

FACTORS ASSOCIATED WITH THE PARTICIPATION OF ELDERLY PEOPLE IN GROUP EDUCATIONAL ACTIVITIES

Flavia Aparecida DIAS^a, Darlene Mara dos Santos TAVARES^b

ABSTRACT

This study sought to characterize the elderly and their participation in group educational activities, and to verify the socio-demographic and health factors associated with non-participation. It was a cross-sectional survey carried out with 2,142 elderly individuals, using descriptive analysis, Student's t-test and logistical regression ($p < 0.05$). In both groups, the majority of participants were women, 60-70 years of age, married, with an income of one minimum salary. The elderly participants predominately showed 1-4 years of education, with non-participants 4-8. The morbidities most cited by the elderly who participated in educational activities were: hypertension and vision problems. Among non-participants, vision and spinal problems prevailed. In both groups, the greatest percentage was 1-3 incapacities. The age range of 80 years and above was associated with a greater chance of non-participation in activities. It is necessary to plan actions that favor participation, thereby contributing to monitor their health conditions.

Descriptors: Elderly. Geriatric nursing. Health education.

RESUMO

Estudo que objetivou caracterizar os idosos e a sua participação em atividades educativas grupais, verificar os fatores sociodemográficos e de saúde associados à não participação. O inquérito transversal foi realizado com 2.142 idosos. Utilizou-se análise descritiva, teste t-Student e regressão logística ($p < 0,05$). A maioria, em ambos os grupos, era do sexo feminino, 60-70 anos, casados e com renda de um salário mínimo. Os idosos participativos apresentaram, predominantemente, 1-4 anos de estudo e os não participativos, 4-8. As morbidades mais referidas pelos idosos que participavam de atividades educativas foram hipertensão arterial e problemas de visão. Entre os não participativos, prevaleceram os problemas de visão e problemas de coluna. Em ambos os grupos, o maior percentual foi para 1-3 incapacidades. A faixa etária de 80 anos e mais esteve associada à maior chance de não participação nas atividades. Faz-se necessário planejar ações que favoreçam a participação, contribuindo para o acompanhamento das suas condições de saúde.

Descritores: Idoso. Enfermagem geriátrica. Educação em saúde.

Título: Fatores associados à participação de idosos em atividades educativas grupais.

RESUMEN

El Objetivo del estudio fue caracterizar a las personas mayores y su participación en actividades educativas de grupo, consultar los factores sociodemográficos y de salud asociados con la no participación. Estudio transversal realizado con 2.142 personas mayores. Se utilizó el análisis descriptivo, la prueba t de Student y regresión logística ($p < 0,05$). La mayoría de los grupos de la muestra eran mujeres, 60-70 años, se casó y tiene la renta de un salario mínimo. Los ancianos participativos presentan predominantemente 1-4 años de estudio y los no participativos, 4-8. Las comorbilidades más reportadas por los ancianos que participaron en las actividades educativas fueron: la hipertensión y los problemas de visión. Prevalció entre los no participativos problemas de visión y problemas de espalda. En ambos grupos el porcentaje más alto fue para un 1-3 discapacidades. A las personas mayores de 80 años se las asoció con un aumento de la no participación en las actividades. Es necesario planificar acciones que favorezcan la participación contribuyendo a la vigilancia de su estado de salud.

Descriptorios: Anciano. Enfermería geriátrica. Educación en salud.

Título: Factores asociados con la participación de las personas mayores en el grupo de actividades educativas.

a Master's degree in Health Care at Universidade Federal do Triângulo Mineiro (UFTM). Ph.D. candidate at the Stricto Sensu Post-Graduate program in Health Care at the UFTM, Uberaba, Minas Gerais, Brazil.

b Ph.D. in Nursing. Associate Professor in the Department of Nursing in Education and Community Health at UFTM, Uberaba, Minas Gerais, Brazil.

INTRODUCTION

Population aging is a global phenomenon that has also been experienced in Brazil, where from 1999 to 2009, the percentage of elderly people rose from 9.1% to 11.3%⁽¹⁾. From this reality emerges the need for the development of health strategies that are capable of meeting the demands of this population. In Brazil, policy directed to health care of the elderly proposes that health services should meet the needs of this population, promoting the training of professionals, as well as the development and facilitation of group participation⁽²⁾.

In this investigation, the groups were denominated by group educational activities, considering the characteristics of the actions performed in the health services in which this resource is used. In the majority of cases, the elderly participate in groups for diabetics, hypertension or the elderly.

In the context of collective health, group educational activities often assume an approach focused on the disease or on the health problems presented by the users of the services⁽³⁾. This fact shows that in terms of primary health care, the approach to the process of human aging has been ruled by diseases, and distanced from the promotion of health⁽⁴⁾.

In this perspective, it is necessary that the health team reflects on how it is developing group work, in a way that makes it more effective and consonant with the learning needs of the elderly⁽⁴⁾. Further, participants may or may not feel that they benefit from the group, since participation is imposed and permeated by symbolic exchanges, such as obtaining medical prescriptions and measuring blood pressure, among others⁽³⁾.

Thus it can be inferred that the manner in which the health professionals conduct the groups is reflected in the greater or lesser participation of the population in the educational activities.

It is emphasized that the elderly who seek out groups intend for it to be a space that favors listening, since in the majority of family environments, their participation in decision-making is not permitted⁽⁵⁾.

Considering the presupposition that the development of group educational activities with elderly people can contribute to a healthier existence, the following question emerged: what are the factors that are associated with their non-participation in these activities?

The objectives of this research are to characterize the elderly and their participation in group educational activities, and to verify the socio-demographic and health factors associated with non-participation in group educational activities.

METHODS

A cross-sectional, observational home survey study done with elderly residents in the city of Uberaba, in the state of Minas Gerais (MG), Brazil.

The population sample size was obtained by members of the Research Team for Collective Health of the Universidade Federal do Triângulo Mineiro (UFTM). This calculation included 3,034 elderly individuals, considered 95% confidence, 80% power, 4.0% margin of error for the interval estimates, and an estimated proportion of $p=0.5$ for the interest proportions. The elderly were selected through the technique of proportional stratified sampling, considering the various neighborhoods as strata.

The research sample was comprised of elderly people who met the inclusion criteria of at least 60 years of age or more; a minimum score of 13 points on the cognitive evaluation; male or female; living in the urban zone of Uberaba, MG; and agreement to participate in the research. A total of 2,142 elderly individuals met the criteria, and these were divided into two groups: 251 who participate in group educational activities, and 1,891 who do not participate.

The Cognitive evaluation was based on a reduced version of the Mental State Mini Exam (MSME), validated in Brazil⁽⁶⁾. Each correct answer was considered one point, with a maximum score of 19 points⁽⁶⁾.

Data collection was done using a semi-structured instrument containing socio-demographic and health variables: gender; age group; marital status; living arrangement; education level, in years of schooling; individual income, in minimum salaries; morbidities; number of morbidities; activities of daily living (ADL); number of functional incapacities; participation in group educational activities; number of group educational activities and type of group educational activities. Functional incapacity was considered when the elderly person needed help from another person to perform ADL.

The elderly people were interviewed in their homes by a team of 12 selected, trained and super-

vised interviewers. The data was collected during the period from August to December of 2008.

A spreadsheet for storage of the data was created using Microsoft Excel®. Double-entry was used to input the collected data; later, the existence of inconsistency between the two spreadsheets was verified and correction proceeded, referring back to the original interview when necessary.

To proceed in the analysis, the data was transported to the statistical program Statistical Package for Social Sciences (SPSS) version 17.0. Descriptive analysis through absolute and percentage frequencies, and bivariate analysis for the categorical variables through the chi-squared test, was performed. In this phase, the socio-demographic variables were recategorized to make them dichotomous: marital status (with or without a partner); living arrangement (living alone or not), education level (with or without) and income (with or without). The numeric variables (number of morbidities and functional incapacities) were submitted to the Student's t test. The tests were considered significant when $p < 0.10$.

Later, multivariate analysis through logistical regression was performed. In this model, the variables that had a value higher than $p < 0.10$ in the bivariate analysis were considered. The dependent variable was participation or not in educational activities, and the independent variables were: gender; age group; marital status; living arrangement; education; income; number of morbidities and functional incapacity. The tests were considered significant when $p < 0.05$.

This research was approved by the Human Research Ethics Committee at UFTM, protocol N° 897. The elderly participants were informed about the objectives of this research, and the interview was conducted only after they signed the Free and Informed Consent Form.

RESULTS

Among the interviewed elderly, 11.7% participated in group educational activities, with frequency represented by one activity (79.7%), two (16.3%) and three (3.6%). The predominant group educational activities were related to hypertension (44.5%), the elderly (31.6%) and diabetes mellitus (18.4%).

In both groups the majority were women, with a higher percentage among the elderly individuals

that participated in group educational activities (67.7%) than non-participants (61.8%).

The percentage of elderly between the ages of 60-70 among the participants (51.4%) was higher than non-participants (45.7%), with the inverse occurring for the age range of 80 years and above (9.6 and 16 percent, respectively).

In both groups, most elderly individuals were married or lived with a partner; 53.4% of which participated in group educational activities, while 48.2% did not. It is worth noting that the percentage of widowed individuals that did not participate in group educational activities (37.8%) was higher than those that participated (32.7%).

Elderly individuals who lived with their children, with or without a spouse, predominated among those that participated in group educational activities (40.2%), over those that did not participate (32.4%). Among the elderly who lived alone, the greater frequency was for those that did not participate in group educational activities (13.1%) in relation to those that participated (11.6%).

The elderly participants in group educational activities (40.6%) had less schooling (1-4 years) in relation to non-participants (4-8 years), representing 33.5%.

In regard to monthly individual income, one minimum salary predominated, with similar percentages between participants (55%) and non-participants (55.1%).

Among those that participated in group educational activities, 7-10 morbidities predominated (33.9%), followed by 4-7 (27.5%); however, among non-participants, the inverse occurred, with the higher percentages being 4-7 morbidities (33.3%) followed by 7-10 (27.7%).

Among the elderly who participated in group educational activities, the primary health problems were hypertension (81.7%) and vision problems (70.9%), while for non-participants, the primary health problems were vision (77.6%) and spinal (63.6%).

The functional incapacity to perform activities of daily living (ADL) was greater among non-participating elderly (26.8%) than participating (25.5%). Those participating have 1-3 (23.5%), 3-5 (1.6%) and six or more (0.4%) compromised ADLs, while non-participants have 1-3 (22%), 3-5 (3.6%) and six or more (1.2%).

Table 1 below shows the distribution of the ADLs of the studied population.

Table 1 – Distribution of the frequency of the ADLs of elderly individuals according to participation or not in group educational activities. Uberaba, 2010.

Educational Activity ADLs	Participants				Non-participants			
	With a lot of difficulty		Incapable		With a lot of difficulty		Incapable	
	N	%	N	%	N	%	N	%
Eating	8	3.2	1	0.4	27	1.4	12	0.6
Bathing	6	2.4	2	0.8	50	2.6	23	1.2
Getting dressed	7	2.8	1	0.4	49	2.6	20	1.1
Brushing hair	7	2.8	1	0.4	23	1.2	19	1
Getting into/out of bed	15	6	1	0.4	69	3.6	16	0.9
Going to the bathroom in time	7	2.8	1	0.4	45	2.4	11	0.6
Urinary control	10	4	1	0.4	53	2.8	18	1
Bowel control	6	2.4	1	0.4	31	1.6	11	0.6
Walking on a flat surface	13	5.2	2	0.8	132	7	75	4
Going up and down stairs	44	17.5	10	4	315	16.7	134	7.1
Moving from chair to bed and vice versa	4	1.6	1	0.4	36	1.9	47	2.5
Walking close to home	14	5.6	4	1.6	124	6.6	98	5.2
Cutting toenails	25	10	63	25.1	102	5.4	474	25.1

In both groups, the ADL with highest prevalence of functional incapacity was cutting toenails. However, the ADLs that the elderly performed with a lot of difficulty were: going up and down stairs (both groups), cutting toenails (10%) for participants, and walking on a flat surface (7%) for non participants, as shown in Table 1.

Bivariate analysis was performed to verify the factors associated with non-participation in group educational activities. The variables that met the established criteria ($p < 0.10$), and were submitted to multivariate analysis through logistical regression were: gender ($\chi^2 = 3.360$; $p = 0.067$), age group ($\chi^2 = 7.763$; $p = 0.021$), income ($\chi^2 = 4.513$; $p = 0.034$) and functional incapacity to perform ADLs ($t = -2.086$; $p = 0.038$).

Table 2 below shows the variables inserted into the multivariate logistical regression model.

In the last model of multivariate analysis, it was observed that only age group remained a predictor of non-participation in group educational activities. As shown in Table 2, elderly individuals aged 80 years or older showed 89% more chance of non-participation in group educational activities.

DISCUSSION

The percentage of participants in educational activities in this study was less than that found in a study done with elderly people registered in Units of the Family Health Strategy (FHS), in which 35.6% participated in groups⁽⁷⁾.

The low participation in group educational activities found in this study may be related to the fact of the elderly individuals having been interviewed at home, independent of their connection to the public health service, different from the investigation cited above.

The predominance of participation in activities related to hypertension, aging and diabetes mellitus corroborates with the scientific literature, emphasizing that the themes most treated in the elderly groups relate to illnesses⁽⁸⁾.

In regard to gender, the result of this investigation diverges from that found in a randomized clinical trial with elderly people, in which the percentage of women was higher among the elderly that did not participate in educational activities (63.3%), compared to those who participated (61.1%)⁽⁹⁾.

Table 2 – Logistical regression model of the factors associated with non-participation by elderly individuals in group educational activities. Uberaba, 2010.

Variables	Initial Model ¹			Final Model ²		
	β^*	IC (95%)	p	β^*	IC (95%)	p
Gender						
Male	1.29	0.97-1.73	0.079	-	-	-
Age Group						
70 80	1.07	0.81-1.43	0.634	-	-	-
80 and older	1.74	1.09-2.77	0.02	1.89	1.2-2.98	0.006
Income						
With income	1.35	0.91-2	0.138	-	-	-
Functional Incapacity						
	1.09	0.95-1.25	0.206	-	-	-

¹ $\chi^2=16.529$; $p=0.005$. ² $\chi^2=8.508$; $p=0.014$. * β exponential

The greater adhesion by elderly women in group educational activities offered by the health services may be a result of being widowed, which contributes to increase free time and reduces domestic concerns and responsibilities⁽¹⁰⁾. Men show greater difficulty in participating in activities not related to work and groups after retirement⁽¹¹⁾. Thus, the implementation of actions specifically directed to men, aiming to improve assistance to their health, is important⁽¹²⁾.

Therefore, actions targeted to elderly groups, with the potential to support social integration, information and leisure, should consider the different needs of men and women, as well as develop strategies that favor the participation of men⁽¹³⁾.

In regard to the age group among the elderly people who attend peer groups, greater prevalence of the age group from 60 to 70 years of age has been observed, corroborating this study⁽¹¹⁾.

The lower percentage of participation among the elderly aged 80 and over may be related to functional limitations to participating in activities, and the need for help from other people. The elderly at a more advanced age may present greater prevalence of functional incapacity⁽¹⁴⁾, affecting their independence to participate in community activities.

These data reveal the need for health professionals to develop strategies to identify the possible difficulties of the eldest in joining group educational activities, in addition to foreseeing the adaptation of spaces destined for these activities, in order to safely receive them. Furthermore, elderly

health care can prioritize actions that prevent illness and promote health, in which the group educational activities can contribute to the monitoring of the health conditions of this population.

The prevalence of married elderly individuals, or those who live with a partner, diverges from that found in the investigation, in which the percentage of married elderly individuals among those that do not participate in educational activities (76.7%) was higher than those who do participate (61.1%)⁽⁹⁾.

Considering the proportion of widows in this study, health professionals should emphasize care to those elderly individuals who do not have partners. They should be encouraged to participate in activities of their preference, with the aim to minimize social isolation. Group educational activities may be one way to amplify their social network and possibilities for company.

Different from this research, the investigation done with elderly participants from a peer group center identified that 65.9% reside with children and 28.4% with a partner⁽¹³⁾.

The encouragement and strengthening of partnerships between families and nurses can minimize the difficulties experienced by both in their care to the elderly individual. The nurses may use the family space to strengthen the affective ties. Support from the family to the elderly person to socialize and participate in group educational activities is essential, as these constitute opportunities for his or her monitoring.

It is worth noting that elderly people who do not have children or relatives close by only have friends to interact and speak with, constituting a network of support with possible limitations⁽¹⁵⁾. In this context, the nurse should encourage the elderly individuals who live alone to participate in activities developed in the health services and together with the community, aiming to expand the individuals' social relationships.

Similar to this research, an investigation conducted with elderly people who participated in groups found education level to be up to four years (69%)⁽¹¹⁾.

In regard to monthly individual income, one study done in the Health Units found that the majority of elderly participating in group activities (55.9%) lived on less than two minimum salaries⁽¹⁶⁾. Considering that income may limit access to leisure and acquisition of the goods necessary for the improvement of health and lifestyle conditions, the activities developed in the community and health services may constitute one of the few options for socializing by the elderly.

The percentages of comorbidities found for those not participating are higher than those found in another study, in which the elderly presented up to two morbidities (59%)⁽¹⁴⁾. It should be highlighted that the group educational activities may contribute to the health care to elderly individuals with comorbidities, prioritizing the promotion of health and prevention of complications.

Although presenting lower percentages, hypertension was the most prevalent disease among the elderly individuals who attend a community center (55%), who also obtained, among the cited complaints, musculoskeletal problems (44.7%)⁽¹¹⁾. A higher percentage was further verified to that of this research, of elderly not participating in group educational activities with hypertension (73.2%), registered in the FHS⁽¹⁷⁾.

This study highlights that the percentage of elderly people with vision and spinal problems among those not participating was greater than those participating, to the contrary of hypertension, a fact that may be attributed to the predominance of group educational activities directed on this morbidity.

These data show that in both groups, a considerable percentage of the elderly have chronic illnesses. The FHS is a space for the nurse to monitor

the health conditions of the elderly individual on a monthly basis, with the intention of promoting the maintenance of health and postponing complications. These actions can be reinforced and amplified in the context of group educational activities.

In terms of functional incapacity, although the percentages are similar, the fact that non-participating elderly present, in terms of percentages, greater functional incapacity, consigns to the reflection about the inclusion of elderly with a dependence on group educational activities, guaranteeing their access.

Furthermore, the possibility that the elderly person is limited from participating in group educational activities, either temporarily or permanently, as a result of functional incapacity, should be considered. During the group educational activities, strategies can be developed to work on the functional capacity of the elderly person, aiming to minimize the appearance of incapacities. In this context, the nurse should encourage the maintenance of the functionality of the elderly individual, with support from the health team.

Additionally, it is important that the health professional develop strategies for intervention directed to the elderly and their relatives, with an aim to encourage self-care, keeping in mind the high percentage of chronic diseases, in addition to the presence of functional incapacity to carry out the ADLs.

The fact that elderly people participating in group educational activities, in spite of having a greater number of chronic illnesses, they have a lower number of functional incapacities, is intriguing. Further studies could identify if the participation in group educational activities has contributed to this situation.

In the ADL, cutting toenails had a similar percentage (26.4%) to that obtained in a study conducted among peer groups with elderly⁽¹³⁾. This functional difficulty can be understood by the possible musculoskeletal limitations that appear over the years, and that interfere in performing ADLs⁽¹³⁾.

Among non-participants, the greater percentage of functional incapacity related to mobility may be contributing to lower participation, since the elderly person that participates in groups is independent to walk around⁽¹³⁾.

Thus, health professionals should develop strategies to facilitate the participation of the

dependent elderly person in activities related to movement. Nursing can contribute by increasing the awareness of family members and companions, encouraging them to participate in the activities together with the elderly person. Furthermore, nurses can identify the locations with best access, establishing partnerships with the community and best hours that meet the needs of this population.

In regard to ADLs performed with a lot of difficulty, one survey showed that 10% of elderly individuals had a lot of difficulty going up a ladder or stairs, a percentage higher to that of this investigation⁽¹⁸⁾.

It is notable that the non-participating elderly people showed a greater percentage of difficulties related to mobility, walking close to home and on a flat surface, and this fact may be contributing to non-participation in group educational activities. In this sense, health services can implement strategies to encourage functionality, even in the presence of multiple morbidities, aiming to postpone the appearance of functional incapacity.

The lower participation among octogenarian elderly may be related to functional limitations, since functional performance tends to reduce as age group increases⁽¹⁹⁾.

This study highlights that functional incapacity is related to mobility. This fact probably contributes to the separation of the elderly person from the social sphere, and consequently increases his/her tendency toward isolation at home,⁽¹⁹⁾ and may compromise his/her participation in group educational activities.

Research verified that the age 75 or higher is related to 3.4 times more chance of difficulties to perform ADLs, which can interfere in participation in community activities⁽²⁰⁾.

These data reinforce the need to investigate the causes for low participation of octogenarian elderly in group educational activities. In this way, it will be possible to develop actions that aim to encourage and facilitate access by this population to health services and in community activities.

CONCLUSIONS

The majority were women, 60-70 years of age, married, with an income of one minimum salary. The elderly participants predominately showed 1-4 years of education, compared to non-partici-

pants, with 4-8. The morbidities most cited by the elderly who participated in educational activities were hypertension and vision problems. Among non-participants, vision and spinal problems prevailed. In both groups, the greatest percentage was 1-3 functional incapacities. The age range of 80 years and above was associated with a greater chance of non-participation in group educational activities.

It should be noted that one limitation of this study is that morbidity was self-cited, and these data may be underestimated due to absence of a diagnosis. Additionally, due to cross study delineation, implicit relationships of causality between the variables studied cannot be assured.

However, it is important that health services identify the difficulties that male octogenarians with low incomes and a higher number of functional incapacities have in participating in group educational activities. In this way, directed actions can be planned that favor participation of the elderly person, contributing to the monitoring of their health conditions, considering polymorbidity as well as quality of life.

REFERENCES

- 1 Instituto Brasileiro de Geografia e Estatística (IBGE). Síntese de Indicadores Sociais. Uma análise das condições de vida da população brasileira 2010. [Internet]. Rio de Janeiro; 2010. [citado 2010 dez 28]. Disponível em: http://www.ibge.gov.br/home/estatistica/populacao/condicaovida/indicadores-minimos/sinteseindicisociais2010/default_tab.shtm.
- 2 Ministério da Saúde (BR). Portaria nº 2.528 de 19 de outubro de 2006. Aprova a Política Nacional de Saúde da Pessoa Idosa. Diário Oficial da União. Brasília: DF; 2006. Seção 1: 142-5.
- 3 Fernandes MTO. Trabalho com grupos na saúde da família: concepções, estrutura e estratégias para o cuidado transcultural. [Dissertação] Belo Horizonte: Universidade Federal de Minas Gerais, Escola de Enfermagem; 2007.
- 4 Ministério da Saúde (BR). Secretaria de Atenção à Saúde. Departamento de Atenção Básica. Envelhecimento e saúde da pessoa idosa. Brasília: DF; 2007.
- 5 Araújo LF, Coutinho MPL, Carvalho VAML. Representações sociais da velhice entre idosos que participam de grupos de convivência. Psicologia: Ciência

- e Profissão [Internet]. 2005 [citado 2009 jul 24]; 25(1):118-31. Disponível em: http://pepsic.bvs-psi.org.br/scielo.php?script=sci_arttext&pid=S1414-98932005000100010&lng=pt&nrm=iso
- 6 Lebrão ML, Duarte YAO. O Projeto Sabe no município de São Paulo: uma abordagem inicial. Brasília-DF: Organização Pan-Americana da Saúde/Ministério da Saúde; 2003.
- 7 Silva CBDCA. Qualidade de vida de idosos atendidos pelas equipes de saúde da família em Rio Grande. [Dissertação]. Rio Grande-RS: Curso de Pós Graduação em Enfermagem, Universidade Federal do Rio Grande; 2008.
- 8 Silva EV, Martins F, Bachion MM, Nakatani AYK. Percepção de idosos de um centro de convivência sobre envelhecimento. REME. 2006; 10(1): 46-53.
- 9 Zabalegui A, Escobar MA, Cabrera E, Gual MP, Fortuny M, Mach G et al. Análisis del programa educativo PECA para mejorar la calidad de vida de las personas mayores. Aten Primaria. 2006; 37(5): 260-5.
- 10 Doimo LA, Derntl AM, Lago OC. O uso do tempo no cotidiano de mulheres idosas: um método indicador do estilo de vida de grupos populacionais. Ciênc Saúde Coletiva. 2008; 13(4):1333-42.
- 11 Beltrame V. Qualidade de vida idosos diabéticos. [Tese]. Porto Alegre: Instituto de Geriatria e Gerontologia, Pontifícia Universidade Católica Rio Grande do Sul; 2008.
- 12 Zavatini MA, Obreli-Neto PR, Cuman RKN. Estratégia saúde da família no tratamento de doenças crônico-degenerativas: avanços e desafios. Rev Gaúcha Enferm. [Internet]. 2010 [citado 2011 jul 23]; 31(4): 647-654. Disponível em: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S1983-14472010000400006&lng=pt. doi: 10.1590/S1983-14472010000400006.
- 13 Borges PLC, Bretas RC, Azevedo SF, Barbosa JMM. Perfil dos idosos frequentadores de grupos de convivência em Belo Horizonte, Minas Gerais, Brasil. Cad Saúde Pública. 2008; 24(12):2798-808.
- 14 Santos KA, Koszuoski R, Dias-da-Costa JS, Patussi MP. Fatores associados com a incapacidade funcional em idosos do Município de Guatambu, Santa Catarina, Brasil. Cad Saúde Pública. 2007; 23(11):2781-88.
- 15 Leite MT, Battisti IDE, Berlezi EM, Scheuer AI. Idosos residentes no meio urbano e sua rede de suporte familiar e social. Texto Contexto Enferm. 2008; 17(2):250-7.
- 16 Garcia MAA, Yagi GH, Souza CS, Odoni APC, Frigério EM. Atenção à saúde em grupos sob a perspectiva dos idosos. Rev Lat Am Enferm. 2006; 14(2):175-82.
- 17 Floriano PJ, Dalgalarondo P. Saúde mental, qualidade de vida e religião em idosos de um Programa de Saúde da Família. J Bras Psiquiatr. 2007; 56(3): 162-70.
- 18 Alves LC, Leite IC, Machado CJ. Perfis de saúde dos idosos no Brasil: análise da Pesquisa Nacional por Amostra de Domicílios de 2003 utilizando o método Grade of Membership. Cad Saúde Pública. 2008; 24(3):535-46.
- 19 Duarte TAO. Desempenho funcional e demandas assistenciais. In: Lebrão ML, Duarte YAO. O Projeto SABE no município de São Paulo: uma abordagem inicial. Brasília-DF: Organização Pan - Americana da Saúde, 2003. p. 185-200.
- 20 Santos JLF, Lebrão ML, Duarte YAO, Lima FD. Functional performance of the elderly in instrumental activities of daily living: an analysis in the municipality of São Paulo, Brazil. Cad Saúde Pública. 2008; 24(4):879-86.

**Author's address / Endereço do autor /
Dirección del autor**

Darlene Mara dos Santos Tavares
Rua Jonas de Carvalho, 420, Olinda
38055-440, Uberaba, MG
E-mail: darlenetavares@enfermagem.uftm.edu.br

Received: 12.08.2011
Approved: 26.04.2013