

Original Article

Physical leisure activity and work for quality of life in the elderly

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Abstract

In a rapidly aging world, ensuring quality of life for the elderly is a pressing challenge that cannot be ignored. This study explores whether there is any difference in quality of life depending on the type of lifestyle adopted by the elderly. A total of 321 people aged 65 or older took part voluntarily in the study. Participants were categorized into three types of lifestyles: (a) only physical leisure activity, (b) only work, and (c) both physical leisure activity and work, and their quality of life was compared and analyzed. The third group scored the best in self-esteem, the second group showed the poorest scores in social relationships and emotional states, and the second and third groups delivered better results in financial condition. There was no statistically significant difference between the groups in terms of physical condition. The study found that the elderly requires not only physical leisure activities but also economic ones to ensure a good quality of life. This study will serve as an important reference in understanding and supporting the life of elderly people in aged countries.

Keywords: elderly, physical leisure activity, work, quality of life, aging society

Introduction

The United Nations (2009) defined a society with 7% of those aged 65 or above as “aging population,” 14% as “aged population,” and 20% or higher as “super-aged population.” According to a report by Moody’s, the global credit rating agency, in 2014, there are currently only three super-aged countries, namely Japan, Germany and Italy, but the number is expected to reach 34 by 2030. It will include the US, the UK, New Zealand, and Korea (Hankookilbo, 2014). In short, at a time when super-aging is rapidly sweeping across the globe, there is an urgent need to put in place the actions or measures that can enhance the elderly citizen’s quality of life, a subject that has been neglected thus far.

According to *Successful Aging* by Rowe and Kahn (1987), “work” and “leisure activity” are integral parts of life for elderly people. In old age, work is a comprehensive concept that includes not only activities to make a living, but also a variety of small jobs, or participation in social activities, but it does not include breaks or leisure activities (Song, 2010). The Ministry of Health and Welfare’s Survey on the Elderly’s Living Conditions (2008) revealed that 30% of the elderly population aged 65 or older currently work, and as much as 32.2% want to work in the future. Such statistics run directly counter to conventional thinking or prejudices that all old individuals do not want to work, but prefer to rest.

Of course, some elderly people continue to work entirely to make ends meet, but work has a significant effect on other areas (Park, 2006). Hooyman and Kiyak (2005) compared it to role theory as follows: In old age, people are generally pushed aside from occupying a central role in society. This is highly likely to make them feel psychologically small, empty or lost and have a negative effect on establishing the right identity or self-esteem. In addition, some studies report that symptoms of depression were observed more often in elderly people with low levels of participation in social activity (Abramson, Michal, Gofin, & Kark, 1992; Buettner & Fitzsimmons, 2002). In other words, those who frequently participate in social activity are more satisfied with their life than those who do not, which is a helpful insight into leading a successful elderly life (Hazan, 1996; Kart & Longino, 1987). Hence, work in old age is closely related to an individual’s mental health (Ross & Mirowsky, 1995).

In addition to the emotional or physiological conditions listed above, it has been reported that elderly individuals’ continued work helps to maintain or enhance their physical health (Abramson et al., 1992; Park, 2006). In other words, an elderly person’s continuous participation in productive activity greatly helps in determining a successful old age period (Depp & Jeste, 2006; Hinterlong, 2006; Klumb, 2004). In this context, it is true that many countries focus on ways to increase the number of jobs for elderly people (Dupuis & Alzheimer, 2008).

Next, leisure activity is known to be one of the most important tools to improve quality of life (Kelly, 1996). Leisure activities are performed across all phases of the human lifecycle and allow an individual to find his or herself, experience various roles and behaviors (Park, 2004). In particular, as the participation in leisure activities during old ages serves as an opportunity to develop oneself or taste social achievement, it satisfies social and psychological needs (Silverstein & Parker, 2002). In essence, physical leisure activities in elderly people's lives provides energy (Thoits & Hewitt, 2001), helps them spend a healthy and energetic life, and is regarded as an important tool to further enhance their quality of life (Adams, Leibbrandt, & Moon, 2011; Bazin et al., 2012; O'Brien & Conger, 1991).

It would be better to view quality of life as a relative concept that can be different for different people, instead of a single, monolithic and absolute one (Im, Han, & Choi, 2011). In this regard, there have been two major challenges in using the term "quality of life:" first, its definition is too comprehensive, and second, it is unclear what factors should be included to assess quality of life (Theofilou, 2013). To begin with, the phrase generally refers to subjectively determining the overall level of quality in life (Veehover, 1991). In other words, quality of life is what an individual feels emotionally and experiences in his or her daily life and is closely correlated to a sense of happiness (Argyle, 1997; Arthaud-day et al., 2005). Since there is no clear indicator for quality of life however, it has been true that most people tend to evaluate their life mostly positively (Cummins & Nistico, 2002; Eckersley, 2000a; 2000b).

To address the problems mentioned above, academics, or those interested in this field, are conducting an analysis of various factors to evaluate quality of life. Most notably, Sirgy et al. (2006) suggested a method that combines a variety of life domains, including social activity, leisure, social relationships, health, and emotions to assess quality of life. Felce and Perry (1995) selected physical, material, social, emotional and psychological wellbeing as the areas that would have a significant effect on people's quality of life. In addition to such common factors, residential environment, safety, religious activity (Lehman, 1988), married life, and relationship with neighbors (Campbell, 1981) are also mentioned often. In short, when people perceive a high level of quality in the above areas, they feel their quality of life is high (Steger, Frazier, Oishi, & Karler, 2006).

As demonstrated above, work and physical leisure activities are major factors essential for elderly people to improve their quality of life. In particular, since health is important for the elderly as their physiological and physical function declines (Baltes & Smith, 2003), the present study focuses on leisure activities that involve physical activity. Hence, this study conducted an analysis of the life of elderly people aged 65 or above, most of who are considered retired based on their lifestyle. More specifically, it sets the research topic as whether there is any difference in quality of life depending on the type of lifestyle adopted by the person (e.g., physical leisure activity, work, and both physical leisure activity and work). It will serve as an important reference in understanding and supporting the life of elderly people in an aged country.

Materials and Methods

Participants

To meet the purpose of this study, we compared and analyzed quality of life of the elderly, based on their type of lifestyle (i.e., physical leisure activity, work, and both physical leisure activity and work). Participants of the current study were limited to those aged 65 or older, in view of the fact that World Health Organization (WHO) (2016) has considered those who are 65 years old or older as elderly. With a purposive sampling method and intercept data collection technique, the data collection was conducted at two local sports centers in Seoul, South Korea for a month starting from November 5 in 2018 to January 10 in 2019. Prior to the survey, the purpose of the current study was conveyed to all research participants. The survey, employing a self-administration method, was voluntarily performed.

The first question regarding type of lifestyle, which is a categorical variable of this study, was a criterion determining to which group each participant belonged. Specifically, depending on their answers, they were divided into three groups: (a) having only physical leisure activities (b) having only work, and (c) having both physical leisure activities and work. A total of 500 surveys were distributed, and 402 were returned (approximately 80.4% response rate). After excluding 81 incomplete surveys, 321 surveys were utilized in the current research. The demographic characteristics of respondents revealed 206 males (64.2%) and 115 females (35.8%). Additionally, respondents were asked a question regarding types of physical leisure activities in which they participated. Detailed information of each group is described in Table 1.

Table 1. Socio-demographic information

Physical leisure activities	Group 1		Group 2		Group 3	
	Male	Female	Male	Female	Male	Female
Dancing	3	7	-	-	6	4
Table Tennis	3	4	-	-	9	7
Walking	6	5	-	-	6	4
Tennis	3	2	-	-	5	3
Bicycling	5	3	-	-	3	1
Swimming	2	3	-	-	1	5

Gym workouts	4	0	-	-	4	2
Golf	5	8	-	-	4	6
Badminton	3	7	-	-	8	4
Fishing	2	2	-	-	3	5
Yoga	0	9	-	-	1	10
Bowling	0	1	-	-	9	0
Hiking	18	17	-	-	23	15
Total	54 (44.3%)	68 (55.7%)	70 (76.9%)	21 (23.1%)	82 (75.9%)	66 (24.1%)

Note. Group 1 = elderly with physical leisure activity, Group 2 = elderly with work, Group 3 = elderly with both physical leisure activity and work.

Data Analysis

To measure quality of life of the elderly, depending on physical leisure activities and work, a scale by Lee (2017) exploring subjective quality of life of the elderly was utilized in this study. The instrument (18 items) consists of five factors: (a) self-esteem, (b) physical condition, (c) social relationships, (d) financial condition, and (e) emotional state, and employs a 5-point Likert-type scale that ranges from “strongly disagree” (1 point) to “strongly agree” (5 points).

The SPSS 23.0 was applied to analyze data of the current study as follows. As preliminary analysis, descriptive statistics were reported for socio-demographic characteristics of survey respondents. To ensure the validity and reliability of collected data, an exploratory factor analysis (EFA) and Cronbach's alpha coefficients were utilized. Last, a multivariate analysis of variance (MANOVA) was conducted to explore the differences on dependent variables among the groups.

Results

Scale Validity and Reliability

The Exploratory Factor Analysis (EFA) was performed on five variables: (a) self-esteem (3 items), (b) physical condition (3 items), (c) social relationships (4 items), (d) financial condition (3 items), and (e) emotional state (5 items). The Kaiser Meyer-Olkin (KMO) measure tested the sample adequacy for this analysis, KMO = 0.786, greater than 0.700 (Field, 2009). Bartlett's test of sphericity ($\chi^2 = 4125.396$, $df = 153$, $p < 0.001$) was statistically significant. Based on results of eigenvalues (greater than 1) and factor structure coefficients (greater than 0.40), five factors were retained, accounting for 80.686% of the total variance. Also, results of Cronbach's alpha coefficients from all variables showed acceptable internal consistency for reliability (greater than 0.70) (Nunnally & Berstein, 1994): (a) self-esteem ($\alpha = 0.859$), (b) physical condition ($\alpha = 0.877$), (c) social relationships ($\alpha = 0.933$), (d) financial condition ($\alpha = 0.889$), and (e) emotional state ($\alpha = 0.930$).

Table 2. Factor structure matrix for quality of life and subjective life satisfaction

Items	1	2	3	4	5
ES 1	.920				
ES 5	.912				
ES 4	.875				
ES 3	.857				
ES 2	.853				
SR 1		.937			
SR 4		.921			
SR 2		.898			
SR 3		.886			
FC 1			.938		
FC 2			.889		
FC 3			.888		
PC 1				.929	
PC 3				.904	
PC 2				.854	
SE 1					.919
SE 3					.907
SE 2					.817
Eigenvalues	4.165	3.153	2.610	2.440	2.156
Variance (%)	23.136	17.519	14.501	13.554	11.976
Cronbach's alpha	0.930	0.933	0.889	0.877	0.859

Note. ES = emotional state, SR = social relationships, FC = financial condition, PC = physical condition, and SE = self-esteem.

Multivariate Analysis of Variance (MANOVA)

The MANOVA showed statistically significant differences on dependent variables among groups. [Wilks' lambda = 0.694, $F(10, 628) = 12.583$, $p < 0.00$, partial $\eta^2 = 0.167$]. Depending on adjusted alpha level using Bonferroni correction ($p = 0.05/6 = 0.008$), univariate tests revealed statistically significant differences on four variables with the exception of physical condition: (a) self-esteem, (b) social relationships, (c) financial condition, and (d) emotional state.

Table 3. Results of multivariate analysis of variance (MANOVA)

Dependent Variables	df	F	p	η^2
Self-esteem	2	21.434	.000*	0.119
Physical condition	2	0.154	.857	0.001
Social relationships	2	17.299	.000*	0.098
Financial condition	2	9.719	.000*	0.058
Emotional state	2	14.957	.000*	0.086

Note. * $p < 0.008$.

Additionally, follow-up post-hoc analyses were performed to discover where the significant differences existed among the three groups. In terms of the self-esteem factor, the elderly with both leisure and work (group 3) showed relatively higher mean scores than the others. In regard to the factors of social relationships and emotional state, the elderly with work (group 2) reported lower mean scores than the other two groups (group 1 and 3). Lastly, on financial condition factor, the elderly with activities leisure (group 1) revealed relatively lower mean scores than the other groups (group 2 and 3). Detailed mean scores of variables among the groups are described in Table 4.

Table 4. Mean scores for dependent variables among groups

	SE	PC	SR	FC	ES
Group 1	2.762	3.033	3.527	2.885	3.498
Group 2	2.883	2.960	2.767	3.374	2.789
Group 3	3.571	3.019	3.398	3.377	3.282

Note. Group 1 = elderly with physicalleisure activity, Group 2 = elderly with work, Group 3 = elderly with both physicalleisure activity and work; ES = emotional state, SR = social relationships, FC = financial condition, PC = physical condition, and SE = self-esteem; Statistically significant higher mean scores among groups is highlighted in bold text.

Discussion

To begin with, the present study's scores for physical activity did not exhibit a statistically significant difference across the groups, but they are quite interesting. Unlike previous studies and people's thinking, physical condition in quality of life showed no difference across the groups regardless of the elderly's work and physicalleisure activities. Not only is it known that physicalleisure activity helps to maintain or improve health, but work also can provide such benefits to the elderly (Abramson et al., 1992; Park, 2006). In other words, it is demonstrated that both work and physicalleisure activities substantially help to maintain physical health. Accordingly, it is conjectured that that is the reason for the lack of significant difference among the three groups: the work group, the physicalleisure activity group, and the both physicalleisure activity and work group.

Next, in the financial condition factor in quality of life, the work group and the both physicalleisure activity and work group showed better scores, as expected, than the physicalleisure activity group. Park (2006) argued that while there are various benefits elderly people can get from work in extended life expectancy after retirement, work is greatly helpful for financial benefits among others. Given Park's argument, it seems that the physicalleisure activity group that did not have a job were in a situation where they needed to financially prepare for life after retirement. They did not benefit financially from work and thereby showed poorer scores. As mentioned in the introduction section, the results of a previous report that showed that most elderly people aged 65 or above that did not work currently wanted to have a job, seem consistent with the present study's findings. In the end, a variety of policy efforts are needed to support the elderly financially in an aged society (Dupuis & Alzheimer, 2008).

Among other sub-factors for quality of life, the scores related to self-esteem were better in the both physicalleisure activity and work group than the other two. It is interesting that in addition to the many benefits from physicalleisure activity, work had an effect on self-esteem. As an individual enters old age, he or she retires from a central role or position in society (Hooyman & Kivak, 2005). While they may feel psychologically small, or experience a sense of loss, work or social activity during this period has a positive effect on psychological dimensions such as self-identity and self-esteem (Hooyman & Kivak, 2005; Ross & Mirowsky, 1995). Eventually,

work for elderly people cannot simply be seen as an activity solely for financial gains, and the above results demonstrate how important it is to do work and physicalleisure activity together properly.

Last, the physicalleisure activity group and the physicalleisure activity and work group displayed better scores in building social relationships and stabilizing emotional states in quality of life. In other words, the elderly who only worked produced poorer scores in these two items. In this regard, physicalleisure activity helps people to attain psychological wellbeing or emotional stability (Rowe & Kahn, 1998; Thoits & Hewitt, 2001), build a diverse social network, and reinforce exchanges (Aquino & Russel, 1996). Accordingly, regular physicalleisure activity is recognized as a good opportunity to improve quality of life (Harahousou & Kabitsis, 2002; Silverstein & Parker, 2003; Toseland, 1997). In this context, physicalleisure activity would be very important for elderly people who only work for financial benefits without physicalleisure activity in today's aged society to improve their quality of life.

Conclusion and Limitation

The present study divided the elderly aged 65 or above into three groups: the physicalleisure activity group, the work group, and the both physicalleisure activity and work group, and empirically compared these groups to see if there was any difference in quality of life. In this study, no significant difference was found among these three groups regarding physical condition in quality of life. It is worth noting that the both physicalleisure activity and work group showed higher scores in self-esteem, social relationships, financial condition, and emotional state, which revealed that doing both work and physicalleisure activities is an important tool to enhance quality of life. In addition, the elderly's physicalleisure activity was found to significantly help to build social relationships and stabilize emotional states. However, elderly people who only worked, without physicalleisure activity, had a poorer overall quality of life, except for their financial condition. Consequently, at a time when countries are aging around the world, work cannot be seen as entirely negative for elderly people, as demonstrated in the present study's findings. It suggests that appropriate physicalleisure activity along with work increases quality of life and allows individuals to experience a happy elderly life. Hence, the present study would serve as an important reference in understanding and supporting the lives of elderly citizens in an aged country.

Participants in this study were limited to those aged 65 or older. A follow-up study would need to divide the age of elderly people more specifically and analyze the effects of work and physicalleisure activity on quality of life across different older age groups. In fact, due to increased life expectancy, it is possible to categorize elderly people aged 65 or above into more specific age groups, and it is likely that there is a difference in quality of life among these groups. Such a research attempt would obtain more concrete results for the elderly after retirement. In addition, even though objective physical conditions or financial conditions after retirement could have been slightly different for elderly individuals, the present study did not take it into consideration. In particular, individual differences in physical condition could have been more marked among the elderly than in a younger population. Furthermore, given that individual differences in financial condition could be extremely large for those aged 65 or above when they retire, an in-depth follow-up study would need to be conducted to account for various possible scenarios and overcome related limitations.

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