DOI: 10.1590/1414-462X201700030300

Original Article

Factors related to low social participation in older adults: findings from the Fibra study, Brazil

Fatores relacionados à baixa participação social em idosos: resultados do estudo Fibra, Brasil

Juliana Martins Pinto[1], Anita Liberalesso Neri[1]

Abstract

Objective: To investigate the factors related to low social participation in older adults. **Method:** A hierarchical model was drawn using data from 2,251 participants of the Fibra study, aged 65 years or more, without cognitive impairment suggestive of dementia, who were living in seven Brazilian cities. Three blocks of variables were considered: macrostructural, socioeconomic and health conditions. **Results:** Factors related to low social participation were low perceived social support (OR:2.18;CI:0.73-1.53; <0.001), vision impairment (OR:2.04; CI:1.16-3.61;0.014), age over 80 years (OR:2.03;CI:1.22-3.38;0.006), depressive symptoms (OR:1.86;CI:1.29-2.68; <0.001), low cognitive status (OR:1.85;CI:1.20-2.85;0.005) and slowness (OR:1.83;CI:1.26-2.65;0.001). Older adults with those conditions have higher odds to be less socially engaged than their counterparts. **Conclusion:** Personal conditions, such as socioeconomic and health status were predictors of low social participation in older adults. Initiatives aiming at active aging promotion should focus primarily on vulnerable elderly, especially those with health and/or social disadvantages.

Keywords: health of the elderly; aging; social behavior; socioeconomic factors; social support.

Resumo

Objetivo: Investigar os fatores relacionados à baixa participação social em idosos. **Métodos** Um modelo hierárquico foi testado utilizando dados de 2.251 participantes do estudo Fibra, com 65 anos ou mais, sem comprometimento cognitivo sugestivo de demência, residentes em sete cidades brasileiras. Três blocos de variáveis foram consideradas: macroestrutural, socioeconômica e condições de saúde. **Resultado:** Os fatores relacionados à baixa participação social foram: baixa percepção de apoio social (OR=2,18; IC=0,73-1,53; <0,001), déficit visual (OR=2,04; IC=1,16-3,61; 0,014), idade acima de 80 anos (OR=2,03; IC=1,22-3,38; 0,006), sintomas depressivos (OR=1,86; IC=1,29-2,68; <0,001), baixo status cognitivo (OR=1,85; IC=1,20-2,85; 0,005) e lentidão para marcha (OR=1,83; IC=1,26-2,65; 0,001). Idosos nessas condições têm maiores probabilidades de serem menos socialmente engajados. **Conclusão:** Condições pessoais, tais como estado de saúde e socioeconômico, foram preditores de baixa participação social em idosos. Iniciativas destinadas à promoção do envelhecimento ativo deverão ser dirigidas, principalmente, aos idosos vulneráveis, em especial àqueles com desvantagens de saúde e/ou sociais.

Palavras-chave: saúde do idoso; envelhecimento; comportamento social; fatores socioeconômicos; suporte social.

[1]Universidade Estadual de Campinas (UNICAMP) - Campinas (SP), Brazil.

Study carried out at Universidade Estadual de Campinas (UNICAMP) – Campinas (SP), Brazil.

Correspondence: Juliana Martins Pinto – Faculty of Medical Sciences, Universidade Estadual de Campinas (UNICAMP), Rua Tessalia Vieira de Camargo, 126 – CEP: 13083-872 – Campinas (SP), Brazil – Email: ju_fisio33@yahoo.com.br

Financial support: Conselho Nacional de Desenvolvimento Científico e Tecnológico - CNPq and Coordenação de Aperfeiçoamento de Pessoal de Nível Superior - CAPES.

Conflict of interests: nothing to declare.

INTRODUCTION

Social participation has been defined as person's involvement in activities that provide opportunities for interactions with others in the community or society[1]. That concept integrates the Active Ageing Policy[2], along with health and security. In this policy, participation is a cornerstone to encourage initiatives for productive aging and social engagement in society, emphasizing the importance of potential contributions of older adults in the community.

Reasons for the emphasis on social participation in old age are mostly related to evidence that being socially active is associated with well-being, quality of life and lower risk of morbidity and mortality[3,4]. Findings have shown relationships between higher level of social participation and lower risk of morbidity[5], disability[6,7], depressive symptoms[8], and cognitive impairment[9]. Low social participation, on the other hand, increases the risk of mortality, similarly to smoking, sedentary lifestyle, alcoholism and other well-known cardiovascular risk factors[10]. It is also an important indicator of earlier functional decline and other negatives outcomes. Additionally, numerous data have shown the effects of decreased social participation on social isolation[5,11] and loneliness in old age[12].

The effects of social participation on the elderly's health and well-being have been proven in several knowledge fields, with robust available data analyzing this phenomenon as independent variable, factor or predictor. However, data on what factors exert influence over social participation among the elderly is scant. This information is critical to guide professionals and policymakers on the creation and expansion of opportunities to allow older adults increase or maintain their social engagement levels, and then, enjoy an active and successful aging. Additionally, this knowledge will contribute to identify vulnerable elderly groups to whom those positives actions should be primarily addressed.

Contextual and personal characteristics may be reasons for variability in social participation, such as preferences and choices taken along the course of life and old age[13,14]. According to the socioemotional selectivity theory, older people tend to disengage from social activities and relations mostly in response to an emotional adaptive process, through which they select meaningful relationships and activities in order to avoid stress and negative feelings so as to aid their ability to compensate losses and optimize cognitive and socioemotional functioning[15].

Physical and social environment resources have proven to contribute to aging well[16,17]. According to Lawton's theory of environment press, the individual's behavior and functioning become more dependent on environmental conditions in old age due to the accumulation of health problems and impairments that affect personal competence[17]. Low socioeconomic status has been found to further these disadvantages to the person's health and well-being. Most of the social activities are performed outdoors, in community locations whose access and use are not cost-free. Then, limited economic resources can limit the options for social engagement[16]. Furthermore, most of the social activities are complex and impose high cognitive demands and challenges beyond the resources of people with lower level of education. Social participation may be influenced by health problems that frequently affect the physical and mental abilities needed to perform complex and demanding activities[6,8,9,18]. Restrictions to engage in social activities are possibly due to limited mobility, sensorial, reasoning, and emotional functions.

The objective of this study was to investigate the factors related to low social participation, considering the influence of macrostrutural, socioeconomic and health conditions among Brazilian older adults. Macrostrutural conditions are understood as contextual aspects that characterize the amount of social opportunities and availability of community resources that contribute for people being more socially engaged[14]. In the present study, those conditions included frequency and type of medical and dental services attended by older adults in the last 12 months.

Socioeconomic conditions comprise age, gender, family income and education status which may affect social participation on personal level, influencing the number and the characteristics of social activities performed by elderly. Findings have suggested that people living in worse socioeconomic conditions tend to restrict their participation in community activities[13].

Health conditions, also in personal level, include health problems that affect physical and cognitive abilities and are frequently recognized as factors that cause lower functional performance and disabilities[7-9]. These aspects may influence the physical abilities, mental capacity and motivation to engage in high demanding activities in society.

MATERIALS AND METHODS

Data were drawn from the Fibra Study, an observational, cross-sectional and multicenter study that aimed to investigate aspects related to frailty, health and well-being in community-dwelling elderly aged 65 or older. Seven Brazilian cities were conveniently included: Campinas-SP, Belém-PR, Parnaíba-PI, Ivoti-RS, Poços de Caldas-MG, Ermelino Matarazzo-SP and Campina Grande-PB. In each city a random simple sampling of population was carried out and a minimum number of participants was estimated according to sex and age group distribution on the local elderly urban population. Trained teams visited the houses, inviting older people to participate. At that time, the inclusion criteria were being 65 years old or older, being a permanent resident in the house, and agreeing to participate in the survey. Participants were excluded when they had memory problems, severe disability, stroke sequelae, Parkinson's disease, cancer, were bedridden, and who were under palliative care.

Inclusion and exclusion criteria were similar to those used in The Cardiovascular Health Study (CHS)[19].

Data collection was performed between 2008 and 2009, in a unique section lasting 40 to 120 minutes, in community and public localities, such as schools, churches, health services, etc. The research protocol was separated in two parts. The first part addressed the socioeconomic status, anthropometric measures, blood pressure measure, frailty, and cognitive screening. If the participant's score in the MMSE according to his/her education level (years) were high enough, he/she would respond the second part of protocol; if not, the participant was dispensed. The second part of the protocol was composed by a self-report of health problems, functionality, mental health, social support and subjective well-being. The cutoff points for the MEEM score were: illiterate – 17 points; 1 to 4 years of schooling – 22 points; 5 to 8 years – 24 points; and over 9 years – 26 points, according to adjustments previously created for Brazilians seniors[20]. Before leaving the data collection section, all participants received recommendations regarding healthy life habits.

The sample was composed by 2,551 Brazilian older adults aged 65 years or over, without cognitive impairment suggestive of dementia, and living in urban areas. The research project was approved by Ethics Committee on Human Research of the State University of Campinas under the number 208/2007 and registered in the Brazilian Health Authority under C.A.A.E 39547014.0.1001.5404.

Social participation was evaluated through a list of advanced daily living activities (ADLA) created by authors based on their experience and empiric literature-based findings about social activities performed by elderly people. The participants would answer whether they had never performed, or have interrupted the performance or still perform each social activity in the list. A score was computed based on the number of interrupted activities divided by the number of activities which they still perform. The activities they had never performed before were excluded. Scores ranged from 0 to 1. According to the third quartile, the 25% lowest were categorized as having low social participation. The social activities investigated were: visiting people, shopping, going to the church, going to social meetings, participating in cultural events, driving, doing long and short trips, volunteering, working, participating in managing, in senior's university, and attending senior's groups.

Independent variables were distributed in three blocks. The first block, named macrostrutural, was composed by indicators of contextual characteristics under which participants lived. That conceptualization includes availability of opportunities and facilities in the community. The selected variables were the self-report of access to the medical and dental services (public or private) and the number of medical and dental consultations (no one, 1 to 2, 3 to 5, 6 or more) in the last 12 months.

In the second block of independent variables, named socioeconomic conditions, were included personal social and economic aspects. The variables were: age (65-69, 70-74, 75-79 and 80 years or more); sex (male or female); family income – taking into account the Brazilian minimum wave/BMW which was approximately 200 dollars (less than 3 BMW, 3 – 5 BMW and more than 5 BMW); education (illiterate or not); and perceived social support – evaluated by five questions taken from the Interpersonal Support Evaluation List (ISEL). The answer options were: never, sometimes, most of times and always, with score ranging from 5 to 20 (20 = high, 16-19 = moderate and 15 or low)[21].

The third block, named health conditions, included several self-reported health indicators, signs and symptoms of health problems, sensorial problems and performance measures. Self-reported indicators were: number of chronic diseases – respondents indicated the presence (yes/no answers) of heart diseases, hypertension, stroke, diabetes, cancer, arthritis, lung diseases, depression and osteoporosis diagnosed by a doctor in the last 12 months, and then the number of diseases was counted and categorized (0, 1-2, 3 or more); number of health problems – respondents indicated the presence (yes/no answers) of urinary incontinence, loss of appetite, falls, memory problems, sadness, involuntary weight gain and fear of falling in the last 12 months, and the number of health problems were counted and categorized (0, 1-2, 3 or more); self-rated health – respondents answered the question "in general, would you say your health is: very good, good, regular, bad or very bad", and answers were categorized as very good/good and regular/bad/very bad; visual impairment – respondents were asked if they could see well (no; yes with glasses; yes without glasses); hearing impairment – respondents were asked if could they hear well (yes; no, even with hearing aid; and no without hearing aid); depressive symptoms – respondents answered 15 yes/no questions, considering 6 as cutoff point[22], of a short version of the GDS (Geriatric Depression Scale) validated for Brazilian older adults; cognitive status – respondents were evaluated through the Mini-Mental State Examination (MMSE) to screen for dementia, which evaluates cognitive functions such as memory, orientation and execution ability, and whose score takes into account the participant's schooling, reason why it was adapted for Brazilian elderly[20] (although the study sample was already characterized as not having severe cognitive impairment suggestive of dementia, categories of cognitive status were obtained to allow a more detailed analysis of this topic); weakness was evaluated by applying a handgrip strength test according to the method adopted in the Cardiovascular Health Study[19], considering the participants who scored among the lowest 20% in our sample as having low handgrip strength or

weakness; slowness was measured through the participant's ability of walking a distance of 4.6 meters marked on the floor, noting the time in three trials, and then, calculating the mean time and speed, and the participants who scored among the lowest 20% were considered as having low walking speed or slowness[19].

Descriptive analyses were performed for all variables. The qui-square test was used to compare proportions. Then, three models were built for the three blocks abovementioned, for a hierarchical logistic regression. A multivariate analysis was performed in order to identify the variables related to low social participation. Only significant variables were kept in the final model. Statistical significance was considered at p<0.05. Analyses were performed in SAS (Statistical Analysis System), version 9.2.

RESULTS

Descriptive information is presented in Table 1.

Comparative analyses between macrostrutural variables and low social participation showed that number of visits to dental services (<0.001) and type of medical (<0.001) and dental (<0.001) service used were associated with low social participation. Low social participation was more often found among those elderly who had visited less often dental services and who had used public instead private medical and dental services (Table 2).

All variables in the second block (socioeconomic) were associated with low social participation, except gender. Seniors who scored for low social participation were more often among those that were older (<0.001), had low family income (less than 3 BMW) (<0.001), were illiterate (< 0.001), and had low perception of social support (< 0.001) (Table 3).

Regarding health status, associations were observed between number of diseases (0.044), number of health problems (<0.001), weakness (0.005), slowness (<0.001), higher depressive symptoms (<0.001), low cognitive status (<0.001), visual impairment (<0.001), poor self-rated health (<0.001) and low social participation (Table 4).

The final model showed that the factors related to low social participation were low perceived social support (<15) (OR:2.18;CI:0.73-1.53; <0.001), vision impairment (poor vision without glasses) (OR:2.04; CI:1.16-3.61; 0.014), age over 80 years (OR:2.03; CI:1.22-3.38; 0.006), depressive symptoms (GDS>6) (OR:1.86; CI:1.29-2.68; <0.001), low cognitive status (MMSE<23) (OR:1.85;CI:1.20-2.85;0.005) and slowness (OR:1.83;CI:1.26-2.65;0.001) (Table 5). Older adults with characteristics above have higher odds to be less socially engaged. Personal characteristics linked to socioeconomic status and health problems were more relevant determinants of low social participation in older adults than macrostrutural characteristics.

Table 1. Distribution of macrostrutural, socioeconomic and health characteristics of the sample. Fibra Study, Brazil, 2009 (n=2551)

Variables	Categories	%
Access to medical service	Public	60.1
	Private	39.8
Access to dental service	Public	38.2
	Private	61.8
Number of medical consultations (year)	0	9.3
	1-2	29.5
	3-5	34.3
	>=6	26.7
Number of dental consultations (year)	0	64.5
	1-2	25.4
	3-5	6.7
	>=6	3.3
Age	65-69	37.8
	70-74	31.2
	75-79	18.9
	80+	11.9
Gender	Male	34.2
	Female	65.7
Family income	<=3 MS	59.3
	3-5 MS	22
	>5 MS	18.6
Illiteracy	Yes	77.6
	No	22.3
Perceiveid social support	High	36.3
	Moderate	30
	Low	33.6
Number of chronic diseases	0	11.3
	1-2	49.4
	>=3	39.2
Number of health problems	0	10.5
	1-2	41
	>=3	48.4
Weakness	Sim	17.3
	Não	82.6
Slowness	Yes	17
	No	82.9
Depressive symptoms	Yes	20.4
	No	79.5
Cognitive status	Low	29.3
	Moderate	34.7
	High	35.9
Self-rated health	Regular/fair	65.4
	Good/very good	34,5
Visual impairment	No	52.4
	Yes with glasses	38.7
	Yes without glasses	8.7
Hearing impairment	No	73.7
	Yes with aid	3.1
	Yes without aid	23.1
Low social participation	Yes	25.4
	No	74.5

Table 2. Distributions and associations between macrostrutural variables and low social participation. Fibra Study, Brazil, 2009 (n=2551)

		Low social participation		
		No (%)	Yes (%)	p*
Access to medical services	Public	57.5	**67.7**	<0.001
	Private	**42.4**	32.2	
Access to dental services	Public	35.5	**45.9**	<0.001
	Private	**64.4**	54	
Number of medical visits (year)	0	9.2	9.4	0.403
	1-2	30	28.2	
	3-5	34.8	33	
	>=6	25.8	29.2	
Number of dental visits (year)	0	61.5	**73.2**	<0.001
	1-2	**27.3**	19.9	
	3-5	**7.3**	4.8	
	>=6	3.7	2	

* x^2 significant <0.05

Table 3. Distributions and associations between socioeconomic variables and low social participation. Fibra Study, Brazil, 2009 (n=2551)

		Low social participation		
		No (%)	Yes (%)	p*
Age	65-69	**39.7**	32.3	<0.001
	70-74	**31.8**	29.3	
	75-79	18.3	**20.7**	
	80+	10	**17.5**	
Gender	M	33.4	36.6	0.143
	F	66.5	63.3	
Family income	<=3SM	56.7	**67**	<0.001
	3-5SM	22.7	20	
	>5SM	**20.5**	12.9	
Illiteracy	No	**80.3**	69.8	<0.001
	Yes	19.6	**30.1**	
Perceiveid Social support	High	**39.5**	26.8	<0.001
	Moderate	**31.2**	26.6	
	Low	29.2	**46.5**	

* x^2 significant <0.05

Table 4. Distributions and associations between health status and low social participation. Fibra Study, Brazil, 2009. (n=2551)

		Low social participation		
		No (%)	Yes (%)	*p
Number of chronic diseases	No one	**11.9**	9.5	0.044
	1-2	**50.1**	47.4	
	>=3	37.9	**42.9**	
Number of health problems	No one	**11.8**	6.4	<0.001
	1-2	**41.7**	38.9	
	>=3	46.3	**54.5**	
Weakness	No	**83.9**	79	0.005
	Yes	16	**20.9**	
Slowness	No	**85.7**	74.6	<0.001
	Yes	14.2	**25.3**	
Depressive symptoms	No	**83.8**	66.8	<0.001
	Yes	16.1	**33.1**	
Cognitive status	Low	26	**39**	<0.001
	Moderate	34.6	34.9	
	High	**39.3**	26	
Self-rated health	Regular/fair	62.8	**72.9**	<0,001
	Good/very good	**37.1**	27	
Visual impairment	No	**55.1**	44.5	<0.001
	Yes with glasses	37.6	**41.9**	
	Yes without glasses	7.1	**13.4**	
Hearing impairment	No	74.8	70.3	0.072
	Yes with aid	3	3.4	
	Yes without aid	22	26.2	

* x^2 significant <0.05

DISCUSSION

Macrostrutural, socioeconomic and health conditions were considered as potential predictors of low social participation in old age. In face of unfavorable social contexts, the absence of different types of services can lead people to use more often public services. Besides not having opportunities to access other health facilities, they probably lack opportunities for engagement in social activities in the community. Evidences have showed that favorable neighborhoods tend to create more opportunities for social participation than unfavorable ones[16,17]. In this study, however, when personal aspects were considered, the relevance of contextual measures decreased. Further research is encouraged in order to identify better indicators of contextual aspects that influence social participation in old age.

The majority of the sample was women and aged less than 75 years. Those characteristics are in accordance with the proportion of those groups in the Brazilian elderly population, which is similar in other places of world. In Brazil and in others developing countries, the education level often is low and illiteracy prevails among older people. Poor education is closely related to low income, poverty, disadvantages, social vulnerability, lack of information, poor health and low quality of life[16]. Although these conditions are in constant change around the world thank positive social policies, they are still predominant in many places, implying less opportunities for the elderly to be socially engaged.

Physical and mental health problems influence the ability to perform daily activities, causing the quality of life and well-being to diminish[7,23]. Social participation is also affected by health problems when engaging in social activities requires complex abilities to deal with others and with the physical environment. Mobility limitations, sensorial problems, cognitive impairment and lack of motivation add difficulties for people to engage in social life.

All health indicators were individually associated to low social participation. Social participation has been found to increase with advancing age and then to decline among

Table 5. Hierarchical logistic regression analysis of factors related to low social participation in older adults. Fibra Study, Brazil, 2009 (n=1009)

Independent variables	Block 1		Block 2		Block 3	
	p	OR* (CI 95%)	*p*	OR* (CI 95%)	*p*	OR* (CI 95%)
Macrostrutural						
Access to medical services						
Private		1.00		1.00		1.00
Public	*0.008*	1.47 (1.10-1.95)	0.070	1.32 (0.98-1.79)	0.197	1.23 (0.90-1.69)
Socioeconomic						
Perceiveid social support						
High (20)				1.00		1.00
Moderate (16-19)			0.426	1.16 (0.81-1.66)	0.765	1.06 (0.73-1.53)
Low (<=15)			*<0.001*	2.56 (1.80-3.64)	*<0.001*	2.18 (1.51-3.13)
Age						
65-69				1.00		1.00
70-74			0.664	1.08 (0.76-1.54)	0.963	0.99 (0.69-1.43)
75-79			*0.016*	1.63 (1.09-2.44)	0.155	1.35 (0.89-2.06)
80+			*<0.001*	2.44 (1.50-3.96)	*0.006*	2.03 (1.22-3.38)
Illiteracy						
No				1.00		1.00
Yes			*0.011*	1.58 (1.11-2.24)	0.708	0.92 (0.60-1.42)
Health status						
Depressive symptoms						
No						1.00
Yes					*<0.001*	1.86 (1.29-2.68)
Slowness						
No						1.00
Yes					*0.001*	1.83 (1.26-2.65)
Cognitive status						
High (>27)						1.00
Moderate (24-26)					0.492	1.14 (0.78-1.66)
Low (<23)					*0.005*	1.85 (1.20-2.85)
Visual impairment						
No						1.00
Yes with glasses					0.051	1.38 (0.99-1.89)
No without glasses					*0.014*	2.04 (1.16-3.61)

IC 95% = confidence interval; * OR=Odds Ratio; p significant <0.05

people aged over 80[4]. After retirement, younger older adults enjoy better health conditions and have more time to spend in social life. With the passing of the years, they experience more health and economic problems leading them to give up several social activities. These findings are in accordance with the socioemotional selectivity theory which argues that social needs change in old age. While younger people search for large networks and social connections, older adults prefer narrow, confident, supportive and pleasant relationships[15].

The final model suggests that the determinants of limited social participation overpass diseases and health conditions. A combination between socioeconomic conditions and health status seems to better explain the limited participation than diseases and contextual aspects.

Positive effects of social support for the elderly's well-being have been mentioned by several investigators[4,16]. Elderly are more able to engage in social activities when the perceived social support is satisfactory. Furthermore, social support facilitates social participation especially among disabled and vulnerable seniors[24]. Support from family and friends, for instance, through provision of transport to participate in activities or by helping the person to perform an activity, plays a key role in creating conditions for more extensive social participation, thereby contributing to better health and well-being[4].

Besides the general consequences of physiological aging process, older adults often experience restrictions due to low vision, leading them to be doubly burdened. Vision impairment has a significant impact on the elderly's ability to interact with others[25]. Vision loss may lead not only to limitations in performing

activities, but also to a cessation of these activities, a strong threat to the independence of older adults. Visually impaired older adults do perceive restrictions in participation. The impact of sensorial impairments on social participation should be investigated considering the role of aids designed to compensate those losses.

Depressive symptoms affect the individual's cognitive process, influencing judgments about adequacy of social interaction[26]. Croezen et al.[8] found that social participation is associated with depressive symptoms but the direction and strength of this association depend on the type of social activity performed. According to them, religious activity protects against depression, while political activity increases the risk for depression. Depressed people have probably no motivation to engage in social activities and tend to avoid social contacts. They have difficulty to initiate and maintain friendships, narrowing their social network. Social isolation is more frequent among those people and promtps even more negative consequences.

Cognitive functions, such as, memory, reasoning, orientation, attention and executive abilities are required for advanced activities and are often compromised in the case of older people. Perception of these disabilities leads them to avoid complex activities with high cognitive demand in order to avoid negative feelings as frustration. Instead, they may prefer simpler activities and narrower social contacts.

Mobility is recognized as a basic living activity often compromised in older people[6,27,28]. Disability for walking independently has been related to several negative outcomes, including higher risk of mortality[29]. The physical environment barriers may impose the need for high energy expenditure, difficulty to use walking aids and other mobility aids, pain and fatigue, endorsing the disengagement from social activities. Social activities are complex because they are performed in external environments, in the community, posing extra challenges for people with disabilities. Additionally, as people grow older and accumulate disabilities, the skills for management of environment demands become more critical for maintenance of healthy and good functioning. Better functioning is observed when the interaction of people with the environment is positive and satisfactory.

The present study filled the literature gap regarding the determinants of social participation, by dealing with this phenomenon as an outcome. Conclusions from this study may guide reflections and discussion about current policies and practices directed to active aging.

Results from this study should be interpreted carefully. Firstly, the method used for sample recruitment and data collection probably selected healthier and more motivated older adults, because in order to participate in this study, participants had to leave their houses and go to outdoor places, what require previously positive behaviors, mood, motivation and some physical competence. Secondly, cognitive impaired elderly were excluded of this study. Those limitations imply caution especially on the generalization of the results for older adults in the general population.

Further researches are invited to approach contextual and personal parameters more deeply and investigate their impact on the elderly's social participation in different cultures and contexts.

CONCLUSION

Low social participation is strongly influenced by low perceived social support, presence of visual impairment, advanced age, presence of depressive symptoms, low cognitive status and low walking speed. Those factors consist in barriers for active, successful and well aging. Therefore, positive attitudes and efforts targeting to increase the opportunities to encourage people to remain socially engaged as they grow older are urgent before the worldwide aging trend of populations. Active aging promotion depends largely on it.

REFERENCES

1. Levasseur M, Richard L, Gauvin L, Raymond É. Inventory and analysis of definitions of social participation found in the aging literature: proposed taxonomy of social activities. Soc Sci Med. 2010;71(12):2141-9. PMid:21044812. http://dx.doi.org/10.1016/j.socscimed.2010.09.041.

2. World Health Organization. *Active ageing: a policy framework* [Internet]. Geneva: WHO; 2001. Available from: http://apps.who.int/iris/bitstream/10665/67215/1/WHO_NMH_NPH_02.8.pdf

3. Pynnönen K, Törmäkangas T, Heikkinen RL, Rantanen T, Lyyra TM. Does social activity decrease risk for institutionalization and mortality in older people? J Gerontol B Psychol Sci Soc Sci. 2012;67B(6):765-74. PMid:22929396. http://dx.doi.org/10.1093/geronb/gbs076.

4. Ponce MSH, Rosas RPE, Lorca MBF. Social capital, social participation and life satisfaction among Chilean older adults. Rev Saude Publica. 2014;48(5):739-49. PMid:25372164. http://dx.doi.org/10.1590/S0034-8910.2014048004759.

5. Hawton A, Green C, Dickens AP, Richards SH, Taylor RS, Edwards R, et al. The impact of social isolation on the health status and health-related quality of life of older people. Qual Life Res. 2011;20(1):57-67. PMid:20658322. http://dx.doi.org/10.1007/s11136-010-9717-2.

6. Ekström H, Dahlin-Ivanoff S, Elmståhl S. Effects of walking speed and results of timed get-up-and-go tests on quality of life and social participation in elderly individuals with a history of osteoporosis-related fractures. J Aging Health. 2011;23(8):1379-99. PMid:21868721. http://dx.doi.org/10.1177/0898264311418504.

7. Mendes de Leon CF, Glass TA, Berkman LF. Social engagement and disability in a community population of older adults: the new haven EPESE. Am J

Epidemiol. 2003;157(7):633-42. PMid:12672683. http://dx.doi.org/10.1093/aje/kwg028.

8. Croezen S, Avendano M, Burdorf A, van Lenthe FJ. Social participation and depression in old age: a fixed-effects analysis in 10 European countries. Am J Epidemiol. 2015;182(2):168-76. PMid:26025236. http://dx.doi.org/10.1093/aje/kwv015.

9. Hsu HC. Does social participation by the elderly reduce mortality and cognitive impairment? Aging Ment Health. 2007;11(6):699-707. PMid:18074257. http://dx.doi.org/10.1080/13607860701366335.

10. Holt-Lunstad J, Smith TB, Layton JB. Social relationships and mortality risk: a meta-analytic review. PLoS Med. 2010;7(7):e1000316. PMid:20668659. http://dx.doi.org/10.1371/journal.pmed.1000316.

11. Nicholson NR. A review of social isolation: an important but under assessed condition in older adults. J Prim Prev. 2012;33(2-3):137-52. PMid:22766606. http://dx.doi.org/10.1007/s10935-012-0271-2.

12. Queen TL, Stawski RS, Ryan LH, Smith J. Loneliness in a day: activity engagement, time alone, and experienced emotions. Psychol Aging. 2014;29(2):297-305. PMid:24955998. http://dx.doi.org/10.1037/a0036889.

13. Silva FCM, Sampaio RF, Ferreira FR, Camargos VP, Neves JA. Influence of context in social participation of people with disabilities in Brazil. Rev Panam Salud Publica. 2013;34(4):250-6. PMid:24301736.

14. McPhedran S. Disability and community life: does regional living enhance social participation? J Disabil Policy Stud. 2011;22(February):40-54. http://dx.doi.org/10.1177/1044207310394448.

15. Carstensen LL. Social and emotional patterns in adulthood: support for socioemotional selectivity theory. Psychol Aging. 1992;7(3):331-8. PMid:1388852. http://dx.doi.org/10.1037/0882-7974.7.3.331.

16. Rozanova J, Keating N, Eales J. Unequal social engagement for older adults: constraints on choice. Can J Aging. 2012;31(1):25-36. PMid:22373781. http://dx.doi.org/10.1017/S0714980811000675.

17. Wahl H-W, Iwarsson S, Oswald F. Aging well and the environment: toward an integrative model and research agenda for the future. Gerontologist. 2012;52(3):306-16. PMid:22419248. http://dx.doi.org/10.1093/geront/gnr154.

18. Ichida Y, Hirai H, Kondo K, Kawachi I, Takeda T, Endo H. Does social participation improve self-rated health in the older population? A quasi-experimental intervention study. Soc Sci Med. 2013;94:83-90. PMid:23931949. http://dx.doi.org/10.1016/j.socscimed.2013.05.006.

19. Fried LP, Tangen CM, Walston J, Newman AB, Hirsch C, Gottdiener J, et al, and the Cardiovascular Health Study Collaborative Research Group. Frailty in older adults: evidence for a phenotype. J Gerontol A Biol Sci Med Sci. 2001 Mar;56(3):M146-56. PMid:11253156. http://dx.doi.org/10.1093/gerona/56.3.M146.

20. Brucki S, Nitrini R, Caramelli P, Bertolucci PHFOI, Okamoto IH. Sugestões para o uso do Mini-Exame do Estado Mental no Brasil. Arq Neuropsiquiatr. 2003;61(3B):777-81. PMid:14595482. http://dx.doi.org/10.1590/S0004-282X2003000500014.

21. Neri AL, Vieira L. Envolvimento social e suporte social percebido na velhice. Rev Bras Geriatr e Gerontol. 2013;16(3):419-32. http://dx.doi.org/10.1590/S1809-98232013000300002.

22. Almeida OP, Almeida SA. Reliability of the Brazilian version of the geriatric depression scale (GDS) short form. Arq Neuropsiquiatr. 1999;57(2B):421-6. PMid:10450349. http://dx.doi.org/10.1590/S0004-282X1999000300013.

23. Thomas PA. Gender, social engagement, and limitations in late life. Soc Sci Med. 2011;73(9):1428-35. PMid:21906863. http://dx.doi.org/10.1016/j.socscimed.2011.07.035.

24. Ekström H, DahlinIvanoff S, Elmståhl S. Does informal support influence social participation of fractured elderly people? Arch Gerontol Geriatr. 2013;56(3):457-65. PMid:23276374. http://dx.doi.org/10.1016/j.archger.2012.11.010.

25. Alma MA, Van Der Mei SF, Groothoff JW, Suurmeijer TPBM. Determinants of social participation of visually impaired older adults. Qual Life Res. 2012;21(1):87-97. PMid:21633880. http://dx.doi.org/10.1007/s11136-011-9931-6.

26. Cimarolli VR, Boerner K, Reinhardt JP, Horowitz A, Wahl H-W, Schilling O, et al. A population study of correlates of social participation in older adults with age-related vision loss. Clin Rehabil. 2016;31(1):115-25. PMid:26817810.

27. Brown CJ, Flood KL. Mobility limitation in the older patient: a clinical review. JAMA. 2013;310(11):1168-77. PMid:24045741. http://dx.doi.org/10.1001/jama.2013.276566.

28. Okun MA, August KJ, Rook KS, Newsom JT. Does volunteering moderate the relation between functional limitations and mortality? Soc Sci Med. 2010;71(9):1662-8. PMid:20864238. http://dx.doi.org/10.1016/j.socscimed.2010.07.034.

29. La Grow S, Yeung P, Towers A, Alpass F, Stephens C. The impact of mobility on quality of life among older persons. J Aging Health. 2013;25(5):723-36. PMid:23735305. http://dx.doi.org/10.1177/0898264313490198.

Received on: Oct. 06, 2016
Accepted on: Aug. 04, 2017