesis that supports this finding consists in the possible influence of health status on the functionality of the elderly women investigated, because, according to Sonstroem and Morgan (1989), changes in physical fitness lead to an improvement in self-efficacy, resulting in a higher perception of the global self-esteem of the practitioner of physical exercises.

The study by Reitzes and Mutran (2006) reinforces this hypothesis, verifying a positive association between functional capacity and self-esteem in elderly. Similar meta-analysis research conducted by Spence, McGannon and Poon (2005) observed that changes in functional fitness resulting from the practice of physical exercise were those that most favored the participants' global self-esteem.

In our study, when comparing self-esteem with marital status, monthly family income and schooling, there was no significant difference. Such result may be due to the homogeneity of the sample, because none of the groups of the variables analyzed were superposed, presenting quite close medians, except for schooling. In this variable, illiterate elderly women have presented low self-esteem values, although the difference has not been significant, considering the reduced number of individuals in the sample. A study by Meurer, Benedetti and Mazo (2009) with elderly practitioners of physical exercises identified that many of them did not have the opportunity to study when they were young, which resulted in low self-esteem.

In relation to age group, our study has observed statistical difference only in the group of elderly men aged 70 years old or over. This finding confirms the result found in the study by Meurer, Benedetti and Mazo (2009), which identified increase in self-esteem with increase in age, a fact that may relate to the acceptance of changes that are inherent to the aging process. Freitas et al. (2007) stresses that older men can understand health in a global way, facing the difficulties in life and feeling accomplished in spite of their possible limitations.

Thus, the gains that elderly acquire with practicing physical exercise have an impact on their personality, through a positive perception in relation to their own body and intellectual capacity, through the availability for social contacts, improvement in self-esteem and health status (SAFONS, 2000). Thereby, the participation in physical exercises program may have contributed to a better self-esteem of the elderly investigated and, consequently, to a positive health perception.

It is known that self-esteem depends on multiple factors that directly or indirectly interfere with the healthcare of elderly, deserving to be approached in further studies (CHAIM; IZZO; SERA, 2009). The results of our study corroborate those of the research by Lima (2002), which points that the practice of physical activity brings about improvement in the global self-esteem of elderly people. Positive self-esteem in old age allows the individual to feel confident, independent, respected, recognized, adequate to life and worthy of happiness (VITORELLY; PESSINI; SILVA, 2005).

CONCLUSION

The sample investigated, has mostly presented elevated self-esteem, especially those subjects who perceived their health as positive; however, it has been observed that elderly women with positive health status perception and men aged equal to or over 70 years old, practitioners of physical exercise, present higher self-esteem.

In this way, considering the influence of gender in the relationship between self-esteem, sociodemographic aspects and health status perception in elderly who practice physical activities becomes important.

Thus, the participation of elderly in physical exercises program is a factor that can contribute to the improvement in self-esteem. For this reason, further studies should be

conducted with elderly who do not practice exercises, aiming to analyze self-esteem, health self-perception and sociodemographic aspects and their relationship with gender.

References

- AN, J. Y. et al. Life satisfaction, self-esteem, and perceived health status among elder korean women: focus on living arrangements. **Journal of Transcultural Nursing**, Califórnia, v. 19, no. 2, p. 151-160, 2008.
- AVANCI, J. Q. et al. C. Adaptação transcultural de escala de auto-estima para adolescentes. **Psicologia: Reflexão e Crítica**, Porto Alegre, v. 20, n. 3, p. 397-405, 2007.
- IBGE. **Indicadores Sociodemográficos e de saúde no Brasil 2009**. Brasília, DF, 2009. Estudos e Pesquisas. Informação Demográfica e Socioeconômica, 25.
- BRASIL. Ministério da Saúde. Secretaria de Vigilância em Saúde. Secretaria de Gestão Estratégica e Participativa. **Vigitel Brasil 2008: vigilância de fatores de risco e proteção para doenças crônicas por inquérito telefônico**. Brasília, DF, 2009.
- CHAIM, J.; IZZO, H.; SERA, C. T. N. Cuidar em saúde: satisfação com imagem corporal e autoestima de idosos. **O Mundo da Saúde**, São Paulo, v. 33, n. 2, p. 175-181, 2009.
- CHUNG, H.; KIM, T.; LEE, D. Related variables of life satisfaction of elderly women living alone in chonbuk-do province in Korean. **Journal of the Korea Gerontological Society**, Seoul, v. 20, no. 2, p. 49-70, 2000.
- COLLINS, A. L.; SMYER, M. A. The Resilience of Self-Esteem in Late Adulthood. **Journal of Aging and Health**, Newbury Park, v.17, n. 4, p. 471-489, 2005.
- DINI, G. M. **Tradução para a língua portuguesa, adaptação cultural e validação do questionário de autoestima de Rosenberg**. 2000. 103 f. Dissertação (Mestre em Cirurgia Plástica Reparadora)-Escola Paulista de Medicina, Universidade Federal de São Paulo, São Paulo, 2000.
- FREITAS, C. M. S. M. et al. Aspectos motivacionais que influenciam a adesão e manutenção de idosos a programas de exercícios físicos. **Revista Brasileira de Cineantropometria & Desempenho Humano**, Florianópolis, v. 9, n. 1, p. 92-100, 2007.
- JARDIM, V. C. F. S.; MEDEIROS, B. F.; BRITO, A. M. Um olhar sobre o processo do envelhecimento: a percepção de idosos sobre a velhice. **Revista Brasileira de Geriatria e Gerontologia**, Rio de Janeiro, v. 9, n. 2, p. 25-34, 2006.
- LIMA, N. M. B. C. A. **Auto-estima e actividade física: contributo de um programa de actividade física na auto-estima em adultos idosos no concelho de Coimbra**. Dissertação (Mestre em Ciências do Desporto)-Faculdade de Ciências do Desporto e de Educação Física, Universidade do Porto, Porto, 2002.
- LUZ, M. M.; AMATUZZI, M. M. Vivências de felicidade de pessoas idosas. **Estudos de Psicologia**, Campinas, v. 25, n. 2, p. 303-307, 2008.
- KIM, K. T.; PARK, B. G. Life satisfaction and social support network of the elderly living alone in Korean. **Journal of the Korea Gerontological Society**, Seoul, v. 20, no. 1, p. 153-168, 2000.
- MAZO, G. Z. **Atividade física, qualidade de vida e envelhecimento**. Porto Alegre: Sulina, 2008.
- MAZO, G. Z.; CARDOSO, F. L.; AGUIAR, D. L. Programa de hidroginástica para idosos: motivação, autoestima e autoimagem. **Revista Brasileira de Cineantropometria & Desempenho Humano**, Florianópolis, v. 8, n. 2, p. 67-72, 2006.
- MAZO, G. Z. et al. Nível de atividade física, condições de saúde e características sociodemográficas de mulheres idosas brasileiras. **Revista Portuguesa de Ciências do Desporto**, Porto, v. 5, n. 2, p. 202-212, 2005.
- MEURER, S. T.; BENEDETTI, T. R. B.; MAZO, G. Z. Aspectos da autoimagem e autoestima de idosos ativos. **Motriz**, Rio Claro, v.15, n.4, p.788-796, 2009.
- PINQUART, M.; SÖRENSEN, S. Gender differences in self-concept and psychological well-being in old age: a meta-analysis. **The Journals of Gerontology Series B: Psychological sciences and social sciences**, v. 56, p. 195-213, 2001.
- REITZES, D. C.; MUTRAN, E. J. Self and health: factors that encourage self-esteem and functional health. **Journal of Gerontology: social sciences**, v. 61B, no. 1, S44-S51, 2006.
- ROSENBERG, M. **Society and the adolescent self image**. Princeton: Princeton University Press, 1965.
- SAFONS, M. P. Contribuições da atividade física, para a melhoria da autoimagem e autoestima de idosos. **Revista Digital Lecturas: Educación Física y Deportes**, Buenos Aires, v. 5, n. 22, 2000. Disponível em: <<http://www.efdeportes.com>>. Acesso em: 22 jun. 2010.
- SONSTROEM, R. J.; MORGAN, W. P. Exercise and self-esteem: rationale and model. **Medicine and Science in Sports and Exercise**, Hagerstown, v. 21, no. 3, p. 329-337, 1989.
- SONSTROEM, R. J. The physical self-system: a mediator of exercise and self-esteem. In: FOX, K. R. (ed). **The physical self - from motivation to well-being**. Champaign, Illinois: Human Kinetics, p. 3-26, 1997.
- SPENCE, J. C.; MCGANNON, K. R.; POON, P. The effect of exercise on global self-esteem: a quantitative review. **Journal of Sport & Exercise Psychology**, Champaign Illinois, v. 27, no. 3, p. 311-334, 2005.
- VIEIRA, S. M. **Metodologia científica para a área de saúde**. Rio de Janeiro: Elsevier, 2003.
- VITORELI, E.; PESSINI, S.; SILVA, M. J. P. A autoestima de idosos e as doenças crônico-degenerativas. **Revista Brasileira de Ciências do Envelhecimento Humano**, Passo Fundo, v. 2, n. 1, p. 102-114, 2005.