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Daily life activities as mediators of the relationship between personality variables and subjective well-being among older adults

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ABSTRACT

The purpose of the present study was to examine the mediational role of participation in daily life activities on the relationship between personality variables, such as self-esteem and optimism, and subjective well-being in Spanish older adults. Two hundred and fifty people (150 retirees and 100 workers) from late adulthood to old age were interviewed to complete the Rosenberg Scale, the Optimism Scale, the Positive and Negative Affect Scale, the satisfaction with life scale and their frequency of participation in daily life activities (social activities, mass communication use, building knowledge, home activities and hobbies, creative activities, activities outside home, community service activities and games). Results from mediational analyses revealed that social activities partially mediated the relationship between personality variables – self-esteem and optimism – and subjective well-being. Implications of these findings for future research on subjective well-being and the role of participation in daily life activities in old age are discussed.

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1. Introduction

Growing evidence has demonstrated that engaging in leisure activities is associated with positive outcomes in later life. For example, daily participation in activities has been associated to reduced mortality risk, reduced risk of cognitive impairment, and improved physical health (Dawson, Winocur, & Moscovitch, 1999; Silverstein & Parker, 2002). Similarly, life task participation have also been linked to better indicators of psychological adjustment such as greater life satisfaction and positive affect, lower levels of stress and lower scores in depressive symptoms (Park, 2009; Zimmer, Hickey, & Searle, 1995).

According to models of successful psychosocial aging, life satisfaction and well-being are major determinants of successful aging (Lupien & Wan, 2004). Subjective well-being has been defined as an individual's evaluation of his/her life as a whole (Diener, 1984). It is often regarded as consisting of three partially separate components: life satisfaction (a cognitive component), positive affect and negative affect (affective components). According to Suldo and Huebner (2006), individuals who report high levels of life satisfaction and more positive than negative affect, have high levels of subjective well-being.

It has generally been found that personality dispositions are strongly associated with subjective well-being even more than

other factors. According to Diener, Suh, Lucas, and Smith (1999) personality factors account for a large portion of the variance in individual differences in happiness – as much as 40–50% – and appear to be critical to well-being. Along with extraversion and neuroticism, a substantial body of research has demonstrated that personality variables are significantly related to subjective well-being and happiness (Lucas, Diener, & Suh, 1996). In this sense, both optimism (expectations of success) and self-esteem (generalized feelings of self-acceptance) have typically been shown to be two strong predictors of well-being (Diener & Diener, 1995; Scheier, Carver, & Bridges, 2001).

Scheier et al. (2001) defined optimism as a dispositional tendency of an individual to hold generalized positive expectancies even when people confront adversity or difficulty in their lives. In contrast, those with a pessimistic life orientation have negative outcome expectations, withdraw effort and become passive, and potentially give up on achieving their goals (Scheier & Carver, 1985). Dispositional optimism–pessimism has been shown to be a relatively stable disposition across time (Scheier, Carver, & Bridges, 1994) and in different contexts (Park & Folkman, 1997). There is growing evidence showing that dispositional optimism and pessimism have contrasting effects on psychological and physical well-being (Scheier et al., 2001).

Self-esteem is described as generalized feelings of self-acceptance, goodness and self-respect (Rosenberg, 1965). Numerous evidences show that self-esteem is positively related to emotional functioning including several predictors of life satisfaction (Diener & Diener, 1995) and subjective happiness (Lyubomirsky,

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Tkach, & DiMatteo, 2006). In general, believing that the self is good and worthy provides a setting for effective personal functioning in young and older adults (Baumeister, Campbell, Krueger, & Vohs, 2003).

Several authors have underlined that, although relatively immutable intrapersonal, temperamental, and affective personality dimensions account for a large portion of happiness variance, there still exist up to 40% of the variance in individual differences in happiness that is not accounted for by circumstances and dispositions, suggesting that it may be linked to intentional strategies and behaviours (Lyubomirsky, Sheldon, & Schkade, 2005).

In our research, particular emphasis was placed on the importance to well-being of participation in daily life activities in older people. Harlow and Cantor (1996) suggested that daily life participation enhances well-being independently of social-structural variables that promote well-being in any context and at any time. The authors found that, from the eight activity clusters considered (social activities, mass communication use, building knowledge, home activities and hobbies, creative activities, activities outside home, community service activities and games), social participation, community service activity and mass communication use predicted life satisfaction in late adulthood. Similarly, Warr, Butcher, and Robertson (2004), replicating the finding of Harlow and Cantor (1996), found that Family and Social Behaviours activities were most significant predictors of well-being in British adults aged between 50 and 74 years.

Tkach and Lyubomirsky (2006) found in a sample of university students that mood-increasing strategies, in particular, mental control (inversely related), direct attempts, social affiliation, religion, partying, and active leisure were related to higher self-reported happiness. Besides, these strategies accounted for 52% of the variance in self-reported happiness and 16% over and above the variance accounted for by personality traits. Other studies have found that adults who practiced more exercise showed higher levels of self-esteem and optimism and suffer from less distress, depression, and anxiety (Kavussanu & McAuley, 1995; Liao, Hunter, & Weinman, 1995).

Therefore, the relation between personality and happiness seems not to be direct: happiness-enhancing strategies are inter-related with personality, such that personality predicts the use of certain happiness-increasing strategies, and both personality and happiness-strategies jointly predict happiness levels (Tkach & Lyubomirsky, 2006). These findings support the notion that whereas personality dispositions are related to subjective well-being, other variables more related to intentional activities may play an important role in the personality–well-being relationship. It is plausible that certain personality variables (such as self-esteem and optimism) might lead people to participate in more daily activities and this participation might account for, to some degree, their increased level of subjective well-being.

In fact, there are also some reasons to consider a mediation model in which self-esteem and optimism influences subjective well-being through daily activities (Tkach & Lyubomirsky, 2006). First, daily activities have been found to be associated to healthy personality variables such as self-esteem and optimism (Kavussanu & McAuley, 1995; Reitzes, Mutran, & Verrill, 1995). Second, daily activities have shown to be a significant predictor of subjective well-being in older people (Harlow & Cantor, 1996; Warr et al., 2004). So, these findings are according to the criterion necessary for daily activities to be considered a potential mediator (Baron & Kenny, 1986). Third, there is accumulative evidence to suggest that people with high optimism and self-esteem experience higher levels of subjective well-being (Diener & Diener, 1995; Scheier et al., 2001). Therefore, analyzing this hypothesis is important in understanding what leads older people to experience long-lasting subjective well-being while others not. Such knowledge is critical in

developing interventions and providing appropriate support throughout older ages to improve overall psychological outcomes.

Taking into account the above considerations, the purpose of the present study was twofold. First, we sought to examine the relations among self-esteem, optimism, daily life activities and subjective well-being. Secondly, consistent with the proposed mediation model, we examine the extent to which participation in activities might mediate the influence of personality variables on subjective well-being in older people.

2. Method

2.1. Participants and procedure

The sample consisted of 250 people selected from major old age associations and from a company in Málaga. They mainly come from a medium socio-economic level. One hundred were workers (50 women and 50 men) and 150 were retirees (100 women and 50 men). They participated voluntarily and anonymously in the study. The age range was 50–82 years (average age = 62.30, SD = 8.53).

2.2. Materials

The Positive and Negative Affect Scales, the Optimism Scale and the frequency of participation in daily life activities were translated from English into Spanish using the method of back-translation. The following scales were employed: self-esteem scale (Rosenberg, 1965). Subjects' self-esteem was assessed by 10 items on which they had to indicate the extent to which they accepted their own characteristics, they felt they possessed good qualities and to have achieved personal success or experienced failure. Participants provided their ratings by using a 4-point scale ranging from 1 (strongly disagree) to 4 (strongly agree). Sample items for this scale are: "I feel that I have a number of good qualities" and "I feel that I'm a person of worth, at least on an equal plane with others". Participants completed the Spanish version of the self-esteem scale (Baños & Guillén, 2000). Cronbach's alpha of the self-esteem scale in the present sample was .77.

2.3. Optimism Scale (Oláh, 2002)

Optimism, as a global expectancy of good outcomes, was measured by using a five item scale, which items were very similar to those included in the optimism subscale of the Life Orientation Test-Revised (LOT-R; Scheier et al., 1994) ("I am convinced that most of the things that happen around me are positive in the long run"; "Even when I find myself in a difficult situation, I am convinced everything will turn out well in the end"; "Thoughts about my future give me good feelings"; "I am a person that has a very positive view toward life"; "People describe me as a very optimistic person"). Each item is answered on a 4-point scale ranging from 1 (does not apply at all) to 4 (applies completely). In a data analysis carried out in late 2004 correlations of .73/-.42 were found between the Optimism Scale (Oláh, 2002) and the optimism/pessimism subscales of the Life Orientation Test-Revised, respectively. The scale showed adequate internal consistency reliability in older people (Daukantaite & Bergman, 2005). Cronbach's alpha of the Optimism Scale in the present sample was .60.

2.4. Well-being

To assess subjective well-being we administered the Positive and Negative Affect Scales (Mroczek & Kolarz, 1998). These scales were used to assess the frequency of positive and negative affect.

To assess negative affect, participants were asked how frequently in the last 30 days they felt (a) so sad nothing could cheer them up, (b) nervous, (c) restless or fidgety, (d) hopeless, (e) that everything was an effort, and (f) worthless. Similarly, to assess positive affect, participants were asked how frequently they felt (a) cheerful, (b) in good spirits, (c) extremely happy, (d) calm and peaceful, (e) satisfied, and (f) full of life. Respondents answered each of the 12 affect items by using a 5-point scale (from “all of the time” to “none of the time”). Cronbach’s alphas of the Positive and Negative Affect Scales in the present sample were .86 and .78, respectively. In addition, participants were administered the Spanish version (Atienza, Balaguer, & Garcia-Merita, 2003) of the satisfaction with life scale (SWLS, Diener, Emmons, Larsen, & Griffin, 1985). This scale comprises five self-referencing statements on perceived global life satisfaction such as “In most ways my life is close to my ideal”. Participants indicated their agreement with each item using a 7-point scale (1 = strongly disagree to 7 = strongly agree). Cronbach’s alpha of the SWLS in the present sample was .79. Diener (1994) has referred to positive affect, the inverse of negative affect, and life satisfaction as the primary components of subjective well-being, and there is precedent in previous studies to create a composite well-being index from these three components (e.g., Sheldon & Elliot, 1999; Sheldon & Kasser, 2001) which was used in this study.

2.5. Level of participation in 28 activities (adapted from Harlow and Cantor (1996))

Subjects indicated on a 7-point scale (1 = “never” to 7 = “everyday”), the extent to which they participated in 28 activities. The authors used a cluster analysis to reduce the 28 participation items to a more manageable but still domain-specific level of analysis. Then, they calculated Euclidean distances among the participation items across subjects and clustered items by using Ward’s method to minimize the variance within and to maximize the variance between clusters. Examination of the icicle plot and the fusion coefficients suggested that the activities fit reasonably well into eight clusters: (a) social activities (visiting and communicating with friends and family; entertaining; going to concerts, travel, etc.); (b) mass communication use (reading books, newspapers and magazines, watching educational television, watching entertainment television, etc.); (c) building knowledge (increasing knowledge or skill, etc.); (d) home activities and hobbies (home repair or maintenance and hobbies); (e) creative activities (playing or singing with a musical group; writing, painting, sculpture, etc.); (f) activities outside home (attending sporting events, playing competitive sports, etc.); (g) community service activities (community service helping friends or neighbours, community service with a group, etc.) and (h) games (solitary games and card or board games with others) (see Harlow and Cantor (1996), for more information).

3. Results

3.1. Descriptive analyses

Pearson correlations, means, and standard deviations of the different scales used are presented in Table 1. Regarding participation in activities, it was found that not all the eight groups of activities were related to well-being. In this sense, we only found that social activities, mass communication use, activities outside home and games correlated positively, from low to moderate, with well-being. With respect to the relationships between personality and daily life activities, it was found that self-esteem was significant and positively related to social activities, creative

activities and activities outside home, whereas optimism was positive and significantly correlated with social activities and games.

3.2. Test of mediation

A mediator model of the relation between personality variables (self-esteem and optimism) and subjective well-being is proposed according to Baron and Kenny (1986). The mediator model implies that participation in activities mediated the association between personality variables and subjective well-being. Preliminary analyses indicated that not all the eight groups of activities correlated either with personality variables or subjective well-being. Therefore, these activities did not meet the criteria for mediational analysis and were not included in regression analyses. Only social activities met the criteria for mediational analysis.

To determine whether social activities were a mediator, the following steps identified were completed: First, the predictor variable (self-esteem/optimism) must be related to the mediator variable (social activities). Second, the predictor variable must be related to the outcome variable (subjective well-being). Third, the mediator variable must be related to the outcome variable. Fourth, after controlling for the effects of the mediator on the outcome, the relation between the predictor and the outcome must be significantly decreased. To determine whether the reduction could be considered significant, the Sobel test was used (Sobel, 1982). We conducted a series of three regressions to test for a mediation effect of social activities on the relationship between self-esteem, on the one hand, and optimism, on the other, and subjective well-being. First, social activities were regressed on self-esteem ($\beta = .22, p < .001$), and on optimism ($\beta = .23, p < .001$). Second, the predictors, self-esteem and optimism, were regressed on subjective well-being ($\beta = .57, p < .001$, and $\beta = .64, p < .001$, respectively). Both, self-esteem (33%) and optimism (41%) contributed a significant amount of variance to subjective well-being. Third, subjective well-being was simultaneously regressed on both social activities ($\beta = .21, p < .001$) and self-esteem ($\beta = .53, p < .001$), on the one hand, and social activities ($\beta = .19, p < .001$) and optimism ($\beta = .60, p < .001$), on the other. Finally, the regression model contributed a significant amount of variance to subjective well-being (37% and 45%, respectively).

The mediational role of social activities on the relationship between self-esteem/optimism and subjective well-being are represented in Figs. 1 and 2, respectively. As shown in Fig. 1, the beta weight when self-esteem was regressed alone on subjective well-being was .57. When social activities were entered into the equation, the beta weight dropped from .57 to .53. Sobel test was significant ($z = 2.63, p < .01$) indicating that social activities only partially mediated the relationship between self-esteem and subjective well-being. As shown in Fig. 2, the beta weight when optimism was regressed alone on subjective well-being was .64. Again, there was a decrease in optimism influence on subjective well-being (the beta weight dropped from .64 to .60; Sobel’s statistic; $z = 2.77, p < .01$) after controlling for the influence of social activities. Hence, social activities were found to partially mediate the influence of optimism on subjective well-being.

4. Discussion

The primary aim of our study was to analyze the association between optimism, self-esteem, daily life activities and well-being in older people. Besides, we sought to determine whether daily life activities mediate the relationship between personality variables and well-being.

Table 1
Means, standard deviations and correlations between different measures.

	1	2	3	4	5	6	7	8	9	10	11
1. Subjective well-being	1										
2. Self-esteem	.57**	1									
3. Optimism	.64**	.57**	1								
4. Social activities	.32**	.22**	.23**	1							
5. Mass communication use	.17**	.02	.07	.28**	1						
6. Building knowledge	-.03	.11	-.02	.06	.03	1					
7. Home activities and hobbies	.08	.06	.05	.25**	.16*	.17**	1				
8. Creative activities	.09	.19**	.08	.11	.17**	.30**	.18**	1			
9. Activities outside home	.12*	.14*	.11	.27**	.20**	.23**	.17**	.20**	1		
10. Community service activities	-.01	-.05	.06	-.03	.07	.00	.08	.06	.18**	1	
11. Games	.14*	.08	.15*	.23**	.23**	-.07	.11	.16*	.14*	.00	1
M	69.61	33.95	15.02	24.83	23.75	3.29	22.06	3.58	13.54	3.66	4.34
SD	13.18	3.97	2.84	7.51	6.19	2.47	6.33	2.55	4.09	2.54	2.75

* $p < 0.05$.
** $p < 0.01$.

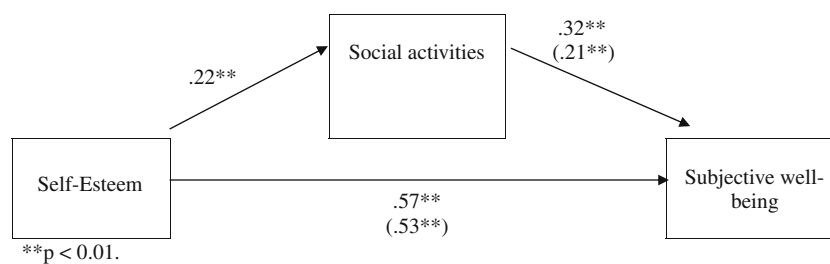


Fig. 1. Mediating role of social activities in the relationship between self-esteem and subjective well-being. Numbers outside parentheses refer to simple correlations. Numbers within parentheses refer to standardized path coefficients.

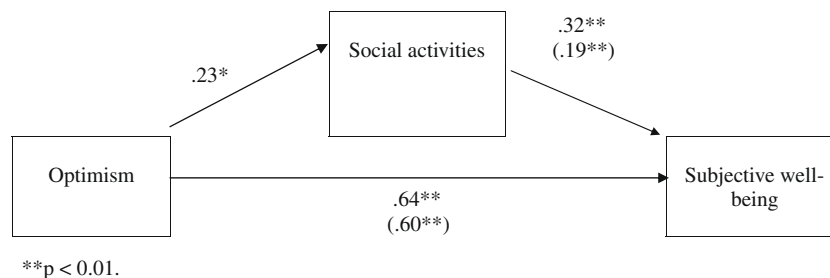


Fig. 2. Mediating role of social activities in the relationship between optimism and subjective well-being. Numbers outside parentheses refer to simple correlations. Numbers within parentheses refer to standardized path coefficients.

Consistent with findings obtained in previous studies (Diener & Diener, 1995; Scheier et al., 2001), results of this study indicated that greater optimism and self-esteem were significantly associated with higher subjective well-being in late adulthood. Although not all activities were significantly related with subjective well-being, we found some interesting links between some daily life activities and subjective well-being. In accordance with earlier studies (Harlow & Cantor, 1996; Tkach & Lyubomirsky, 2006), participation in social activities, mass communication use, activities outside home and games showed positive and significant associations with subjective well-being. According to Harlow and Cantor (1996) findings, given that social participation directly represents the enactment of one's personal purposes within one's actual current living context, it was found that social participation showed the stronger association with subjective well-being compared with other daily activities. Besides, a substantial body of research has found empirical evidences that social participation has a positive impact on emotional well-being in healthy (Morrow-Howell, Hinterlong, Rozario, & Tang, 2003) and non-healthy older people (Zimmer et al., 1995). Our results

support this point suggesting that elders should be encouraged to develop new interests and social activities to find satisfaction and well-being in these activities and in their life. Similarly, those older participants who tended to use higher mass communication experienced higher levels of subjective well-being. According to Harlow and Cantor (1996), the use of newspapers, educational television and nonfiction might strengthen people's feelings of connectedness to their communities, and the regularity with which these are produced and watched can impart structure to daily life. Finally, older participants who tended to do different activities outside home and those who used to play solitary games and board games with others reported higher subjective well-being. A number of studies support the link between different distracting activities and improvements of mood and well-being (Thayer, Newman, & McClain, 1994; Tkach & Lyubomirsky, 2006). Distraction responses, defined as focusing our attention away from the self-appears, involve engaging in pleasant, enjoyable activities in order to divert one's attention from one's feelings of loneliness and uselessness. Such distracting activities have been found to enhance positive moods and well-being in

clinically depressed people (Lam, Smith, Checkley, Rijdsdijk, & Sham, 2003). Our findings also support this argument in an older sample.

Mediational analysis results supported that from the eight groups of activities considered only social activities partially mediated the link between self-esteem and optimism and subjective well-being. This result is consistent with previous studies which have shown that social support or social affiliation strategies have a positive effect as an intervening variable on the relationships of indicators of well-being with some other personality and social dimensions (Allen, Ciambone, & Welch, 2000; Tkach & Lyubomirsky, 2006). Our findings suggest that people experience themselves as worthy (self-esteem) and expectations of success and that good things will happen (optimism) are more likely to participate in social activities which in turn contributes to better subjective well-being. Furthermore, whereas therapeutic efforts to increase optimism and self-esteem may increase well-being in older people, our results suggest that optimism and/or self-esteem alone are not the only key factors in this relationship. Another avenue of interventions might be to increase the social participation in older people. In this line, Tkach and Lyubomirsky (2006) found that social affiliation strategies were the most frequently used strategy that people used to make themselves happier and showed the stronger link to happiness, even after controlling for the other strategies used. Similarly, different experimental studies that have manipulated social activity have reported increases in levels of subjective happiness (for a review, see Lyubomirsky et al., 2005). Our results suggest that depending on their levels of optimism and self-esteem, people use different well-being-enhancing strategies, specifically participation in social activities. Extending previous studies in university students (Tkach & Lyubomirsky, 2006), it seems that the link between personality and well-being would be not entirely direct, but passes through social activities that aim to elevate well-being in older people.

Successful aging is influenced not only through a biological process but also by psychosocial and environmental factors, including the physical environment, lifestyle and certain personal dispositions (Dawson et al., 1999). Our study shed some light on how these factors can affect the subjective well-being of older people. Thus, as suggested by Tkach and Lyubomirsky (2006), the study of life participation activities as a way to improve well-being has one fundamental advantage over the study of personality dimensions alone with regard to understanding how well-being can be elevated, that is, the fact that intentional behaviours are easier to modify than personality. On the other hand, self-esteem and optimism are all closely related to functional status in the elderly. Furthermore, they also appear to be responsive to some degree of change and, like lifestyle factors, may provide another avenue for interventions directed at optimizing subjective well-being. Research demonstrating the influence of psychosocial and individual dispositions suggests a means for enhancing and supporting well-being. In this respect, it is tentative to think that while specific contextual factors such as participation in social activities may be the greatest determinant of one's immediate mood at any given moment, the pervasive effects of personality emerge over longer periods of time. Future longitudinal studies might investigate this issue in more depth. Similarly, another unresolved issue which deserves more investigation is related to which specific personality type is more likely to engage in a particular activity.

Several limitations of this study are acknowledged. One limitation was the use of self-report measures of the constructs. Caution is needed in interpreting results based solely on self-report measures. For example, we cannot know exactly how the participants made their judgments regarding the frequency with which they experience positive and negative affect. Self-report measures must be supplemented with additional types of measures such as

experience sampling (individuals report their mood multiple times over a relatively long period of time), in order to obtain a more complex understanding about subjective well-being (Diener, Scollon, & Lucas, 2004). The use of a correlational design in this research also limits the interpretations so that we cannot know for certain the direction of causality of the variables under research. Causality can run in the reverse direction and, this way, people's subjective well-being may be the global disposition that influences both his personality and the frequency of participation in certain types of activities.

Despite these limitations, our study provides some empirical support for the mediating influence of social activities on the relation between self-esteem and optimism and well-being. It seems likely that well-being is enhanced by some combination of daily life activities and healthy personality that yield personal benefit at a later point. In this sense, this research lends credence to those clinical interventions to increase subjective well-being that focus in improving both aspects in older people. People are not genetically destined to experience a predetermined amount of happiness (Tkach & Lyubomirsky, 2006), engage in activities that matter, and particular personality variables appear to predispose older people to choose more frequently self-regulatory strategies such as social activities which, in turn, increase their levels of well-being. Future research should thus aim to assess the potential benefits, other than subjective well-being, gained by engaging in this type of activity – for example health, longevity or psychological growth.

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