

IMPACT OF GENDER ON LEISURE PARTICIPATION: A CROSS SECTIONAL STUDY AMONG ELDERLY POPULATION IN MALAYSIA

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Abstract:

Background: Leisure is a crucial aspect of life regardless of gender. This study aims to identify the different pattern of leisure involvement of elderly people in Selangor, Malaysia.

Methods: A cross-sectional study was conducted among 268 elderly aged 60 years and above from 8 health centers in four different districts of Selangor. Leisure participation was measured using a validated Leisure Participation Questionnaire (LPQ), specifically validated for Malaysian elderly, consisting of 25 activities, categorized into recreational (physical), cognitive, social and productive activities. Frequency of participation for each activity was measured using a 6-point likert scale ranging from 0 to 5.

Results: Overall, the patterns of leisure participation among the male and female elderly in Malaysia were almost similar. Both gender shared the same five most commonly performed leisure activities on daily basis, which were having conversations while relaxing, reading, watching television, gardening and spending time with grandchildren. Meanwhile, the most unpopular leisure activities were playing golf, performing musical instruments and playing sports with more than 90.0% of them had never performed these activities during leisure time. It was also found that only recreational (physical) activity was significantly associated with gender, with male elderly having a higher mean score (2.91±3.20) respectively. Perceived social support received from friends was found to be an important and main determinant of leisure participation for both gender.

Conclusion: The lacking of physical activity involvement among female elderly and the importance role of social support from friends should be acknowledged by relevant authorities in any elderly-related programme.

Key Words: Gender, Leisure Participation, Elderly, Selangor

1.0 Introduction

Leisure is an important domain in life including of the elderly population. It involves engagement in series of desired activities performed during free time. However, no consensus

exists of what leisure really is despite many researchers had continuously struggled with the definitions. Past research has generally defined leisure as time off work with focus given towards behavior during non-work time and non-work activities (Fontenelle & Zinkhan, 1993). Later research attention had shifted to the psychological attributes associated with leisure such the effect of leisure on the general well-being and quality life of a person. In the West, leisure activity has been found to be an influential determinant of successful aging, although there are distinct participation differences between men and women elders and variations in the subsequent effects on emotional well-being (Zimmer & Lin, 1996). However, men and women do experience free time differently (Chang, 2006) and this has led to the different pattern of leisure involvement between them.

The equality of genders has always remained a contentious issue with women have long been the disadvantaged gender in leisure (Khan, 2011). Till now, in all spheres of life it has been understood that men have always enjoyed better position and privileges in society, as compared to women (Khan, 2011). According to Zimmer and Lin (1996), there are gender differences in both the types of activities in which elders tend to engage and their subsequent influences. In their study on leisure activity and well-being among elderly in Taiwan had reported that elderly men participate in most leisure activities with greater frequency than women; physical activity has the strongest positive influence on emotional well-being (Zimmer & Lin, 1996). Whereas, contemplative activity which was the only pursuit in which women out-participate men displays a negative effect for women. They also reported that the impact of different activity types on the well-being of the elderly vary by gender.

Gender is closely related to power dynamics and brings with it privileges or restrictions (Khan, 2011). Some people believe that the gender gap between men and women largely related to the fact that women spend more time taking care of children and doing house chores. As for elderly women, they are commonly linked with the grandchildren caregiving activities, which likely to limit them from actively involved in leisure especially outdoor activities. Pressures of housework and childcare are felt by women, even when they are meant to be enjoying their leisure time. Compared to women, men usually enjoy their leisure time more.

The protective effect of leisure participation not only manifested among young or middle-aged individuals but also in late life. A study exploring the impact of gender on the association between leisure and mortality among Swedish older men and women suggested that, there is a significant association between leisure participation and mortality among the senior citizens with women displays a decreasing mortality risk for each additional activity (Agahi & Parker, 2008). Social activities were found to have the strongest effects on the survival of elderly women, whereas men seem to benefit from solitary activities (Agahi & Parker, 2008). This study aimed to explore the impact of gender on the pattern of leisure involvement among the Malaysian elderly.

2.0 Methods

2.1 Study setting

Data for this cross-sectional study was collected in eight health clinics in 4 different districts in Selangor, namely Petaling, Klang, Hulu Langat and Kuala Langat.

2.2 Study population

Malaysian citizens aged 60 years and above who utilized health services in the designated health clinics were selected purposively. All recruited elderly, were screened using the Elderly Cognitive Assessment Questionnaire (ECAQ) and the Geriatric Depression Scale (GDS). A total of 335 elderly people were screened initially. However, only those with normal score for cognitive function and depression were included. Thus, 268 elderly were eligible to participate in this study.

2.3 Questionnaire

Eligible elderly were asked about their socio-demographic background, perceived health status (well vs unwell) and presence of chronic illness (yes vs no) and also their general involvement in leisure at younger age (yes vs no) using a standardized pre-tested questionnaire. They were also asked about their physical function or ability to perform daily physical activity using the Barthel Index. Additionally, their perceived social support received from family members and friends were also measured using the Perceived Social Support Questionnaire by Prociانو and Heller (1983).

Meanwhile, leisure participation was measured using a Leisure Participation Questionnaire (LPQ), specifically constructed and validated for Malaysian elderly. The LPQ consists of 25 activities which were categorized into four categories namely, recreational (physical), cognitive, social and productive activity based on the categories used in a study by Cheung et al. (2009). Recreational activity refers to physical form of recreational activity such as walking, running, cycling and any form of sports. Meanwhile, cognitive activity refers to activity that involves active information processing as a central component. Social activity refers to activity that promotes interpersonal interactions, developed social identity and regulated emotions. Productive activity involves organizing and performing the required tasks, providing services, or generating products. The measurement of leisure participation for both current and leisure at younger age was based on a 6-point Likert-scale. The scales used were everyday (5), almost every day (4), once a week (3), once a month (2), once in few month (1) and never (0).

2.4 Statistical analysis

The data were analyzed using Statistical Package for Social Sciences (SPSS) version 19.0 software. The level of significance was set at 0.05. For the purpose of the multiple regression analysis, factors such as ethnicity, marital status, education level and income were divided into two categories only. Religion was excluded in the regression analysis due to its similarity and interaction with ethnicity.

3.0 Results

3.1 Characteristics of respondents

The socio-demographic characteristics of the elderly who were eligible and agreed to participate for this study are shown in Table 1.

From the total of 268 elderly involved in this study, 130 of them were male and 138 were female. The mean age for the male respondents was 67.69 ± 5.75 . Among the male respondents, majority of them were Malay (64.6%), Muslim (65.4%), married (88.4%), only received primary school education (56.2%), living with others (94.6%), from urban area (53.1%) and perceived they were well (90.0%) despite suffering from chronic illness (83.8%). Meanwhile, the mean age for the female respondents was 67.62 ± 5.97 . Majority of them were Malay and Muslim (78.3%), received primary school education (65.2%), did not have any income (68.1%), living with others (89.1%), from rural area (52.9%) and perceived they were well (90.6%) despite 86.2% suffering from chronic illness.

Majority of the respondents were also reported to be involved in leisure at younger age with higher percentage among male (73.1%) compared to female (57.2%) elderly. Most of them were also found to have good physical function with a mean score for Barthel Index of 99.69 ± 1.21 for male and 98.66 ± 4.42 for female. Meanwhile, the mean score for perceived social support received from family members was found to be higher compared to those received from friends in both gender.

3.2 *Pattern of leisure participation of respondents*

Table 2 is showing the distribution of leisure participation according to gender in different type of activities.

Among the male respondents, the five most commonly performed leisure activities on daily basis were having conversations while relaxing (77.7%), reading (69.2%), watching television (68.5%), gardening (38.5%) and spending time with grandchildren (30.8%). Whereas, among the female respondents were watching television (80.4%), having conversations while relaxing (79.7%), reading (58.0%), spending time with grandchildren (53.6%) and gardening (45.7%). Meanwhile, the most unpopular leisure activities among the male and female elderly were playing golf, performing musical instruments and playing sports with more than 90.0% of them had never performed these activities during leisure. On the other hand, the bivariate analysis (table 3) showed that only the recreational (physical) activity score was significantly associated with gender, with male elderly was having a higher mean score (2.91 ± 3.20) respectively.

3.3 *Predicting model of leisure participation according to gender*

Table 4 is showing the predicting factors for leisure participation among the male respondents involving four different categories of activities. Whereas table 5 is showing those of the female counterparts.

The involvement of male respondents in recreational (physical) activity were determined significantly by their locality ($B=1.106$, $p=0.035$) and perceived social support received from friends ($B=0.513$, $p<0.001$). Male elderly who are living in the urban locality and had higher social support from friends will have higher score for recreational activity respectively. However, the model obtained only explains 15.2% (adjusted R^2) of the variation in the recreational activity score.

On the other hand, the involvement of male elderly in cognitive activity was determined by their education level ($B=1.781$, $p=0.008$) and also the perceived social support received from

family ($B=-0.558$, $p=0.015$) and friends ($B=0.708$, $p<0.001$). Those with higher education level and received higher social support from friends will have higher score for cognitive activity. Surprisingly, the reverse was found for perceived social support received from family. Those who perceived they have higher social support received from family members will have lower score for cognitive activity. However, the model only explains 16.3% of the variation in the cognitive activity score.

Meanwhile, those who are Malay will have lower score compared to non-Malay for social ($B=-4.767$, $p<0.001$) and productive activities (2.908 , $p=0.001$). Perceived social support received from friends was found to be the only significant predicting factor for productive activity among male elderly (0.844 , $p<0.001$). However, only 35.3% and 8.1% of the variation in the scores for social and productive activities were explained by the models.

As for female elderly, education level was the only factor found to predict involvement of female elderly in recreational activity (Table 5). Those who received higher education level will have 1.546 ($p=0.002$) higher score for recreational activity respectively compared to otherwise. However, the model only explains 5.8% of the variation in the score. On the other hand, one year increase in age will lead to a reduction of the cognitive activity score by 0.190 ($p<0.001$) among the female elderly. Whereas, a unit increase in the perceived social support score received from friends will increase the cognitive activity score by 0.333 ($p=0.006$). The model explains 16.2% of the variation in the cognitive activity score. Perceived social support received from friends was also the only significant predicting factor for social activities among female elderly ($B=0.376$, $p=0.012$). However, it was a weak model, since it only explains 3.9% of the variation in the social activity score.

As for the productive activity, female elderly who perceived they have good health will have lower score for productive activity ($B= 2.628$, $p=0.038$). Whereas, those who actively involved in leisure at younger age will have higher productive activity score by 2.509 ($p=0.001$). Additionally, a unit increase in the score of the physical function and perceived social support received from friends will increase the productive activity score by 0.254 (0.003) and 0.407 ($p=0.016$) respectively. However, this model only explains 17.9% of the variation in the score of the productive activity among the female elderly.

4.0 Discussion

The difference pattern in leisure participation across gender is an important aspect to be explored. Although studies have suggested the various beneficial effects of being active and participating in different kinds of leisure activities, the effect could be different between genders. The findings of this study however suggested that, in general the patterns of leisure participation among the male and female elderly in Malaysia were almost similar. They had similar five most commonly participated leisure activities, but differ in terms of frequency of involvement. The similarity is likely related to the young age group of majority of the respondents involved in this study.

Surprisingly, having conversations while relaxing which is one of the social activities was found to be the most common leisure activity performed by the elderly men. The activity was also the second most common leisure activity among the female elderly. Social participation seems to benefit both women and men (Agahi & Parker, 2008). A long tradition of research has shown the important influence of social relationships in older age on the health

dimensions of the quality of life including life satisfaction and emotional, subjective and psychological wellbeing (Hubbard, Tester, & Downs, 2003). Social relationships and social contacts with family and friends is an important influence upon the quality of life of the elderly (Bowling, 1995; Farquhar, 1995). Additionally, peer relationships are vitally important in the ageing process (Jerome, 1992) regardless of gender. In a study conducted by Anne, Shinohara, Sugisawa, and Itoh (2006) on the relationship between social interaction and seven-year-mortality in a group of elderly people reported that, greater social interaction was related to reduce mortality. This finding was obtained after adjusted for baseline age, gender, physical function, health status, and activity of daily living (ADL).

Being one of the social activities, social interactions indirectly reflect the social support received by the elderly, which is an important determinant for leisure participation among them. This study found that the perceived social support received by the elderly from friends determining their involvement in leisure for both genders. Inferences from previous research suggest that social support from friends and family is important in influencing elderly participation into physical activity especially and also to enable them to achieve better health outcomes and satisfaction with life (Dhurup & Surujlal, 2009). According to D'Orsi, Xavier, and Ramos (2011) work, leisure and relationships with friends should be valued in the prevention of functional loss due to their protective effect. However, the elderly are at risk of deficits in social support; therefore, health care providers must realize the importance of social support for the elderly, assess for deficits in support, and provide appropriate options to bolster support systems (Tremethick, 1997).

Among the four different categories of leisure activities, only recreational (physical) activities were found to be significantly influenced by gender. Older women are generally more sedentary and less active than older men. A study conducted by Lee (2005) revealed that, women were less active overall but more involved in household activities. In another study by Lin, Yeh, Chen, and Huang (2010) on the physical activity status and gender differences among community-dwelling older adults with chronic diseases reported that, female participants were found less likely to meet the recommended leisure-time physical activity guidelines than their male counterparts. The findings from their study demonstrated different physical activity levels in older men and women, with predictive factors of caloric expenditure during leisure-time physical activity also different between genders. Therefore, interventions promoting physical activity should take these differences into account (Lin et al., 2010). Further studies should also explore the barriers and constraints faced by the elderly women that prevent them from actively involved in physical activity during leisure.

5.0 Conclusion and recommendation:

Despite been linked to many disadvantages in life, this study revealed a very similar pattern of leisure involvement between the male and female elderly in Malaysia. As expected and reported by other studies, there was a significant gender difference in the elderly involvement in physical activity. Meanwhile, perceived social support received from friends was found to play an important role in predicting elderly involvement in leisure activities regardless of gender. Exploring the constraints and barriers faced by the elderly women is a necessity in order to promote their involvement in physical activities. Initiatives and programmes promoting leisure involvement among elderly in general should incorporate the element of social interaction in order develop a strong social support network between them. The related

authorities and agencies should also aware the need for a suitable and appropriate public places or facilities for the elderly to socialize among them.

Ethical

The study has been approved by the Ethical Committee of Universiti Kebangsaan Malaysia Medical Centre prior to its conduction.

Declaration of conflict of interest

We authors of the article declare that there is no conflict of interest regarding publication of this article.

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Table 1: Characteristics of respondents (N=268)

Factor	Male (n=130) f (%)	Female (n=138) f (%)
Age	Mean= 67.69±5.75	Mean= 67.62±5.97
Ethnicity		
Malay	84 (64.6)	108 (78.3)
Chinese	24 (18.5)	18 (13.0)
Indian	21 (16.2)	11 (8.0)
Others	1 (0.8)	1 (0.7)
Religion		
Islam	85 (65.4)	108 (78.3)
Buddha	18 (13.8)	13 (9.4)
Hindu	16 (12.3)	9 (6.5)
Others	11 (8.5)	8 (5.8)
Marital Status		
Single	1 (0.8)	4 (2.8)
Married	115 (88.4)	67 (48.6)
Divorcee/widower/widow	14 (10.8)	67 (48.6)
Education Level		
None	5 (3.8)	15 (10.9)
Primary school	73 (56.2)	90 (65.2)
Secondary school	44 (33.8)	31 (22.5)
College/University	8 (6.2)	2 (1.4)
Income		
None	40 (30.8)	94 (68.1)
≤ RM720	14 (10.8)	9 (6.5)
RM721 – RM1000	40 (30.8)	21 (15.2)
RM1001 – RM2000	32 (24.6)	12 (8.7)
>RM2000	4 (3.0)	2 (1.5)
Living Arrangement		
Living alone	7 (5.4)	15 (10.9)
Living with others	123 (94.6)	123 (89.1)
Locality/Environment		
Urban	69 (53.1)	65 (47.1)
Rural	61 (46.9)	73 (52.9)
Perceived health status		
Well	117 (90.0)	125 (90.6)
Unwell	13 (10.0)	13 (9.4)
Chronic illness		
Yes	109 (83.8)	119 (86.2)
No	21 (16.2)	19 (3.8)
Physical function	Mean= 99.69±1.21	Mean= 98.66±4.42
Perceived social support from family	Mean= 11.75±1.57	Mean= 11.85±1.41
Perceived social support from friends	Mean= 9.90±2.23	Mean= 9.93±2.18
Leisure participation while younger		
Yes	95 (73.1)	79 (57.2)
No	35 (26.9)	59 (42.8)

RM = Ringgit Malaysia

Table 2: Leisure participation of respondents (N=268)

Activity	Male (n=130) f (%)						Female (n=138) f (%)					
	0	1	2	3	4	5	0	1	2	3	4	5
Recreational (physical) activity												
▪ Exercise (tai-chi, jogging, walking, cycling etc)	79(60.8)	1(0.8)	2(1.5)	5(3.8)	15(11.5)	28(21.5)	97(70.3)	2(1.4)	6(4.3)	3(2.2)	12(8.7)	18(13.0)
▪ Going for walks (in the park etc)	89(68.5)	5(3.8)	5(3.8)	7(5.4)	15(11.5)	9(6.9)	108(78.3)	3(2.2)	8(5.8)	4(2.9)	7(5.1)	8(5.8)
▪ Playing sports (badminton, tennis etc)	125(96.2)	1(0.8)	1(0.8)	1(0.8)	1(0.8)	1(0.8)	138(100.0)	-	-	-	-	-
▪ Playing golf	129(99.2)	1(0.8)	-	-	-	-	138(100.0)	-	-	-	-	-
Cognitive activity												
▪ Reading (books/Quran/bible etc)	6(4.6)	2(1.5)	9(6.9)	3(2.3)	20(15.4)	90(69.2)	5(3.6)	6(4.3)	11(8.0)	12(8.7)	24(17.4)	80(58.0)
▪ Playing cards, chess, mahjong etc	123(94.6)	1(0.8)	1(0.8)	4(3.1)	1(0.8)	-	136(98.6)	-	-	-	1(0.7)	1(0.7)
▪ Using computer/ Browsing internet	121(93.1)	-	2(1.5)	-	5(3.8)	2(1.5)	133(94.6)	1(0.7)	2(1.4)	-	1(0.7)	1(0.7)
▪ Performing musical instruments	127(97.7)	-	-	2(1.5)	1(0.8)	-	138(100.0)	-	-	-	-	-
▪ Writing or drawing for pleasure	121(93.1)	2(1.5)	2(1.5)	-	2(1.5)	3(2.3)	134(97.1)	-	-	1(0.7)	2(1.4)	1(0.7)
▪ Informal teaching (tuition/ Quran classes, etc)	122(93.8)	-	3(2.3)	1(0.8)	1(0.8)	3(2.3)	129(93.5)	-	1(0.7)	-	5(3.6)	3(2.2)
▪ Watching TV	-	1(0.8)	8(6.2)	7(5.4)	25(19.2)	89(68.5)	-	-	3(2.2)	2(1.4)	22(15.9)	111(80.4)
▪ Listening to radio/ music	43(33.1)	10(7.7)	14(10.8)	5(3.8)	16(12.3)	42(32.3)	38(27.5)	15(10.9)	13(9.4)	6(4.3)	14(10.1)	52(37.7)
▪ Attending exhibition, cultural show, performances etc	97(74.6)	18(13.8)	15(11.5)	-	-	-	100(72.5)	24(17.4)	14(10.1)	-	-	-
Social activity												
▪ Meeting or visiting friends	29(22.3)	21(16.2)	32(24.6)	13(10.0)	15(11.5)	20(15.4)	26(18.8)	32(23.2)	38(27.5)	22(15.9)	11(8.0)	9(6.5)

or other family members												
▪ Involve in community activities (volunteers, association, politics etc)	89(68.5)	12(9.2)	13(10.0)	10(7.7)	5(3.8)	1(0.8)	109(79.0)	5(3.6)	16(11.6)	7(5.1)	1(0.7)	-
▪ Window shopping	121(93.1)	5(3.8)	2(1.5)	1(0.8)	1(0.8)	-	98(71.1)	12(8.7)	21(15.2)	6(4.3)	-	1(0.7)
▪ Religious activity (going to mosque, marhaban class etc.)	20(15.4)	7(5.4)	15(11.5)	26(20.0)	14(10.8)	48(36.9)	57(41.3)	7(5.1)	16(11.6)	24(17.4)	24(17.4)	10(7.2)
▪ Having conversations while relaxing	4(3.1)	8(6.2)	4(3.1)	2(1.5)	11(8.5)	101(77.7)	-	5(3.6)	1(0.7)	5(3.6)	17(12.3)	110(79.7)
▪ Spending time with grandchildren	31(23.8)	8(6.2)	12(9.2)	27(20.8)	12(9.2)	40(30.8)	24(17.4)	3(2.2)	8(5.8)	21(15.2)	8(5.8)	74(53.6)
Productive activity												
▪ Cooking/ Baking for pleasure	111(85.4)	2(1.5)	12(9.2)	3(2.3)	-	2(1.5)	97(70.3)	3(2.2)	10(7.2)	8(5.8)	16(11.6)	4(2.9)
▪ Rearing or taking care of pets or domestic animals	107(82.3)	-	1(0.8)	-	2(1.5)	20(15.4)	123(89.1)	-	1(0.7)	-	4(2.9)	10(7.2)
▪ Gardening	60(46.2)	-	5(3.8)	3(2.3)	12(9.2)	50(38.5)	58(42.0)	1(0.7)	1(0.7)	2(1.4)	13(9.4)	63(45.7)
▪ Making handicrafts (sewing, knitting etc)	109(83.8)	8(6.2)	7(5.4)	5(3.8)	1(0.8)	-	112(81.2)	2(1.4)	17(12.3)	1(0.7)	1(0.7)	5(3.6)
▪ Cleaning/decorating house area	96(73.8)	3(2.3)	4(3.1)	3(2.3)	7(5.4)	17(13.1)	105(76.1)	1(0.7)	5(3.6)	3(2.2)	10(7.2)	14(10.1)
▪ Fishing	117(90.0)	3(2.3)	6(4.6)	1(0.8)	3(2.3)	-	138(100.0)	-	-	-	-	-

Table 3: Correlation between gender and leisure activity score (n=268)

Factor	Recreational activity score (0-20)				Cognitive activity score (0-45)				Social activity score (0-30)				Productive activity score (0-30)				
	Mean	SD	t	p	Mean	SD	t	p	Mean	SD	t	p	Mean	SD	t	p	
Gender:																	
Male	2.91	3.20	-2.87	0.005*	12.57	3.99	-0.29	0.776	13.35	4.79	-0.86	0.389	5.16	4.71	0.77	0.444	
Female	1.88	2.59			12.44	3.32			12.90	3.82			5.60	4.68			

*p<0.05

Table 4: Determinants of leisure participation among male elderly (n=130)

Factor	B	95% CI	Beta	p	Adjusted R ²
Recreational activity score					15.2%
▪ Constant	-2.574	-5.127, -0.382		0.023	
▪ Locality: [rural] vs urban	1.106	0.078, 2.134	0.173	0.035	
▪ SSFr	0.513	0.282, 0.743	0.357	<0.001	
Cognitive activity score					16.3%
▪ Constant	11.396	6.520, 16.272		<0.001	
▪ Education level: [low] vs high	1.781	0.478, 3.084	0.220	0.008	
▪ SSFa	-0.558	-1.006, -0.109	-0.220	0.015	
▪ SSFr	0.708	0.394, 1.023	0.396	<0.001	
Social activity score					35.3%
▪ Constant	6.681	3.613, 9.750		<0.001	
▪ Ethnicity: [Malay] vs non-Malay	-4.767	-6.166, -3.368	-0.478	<0.001	
▪ SSFr	0.844	0.543, 1.146	0.394	<0.001	
Productive activity score					8.1%
▪ Constant	6.190	5.216, 7.165		<0.001	
▪ Ethnicity: [Malay] vs non-Malay	-2.908	-4.546, -1.270	-0.296	0.001	

Significant at p <0.05, [] reference category, SSFa= Perceived Social Support from Family, SSFr = Perceived Social Support from Friends

Table 5: Determinants of leisure participation among female elderly (n=138)

Factor	B	95% CI	Beta	p	Adjusted R ²
Recreational activity score					5.8%
▪ Constant	1.514	1.029, 2.000		<0.001	
▪ Education level: [low] vs high	1.546	0.554, 2.539	0.255	0.002	
Cognitive activity score					16.2%
▪ Constant	22.009	15.595, 28.424		<0.001	
▪ Age	-0.190	-0.276, -0.104	-0.343	<0.001	
▪ SSFr	0.333	0.097, 0.569	0.219	0.006	
Social activity score					3.9%
▪ Constant	9.168	6.218, 12.118		<0.001	
▪ SSFr	0.376	0.085, 0.666	0.214	0.012	
Productive activity score					17.9%
▪ Constant	-24.680	-41.376, -7.985		0.004	
▪ Perceived health status: [well] vs unwell	-2.628	-5.115, -0.142	-0.165	0.038	
▪ Physical function	0.254	0.089, 0.419	0.240	0.003	
▪ SSFr	0.407	0.077, 0.738	0.190	0.016	
▪ Leisure participation while younger: yes vs [no]	2.509	1.037, 3.981	0.266	0.001	

Significant at p <0.05, [] reference category, SSFa= Perceived Social Support from Family, SSFr = Perceived Social Support from Friends