Brief Report

The Paradox of Leisure in Later Life

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Abstract

Objective. Numerous studies have shown that involvement in leisure activity has a significant impact on older adults’ physical, psychological, social, and spiritual well-being. This study explores whether the association between leisure involvement and well-being in later life changes over time.

Method. Data were drawn from the first 4 waves of the Survey of Health, Ageing, and Retirement in Europe (SHARE). Growth curve models were applied to examine whether leisure moderated change in quality of life (QoL) over time among 7,875 retirees aged 60 and older.

Results. Findings indicated that the association between leisure and QoL increased with time, as nonactive respondents displayed a decline in QoL over time, whereas those with high levels of leisure involvement showed an increase. Findings remained significant after controlling for sociodemographics, health, and cognitive functioning.

Discussion. Results indicated that the significance of leisure to well-being increases throughout the later life course, and that leisure may act as a resource for resilience in old age. They also pointed out a paradoxical situation in which the older seniors, who may benefit from leisure involvement more than their younger peers, are precisely the ones who face the greater number of constraints to beneficial use of leisure.

Key words: Growth curve model—Old age—Quality of life—Recreation.

Numerous studies conducted by scholars in various disciplines showed that involvement in leisure activities has a significant impact on older adults’ physical, psychological, social, and spiritual well-being (for a review, see Gibson & Singleton, 2012). These studies applied various qualitative and quantitative methods, the former referring to perceived benefits of participation and the latter comprising various measures of well-being, including objective measures such as physical and cognitive functioning (Maillot, Perrot, & Hartley, 2012), and subjective assessments such as satisfaction with life (Kahana, Bhatta, Lovegreen, Kahana & Midlarsky, 2013).

Studies also applied various approaches to leisure. Some examined leisure involvement using a macro-level approach, relating to general measures such as number of leisure activities and number of hours a day dedicated to them (Tsai & Wu, 2005). Others adopted a micro level point of view and explored how participation in a specific leisure activity, such as gardening, cycling, or digital games (Maillot et al., 2012), contributed to older participants’ well-being. A third group of studies applied a midway-level outlook and examined certain categories of activities, such as physical and nonphysical, social and solitary, altruistic and hedonistic, and so forth (Kahana et al., 2013; Silverstein & Parker, 2002).
Quantitative studies were typically cross-sectional, displaying strong associations between leisure involvement and various measures of well-being. Several longitudinal studies, however, demonstrated causality, with leisure involvement generally predicting well-being (Janke, Payne, & Van Puymbroeck, 2008; Silverstein & Parker, 2002). Furthermore, some longitudinal studies found leisure to be a central factor explaining successful coping with later life transitions, such as retirement and spousal loss (Nimrod & Janke, 2012).

Despite the many benefits of leisure, one of its key characteristics in later life is the decline in participation correlated with advancing age (van der Meer, 2008), that may be explained by the numerous constraints to leisure participation that seniors face, including health-related, psychological (e.g., lower motivation, low self-efficacy), cultural-environmental (e.g., social isolation), and technical constraints (e.g., availability of activities, mobility). Research has demonstrated consistently that the number of leisure constraints increases and their impact becomes more intense as people age (McGuire & Norman, 2005).

Facing more constraints to leisure, and having to give up or reduce involvement in meaningful leisure activities with age, may lead to a gradual change in the significance of leisure to older adults. Existing research provided contradictory findings about the direction of this change. Some studies demonstrated a decline in the role and importance of leisure with age, showing that seniors often become less activity-oriented and more self-reflecting (Frazier, 2002; Prager, 1997), thus implying that the association between leisure and well-being decreases with age. By contrast, other studies showed that as people aged, leisure became a means for keeping healthy, maintaining cognitive abilities, and preserving one’s youth (Dionigi, 2006; Yarnal, 2006), suggesting that with advancing age, leisure constitutes a resource for physical and psychological resilience (i.e., the ability to face, steer through and overcome adversity), providing cumulative protective factors (e.g., better health, social support) that help older adults cope with and resist the cumulative risk factors posed by the aging process (Nimrod, 2011). Consequently, the association between leisure involvement and well-being may actually increase with age. These contradicting suggestions may have many theoretical and practical implications. So far, however, no study exploring the association between leisure involvement in later life and well-being over time has been conducted. The study described in this brief report aims at filling this gap in the relevant body of knowledge.

Method

Participants
Data were drawn from the first four waves of the Survey of Health, Ageing, and Retirement in Europe (SHARE; Börsch-Supan et al., 2008). The SHARE survey queries persons aged 50 years and older from 19 countries and their spouses of any age. Based on probability samples of households in each participating country, the SHARE database presents a representative picture of the community-dwelling older population. Overall household response rate in Wave 1 was 61.6% (ranging 38.8%–81.0% across countries) and average within household response rate was 85.3% (ranging 73.7%–93.0% across countries). Waves 1 (W1, 2004–6), 2 (W2, 2006–8), and 4 (W4, 2010–12) included queries about leisure activities and about participants’ physical, mental, and social functioning.

The current study examined only retired respondents aged 60 or above in W1 (N = 7,875). Retired respondents were identified based on self-defined employment status (defined as retired, employed, unemployed, permanently sick or disabled, homemaker, or other). Of these respondents, 5,390 and 3,047, respectively, also participated in W2 and W4. Respondents came from the 11 countries that comprised W1 (Austria, Belgium, Denmark, France, Greece, Italy, Netherlands, Germany, Spain, Sweden, and Switzerland). All countries used in the current study were consistently included across the waves. Countries added after W1 were not included. Respondents’ mean age at W1 was 71.21 (SD = 7.31), 45.8% were women, the mean education level was 2.37 (SD = 1.49), corresponding to less than an upper secondary education, and the mean household income was €38,513.59 (SD = 41302.25).

Attrition analyses compared those of the 7,875 respondents who participated only in W1 (n = 2,103) with those who participated in more than one wave. These analyses showed that those who participated in W1 only were older and reported lower quality of life (QoL), less leisure activities, and lower scores in the cognitive indices, but the size of these differences was relatively small (Cohen’s d ranged from 0.08 to 0.21). On the other hand, the groups did not differ in gender composition, education level, household income, marital status, or medical conditions.

Measures
Leisure activities were assessed by asking respondents whether they performed any of the following five activities in the last month: Doing voluntary or charity work, attending an educational or training course, visiting a sport, social, or other kind of club, taking part in a religious organization, or participating in a political or community-related activity. Activities undertaken at least once a week were included in the overall score (representing a macro-level approach). The outcome variable—QoL—was assessed by 12 items originating in the CASP-19 (CASP-12; Hyde, Wiggins, Higgs, & Blane, 2003). This measure conceptualizes QoL in terms of need satisfaction in four domains: Having a sense of control, autonomy, self-realization, and pleasure. Control is defined as the ability to intervene actively in one’s environment and autonomy as an individual’s ability to be free of the unwanted interference of
others. Self-realization and pleasure capture the active and reflexive processes of self-fulfillment. The items were rated on a scale ranging from “never” (1) to “often” (4). A minimum completion of 10 items was required for scoring a sum, with scores of 10–11 items interpolated by assigning the respondent’s mean of the completed items to the missing one. Internal reliability measured by Cronbach’s α was .81, .81, and .79 at W1, W2, and W4, respectively.

Covariates included age, gender, education, household income, marital status, medical conditions (assessed by the number of diagnosed illnesses), and three measures of cognitive functioning (Kavé et al., 2012). Due to previously found country differences in leisure activities and well-being (Gagliardi et al., 2007; Inglehart, 2002), and because initial multivariate analysis of covariance on our data found small cross-country differences in leisure activities and QoL (after controlling for the other covariates, η2 = 0.022 and 0.056 for leisure activities and QoL, respectively), we also controlled for country.

Data Analysis

QoL was standardized to t-scores (M = 50 and SD = 10 at W1), with the baseline sample (n = 7,875) serving as the reference. This method facilitated interpretation of relative changes (Infloura, Gerstorf, & Zarit 2013). Leisure activities and other continuous covariates were centered. To test whether leisure activities affected QoL over time, we fitted a growth curve model (Peugh & Enders, 2005) for QoL, with time from study entry as the time variable. Following the recommendations proposed by Mendes de Leon (2007), besides using time from study entry, we concurrently examined the effect of age at W1. The Level 1 (within-person level) model was parameterized as:

\[
\text{QoL}_{it} = \beta_{0i} + \beta_{1i}(\text{TIME}_{it}) + e_{it}
\]

In this model, QoL for person \(i\) at time \(t\), \(\text{QoL}_{it}\), is a function of (a) an intercept parameter for person \(i\) (across the \(t\) times for which the person provided data), \(\beta_{0i}\); (b) a slope parameter that captures the rate of time-related change for person \(i\); \(\beta_{1i}(\text{TIME}_{it})\); and (c) the within-individual random error, \(e_{it}\).

Level 2 (between-person level) model:

\[
\begin{align*}
\beta_{0i} &= \gamma_{00} + \gamma_{01}(\text{Leisure}_i) + \gamma_{02}(\text{Age W1}) \\
&\quad + \gamma_{05}(\text{Leisure}_i \times \text{Age W1}) + \eta_{0i} \\
\beta_{1i} &= \gamma_{10} + \gamma_{11}(\text{Leisure}_i) + \gamma_{12}(\text{Age W1}) \\
&\quad + \gamma_{13}(\text{Leisure}_i \times \text{Age W1}) + \eta_{1i}
\end{align*}
\]

In this model, \(\gamma_{00}\) represents the intercept of QoL for a person with average age and average number of leisure activities (i.e., age and leisure activities equal to the sample mean); \(\gamma_{01}\) the effect of leisure activities on the initial level of QoL for person \(i\); \(\gamma_{02}\) the effect of age at W1 on the initial level of QoL for person \(i\); \(\gamma_{03}\) the interaction effect of leisure activities and age at W1 on the initial level of QoL for person \(i\); and \(\eta_{0i}\) the error of \(\beta_{0i}\). Furthermore, \(\gamma_{10}\) represents the slope of time-related change in QoL for a person of average age and average number of leisure activities, \(\gamma_{11}\) the effect of leisure activities on the covariance of time and QoL, \(\gamma_{12}\) the effect of age at W1 on the covariance of time and QoL, \(\gamma_{13}\) the interactive effect of age at W1 and leisure activities on the covariance of time and QoL, and \(\eta_{1i}\) the error of \(\beta_{1i}\).

Substituting Equations 2 and 3 back into Equation 1, we have the following:

\[
\text{QoL}_{it} = \gamma_{00} + \gamma_{01}(\text{Leisure}_i) + \gamma_{02}(\text{Age W1}) \\
&\quad + \gamma_{05}(\text{Leisure}_i \times \text{Age W1}) + \gamma_{10}(\text{TIME}_i) + \gamma_{11}(\text{Leisure}_i \times \text{TIME}_i) \\
&\quad + \gamma_{12}(\text{Age W1} \times \text{TIME}_i) + \gamma_{13}(\text{Leisure}_i \times \text{Age W1} \times \text{TIME}_i) \\
&\quad + \eta_{0i} + \eta_{1i} \times \text{TIME}_i + e_{it}
\]

The first eight terms are the fixed effects that capture the average model, while the last three are the random effects that capture the variation between individual regression models and the average model, as well as the variation between individual observations and the regression model within each person. All models were also run with the above-mentioned covariates. The models were assessed with SPSS 20. Incomplete data were treated as missing at random (Little & Rubin, 1987).

Results

The 7,875 respondents who completed the QoL measure in at least one of the waves (W1, W2, and W4) provided 19,643 observations across time. Of these, 7,375 (37.5%) and 10,165 (51.7%) were longitudinal observations across two and three waves, respectively. The average number of observations per individual was 2.41 (SD = 0.67). Preliminary intraclass correlation (the proportion of the between-individual variance to the sum of the between- and within-individual variances) for QoL was 0.41, suggesting that there was 59% within-person variance in QoL over time.

In a preliminary model predicting QoL using time alone (not shown), the intercept was 49.637 (SE = 0.090, \(p < .0001\)), and the slope was −0.092 (SE = 0.021, \(p < .0001\)). Thus, the annual decrease in QoL was equivalent to 0.09 t-score units across all respondents. In the main model presented in Table 1, the estimate for time (\(\gamma_{10}\)) was −0.116 (\(p < .0001\)). Thus, the decrease in QoL was equivalent to 0.116 t-score units per year for respondents with an average age at study entry and an average level of leisure activities. The estimate for leisure activities (\(\gamma_{01}\)) was 2.081 (\(p < .0001\)). Thus, the increase in initial level of QoL was equivalent to 2.081 t-score units per one more leisure activity. The
estimate for the Time × Leisure activities ($\gamma_{11}$) was 0.090 ($p = 0.005$).

The Time × Leisure activities interaction was probed using Preacher, Curran, and Bauer's (2006) procedure. It was found that those with no leisure activities showed a decrease of 0.097 t-score QoL units per year, whereas those with high levels of leisure activities (i.e., two leisure activities) showed an increase of 0.077 t-score QoL units per year. That is, the difference in QoL between those with no leisure activities and those with high level of leisure increased with time. In other words, the association between leisure activities and QoL increased with time. These effects were observed after accounting for the significant effects of age at W1 and its interaction with leisure activities on initial level of QoL and the significant effect of age at W1 on the covariance of time and QoL. They indicated that older respondents had lower initial level of QoL, showed a stronger association between leisure activities and initial level of QoL, and had a steeper slope of decrease in QoL with time.

The $\Delta$ pseudo-$R^2$ showed that the model explained 3.4% of the variance in QoL. Adding the other covariates into the model, the estimate for leisure activities became 1.424 ($SE = 0.099, p < .0001$), and the estimate for the Time × Leisure activities was 0.074 ($SE = 0.033, p = .025$). Thus, the effect of leisure activities on both the initial level of QoL, and on the covariance of time and QoL, remained significant even after controlling for myriad background characteristics, medical conditions, and cognitive functioning. The $\Delta$ pseudo-$R^2$ showed that the model with covariates explained an additional 31.5% of the variance in initial level of QoL and an additional 49.4% of the variance in the rate of change of QoL. Finally, nonlinear effects of time were examined, but they did not interact with leisure (estimate = −0.008, $SE = 0.015, p = .591$) or with the Leisure × Age at W1 interaction (estimate = −0.003, $SE = 0.002, p = .212$).

### Discussion

The present study was inevitably limited because only five types of leisure activities were examined. It is possible that some respondents with low leisure index scores were involved in other leisure activities that were not examined (e.g., hobbies or cultural activities). Also, the macro-level approach applied in this study may have concealed differences between different types of activities. Nevertheless, as the examined activities were typically "serious-leisure" activities, characterized by a high level of commitment and greater contribution to well-being (Stebbins, 2007), they offered a reliable indication for leisure involvement in later life and enabled exploration of changes in the association between leisure involvement and well-being over time.

The findings indicated that the association between leisure and QoL increased with time. This was suggested by cross-sectional findings, showing that older respondents displayed a stronger association between leisure activities and initial level of QoL, as well as by longitudinal findings, demonstrating that QoL differences between the highly active and nonactive respondents increased with time. These findings suggested that leisure is not only valuable to well-being in later life (Gibson & Singleton, 2012) but may also become increasingly more beneficial across the later life course.

The main effect of leisure remained significant after controlling for background characteristics, health, and cognitive functioning, implying that leisure is indeed a resource for resilience that helps older adults cope with various risks associated with aging (Nimrod, 2011). Even if people are troubled by various physical and personal circumstances and become less activity-oriented with age (Frazier, 2002; Prager, 1997), they can preserve their well-being to some extent by maintaining involvement in leisure. This may become more formidable in later life, however, as the number of constraints increases.

Assessment of the present findings in light of existing literature on leisure and aging delineates a paradoxical situation: According to the findings, as people age, it becomes more important for them to be involved in leisure. At the same time, however, constraints to leisure increase in number and intensity with age (McGuire & Norman, 2005), leading to a decline in leisure participation (van der Meer, 2008). In other words, the older seniors, who may benefit from leisure...
involvement more than their younger peers, are precisely those who face more constraints to beneficial use of leisure.

This paradox of leisure in later life should be explored further using macro-, micro- and midway-level approaches, relating to additional activities and measures of well-being, and applying both quantitative and qualitative methods. It is evident, however, that the principal challenge at the personal and social levels alike is the quest for means that help older adults negotiate constraints to leisure. According to the literature, leisure constraints may be negotiated successfully using a variety of cognitive strategies, such as changing leisure aspirations, as well as behavioral strategies such as time arrangement and skill development (Jackson, 2005). Exploring ways to help older seniors apply such strategies may preserve a high level of leisure involvement and well-being in spite of challenging circumstances.

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