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# Accomplishment level and satisfaction with social participation of older adults: association with quality of life and best correlates

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# Abstract

**Purpose**—This study aimed to (1) explore whether quality of life (QOL) is more associated with satisfaction with social participation (SP) than with level of accomplishment in SP and (2) examine respective correlates of accomplishment level and satisfaction with SP.

**Methods**—A cross-sectional design was used with a convenience sample of 155 older adults (mean age = 73.7; 60% women) having various levels of activity limitations. Accomplishment level and satisfaction with SP (dependent variables) were estimated with the social roles items of the assessment of life habits. Potential correlates were human functioning components.

**Results**—Correlations between QOL and accomplishment level and satisfaction with SP did not differ (P = 0.71). However, best correlates of accomplishment level and satisfaction with SP were different. Higher accomplishment level of SP was best explained by younger age, activity level perceived as stable, no recent stressing event, better well-being, higher activity level, and fewer obstacles in "Physical environment and accessibility" ( $R^2 = 0.79$ ). Greater satisfaction with SP was best explained by activity level perceived as stable, better self-perceived health, better well-being, higher activity level, and more facilitators in "Social support and attitudes" ( $R^2 = 0.51$ ).

**Conclusion**—With some exceptions, these best correlates may be positively modified and thus warrant special attention in rehabilitation interventions.

#### Keywords

Community participation; Role; Quality of life; Personal satisfaction; Aging; Environment

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# Background

In industrialized countries, older adults make up a sizeable proportion of the population. This proportion will increase significantly in the next 25 years and might even double in some countries such as Canada [1]. Older adults are more likely than younger adults to experience activity limitations and have more social participation restrictions. In fact, as age increases, social participation has been shown to decline as part of the "normal" aging process of older adults [2].

Social participation is one of the main outcomes of rehabilitation and a common intervention goal of most health professionals. Moreover, it is an important modifiable variable that influences community living and has been associated with health. Indeed, mortality (see review by Berkman [3]) and morbidity [4] have been shown to be associated with social participation.

Although considered an important concept, no consensus on the definition of social participation can be found in the literature. While most authors define social participation as an individual's involvement in social activities [5], a promising new way to define the concept has emerged from the recent rehabilitation literature. In a recent qualitative study [6], participants with diverse activity limitations conceptualized participation as a cluster of values that includes: active and meaningful engagement; choice and control; access and opportunity; personal and societal responsibilities; supporting others; and social connection, inclusion and membership. Accordingly, participation not only includes active engagement in life situations at the societal level, it also refers to the personal meaning and satisfaction resulting from that engagement. The new challenge for future research is therefore to consider not only accomplishment level of participation but also satisfaction with participation [6]. It is important to take into account the person's perspective and lived experience when establishing treatment goals and these aspects can be considered through satisfaction with social participation.

Among human functioning models including the concept of participation, the most widely used is the International Classification of Functioning, Disability and Health (ICF) [7]. The ICF has, however, been criticized for its failure to (1) distinguish between activity and participation components [8, 9] and (2) integrate quality of life (QOL) [10, 11]. It is now generally agreed that activities, participation [12] and QOL [10] must be considered separately since they are different concepts. In this study, we distinguished these concepts by operationalizing activity as the individual ability to perform a task or action mostly associated with daily activities and social participation as the accomplishment level and satisfaction with participation in social roles. Quality of life was operationalized by satisfaction with life, which considers the person's perceptions.

To our knowledge, there are only a few studies [13–19] that consider both accomplishment level and satisfaction with social participation. Among these, four studies [14, 15, 18, 19] specifically aimed to explore the relationships between accomplishment level of social participation and satisfaction with the accomplishment level of social participation. Timely and innovative, these studies were carried out with individuals with traumatic brain injury

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[14, 19] or spinal cord injury [15] or with older adults having activity limitations [18]. They all found weak associations between accomplishment level and satisfaction with social participation, suggesting that these two concepts measure different aspects of reality and justifying considering the two dimensions separately. However, additional research is still needed to better understand the accomplishment level and satisfaction with social participation of older adults.

Specifically, QOL and satisfaction with social participation have been demonstrated to be greater for participants without activity limitations than for those with moderate to severe activity limitations [13]. Moreover, one [14] of the previous studies explored if QOL is associated with accomplishment level and satisfaction with social participation. Conducted with individuals with traumatic brain injury, this study found that QOL was strongly correlated with satisfaction with social participation (subjective) but not with accomplishment level of social participation (objective). Based on this study, the conceptualization of QOL [20, 21], and results from three exploratory studies [16, 17, 22], it can be hypothesized that QOL of older adults should be more associated with satisfaction with social participation than with accomplishment level of social participation. Moreover, to our knowledge, no study aimed at identifying the correlates of satisfaction with social participation. Correlates of accomplishment level of social participation identified in the literature [2, 23-32] are personal factors such as gender, age, and education; health status and impairment (including disease category, comorbidity, self-perceived health, and wellbeing); level of activity; and physical and social environment. With the same participants, identifying the variables that best explain accomplishment level and satisfaction with social participation can help to better understand the specificity of these two concepts.

The present study aimed, with older adults having various levels of activity limitations, to (1) explore whether QOL is more associated with satisfaction with social participation than with accomplishment level of social participation and (2) examine respective correlates of accomplishment level and satisfaction with social participation. Potential correlates were selected from human functioning components previously found to be associated with accomplishment level of social participation.

#### Methods

#### **Participants**

This cross-sectional design involved 156 persons aged 60 and over living in the community in the region of Sherbrooke, Quebec, Canada. To ensure various levels of activity limitations (none, slight to moderate, and moderate to severe), participants were recruited according to their score on the functional autonomy measurement system [33] (SMAF) as described elsewhere [13]. Eligibility criteria were (1) normal cognitive functions (score on the minimental state examination equal to or above the 25th percentile for age and schooling) and (2) good understanding of French or English. At the time of their recruitment, participants with activity limitations were receiving services from a local community service center, geriatric day hospital or geriatric day center, the recruitment sites for the study. Participants without activity limitations were received from a previous study on normal aging. This study was approved by the Research Ethics Committees of the University Institute of Geriatrics of

Sherbrooke and the Eastern Townships Multivocational Institutions providing Home and Community Services (2004–2003) and all participants gave informed consent prior to their inclusion in the study.

#### Data collection procedures

All participants who were eligible, until the predetermined sample size (n = 156) was reached, signed an informed consent form and were interviewed at their homes by one of the three occupational therapists specifically trained to administer the questionnaires. The interviews took approximately 90 min. In addition to the main variables (accomplishment level and satisfaction with social participation), questionnaires were used to collect data on QOL, personal factors, health and impairment (including disease categories and comorbidity), activity level and the environment.

#### Measurement instruments

Social participation (dependent variables)—Accomplishment level and satisfaction with social participation were estimated with the social roles items of the assessment of life habits (Life-H) 3.0 short version [34]. The social roles of the Life-H 3.0 are composed of 36 items divided into six domains of life (number of items): responsibilities (6), interpersonal relationships (7), community life (7), education (3), employment (7) including volunteering, and recreation (6). The "education" domain was not considered as it was relevant for only one of our participants. Two scores are reported: one for the accomplishment scale and one for the satisfaction scale of the questionnaire. The level of social participation score is based on how the participant reports accomplishment (difficulty with and assistance used to carry out the roles) and ranges from 0 (not accomplished) to 9 (accomplished without difficulty). The normal mean score is 8.3 (SD = 0.7) [35]. Satisfaction with accomplishment of social roles is rated on a 5-point Likert scale ranging from 1 (very dissatisfied) to 5 (very satisfied). The psychometric properties of the accomplishment scale, studied with older adults, are sound: high global intraclass correlation coefficients (ICC) for test-retest (0.76) and interrater (0.64) reliability for the social roles [36] and construct validity [12]. The satisfaction scale has also shown high test-retest reliability (ICC = 0.85) [18].

**Quality of life (first objective)**—The satisfaction with life scale [37] (SWLS) was used to estimate QOL. The SWLS includes five questions answered on a seven-level Likert scale. The maximum score is 35, and higher scores indicate greater satisfaction with life. Widely used with persons having activity limitations, the SWLS has sound psychometric properties [37].

**Potential correlates (independent variables)**—The usual data related to *personal factors* (see Tables 1, 2) were collected. In addition, time since onset of activity limitations, self-perceived stability of activity level and recent stressing event (yes vs. no; e.g., death of a spouse) were considered. *Health and impairment* variables were also collected. The International Classification of Diseases (ICD-10) [38] was used to identify the disease category that best represented the health condition of each participant. Comorbidity was measured with the charlson index [39], which includes 30 conditions rated on a four-level Likert scale. The general well-being schedule [40, 41] (GWBS) includes 18 items

addressing domains such as anxiety, depression, positive well-being, self-control, vitality, and general health. Fourteen items are answered on a six-level Likert scale and the other four on a visual analog scale graduated from 0 to 10. The maximum score is 110, and higher scores indicate a high level of well-being. The questionnaire presents sound psychometric properties [41]. Finally, health was also self-reported by the participants.

Activity level was estimated with the SMAF, which is widely used in gerontology [42]. This tool includes 29 items covering five domains (number of items): activities of daily living (7), mobility (6), communication (3), mental functions (5), and instrumental activities of daily living (8). Each function is scored on a 5-point scale: 0 (independent), 0.5 (with difficulty), 1 (needs supervision), 2 (needs help), 3 (dependent). The total score used in subsequent analyses represents the sum of the items and ranges from 0 to 87. The psychometric properties of the SMAF are sound [43].

Finally, the measure of the quality of the environment (MQE) version 2.0 [44] was used to document the self-perceived *physical and social environment*. The MQE comprises 109 items divided into six domains (see Table 2), which cover most aspects of the environment. The person's perception is rated on a 7-point Likert scale ranging from -3 (major obstacle) to 3 (major facilitator), allowing weighting of the items according to whether each environmental item is perceived as a facilitator or an obstacle in the accomplishment of daily activities and social roles. A score of 0 represents items or domains that are perceived as neither obstacle nor facilitator. Twelve continuous scores, six "obstacle" scores and six "facilitator" scores, are calculated by summing the weighted items for each domain.

#### Statistical analysis

Dependent and independent variables were first described. Chi square and *t* tests compared the sociodemographic characteristics of the participants with those who refused to participate. Pearson's correlation coefficients were used to verify the relationships between the SWLS and both scales of the Life-H. Olkin's test for the equality of correlation coefficients was used to explore whether the SWLS was more associated with satisfaction with social participation than with accomplishment level of social participation (objective 1).

The following tests were used to identify potential correlates of accomplishment level and satisfaction with social participation (objective 2): Pearson's correlation coefficients for the continuous independent variables, and *t* test (dichotomized) or one-way ANOVA (3 or more) for the categorical independent variables. A sample size greater than or equal to 123 allowed detection of correlations superior or equal to 0.25, based on an alpha significance level of 5% and power of 80% [45]. Independent variables whose bivariate test results had a *P* value lower than 0.05 were retained for *stepwise* multiple regression analysis. Four blocks of variables were created: (1) personal factors, (2) health and impairment, (3) activity level, and (4) environment. For each block separately, the first multiple regression analysis identified (1) how much the variables explained both accomplishment level and satisfaction with social participation and (2) which variables to enter into a second multiple regression analysis. For both accomplishment level and satisfaction with social participation, the variables retained in each block were then entered, in the above order, into a *blockwise* multiple regression analysis. The assumption of normality of the dependent variables was visually verified with

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histograms and statistically with the Wilk-Shapiro test. No colinearity problem between the variables was observed, and a residual analysis was performed to verify the regression assumptions.

# Results

A total of 198 people were contacted in order to reach the predetermined sample size. Those who refused to participate (n = 42) were older (P = 0.01), and had less schooling (P = 0.02) and a lower income (P < 0.01) than those who agreed. The sociodemographic and clinical characteristics of the participants are presented in Tables 1 (categorical variables) and 2 (continuous variables). Data are based on a sample size of 155 since one participant was excluded during the analysis because of a highly deviant score on the GWBS. The Life-H accomplishment level of participation score of 6.9 indicates that social roles are generally accomplished with difficulty but without help (Table 2). The MQE scores indicate that the environment is generally perceived as being more of a facilitator than an obstacle. Finally, activity level scores vary between 0 and 45, with the mean indicating slight to moderate activity limitations [46, 47].

For the first objective, no difference was found between the associations of the SWLS with accomplishment level and satisfaction with social participation (Olkin's test: P = 0.71). Further analysis of our data showed that when doing stepwise multiple regression analysis to explain QOL in relation to accomplishment level and satisfaction with social participation, accomplishment level of social participation was not significant (P = 0.08) if satisfaction with social participation with social participation was considered (P = 0.02).

For the second objective, potential correlates were identified among independent variables that were, respectively, associated with accomplishment level and satisfaction with social participation (Tables 1, 2). Each block separately explained between 16 and 63% of the variance in the accomplishment level of social participation (Table 3). Higher social participation accomplishment level was best explained by younger age, level of activity perceived as stable, no recent stressing event, better well-being, higher activity level, and fewer obstacles in "Physical environment and accessibility" ( $R^2 = 0.79$ ; P < 0.001; Table 4). Except for environmental factors, each block explained less of the variance (19–39%) in satisfaction with social participation (Table 5) than in the accomplishment level of social participation. Greater satisfaction with social participation was best explained by level of activity perceived as stable, better self-perceived health, better well-being, higher activity level, and more facilitators in "Social support and attitudes" ( $R^2 = 0.51$ ; P < 0.001; Table 6).

# Discussion

The study aimed to (1) explore whether QOL is more associated with satisfaction with social participation than with accomplishment level of social participation and (2) examine respective correlates of accomplishment level and satisfaction with social participation, among older adults having various levels of activity limitations. The results show that correlations between QOL and accomplishment level and satisfaction with social participation did not differ. However, best correlates of accomplishment level and

satisfaction with social participation did differ according to personal factors, health and impairment, and environmental factors.

# Associations between quality of life and accomplishment level and satisfaction with social participation

This study shows no difference between associations of QOL with accomplishment level and satisfaction with social participation. However, Brown et al. [14] maintained that QOL is associated with satisfaction with social participation (subjective) but not with accomplishment level of social participation (objective). They operationalized objective participation by frequency or duration of engagement, which might explain the different results. Contrary to previous studies [14, 15, 18, 19], we found a moderate correlation (r= 0.72; P< 0.001) between accomplishment level and satisfaction with social participation. This moderate correlation might explain the lack of differences between associations of QOL with accomplishment level and satisfaction with social participation. Accomplishment level of social participation as measured by the Life-H is not completely objective as participants report their difficulty in accomplishing social roles, which is different from a societal or normative evaluation.

Nevertheless, satisfaction with participation in social roles was previously found to best predict QOL [17, 22]. Considering both accomplishment level and satisfaction with social participation, these studies did not find that accomplishment level of participation in social roles best predicts QOL when considering satisfaction with social participation. However, when satisfaction with participation was not considered in their analysis, Levasseur et al. [17] found that participation in social roles became one of the best predictors of QOL. The importance of accomplishment in roles is also supported by other studies [48–52]. Social roles, which include activities that are performed primarily for their own sake (e.g., leisure, social relationships, etc.) and cannot, therefore, be delegated to a third party without losing the benefit, are highly valued by older adults and provide fulfillment [21]. The link between QOL and accomplishment level of participation has been previously supported [51, 53–55], but these studies did not consider satisfaction with participation. Bubolz et al. [56] did, however, consider satisfaction with participation and found that satisfaction with accomplishment is the strongest correlate (r = 0.55; P < 0.001) and alone explains 31% of QOL.

#### Best correlates of accomplishment level and satisfaction with social participation

Stability of activity level, well-being, and activity level contributed to explaining both accomplishment level and satisfaction with social participation. To our knowledge, stability of activity level has rarely been considered in previous studies, although it might be a prerequisite to engagement in social participation and a feeling of satisfaction with social participation. Activity level has been found to be one of the most powerful correlates or predictors of level of social participation [13, 28, 57–62] and, although less studied, of satisfaction with social participation [13]. The ability of an individual to perform a task or action clearly partially explained his/her ability to participate in social roles, which are more complex and often require prior completion of daily activities (e.g., dressing, bathing, eating, etc.). Furthermore, but to a lesser extent, this ability also explained satisfaction with social

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participation as the person having activity limitations might also experience decreased satisfaction with social participation. It was expected that participants having higher wellbeing also experienced greater satisfaction with social participation (although we do not know which one influences the other). The fact that satisfaction with participation and wellbeing are both introspective concepts might partly explain their association. Nevertheless, it is interesting to note that well-being also explained the accomplishment level of social participation. Lower accomplishment level of social participation has previously been demonstrated to be associated with depression [27, 63–65]. Finally, the association between accomplishment level and satisfaction with social participation might also explain why stability of activity level, well-being, and activity level contributed to explaining both dependent variables.

With the exception of environmental factors, each block explained less of the variance in satisfaction with social participation than accomplishment level of social participation. The explanation for this smaller total variance in satisfaction with social participation might also be due to (1) smaller variation in the satisfaction with social participation scores and (2) lack of consideration of coping and other psychological variables. It is worth noting that objective health and impairment variables such as comorbidity and ICD-10 were specifically associated with accomplishment level of social participation.

Accomplishment level and satisfaction with social participation also had differing best correlates. In agreement with many studies [2, 23-30], younger age and the absence of recent stressing events contributed to best explain a higher accomplishment level of social participation, while better self-perceived health best explained greater satisfaction with social participation. Stressing events can impede social participation. Self-perceived health and satisfaction with participation are both subjective concepts, which might partly explain their association. Moreover, perceived obstacles in "Physical environment and accessibility" added to the explanation of the accomplishment level of social participation, while the facilitator "Social support and attitudes" explained satisfaction with social participation. The literature contains several studies [28, 58, 66–68] that supported associations between the environment and social participation. Rochette et al. [28] found that fewer perceived obstacles in the environment, together with younger age and a lower level of impairments and activity limitations, explained a higher accomplishment level of participation ( $R^2$  = 58.9%). Many people with activity limitations feel isolated and oppressed by facets of the built environment [50] and reported more barriers [53]. Greater home mobility barriers have been associated with lower social and home participation, while greater community mobility barriers and more social support were associated with greater participation [66]. An adaptive environment is an important feature for people with activity limitations. Richard et al. [67] also showed that more frequent walking episodes, higher vitality and general health, greater perceived accessibility to key resources and younger age were associated with greater social participation even when marital status and education were controlled ( $R^2 = 0.28$ ). Finally, support from the social network has been found to be very important for older adults [69, 70].

#### **Clinical implications**

The results of this study suggest approaches to take in clinical interventions. First, wellbeing and activity level of individuals must be considered in interventions aimed at maintaining or improving accomplishment level and satisfaction with social participation. Second, improving accomplishment level of social participation might be specifically achieved by reducing obstacles in "Physical environment and accessibility". Increasing facilitators of "Social support and attitudes" might improve satisfaction with social participation. These factors may be positively modified and thus warrant special attention in rehabilitation interventions. Other studies are needed to confirm these findings and the suggested intervention strategies.

#### Study limitations and strengths

This exploratory study was carried out with a convenience sample of people having good cognitive function, some of whom were receiving health or community services that may positively influence their QOL and social participation, and might not be fully representative of older adults living in the community. The study was cross-sectional, and the sample size was not sufficient (n = 155) to detect correlations smaller than 0.25 for a *P* value of 0.05 and power of 80% [45] or evaluate the stability of our models. Finally, some items of the measurement tools were similar and might partly explain some relationships, especially for social participation and the environment.

Nevertheless, this study is a first step in understanding the variables that explain accomplishment level and satisfaction with social participation in older adults having various levels of activity limitations. The strengths of the study are the simultaneous consideration of both accomplishment level and satisfaction with social participation, the underlying conceptualization of social participation, the consideration of important modifiable variables targeted by health interventions, and the rigorous methodology including validated tools.

#### Conclusions

The results of this study do not support the contention that QOL is more associated with "satisfaction with social participation" than with "accomplishment level of participation in social roles". However, best correlates of accomplishment level and satisfaction with social participation did differ, which supports the position that these are different concepts. Higher social participation accomplishment level was best explained by younger age, level of activity perceived as stable, no recent stressing event, better well-being, higher activity level, and fewer obstacles in "Physical environment and accessibility". Greater satisfaction with social participation was best explained by level of activity perceived as stable, better self-perceived health, better well-being, higher activity level, and more facilitators in "Social support and attitudes". Clinical interventions and future studies must continue to include both accomplishment level and satisfaction with social participation. Finally, future research should also include psychological characteristics such as coping to better explain satisfaction with social participation.

# Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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# Abbreviations

Social participation
International Classification of Functioning, Disability and Health
Quality of life index
Assessment of life habits
Satisfaction with life scale
International Classification of Diseases
General well-being schedule
Functional autonomy measurement system
Measure of the quality of the environment
Quality of life

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#### Table 1

Categorical variables and their correlation with accomplishment level and satisfaction with social participation (n = 155)

Independent categorical variables	Frequency (%)	Correlation with accomplishment level of participation in social roles	Correlation with satisfaction with participation in social roles
Personal factors			
Gender (women)	93 (60.0)	0.14 <sup>a</sup>	0.35
Self-perceived stability of activity level (Yes)	132 (85.2)	< 0.001	< 0.001
Time since onset of activity limitations (years):		< 0.001 <sup>b</sup>	
0	63 (40.6)		
1–5	45 (29.0)		
>5	47 (30.3)		
Education (years):		0.01	0.12
1–6	32 (20.6)		
7–11	73 (47.1)		
12–14	35 (22.6)		
> 15	15 (9.7)		
Residential status:		< 0.001	< 0.01
Owner	69 (44.5)		
Tenant	63 (40.6)		
Other	23 (14.8)		
Income (Can \$):		0.05	0.32
< 15,000	51 (32.9)		
15,001–25,000	35 (22.6)		
> 25,001	52 (33.5)		
Missing data	17 (11.0)		
Health and impairment			
Classification of diseases (ICD-10):		< 0.001	< 0.01
Diseases of the nervous system	28 (18.1)		
Diseases of the circulatory system	50 (32.3)		
Injury, poisoning and certain other consequences of external causes (including hip fracture)	22 (14.2)		
Diseases of the musculoskeletal system and connective tissue	27 (17.4)		
Other	28 (18.1)		
Self-perceived health:		< 0.001	< 0.001
Excellent	38 (24.5)		
Good	62 (40.0)		
Fair	44 (28.4)		
Poor	11 (7.1)		
Recent stressing event (No)	93 (60.0)	< 0.001 <sup>a</sup>	< 0.001

ICD-10 International Classification of Diseases

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Significant results are in *italic* 

<sup>a</sup> p value of the t tests for independent samples

*b* p value of the one-way ANOVA

Continuous variables and their correlation with accomplishment level and satisfaction with social participation (n = 155)

Continuous variables	Mean (SD)	Correlation with accomplishment level of participation in social	Correlation with satisfaction with participation in social
		roles <sup>a</sup>	roles <sup>a</sup>
Quality of life			
Satisfaction with life (SWLS;/35)	25.4 (6.5)	0.38 (<0.001)	0.40 (<0.001)
Dependent variables			
Social participation (Life-H Social Roles)			
Accomplishment level of participation (/9)	6.9 (1.8)	-	0.72 (< 0.001)
Satisfaction with participation (/5)	4.0 (0.5)	0.72 (< 0.001)	-
Independent variables			
Personal factor			
Age (years)	73.7 (8.0)	-0.39 (<0.001)	-0.25 (<0.01)
Health and impairment			
Comorbidity (#)	1.9 (2.0)	-0.48 (<0.001)	-0.37 (<0.001)
Well-being (GWBS;/110)	75.0 (17.0)	0.65 (<0.001)	0.60 (<0.001)
Activity level			
SMAF (/87)	13.4 (12.6)	0.80 (< 0.001)	0.52 (< 0.001)
Environmental factors (MQE; # weighted)			
Facilitators			
Social support and attitudes	20.1 (7.2)	0.08 (0.35)	0.29 (<0.001)
Income, labor and income security	12.0 (4.2)	0.10 (0.24)	0.15 (0.06)
Government and public services	26.0 (6.3)	0.10 (0.22)	0.19 (0.02)
Physical environment and accessibility	25.6 (12.2)	0.13 (0.11)	0.25 (<0.01)
Technology	27.4 (6.8)	0.05 (0.58)	0.14 (0.09)
Equal opportunities and political orientations	8.8 (5.5)	0.10 (0.20)	0.17 (0.04)
Obstacles			
Social support and attitudes	-1.2 (2.9)	0.20 (0.01)	0.30 (<0.001)
Income, labor and income security	-0.5 (1.4)	.11 (0.18)	0.15 (0.06)
Government and public services	-0.8 (1.9)	0.18 (0.02)	0.14 (0.09)
Rhysical environment and accessibility	-13.5 (8.9)	0.40 (<0.001)	0.32 (<0.001)
Technology	-3.4 (2.8)	0.24 (<0.01)	0.10 (0.24)
Equal opportunities and political orientations	-1.5 (2.0)	0.13 (0.10)	0.09 (0.27)

SWLS Satisfaction With Life Scale

Life-HAssessment of Life Habits

GWBS General Well-Being Schedule

SMAFFunctional Autonomy Measurement System

MQE Measure of the Quality of the Environment

Significant results are in *italic* 

<sup>*a*</sup>Pearson's correlation coefficients (p value)

Summary of the multiple regression analysis procedure (stepwise strategy) aimed at exploring, for each block separately, the best correlates of accomplishment level of social participation (n = 155)

	<b>R</b> <sup>2</sup>	P value
Life-H accomplishment level of participation in social roles score		
Personal factors	0.52	< 0.001
Time since onset of activity limitations (-)		
Self-perceived stability of activity level (Yes)		
Age (-)		
Health and impairment	0.52	< 0.001
Well-being (GWBS; +)		
Comorbidity (-)		
Self-perceived health (+)		
Recent stressing event (No)		
Classification of diseases (ICD-10; +)		
Activity level	0.63	< 0.001
Activity (SMAF; +)		
Environmental factors	0.16	< 0.001
Obstacles of physical environment and accessibility (MQE; -)		
Life-H Assessment of Life Habits		
GWBS General Well-Being Schedule		
ICD-10 International Classification of Diseases		
SMAF Functional Autonomy Measurement System		
MQE Measure of the Quality of the Environment		

Summary of the multiple regression analysis procedure (blockwise strategy) aimed at exploring the best correlates of accomplishment level of social participation (n = 155)

	Regression coefficients	P value	Cumulative <i>R</i> <sup>2</sup>
Life-H accomplishment level of participation in social roles score			
Best model			
Intercept	9.7	< 0.001	-
Personal factors			
Age (-)	-0.03	< 0.001	0.52
Self-perceived stability of activity level (Yes)	-0.8	0.001	
Health and impairment			
Recent stressing event (No)	0.6	< 0.001	0.64
Well-being (GWBS; +)	0.02	0.01	
Activity level			
Activity (SMAF; +)	0.08	< 0.001	0.78
Environmental factors			
Obstacles of physical environment and accessibility (MQE; -)	0.02	0.047	0.79

Life-H Assessment of Life Habits

GWBS General Well-Being Schedule

SMAFFunctional Autonomy Measurement System

MQE Measure of the Quality of the Environment

Summary of the multiple regression analysis procedure (stepwise strategy) aimed at exploring, for each block separately, the best correlates of satisfaction with social participation (n = 155)

	$\mathbb{R}^2$	P value
Life-H satisfaction with participation in social roles score		
Personal factors	0.26	< 0.001
Time since onset of activity limitations (-)		
Stability of self-perceived capacities (Yes)		
Age (-)		
Health and impairment	0.39	< 0.001
Well-being (GWBS; +)		
Self-perceived health (+)		
Activity level	0.27	< 0.001
Activity (SMAF; +)		
Environmental factors	0.19	< 0.001
Obstacles of physical environment and accessibility (MQE; -)		
Facilitator of social support and attitudes (MQE; +)		
Life-H Assessment of Life Habits		
GWBS General Well-Being Schedule		
SMAFFunctional Autonomy Measurement System		

MQE Measure of the Quality of the Environment

Summary of the multiple regression analysis procedure (blockwise strategy) aimed at exploring the best correlates of satisfaction with social participation (n = 155)

	Regression coefficients	P value	Cumulative R <sup>2</sup>
Life-H satisfaction with participation in social roles sco	re		
Best model			
Intercept	4.1	0.04	-
Personal factors			0.26
Self-perceived stability of activity level (+)	-0.2	< 0.001	
Health and impairment			0.42
Self-perceived health (+)	-0.1	0.02	
Well-being (GWBS; +)	0.01	0.01	
Activity level			0.45
Activity (SMAF; +)	0.01	0.001	
Environmental factors			0.51
Facilitator of social support and attitudes (MQE; +)	0.02	< 0.001	

Life-HAssessment of Life Habits

GWBS General Well-Being Schedule

SMAFFunctional Autonomy Measurement System

MQE Measure of the Quality of the Environment