Relationships between levels of social participation, self-rated health and life satisfaction in older adults according to gender

Las relaciones entre los niveles de participación social, la autopercepción de la salud y la satisfacción de la vida en los adultos mayores en función del sexo

Relações entre níveis de participação social, autoavaliação de saúde e satisfação com a vida em idosos de acordo com gênero

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ABSTRACT: This study aimed to identifying the influence of levels of social participation on self-rated health and life satisfaction in older adults. Data came from Fibra Study, a cross-sectional, multicenter study designed to investigate frailty in a randomly selected sample of people aged 65 years or older, recruited in seven Brazilian cities. Results showed that different social activities and levels of social participation played diverse influences on self-rated health and life satisfaction in old age and those influences differ according to gender.

Keywords: Social activities; Community involvement; Aging.

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RESUMEN: *Este estudio tuvo como objetivo identificar la influencia de los niveles de participación social autopercepción de la salud en la satisfacción con la vida y en los adultos mayores. Los dados proceden del estudio Fibra, un estudio transversal, multicéntrico diseñado para investigar la fragilidad en una muestra seleccionada al azar de personas de 65 años o más, reclutados en siete ciudades brasileñas. Los resultados muestran que los diferentes actividades sociales y los niveles de participación social influyen en la autoevaluación de la salud y la satisfacción con la vida en la vejez y estas influencias difieren entre los sexos.*
Palabras clave: *Actividades sociales; Participación comunitaria; Envejecimiento.*

RESUMO: *Este estudo teve como objetivo identificar a influência dos níveis de participação social na autoavaliação de saúde e satisfação com a vida em idosos. Os dados são oriundos do Estudo Fibra, um estudo transversal, multicêntrico, desenvolvido para investigar fragilidade, em uma amostra aleatória de pessoas com 65 anos ou mais, recrutadas em sete cidades brasileiras. Os resultados mostraram que diferentes atividades sociais e níveis de participação social desempenharam influências diversas sobre a autoavaliação de saúde e satisfação com a vida na velhice, e essas influências diferem entre os sexos.*
Palavras-chaves: *Atividades sociais; Engajamento social; Envelhecimento.*

Introduction

As other developing countries, Brazil has experienced a fast growth of the elderly population which will lead the country to bear a higher proportion of elderly compared to the proportion of young and adults in the upcoming decades. Along with existed difficulties regarding social inequalities, population aging is intensifying the challenges for health promotion and care to the older population (Lima-Costa, Barreto, Firmo, & Uchoa, 2003). In this context, strategies that provide maintenance of the quality of life and well being in old age are welcome. The performance of social activities has been recognized as positive behavior which postponing physical and cognitive health problems, while, avoid disability and mortality (Pynnönen, Törmäkangas, Heikkinen, Rantanen, & Lyra, 2012).

Social participation is defined by the involvement in social activities in the community or society (Levasseur, Richard, Gauvin, & Raymond, 2010). In an individual perspective, that involvement characterizes the structural forms of social capital which allows people being in contact with others, bridging their social network which is crucial for sharing experiences, fears, and concerns. Therefore, social capital is recognized to promote health and well-being by access to social support and material resources, as well as, opportunities to learn new skills and develop a sense of belonging (Eriksson, & Ng, 2015).

Levasseur, Richard, Gauvin, and Raymond (2010) proposed a taxonomy with six levels of participation, from proximal to distal levels of involvement, featuring social activities in accordance with the function or purpose in the society. They were: 1) doing an activity in preparation for connecting with others, 2) being with others, 3) interacting with others without doing a specific activity with them, 4) doing an activity with others, 5) helping others, and 6) contributing to society. Findings suggest that higher social engagement improve quality of life and well being of the elderly. Seniors who participate in complex activities, in physically and socially challenging environments, and also perceive that their participation is meaningful for his partners, community and society have lower odds to have negative outcomes (Agahi, Lennartsson, Kåreholt, & Shaw, 2013; Holmes, & Joseph, 2011). Therefore, different levels of social participation can play different influences on the health and well-being of the elderly. In this study, we propose an adaptation of this taxonomy grouping similar social activities in three levels of social participation in order to study their influence on self-rated health and life satisfaction.

Although gender is not a predictor of participation in old age, some differences were highlighted (Park, Jang, & Kim, 2010; Thomas, 2011). For example, social activities with closer friends and family to maintaining meaningful relationships are more important for women's mental health than for men's. Among aged men, the performance of productive and political activities altogether a wider social network offers more benefits for their health and wellness than do for women (Li, Lin, & Chen, 2011). Older adults with paid job, providing family assistance, or volunteering, reported significantly lower levels of depression and better functional and self-rated health than those without those activities.

However, older men with paid employment reported significantly less depression and the effect of family assistance on functional health also differed by gender (Matz-Costa, Besen, Boone James, & Pitt-Catsouphes, 2014; McLaughlin, Vagenas, Pachana, Begum, & Dobson, 2010). Those results suggested that productive activities can be more meaningful for men's health and well-being than for women. Gender differences in social participation require more investigation; therefore, we propose to investigate men and women separately.

Self-rated health and life satisfaction are recognized as indicators of global health and well-being (French, Sargent-Cox, & Luszcz, 2012; Marquine, *et al.*, 2015). Both are predictors of functional decline and mortality, which characterize them as important indicators of future outcomes in old age. Seniors who perceive health negatively and report low satisfaction with life are more likely to have comorbidities, disability and early mortality (Deng, Hu, Wu, Dong, & Wu, 2010).

The relationships between social participation, health and well-being have been focused by considerable number of researchers and professionals around the world; however, there are no evidences about how different levels of social participation influence subjective health and life satisfaction, neither whether gender plays a role in those relationships. That knowledge may contribute to theoretical and practical studies aimed the promotion of active and healthy aging.

The aims of this study are (1) to identify the influence of different social activities and levels of social participation on self-rated health and life satisfaction, and (2) to investigate whether those relationships perform differently in men and aged women.

Method

Design and sampling procedure

This study is a population based survey performed in seven Brazilian cities selected by convenience criteria. In each city, sampling procedure involves the randomly selection of population units where people aged over 65 years were invited to participate. Minimum sample size was estimated for each city according to gender and age (Neri, *et al.*, 2013a, Rabelo, & Nery, 2013b).

Seniors excluded were those with severe cognitive impairment suggestive of dementia, severe mobility problems, sequelae of stroke with localized loss of strength and/or aphasia, Parkinson's disease in severe or unstable stage, severe hearing or vision impairments, communication problems, or being in palliative care. The inclusion and exclusion criteria were the same adopted by the Cardiovascular Health Study (Fried, *et al.*, 2001). Data collection was carried out at local community centers scheduled by recruiters. After signing an informed consent form, participants answered questions regarding socio-demographic variables, cognitive and health status, frailty, anthropometric characteristics, systolic and diastolic pressure, chronic diseases, use of health services, oral health, functional status, perceived social support, depressive symptoms, and life satisfaction. Procedures lasted from 90 to 120 min. Subjective measures were only taken into account for seniors without cognitive deficit according to the Mini-Mental State Examination (MMSE). After the measurement of the socio-demographic, anthropometric, frailty indicators, and systolic and diastolic pressure, MMSE was used to screen cognitive impairment suggestive of dementia. Cutoff scores were based on studies with Brazilian elderly (Brucki, Nitrini, Caramelli, Bertolucci, & Okamoto, 2003).

The sample for this study was composed by 2460 seniors (65.6% women) without cognitive impairment suggestive of dementia, aged 65 or more (mean age = 72.3+- 5.5 years). The research project was approved by the Ethics Committee on Human Research of the Faculty of Medical Sciences, University of Campinas, by the protocol number 208/2007. 2.2.

Variables and instruments

Life Satisfaction was assessed with aid of a question concerning level of overall life satisfaction. From the responses (– very satisfied = 3, more or less satisfied = 2 or somewhat satisfied = 1 –), we categorized in high (very satisfied) or low (more or less/somewhat satisfied).

Self-rated health was assessed by a single item asking, "In general, how do you evaluate your health at present?" Answer options were: very good, good, regular, poor and very poor who were grouped in very good/good and regular/poor/very poor.

Social participation was evaluated through seven social activities: making visits, participate in religious activities, social groups, attending social events, cultural activities, volunteering and political activities. For each activity, participants answered whether they still participate, never participate or interrupt participation. In order to obtain information about current status of their participation in activities mentioned, we categorized participation as: yes (still participate) and no (never participate or interrupt participation). Levels of social participation were configured by computing groups of social activities according to the taxonomy proposed by Levasseur, Richard, Gauvin, & Raymond (2010), which consider the degree by which people contribute to society. Narrow participation was represented in level 1 by "making visits"; level 2 was formed by intermediary social activities, such as, "participate in religious activities", "social groups", "attending social events" and "cultural activities"; finally, in the level 3 were settled the activities through people can contribute to society: "volunteering" and "political activities". For each level, a score was obtained and analyzed as a numeric variable, ranging from 0 to 1.

Gender, *age*, and *education* were obtained by self-report.

Statistical analyses

Descriptive analyses were performed for numeric and categorical variables. Qui-square test were computed to identify associations in different groups. Binary logistic regression analyses were performed for: 1) to identify relationships between each social activity and self-rated health and life satisfaction, and 2) to investigate influences of three levels of social participation on those outcomes. Those analyses were performed for all participants, and for subsamples according to gender. All models were controlled by age and education. The Statistical Package for the Social Sciences (SPSS) 21.0 version was used in these analyses. Significance level was set at $p < 0.05$.

Results

Descriptive analyses

Our sample is composed by 65.6% of women, with mean age 72.3 years (5.5) and being less educated (4.4 years).

Participation in level 1 was more frequent, following by level 2 and level 3. The most frequent social activity performed was religious activities (level 2) followed by making visits (level 1) and attending social events (level 2). The less frequent social activity performed by elderly was political activities (10.7%), followed by volunteering (22.2%) and cultural activities (25.6). Reporting of poor or regular self-rated health was high among all older adults (65.3%) while life satisfaction evaluation as high was referred by 65.1% (table 1). Gender differences in social participation were observed for religious activities, social groups and cultural activities. Women were more likely found among those who participate in those activities than men (table 1).

Table 1. Distribution of sample characteristics according to gender. Fibra Study, Brazil, 2009. (n=2,460)

	All (n=2460)	**Women (n=1616)**	**Men (n=844)**	
	f(%) or m(SD)	f(%) or m(SD)	f(%) or m(SD)	p-value*
Age (years)	72.3(5.5)	72.1(5.4)	72.6(5.6)	0.254
Education (years)	4.4(4)	4.3(3.8)	4.5(4.2)	0.009
Participation level 1	0.77(0.42)	0.78(0.41)	0.75(0.43)	0.085
Participation level 2	0.47(0.26)	0.49(0.27)	0.42(0.25)	<0.001
Participation level 3	0.16(0.29)	0.16(0.29)	0.16(0.28)	0.979
Making visits				0.085
No	568(23.1)	359(22.2)	209(24.8)	
Yes	1892(76.9)	1257(77.8)	635(75.2)	
Religious activity				<0.001
No	267(10.9)	135(8.4)	132(15.6)	
Yes	2193(89.1)	1481(91.6)	712(84.4)	
Social groups				<0.001
No	1826(74.2)	1134(70.2)	692(82)	
Yes	634(25.8)	482(29.8)	152(18)	
Attending to social events				0.075
No	1249(50.8)	803(49.7)	446(52.8)	
Yes	1211(49.2)	813(50.3)	398(47.2)	
Cultural activities				<0.001
No	1831(74.4)	1165(72.1)	666(78.9)	
Yes	629(25.6)	451(27.9)	178(21.1)	
Volunteering				0.134
No	1914(77.8)	1246(77.1)	668(79.1)	
Yes	546(22.2)	370(22.9)	178(20.9)	
Political activities				0.128
No	2197(89.3)	1452(89.9)	745(88.3)	
Yes	263(10.7)	164(10.1)	99(11.7)	
Self-rated health				0.079
Poor/regular	1607(65.3)	1072(66.3)	535(63.4)	
Good/very good	853(34.7)	544(33.7)	309(36.6)	
Life satisfaction				0.190
Low	858(34.9)	574(35.5)	284(33.6)	
High	1602(65.1)	1042(64.5)	560(66.4)	

F: frequency; m: mean; n: participants; SD: standard deviation; *x^2 significant <0.05.

Associations

The data in tables 2 and 3 showed associations between independent and self-rated health and life satisfaction, respectively, for all sample, as well as, for subsamples of men and women.

Regarding to self-rated health, we observed associations for all sample for making visits, attend social events and cultural activities. Religious activities were not significantly associated to self-rated health in any group.

Additionally, to participate in social groups, volunteering and political activities showed different relationships according to gender.

For men, participating in social groups was associated with reporting of good or very good health what was not observed for women.

Among women, participating in cultural activities and volunteering were associated with positive self-rated health, results not observed for men (table 2).

Regarding to life satisfaction, all social activities showed associations for all participants and older women. However, among older men, those who make visits, attend social groups, social events and cultural activities were more likely found to refer satisfaction with life (table 3).

Table 2. Distributions and associations between social activities and self-rated health for all, women and older men. Fibra Study, Brazil, 2009.

	All (n=2460)		**Women (n=1616)**		**Men (n=844)**	
	Self-rated health – F (%)					
	Bad/very bad	Good/very good	Bad/very bad	Good/very good	Bad/very bad	Good/very good
Making visits	1206 (63.7)	686 (36.6)**	818 (65.1)	439 (34.9)*	388 (61.1)	247 (38.9)*
Religious activities	1433 (65.3)	760 (34.7)	980 (66.2)	501 (33.8)	453 (63.6)	259 (36.4)
Social groups	429 (67.7)	205 (32.3)	320 (66.4)	162 (33.6)	109 (71.7)	43 (28.3)*
Social events	738 (60.9)	473 (39.1)***	502 (61.7)	311 (38.3)***	236 (59.3)	162 (40.7)*
Cultural activities	328 (52.1)	301 (47.9)***	233 (51.7)	218 (48.3)***	95 (53.4)	83 (46.6)**
Volunteering	313 (57.3)	233 (42.7)***	211 (57)	159 (43)***	102 (58)	74 (42)
Political activities	160 (65.3)	103 (39.2)	97 (59.1)	67 (40.9)*	63 (63.6)	36 (36.4)

*x^2 p-significant <0.05. Controlled by age and education.

Table 3. Distributions and associations between social activities and life satisfaction for all, women and older men. Fibra Study, Brazil, 2009

	All (n=2460)		**Women (n=1616)**		**Men (n=844)**	
	Life satisfaction – F (%)					
	Bad/very bad	Good/very good	Bad/very bad	Good/very good	Bad/very bad	Good/very good
Making visits	631 (33.4)	1261 (66.6)**	427 (34)	830 (66)**	204 (32.1)	431 (67.9)
Religious activities	740 (33.7)	1453 (66.3)**	513 (34.6)	968 (65.4)*	227 (31.9)	485 (68.1)**
Social groups	201 (31.7)	433 (68.3)*	143 (29.7)	339 (70.3)**	58 (38.2)	94 (61.8)
Social events	372 (30.7)	839 (69.3)***	250 (30.8)	563 (69.2)***	122 (30.7)	276 (69.3)*
Cultural activities	178 (28.3)	451 (71.7)***	125 (27.7)	326 (72.3)***	53 (29.8)	125 (70.2)
Volunteering	156 (28.6)	390 (71.4)***	105 (28.4)	265 (71.6)**	51 (29)	125 (71)
Political activities	62 (23.6)	201 (76.4)***	40 (24.4)	124 (75.6)**	22 (22.2)	77 (77.8)**

*x^2 p-significant <0.05. Controlled by age and education.

Multivariate analyses

We performed multivariate analysis for social activities and levels of social participation separately, considering men and women as different samples (tables 4 and 5). Both models were controlled by age and education. Making visits and participating in social groups were determinants of self-rated health for men and did not for women, while, performing cultural activities and volunteering were predictors of women's subjective health. About life satisfaction, cultural activities were predictor for women and did not for men, while, participating in social groups and political activities were predictor for men and did not for women (Table 4).

Table 4. Binary logistic regression analysis of the influence of participation in social activities on self-rated health and life satisfaction according to gender. Fibra Study, Brazil, 2009. (n=2,460)[#]

	All (n=2460)	Women (n=1616)	Men (n=844)	All (n=2460)	Women (n=1616)	Men (n=844)
	Self-rated health – OR (CI 95%)			*Life satisfaction OR (CI 95%)*		
Making visits	1.06(0.91-1.23)	1.04(0.79-1.37)	1.44(1.01-2.05)*	1.04(0.90-1.20)	1.10(0.85-1.42)	1.17(0.83-1.65)
Religious activity	0.97(073-1.29)	0.95(0.63-1.42)	0.96(0.64-1.45)	1.35(1.04-1.77)*	1.24(0.86-1.80)	1.52(1.02-2.26)
Social groups	0.72(0.58-0.89)**	0.80(0.63-1.03)	0.52(0.35-0.79)**	0.98(0.79-1.20)	1.16(0.91-1.48)	0.63(0.43-0.93)*
Attending to social events	1.13(0.94-1.37)	1.07(0.84-1.37)	1.21(0.89-1.66)	1.24(1.02-1.49)*	1.25(0+99-1.58)	1.18(0.86-1.62)
Cultural activities	1.78(1.44-2.20)***	1.99(1.54-2.57)***	1.43(0.96-2.11)	1.38(1.10-1.72)**	1.48(1.13-1.93)**	1.19(0.79-1.79)
Volunteering	1.34(1.08-1.65)**	1.34(1.03-1.75)*	1.32(0.91-1.90)	1.25(1-1.56)*	1.30(0.98-1.71)	1.15(0.78-1.69)
Political activities	0.86(0.64-1.16)	1.00(0.69-1.45)	0.67(0.41-1.10)	1.55(1.13-2.13)**	1.38(0.92-2.05)	1.84(1.08-3.15*

CI: confidence interval; OR: odds ratio; significance: *<0.05; **<0.01; ***<0.001.
#: controlled by age and education

Table 5. Binary logistic regression analysis of the influence of levels of social participation on self-rated health and life satisfaction according to gender. Fibra Study, Brazil, 2009. (n=2,460)[#]

	All (n=2460)	Women (n=1616)	Men (n=844)	All (n=2460)	Women (n=1616)	Men (n=844)
	Self-rated health - OR (CI 95%)			*Life satisfaction - OR (CI 95%)*		
Participation						
Level 1	1.21(0.98-1.50)	1.10(0.85-1.42)	1.47(1.04-2.09)*	1.15(0.94-1.41)	1.06(0.81-1.39)	1.23(0.88-1.73)
Level 2	1.51(1.07-2.14)*	2.70(1.75-4.16)***	1.02(0.56-1.86)	2.13(1.50-3.04)***	1.84(1.20-2.84)**	1.35(0.73-2.49)
Level 3	1.20(0.89-1.63)	1.73(1.15-2.61)**	1.00(0.60-1.68)	1.77(1.28-2.46)**	1.33(0.91-1.95)	1.85(1.06-3.22)*

CI: confidence interval; OR: odds ratio; significance: *<0.05; **<0.01; ***<0.001.
Participation level 1: making visits; level 2: participating in religious activities, social groups, social events and cultural activities; level 3: volunteering and political activities.
#: controlled by age and education.

The influence of levels of social participation on self-rated health and life satisfaction showed gender differences. Regarding to self-rated health, participation in level 1 was significant for men, however, for women, levels 2 and 3 were significant. About life satisfaction, level 2 was significant for women and level 3 for men. Further information can be found in table 5.

Discussion

Our results provided evidences about the influence of levels of social participation on self-rated health and life satisfaction, as well as, clarify some gender differences in those relationships. Given that social participation consist in a relevant social and health behavior to achieve active and successful ageing, professionals and politicians are invited to understand that phenomenon and provide conditions to allow older people being socially engaged.

The frequency of participation in each level may indicate the hierarchical characteristics of social activities investigated in this study (Reuben, Laliberte, Hirris, & More, 1990). Since that making visit is less physically and mentally complex than participating in cultural activities and social groups, for instance, the first one would be more frequently performed than the second ones. Also, volunteering and political activities are more complex and have higher demand than cultural activities and social groups reason why were less performed. Therefore, it is expected that cultural activities and social groups are more frequently performed than volunteering and political activities among older people. Besides physical and mental demand, participation in social activities is also influenced by personal socioeconomic conditions, social opportunities and environmental conditions. In old age, those conditions tend to get worse and imply significant barriers for functioning and well-being (Minhat, & Mohd Amin, 2012). One important concern is, at the time older adults need more social support and care, they tend to withdrawal from social life, leading to several negative consequences for themselves, their family and society.

Women were more likely found participating in religious activities, social groups and cultural activities than men.

Findings have shown that older women get benefits for their mental health by engaging in social contacts that include caregiving, helping others, learning and teaching and supportive groups (Park, & Kim, 2010; Thomas, 2011). On the other hand, for older men engaging in work and political activities is more relevant to provide them sense of belonging, self-esteem and well-being. Those gender particularities highlight the importance of investigate women and men separately concerning social participation. Additionally, the knowledge of events that impact social participation during the life course, for instance, widowhood and retirement may help researchers to understand gender differences of social behavior in old age (Donnelly, & Hinterlong, 2010; Sabbath, Lubben, Goldberg, Zins, & Berkman, 2015). Several results have demonstrated that those events have more negative impact in mental health and well-being of older men than women. Among men, after retirement, the loss of frequent connection with colleagues could create new challenges for them to establish relationships with community residents, resulting in involvement in new groups with greater diversity in composition respect to gender, age, and previous occupation. This may enable them to construct their identities more easily as their skills and experiences are more likely appreciated by other members in the groups, which could impose beneficial effects on their self-rated health (Kishimoto, Suzuki, Iwase, Doi, & Takao, 2013).

Self-rated health characterizes as a global evaluation of the individual perception regarding to specific life domain, health. Negative self-perception of health has been associated with several outcomes, such as, disability and mortality, for men and women (Miller, & Wolinsky, 2007; Tanaka, & Johnson, 2012); while it has been influenced by objective decline of health and socioeconomic conditions (Park, Jang, & Kim, 2010). Regarding to social participation, engaging in levels 1 and 2 activities were associated to better self-rated health for men and women. Surprisingly, religious activities were not related to self-rated health in this study. Although religious activities have been understood as social activities, it is possible that people did not interact with others while are in the church. The benefits of religious activity are mostly due to religiosity and spirituality aspects commonly present in that context (Park, Roh, & Yeo, 2012). However, going to the church does not mean high religiosity or spirituality, necessarily. Further researches are necessary to clarify the role of religious activity on health and well-being in old age.

For older men, participating in activities at level 2 (social groups) was associated with better subjective health while women tend to get benefits from participation in activities of both level 2 and 3 (cultural activities and volunteering). It is widely known that volunteering is related to better health outcomes in old age (Borgonovi, 2008; Jenkinson, *et al.,* 2013). The social activity provides self-esteem and sense of belonging while help them to maintain their physical and mental functions. Additionally, contributes to maintain older adults active and productive contributing for society longer. Eriksson, Ng (2015) investigated effects of changes in social participation on self-rated health following middle-aged adults for ten years. He found changes in informal socializing and social participation over a 10-year period associated significantly with self-rated health among middle-aged men and women, even after controlling for several sociodemographic and health variables. However, these effects of the social capital changes on self-rated health complex and differ for men and women. Remaining with no/low level or decreasing informal socializing over a 10-year period significantly increased the odds for poor self-rated health for men and women. The same detrimental effects of a decrease in social participation, though weaker, were also observed among men and women. Remaining with no/low social participation showed detrimental effect among women and men. Interestingly, a positive change, i.e. an increase in social participation, was harmful for self-rated health among women.

Remarkably, participation in social activities of level 2 and 3 (religious activities, social events and political activities) were associated with high life satisfaction. Life satisfaction is a general perception of the global life which could include many life domains (Diener, Suh, Lucas, & Smith, 1999). It is strongly influenced by life conditions and expectations built during the life course. Activities characterized by providing pleasure and social support and opportunities for significant contributions to society play an important role in elderly's life satisfaction. That positive influence of social participation on life satisfaction seemed to be more relevant for women than for men.

The older women's subjective health perception was more influenced by social activities that include complex personal and contextual requirements and are performed in a broad environment, contributing largely for society (volunteering).

In contrast, older men's subjective health positive evaluation depends of performance in activities which can connect them to meaningful relationships (making visits) and potential source of support (social groups). Those findings enrich gerontology literature by providing evidences of different gender needs regarding to social support.

We have expected that higher level of social participation represented by activities of level 3 (volunteering and political activities) would have influence on elderly's subjective health. Nevertheless, previous studies have reported a negative association between political activity and poor self-rated health (Bukov, Maas, & Lampert, 2002). Possible explanation might be because participation in unconventional political activities typically might require the use of some personal resources. Having to put effort toward organizing a political activity and resisting an existing power structure might negatively influence one's own productivity and/or personal relationships, which may in turn lead to a poor subjective health status (Tanaka, & Johnson, 2012). Similar explanation can be used to explain potential negative effects of volunteering.

Otherwise, life satisfaction among older women is influenced by intermediary social activities (cultural activities). Among men, being satisfied is influenced by participation in a broad social context including significant contributions to the society (social groups and political activities).

Social participation represents social integration, active aging and empowerment, all of which have a beneficial effect on health and well-being. More socially integrated people tend to perceive that they have more social support and other resources available to them in times of need. Those with higher levels of perceived social support also tend to use more active coping strategies, and have greater positive affect, self-worth and sense of control, all of which contribute to better self-care and physical and emotional well-being (Deng, Hu, Wu, J., Dong, & Wu, H., 2010). Social participation can also influence health, because it facilitates exposure to and adoption of health-promoting behaviors (Min, *et al.,* 2012). Conversely, lack of social participation and resulting social disconnectedness could be detrimental to health, because it can prompt feelings of loneliness or perceived and/or actual lack of social support (Dury, 2014).

Some limitations should be mentioned. First, our sample is composed by participants who dropped in public places for a previously scheduled interview. Then, we may have selected the most healthy and motivated subjects.

Probably, that affects the prevalence of positive self-rated health and life satisfaction in this sample. Second, our conception of levels of social participation was somehow arbitrary. Actually, we are proposing to test of the taxonomy proposed by Levasseur, Richard, Gauvin, & Raymond (2010), using available social activities in our database. Therefore, further studies are needed to corroborate or refuse our findings.

Conclusion

There are gender differences in the influence of levels of social participation on self-rated health and life satisfaction among older adults. Intermediary and advanced level of social participation influence subjective health of older women and life satisfaction in older men. Narrow social activities influence self-rated health in older men. Those findings brought up gender differences regarding to social participation in old age, as well as, its influence on elderly's health and well-being. Investigations in others cultures considering different social activities are encouraged.

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