

Social activities, loneliness and life satisfaction in old age: a time use study.

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Background

The concept of actively ageing is strictly related to the notion of dealing with time: finding a new role in society means to replace structured time use routines with new ones, giving old people the chance to establish and discover a renewed meaning of life.

Time allocation among different activities changes with age (for example, after retirement, the time previously devoted to work has to be reallocated in a series of – passive or active – activities). The way time is allocated, mainly driven by personal wants, attitudes, and needs, but also shaped and limited by age-related issues (poor health, solitude, economic hardship), is likely to influence individual well-being. Each activity has a different personal and social utility level, and older people are expected to spend their time in those activities they evaluate as the most rewarding and meaningful for their role development.

Research has shown that being active is an important determinant of LS. In particular, activity theory of ageing emphasizes the link between an active lifestyle and wellbeing in older age (Adams et al., 2011). Participation in activities should provide, indeed, opportunities for maintaining a positive self-concept in older ages, and activities connected with physical activity may have a benefit on LS connected with the benefit they have in health and physical functioning.

Moreover, not only the level of activity is important, but also its social dimension. Research has, indeed, stressed the importance of social relationships for LS (Cheng & Chan, 2006). Rowe and Hahn themselves in their definition of successful ageing (Rowe & Kahn, 1997) posed social engagement as one of its major elements. Thus, both the time spent on activity and the social dimension of the activity should be considered. Remaining/getting involved in (voluntary and leisure) activities and encouraging different types of social interactions, thus fostering ongoing stimulation, socialization, connectivity, and sense of belonging is essential for the wellbeing and LF of old people.

Several researches have studied the relation between active ageing and wellbeing, but there is an evident and already criticized lack of a common classification of activities to be taken into account in order to test the validity of the activity theory of ageing. Most of those studies use different criteria for classifying activities, based on their level of physical, intellectual, social demand and engagement, on their formality/informality level, on the motivation for the activity.

Aim of the study

Even if the benefits of social activities in later life are recognized and confirmed to be associated with higher levels of wellbeing, yet it is unclear whether different types of activity are equally important for the wellbeing of older adults, or for all groups of older adults. We aim at filling this gap, by using data from time use diaries, allowing us to have information on how old people spend their daily time, allocating it among several, highly detailed, activities.

We start from the hypothesis that, beyond social activities (affecting wellbeing by guarantying social connectedness, socio-emotional support, role recognition, sense of belonging), other kinds of activities are likely to influence LS. Productive activities (and the social roles inherently tied to most of them), for example, may influence wellbeing as they are likely to generate satisfaction with the outcomes reached, economic gains, mental stimulation, sense of purpose and usefulness, self-efficacy or self-esteem (Wahrendorf et al. 2008). Recreational or leisure activities may affect wellbeing through their intellectual or physical demands, through satisfaction in sharing interests with other people.

We thus want to understand if and to what extent involvement in different types of activities – measured through time (in minutes) devoted to each activity, in a sample day – is associated with different levels of LS. Specifically, we take into account, beyond social activities, productive activities (split in paid work, housework, and others' care activities), and leisure activities, distinguishing between passive leisure (including resting, reading, watching tv) and active leisure (further split in sport, hobbies, transports, and cultural activities).

Our hypothesis is that, such activities can imply/require different levels of social engagement, in terms of interpersonal intimacy or intensity, and that such a degree of social connectedness is likely to be important for influencing subjective well-being.

Beyond giving the chance to focus on an exhaustive set of daily activities, time use diaries supply information allowing to understand whether the individual is alone or with other people when carrying out each daily activity. In this way it is possible not only to take into account the intrinsic level of social connectedness characterizing each activity, but also to test if the effective level of isolation/integration old people experience when performing activities is associated with lower/higher levels of LS.

In addition, the current study considers also whether there are differences in the associations between life satisfaction and the time spent in various activities and the time spent not alone by living arrangements of individuals: we may expect that, being active, and, in particular, being active in social activities and spending time not alone may have a more relevant role in determining LS, especially when the older adult is in a condition of social frailty, such as that defined by living alone. Older persons living alone have, indeed, specific characteristics and needs, and, even if they are not necessarily socially isolated, their condition places them in a potential vulnerable position.

Lastly, we can expect that also the potential gender differences in the predictors of LS vary by living arrangements. The higher sensitivity of women than men to social relations may, indeed, disappear in the context of older adults living alone, when men do not or no longer have a spouse to take care of the social aspects of life. For example, Gaymu and Springer (2010) found that family network is of importance for men living alone and this may be due to the fact that they have to invest into the familial sphere, traditionally reserved for women.

Data and methods

We use data from the 2015-2016 Italian Time Use Survey (ISTAT). We select a subsample of 12,247 individuals, aged 60 years and over.

By following activity theory principles we define activity as any patterned action or pursuit which goes beyond physical or personal maintenance routine.

To this end, we take into account the time old people spend (in minutes) in different activities, by classifying them in:

- Basic/Personal need (split in sleeping, personal care activities)
- Productive Activities (split in paid work, housework, others' care activities)
- Social activities (including volunteering)
- Active Leisure (split in sport, hobbies, cultural activities, transports, eating)
- Passive Leisure (including watching TV, resting, reading, listening to music).

Beyond understanding which activity is linked to higher/lower levers of wellbeing, we want to know if performing those activities alone or with other people is significantly associated to LS level. To this end we focus on the proportion of time spent with other people while performing both social and leisure activities, with the hypothesis that impairment in social interactions and isolation are important sources of dissatisfaction in old age, while supportive social relationships and intimacy may increase emotional strength and LS.

We measure subjective wellbeing by focusing on self-reported LS (10 point Likert scale) and use ordinary least squares (OLS) regression models to study the effects of the predicting variables of interest (time use at older age) on LS, by controlling for a series of individual variables.

Control variables include sex (male, female), age (60-75, more than 75 years old), geographical area of residence (North, Centre, South), education (high, medium, low), living arrangement (alone, in couple, not in couple with other people, in couple with other people).

We moreover include in the model other variables informing on the social network setting of old people in the sample, and on their general level of social isolation/inclusion. We aim at testing if, beyond the daily involvement in different (more or less) engaging (from a social point of view) activities, having a well-rooted social network to count on in case of need, or to share leisure moments with, is associated with LS levels.

As said before, our main variables of interest is the time old people spend in different activities. It is originally measured in term of minutes dedicated to each activity in a day. In the model we use the log-transformation of durations, in order to reduce the skewness of some activities' duration.

In order to test the hypothesis at the base of this paper, we run different OLS models:

- A model, run on the whole sample, including the different type of activities, for understanding which of the them are significantly correlated with LS;

- In a second model, we add information on the proportion of daily (social and leisure) activities old people perform being not alone, in order to understand if, beyond the type of activities, their social dimension is significantly associated with LS.
- We then split the sample by sex and living arrangement, and run four different models, for understanding if the relation between time spent in different activities and LS at older ages is different among man living alone, male living not alone, female living alone, and female living not alone.

Results

Preliminary results show that being active (specifically, carrying out leisure activities) is important for LS in old age, and that the type of activities significantly associated with LS differs by gender and living arrangement.

Our hypothesis has been confirmed: even when we control for those variables generally used for measuring the elderlies' social connectedness, spending time in social activities resulted to be associated with LS, regardless the sex. At the same time, interestingly, the proportion of daily activities spent with other people is relevant only for older men and women, not living alone.

Table 1. OLS regression results: LS by sex and living arrangements.

		(1)	(2)	(3)	(4)
Variables		Male Not alone	Male Alone	Female Not alone	Female Alone
		b/se	b/se	b/se	b/se
Time (minutes a day) spent in:	Personal Care	0.000	-0.002	-0.001	-0.000
		(0.00)	(0.00)	(0.00)	(0.00)
	Eating	0.002***	0.003*	0.003***	0.004***
		(0.00)	(0.00)	(0.00)	(0.00)
	Housework	0.003***	0.001*	0.002***	0.003***
		(0.00)	(0.00)	(0.00)	(0.00)
	Others Care	0.001	0.002	-0.001	0.002
		(0.00)	(0.00)	(0.00)	(0.00)
	Social Activities	0.002***	0.003**	0.002***	0.003***
		(0.00)	(0.00)	(0.00)	(0.00)
	Cultural Activities	0.002	0.005	0.001	0.003
		(0.00)	(0.00)	(0.00)	(0.00)
	Passive Leisure	0.002***	0.000	0.001*	0.002***
		(0.00)	(0.00)	(0.00)	(0.00)
Hobby	0.003***	0.002**	0.003***	0.003***	
	(0.00)	(0.00)	(0.00)	(0.00)	
Paid Work	0.002***	0.001*	0.001**	0.002**	
	(0.00)	(0.00)	(0.00)	(0.00)	
Transports	0.003***	0.000	0.003***	0.005***	
	(0.00)	(0.00)	(0.00)	(0.00)	
Sport	0.003***	0.002	0.003***	0.004***	
	(0.00)	(0.00)	(0.00)	(0.00)	
Percentage of day time spent not alone	More than 75%	0.305**	0.330	0.202*	-0.067
		(0.11)	(0.28)	(0.12)	(0.16)
Help availability, in case of need, from:	Parents	0.031	-0.018	0.222	0.191
		(0.17)	(0.47)	(0.20)	(0.40)
	Children	0.301***	0.056	0.159**	0.222*
		(0.05)	(0.16)	(0.06)	(0.09)
	Siblings	0.194***	-0.027	0.073	0.035
	(0.06)	(0.16)	(0.06)	(0.11)	
	Grandchildren	0.096	0.021	0.102	0.134

		(0.08)	(0.18)	(0.08)	(0.09)
	Relatives	0.043	0.074	0.199*	0.005
		(0.08)	(0.21)	(0.09)	(0.13)
	Friends	0.117	-0.106	0.133	-0.021
		(0.07)	(0.17)	(0.08)	(0.11)
	Neighbours	-0.032	0.404	-0.004	0.049
		(0.09)	(0.21)	(0.09)	(0.11)
	Everyday	0.134	-0.030	0.200*	0.033
		(0.08)	(0.18)	(0.10)	(0.13)
	Once a week	-0.041	0.052	-0.023	-0.090
		(0.08)	(0.21)	(0.08)	(0.13)
	Less than 4 times a month	-0.205**	-0.176	-0.122	-0.146
		(0.08)	(0.22)	(0.08)	(0.13)
	Sometimes in a year	-0.346***	-0.522*	-0.311***	-0.288*
		(0.09)	(0.26)	(0.09)	(0.14)
	Never	-0.774***	-0.542*	-0.623***	-0.717***
		(0.11)	(0.28)	(0.10)	(0.14)
	Do not have friends	-0.880***	-0.228	-0.689***	-0.650**
		(0.18)	(0.38)	(0.16)	(0.20)
Availability of:	Domestic Help	0.078	0.298	0.013	-0.131
		(0.10)	(0.19)	(0.10)	(0.12)
	Elderly Help	-0.737***	-0.954**	-0.655***	-0.297*
		(0.15)	(0.30)	(0.13)	(0.15)
Age (Ref. More than 75 years)	60-75 Years Old	0.045	-0.008	0.038	-0.400***
		(0.06)	(0.16)	(0.07)	(0.10)
Education (Ref. Medium Education)	High Education	0.219*	-0.090	0.337**	0.420*
		(0.09)	(0.22)	(0.11)	(0.18)
	Low education	-0.086	-0.207	-0.105	-0.121
		(0.06)	(0.15)	(0.06)	(0.10)
Living Arrangement Not Alone (Ref. In couple)	In couple + Others	0.024		-0.091	
		(0.06)		(0.07)	
	Single + Others	-0.591**		-0.301	
		(0.18)		(0.16)	
	Divorced + Others	-0.290		-0.504**	
		(0.20)		(0.17)	
	Widowed + Others	-0.366**		-0.238**	
		(0.14)		(0.08)	
	Center	-0.315***	-0.409*	-0.340***	-0.198
		(0.07)	(0.18)	(0.07)	(0.11)
	South	-0.361***	-0.495***	-0.313***	-0.175
		(0.06)	(0.15)	(0.06)	(0.09)
Living Arrangement Alone (Ref. Single)	Widowed		-0.307		-0.208
			(0.20)		(0.18)
	Divorced		-0.287		-0.259
			(0.20)		(0.14)
	Constant	5.012***	5.944***	5.527***	4.737***
		(0.25)	(0.61)	(0.26)	(0.35)
	r2	0.120	0.125	0.126	0.126

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$