

Characteristics of Leisure Participation Amongst Older Adults in Karanganyar Central Java Indonesia

Ninik Nurhidayah^{a*}, Muchammad Syamsulhadi^b, Sapja Anantanyu^c, Ari Probandari^d

^{a,b,c,d}Doctoral Program in Community Development, Graduate School, Universitas Sebelas Maret, Indonesia
^aDepartment of Occupational Therapy, School of Health Polytechnics, Surakarta, Indonesia
^{b, d}Department of Public Health, Faculty of Medicine, Graduate School, Universitas Sebelas Maret, Indonesia
^aEmail: niniknurhidayah@gmail.com

Abstract

The study aims to describe the characteristic of leisure participation amongst older adults in Karanganyar Central Java Indonesia. The study was conducted with cross-sectional design in Karanganyar Central Java Indonesia. Sampling technique was used multistage random sampling, a total of 120 elders. Some questionnaires were used as data gathering instruments. Data were then analyzed with chi-square analysis. The most frequent participation is included in active activity during the past is gardening (58%), the recent time is take a walk (44%), and will do the future is taking a walk (47%). The most frequent participation is included in passive activity during all the time such as watching TV, the past (68%), the recent time (72%), and will do the future (72%). A socializing is the most common social activity; in the past time (72%), at present (69%) and for the future (71%). The highest frequency in leisure time use is categorized 1-3 times/week amounted to 39 (41.9%) in 60-74 years age group. Overall participation in the utilization of free time is highly categorized with the percentage of 80.8%. Willingness to participate is categorized as moderate (90.8%). The ability of older adults to participate are high-categorized as 60%.

* Corresponding author.

The listed activities documented throughout the research are possible to be recommended for the older adults, such as watching TV, socializing relatives & neighbors, and taking a walk. However, the frequency of leisure participation is still low and although both of the ability and opportunity are high, the willingness to participate is still in needs to be improved. Hence, an empowerment program is required to improve the willingness of the older adults to participate in the utilization of leisure time.

Keywords: leisure; participation; older adults.

1. Introduction

The elder population aged over 65 years worldwide has increased from 8% (562 million) in 2012 to 8.5% (617 million) of the total population by 2015. By 2050 it is projected that the percentage will level up to 17% from a world population of 1.6 billion [1]. Similarly, the older adult population in Indonesia has increased. By 2020, the number of older adult people is predicted to reach 28.8 million people (11.34%). Thus Indonesia is included in the old structured population because the proportion of older adults reaches 7% and above [2]. Leisure time is an activity that someone does during their spare times; it is fun outside the daily routine activities [3]. Past studies have shown that the use of free time is an important and beneficial factor that makes aging process went successfully [4-11]. Unproductive leisure becomes a problem for the elder [12]. Leisure is needed to improve the quality of life of the elder [11]. Therefore, leisure in the elder becomes one of the important topics. The level of interest of leisure activities is different for a person when viewed from different aspects. In adults including the older adults, the issue of time and financial resources such as expensive work and family responsibilities can prevent a person from enjoying the importance of fun activities [13]. There is an obvious relationship between individual characteristics and leisure participation. The identified factors affect the leisure participation of the elder, including misperceptions [14], social and cultural characteristics elder [15] ethnic, emotional and cognitive elder [16], as well as the environment [17]. Education levels, marital status, and locality are important determinants of leisure participation among the older adults, with education being a major predictor [18]. Poor health status results in restricted leisure participant for many elder [19, 20]. The study aimed to describe a characteristic of leisure participation amongst the older adults in Karanganyar Central Java Indonesia.

2. Methodology

2.1. Research Setting

This study conducted from February to October 2017 in Karanganyar t Central Java Indonesia. Karanganyar is one of distric in Central Java with high elder population. Karanganyar is familiar with in the industry, agriculture, and tourism. Karanganyar geographically has a highland area up to the lowlands.

2.2. Procedure and Sample \Box

The population of the study was geriatric individuals in Karanganyar t. The total sample consisted of 120 older adults (n=120). The sampling technique used was multistage random sampling. The inclusion criteria were set as follows; older adults in Karanganyar t over the age of 60 years, lacked cognitive impairment, are able to

communicate well, are able to mobilize independently and are willing to be a respondent. Sample exclusion criteria were respondents with decreased awareness, dementia, and any psychotic symptoms. Questionnaire of leisure participation was administered after asking participants to provide a written consent. All the procedures presented in the study of the Universitas Sebelas Maret Surakarta Indonesia. The research permit was aimed at the local government of Karanganyar. Ethical clearances were obtained from the ethics committee of medicine Faculty of Universitas Sebelas Maret.

2.3. Research Design and Statistical Analysis

The cross-sectional research design was used in this study. Measurements were conducted with questionnaires. The collected data were analyzed by Statistical Package for Social Sciences-version 17 (SPSS). Data analysis techniques were used with chi-square analysis.

2.4. Assessment Measures

The demographic section of this study included questions pertaining to gender, age, level of education, health status, and occupation. All the participants completed leisure participation questionnaire consisted of 22 questions. Reliability test results in the value of Alpha Cronbach's coefficient as 0.881.

3. Results and Discussion

The results of the research based on the demographic characteristics of the sample showed that the majority of the sample were women 76 (63.3%), age of 60-74 years 93 (77.5%), elementary education level is equal 51 (42.5%), health status; healthy not suffering as much as 60 (50%) as well as work; not working 80 (66.7%). A complete description of the demographic characteristics of the sample can be seen in Table 1.

Characteristics	Status	Frequency (%)
Gender	Male	44 (36.7)
	Female	76 (63.3)
Age	60-74 years (<i>elder</i>)	93 (77.5)
-	75-90 years (old)	27 (22.5)
Level of education	No Schooling	13 (10.8)
	Elementary school or equivalent	51 (42.5)
	Junior High School or equivalent	22 (18.3)
	Senior High School or equivalent	22 (18.3)
	College	12 (10)
Health status	Diseased, abnormal activity	7 (5.8)
	Diseased, can be an activity \Box	53 (44.2)
	Healthy does not suffer diseased	60 (50)
Occupation	Does not work	80 (66.7)
1	Working part-time	24 (20)
	Working full time	16 (13.3)

This study showed there are more female respondents than male respondents by number. National data and outcomes are the same for the number of males, which are 10.77 million female older adults, compared to 9.47 million older adult men [21]. Therefore, the common problem in the Central Java region is a problem that more ruled out by the female older adult. There are some kinds of literatures describing a relationship between individual characteristics and participation in the utilization of leisure time. The results of the study of [20] which states that one important and consistent factor that lies behind the elder to participate in the use of leisure is health. Poor health will limit the elder to participate in the leisure. Age may have a slight negative effect on participation in the utilization of leisure time [22]. Higher educated elders prefer to participate in the use of leisure time by reading than the less-educated [23]. They also participate more in sports and outdoor activities [22]. The results of this study are supported by [23] mentioned that there is a unique contribution to social relations and participation in the utilization of leisure time. Social relations proved significant to participate in the utilization of older adults' leisure time. This finding is in accordance with the literature on the importance of social networks.□

In the [24] study also explains traditionally, the informal family support system, kinship and community are considered a powerful source for providing support to older adults in Indian society. The elder who has limited social networks have higher levels of depression and lower life satisfaction. Therefore participating in the utilization of leisure time is a significant predictor of the maintenance or even improvement of health and physical function in the elder. Reference [24] Also mentioned that participating in the utilization of spare time is a predictor to maintain and improve the health status and physical function of the older adults. Relaxation activities and time spent by the older adults Australians, this is done as an involvement in leisure activity [25]. With age, the physical condition will tend to weaken so that they will do activities according to their capacity [26].

3.1. Leisure participation of the older adults

Participation of the older adults in leisure is divided into the characteristics of the active activities (the past, present, future), passive activities (the past, present and future) and socialization activities (the past, present, future), frequency, and participation in the use of leisure time (willingness, ability and opportunity). Respondent's analysis based on the older adults' leisure participation which is included in active activity can be seen in Table 2. The most frequent participation is included in active activity during the past is gardening (58%), the recent time is taking a walk (44%), and will do the future is take a walk (47%). Take a walk meant here are going somewhere for a picnic or just breathing fresh air

The most frequent participation is included in passive activity during all the time such as watching TV, the past (68%), the recent time (72%), and will do the future (72%). Respondent's analysis based on the older adult leisure participation which is included in passive activity can be seen in Table 3.

Respondent's analysis based on the older adult leisure participation which included in socialization activity can be seen in Table 4. Leisure participation of the older adults is the most common and included in social activity is

socializing, in the past time was 72%, at present is 69% and for the future 71%. The activity of socializing becomes a popular activity among the older adults. Although the current percentage of this trend has decreased, the activity of socializing for the older adults is still desirable to be implemented in the future. The evidenced to this claim is the listed percentages that increase from of 69% at the present time to 71% in the future.

Active activities	The Past	Present	Future
	n (%)	n (%)	n (%)
Sports	59 (49)	27 (23)	39 (27)
Gardening	69 (58)	50 (42)	53 (44)
Swimming	15 (13)	10 (8)	9 (8)
Cooking	58 (48)	50 (42)	51 (43)
Fishing	9 (8)	2 (2)	6 (5)
Take a walk	47 (39)	53 (44)	56 (47)
Hiking	9 (8)	3 (3)	3 (3)
Breed	43 (36)	36 (30)	32 (27)
Singing	22 (18)	13 (11)	11 (9)

Table 2: Characteristics of Active Activity

Table 3: Characteristics of Passive Activity

Passive activities	Past	Present	Future		
	n (%)	n (%)	n (%)		
Reading	52 (43)	41 (34)	41 (34)		
Watching TV	82 (68)	86 (72)	86 (72)		
Listening radio	57 (48)	46 (38)	46 (38)		
Embroider	14 (12)	11 (9)	9 (8)		
Sewing	35 (29)	25 (21)	22 (18)		
Collection of goods	7 (6)	6 (5)	7 (6)		
Correspondence	11 (9)	6 (5)	5 (4)		
Listen to music	17 (14)	12 (10)	9 (8)		
Draw	1 (1)	0 (0)	1 (1)		
Writing story	9 (8)	9 (8)	7 (6)		

Socialization activity	The Past	Present	Future	
	n (%	n (%)	n (%)	
Chat	90 (75)	56 (47)	53 (44)	
Visiting relatives & neighbors	33 (28)	39 (33)	43 (36)	
Socializing	86 (72)	83 (69)	85 (71)	
Family Welfare Development	43 (36)	33 (28)	31 (26)	
Integrated Service Post	20 (17)	22 (18)	23 (19)	
Celebration	60 (50)	43 (36)	47 (39)	
Ronda (Community security at the night)	29 (24)	11 (9)	12 (10)	
Selapanan (Celebration 35 days of birth)	8 (7)	4 (3)	6 (5)	
Sepasaran (5th birthday celebration)	6 (5)	5 (4)	7 (8)	
Gotong-royong (working together voluntarily)	65 (54)	47 (39)	44 (37)	

Table 4: Characteristic of Socialization Activity

There are similarities and differences in activities occupied by the older adults as it compared to the previous research. The same activity with this research is that the older adults use their spare time to watch television, chat, visiting neighbors or parks (socialization), and gardening. This is mostly influenced by several factors including; due to the time factor, physical condition, the existence of facilities, feelings and work experience. The results obtained information that most have a television, of course in more advanced areas of television will become the primary needs. This is an indication that everyone at least is able to enjoy the show on television, so no wonder the activity of watching television is done by many people in his spare time. An important element in leisure activities is to be able to please the state of mind [3], the activities they choose to fill in their spare time, is nothing but pleasure-seeking [27], so the feeling will play a role in determining the fun activity.

Different themes with other research include; golf, darts, bowling, snooker, swimming, craft, and gambling. That's because of factors: gender, family, education level, money and industry, cultural background and choice. Although there is a literature that suggests that there is little difference in the choice of leisure activities due to gender and socio-demographic factors [28], this fact cannot be ignored. The older adults, especially older adult women, use more time to raise grandchildren when both parents are at work [29]. The older adults who are active role out as the breadwinners for the family found that recreational activities are imperative to ease their burdens [30]. This finding is crucial to denote the importance of allocating the time for self-gratification since the involvement of leisure-time activities is crucial to physical, psychological and social health [31].

Participation in the utilization of leisure time done by older adults has a different frequency. The highest frequency in leisure time use is categorized 1-3 times/week amounted to 39 (41.9%) in 60-74 years age group. Table 5 describes in detail the frequency of participation in the utilization of the older adults' leisure time based on respondent characteristics. The findings of this study suggest that the value of life satisfaction is higher in the

group with a higher frequency of participation. The results of interviews with respondents stated that the more often they participated in the utilization of leisure time, the elderly were happy and happy. This is consistent with the findings of [32] studies in which the participation of leisure time is found to positively affect women's life satisfaction. Other studies with parallel results are studies conducted in Australia and the United States [33].

Characteristics	<1/month	1-3/month	1-3/week	4-6/week	Everyday
Characteristics	n (%)	n (%)	n (%)	n (%)	n (%)
Gender					
Male	3 (6.8)	7 (15.9)	16 (36.4)	1 (2.3)	17 (38.6)
Female	3 (3.9)	6 (7.9)	31 (40.8)	6 (7.9)	30 (39.5)
Age					
60-74 years (elder)	3 (3.2)	11 (11.8)	39 (41.9)	4 (4.3)	36 (38.7)
75-90 years (old)	3 (11.1)	2 (7.4)	8 (29.6)	3 (11.1)	11 (40.7)
Level of education					
No Schooling	2 (15.4)	0 (0)	5 (38.5)	1 (7.7)	5 (38.5)
Elementary school/equivalent	2 (3.9)	7 (13.7)	17 (33.3)	2 (3.9)	23 (45.1)
Junior High School/equivalent	1 (4.5)	1 (9.1)	10 (45.5)	1 (4.5)	8 (36.4)
Senior High School/equivalent	0 (0)	2 (9.1)	12 (54.5)	3 (13.6)	5 (22.7)
College	1 (8.3)	2 (16.7)	3 (25)	0 (0)	6 (50)
Health status					
Diseased, abnormal activity	1 (14.3)	0 (0)	1 (14.3)	0 (0)	5 (71.4)
Diseased, can be an activity	2 (3.8)	7 (13.2)	23 (43.4)	2 (3.8)	19 (35.8)
Healthy	3 (5)	6 (10)	23 (38.3)	5 (8.3)	23 (38.3)
Occupation					
Does not work	6 (7.5)	7 (8.8)	31 (38.8)	6 (7.5)	30 (37.5)
Working part-time	0 (0)	4 (16.7)	9 (37.5)	0 (0)	11 (45.8)
Working full time	0 (0)	2 (12.5)	7 (43.8)	1 (6.3)	6 (37.5)

Table 5: Differences in frequency of participation based on respondent characteristics

Overall participation in the utilization of free time is highly categorized with the percentage of 80.8%. Willingness to participate in the utilization of the older adult's leisure was moderate categorized (53.3%). The ability of older adults to participate in the utilization of free time of high categorized older adults was documented with a percentage of 79.2%. Opportunities for the older adults to participate in the utilization of high-categorized older adults spare time was noted with a percentage of 58.4%. The distribution of respondents based on participation in the leisure time can be seen in Table 6. Based on the analysis of respondents data it is known that the elderly have the ability and high opportunity to participate the utilization of leisure time but willing to participate in the utilization of leisure time is still being. [34] states that participating in the utilization of spare time is a predictor to maintain and improve the health status and physical function of the elderly.

Looking at this research data is needed an effort to empower the elderly to participate in the utilization of leisure time.

Variable/indicators	Score	Category	Frequency	%
Participation	127 – 188	High	97	80.8
	63 – 126	Moderate	23	19.2
	1-62	Low	0	0
Willingness	28 - 40	High	56	46.7
	25 - 32	Moderate	64	53.3
	1 – 13	Low	0	0
Abilities	17 - 24	High	95	79.2
	9 – 16	Moderate	24	20
	1 - 8	Low	1	0.8
Opportunities	17 - 24	High	70	58.4
	9 – 16	Moderate	49	40.8
	1 - 8	Low	1	0.8

Table 6: Distribution of respondents by participation

There are differences in the participation of leisure by gender and age group. However, there are no differences in leisure participation based on a level of education, health status, and occupation. The distribution of differences in leisure participation based on respondent characteristics can be seen in Table 7.

Table 7: Differences in leisure participation based on respondent characteristics

Characteristics		Moderate n (%)	High n (%)	Pearson's chi- square	Sig. (2-sided)
Gender	Male	8 (18.2)	36 (81.8)		
	Female	14 (18.4)	62 (81.6)	0.001*	0.974
Age	60-74 years (<i>elder</i>)	17 (18.3)	76 (81.7)		
0	75-90 years (<i>old</i>)	5 (18.5)	22 (81.5)	0.001*	0.977
Level of	No Schooling	4 (30.8)	9 (69.2)		
education	Elementary school or equivalent	8 (18.7)	43 (84.3)		
	Junior High School or equivalent	4 (18.2)	18 (81.8)		
	Senior High School or equivalent	2 (9.1)	20 (90.9)		
	College	4 (33.3)	8 (66.7)	4.640	0.326
Health status	Diseased, abnormal activity	2 (28.6)	5 (71.4)		
	Diseased, can be an activity \Box	10 (18.9)	43 (81.1)		
	Healthy does not suffer diseased	10 (16.7)	50 (83.3)	0.611	0.737
Occupation	Does not work	17 (21.3)	63 (78.8)		
-	Working part-time□	3 (12.5)	21 (87.5)		
	Working full time	2 (12.5)	14 (87.5)	1.364	0.506

*p<0.01

This is consistent with the results of previous studies that explain that age and gender can influence leisure participation [3]. Elderly women have a tendency more likely to participate in recreational activities [35].

The study explains in detail the characteristics of activities and the dimensions of participation in the use of leisure time. Although researchers have explained variations in aspects of work but have not specifically explained the specific types of work in older adults.

4. Conclusion

The most frequent participation is included in active activity during the past is gardening; the recent time is cooking, and take a walk; will do the future is taking a walk. The most frequent participation is included in passive activity during all the time is watching TV. Leisure Participation of the older adults is the most common and included in social activity is socializing. The highest frequency of older adults in leisure time use is categorized less than once a month. Overall participation in the utilization of free time is high categorized. The willingness of the elder's to participate in leisure is moderate. The ability of older adults to participate is high categorized. The indicator of "opportunities" amongst the older adults to participate in leisure times is categorized as high in number. The characteristics of the leisure activities can be recommended for older adults activities program, among others: watching TV, a socializing and take a walk. The frequency of utilization of spare time is still low so it needs to be increased again so that the older adults spare time meaningful. Abilities and opportunities are considered as high in number but the willingness of the older adults to participate in the utilization of leisure times. Leisure participation of the older adults is important and beneficial to physical, psychological and social health.

5. Recommendations

The results of this study can be used as consideration in constructing intervention programs for the older adults, specifically in the utilization of leisure time. There is strong indication that activities are beneficial to the life of the older adults. Through engagements in meaningful leisure activities, it could help the older adults to achieve a happy and pleasurable life as well as having senses of life satisfaction. Thus, it is expected to improve the quality of life of the older adults in general.

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References

- He W, Goodkind D, Kowal P. An Aging World: 2015 International Population Reports. Washington, DC: U.S. Government Publishing Office; 2016.
- [2]. Kementerian Kesehatan RI. Gambaran kesehatan lanjut usia di Indonesia. Buletin jendela data dan

informasi kesehatan. Semester I, 2013. ISSN 2088-270X. Jakarta: Kemenkes RI; 2013.

- [3]. Ravertz C. Leisure. In Wilson, M. Occupational therapy in short-term psychiatry. USA: Churchill Livingstone;1996
- [4]. Lin LH. The preliminary study on the condition and strategy of successful aging toward the elder. Pressed in aged society and adult education. Taipei: Shita Book; 2004.
- [5]. Yang CS. The discussion about correlated factors of successful aging for the silver elder. Taipei: worldwide management company; 2006
- [6]. Leither MJ, Leither SF. Leisure in Later Life.4th edition. California: Sagamore publishing; 2012.
- [7]. Cernin PA, Lichtenberg PA. Behavioral treatment for depressed mood: A pleasant events intervention for seniors residing in assisted living. Clinical Gerontologist, 32, 324–331; 2009.
- [8]. Wang JY, Zhou DH, Li J, Zhang M, Deng J, Tang M, Chen M. Leisure activity and the risk of cognitive impairment: The Chongqing aging study. Neurology, 66, 911–913; 2006.
- [9]. Wilson RS, Mendes de Leon CF, Barnes LL, Schneider JA, Evans DA, Bennett DA. Participation in cognitively stimulating activities and the risk of incident Alzheimer's disease. Journal of the American Medical Association, 287, 742–748; 2002
- [10]. Pressman SD, Matthews KA, Cohen S, Martire LM, Scheier M, Baum A, Schulz R. Association of enjoyable leisure activities with psychological and physical wellbeing. Psychosomatic Medicine, 71, 725–732; 2009.
- [11]. Lee PL, Lan W, Yen TW. Aging successfully: a four-factor model. Educational Gerontology, 37: 210-227; 2011
- [12]. Sadock BJ, Sadock VA. Kaplan & Sadock's Synopsis of Psychiatry: Behavioral Science/Clinical Psychiatry. 10th ed. Philadelphia: Lippincott Williams & Wilkins; 2007.
- [13]. Knox SH. Play and leisure. In Pedretti & Marry Occupational Therapy Practice Skill for physical Dysfunction 5th. Mosby Inc. Lorraine Williams; 2000.
- [14]. Minhat HS. Leisure constraints faced by elder women: findings from a qualitative study among elder women in Selangor. Malaysian Journal of public health medicine. Vol 14 (1): 55-65; 2014.
- [15]. Iwasaki Y, Coyle CP, Chank JW. Leisure as context for active living, health and life quality for persons with mental illness in a global context. Health Promotion International, Vol.25 No.4 Oxford University Press; 2010
- [16]. Herrera AP, Meeks TW, Dawes SE, Hernandez DM, Thompson WK, Sommerfeld DH, Allison MA, Jeste DV. Emotional and cognitive health correlates of leisure activities in older Latino and Caucasian women. Psychology, Health & Medicine, 16:6, 661-674, DOI: 10.1080/13548506.2011.555773; 2011.
- [17]. Lin T, Sakuno S. Succesful aging and leisure environment: a comparative study of urban areas in Taiwan. Faculty of sports sciences, Waseda University: Japan; 2012.
- [18]. Minhat HS, Amin RM. Sociodemographic determinants of leisure participation among elder in Malaysia. Journal of community health, August 2012. Vol 37. Issue 4, 840-847; 2012□
- [19]. Siegenthaler KL, Vaughan J. Older women in retirement communities: Perceptions of recreation and leisure. Leisure Sciences, 20, 53–66; 1998.
- [20]. Strain LA, Grabusic CC, Searle MS, Dunn NJ. Continuing and ceasing leisure activities in later life: A longitudinal study. The Gerontologist, 42, 217–223; 2002.

- [21]. Badan Pusat Statistik. Statistik penduduk lanjut usia 2014 Hasil survey social Ekonomi Nasional. Jakarta: Badan Pusat Statistik; 2015
- [22]. Lefrancois R., Leclerc G, Poulin N. Predictors of activity involvement among older adults. Activities, Adaptation & Aging, 22, 15–29; 1998.
- [23]. Chen SY, Fu YC. Leisure participation and enjoyment among the elder: individual characteristics and sociability. Educational Gerontology, 34: 871-889; 2008
- [24]. Varshney S. Predictors of successful aging: associations between social Network patterns, life satisfaction, depression, subjective health and leisure time activity for older adults in India. Dissertation. Health Psychology and Behavioral Medicine. University of North Texas; 2007.
- [25]. Sellar B, Boshoff K. Subjective leisure experiences of older Australians. Retrieved on Friday, July 14, 2006, from http://www.blackwell-synergy.com/doi/abs; 2006.
- [26]. Rogers JC, Holm MD. Role change assessment: An interview tool for older adults. In Hemphill-Pearson. 2008. Assessment in occupational therapy mental health an integrative approach second edition. USA: Slack incorporated; 2008
- [27]. Trombly CA, Radomski MV. Occupational Therapy for Physical Dysfunction 6th edition. USA: Lippincott Williams & Wilkins; 2008.
- [28]. Kronlöf GH, Sonn U. Interests that occupy 86-year-old persons living at home: Associations with functional ability, self-rated health, and sociodemographic characteristics. Retrieved on Friday, July 14, 2006, from http://www.blackwell-synergy.com/doi/abs; 2005.
- [29]. Withnall A & Thompson V. Older people and lifelong learning: Choices and experiences. Retrieved on Friday, July 14, 2013, from http://www.esrc.ac.uk/ESRCInfoCentre/Plain; 2006.
- [30]. Glantz C.G., and Richman N. Leisure activities. In occupational therapy: Practice skill for physical dysfunction. St. Louis: Mosby; 2001.
- [31]. Taylor J. Women's leisure activities, their social stereotype and some implication for identity. In The British journal of occupational therapy. Oslo: Scandinavian University Press; 2003.
- [32]. Brown B.A. and Frankel B.G. Activity through the years: Leisure, leisure satisfaction, and life satisfaction. Sociology of Sport Journal, 10, pp. 1-17; 1993
- [33]. Hawkins, B., Foose, A.K., & Binkley, A.L. Contribution of leisure to the life satisfaction of older adults in Australia and the United States. World Leisure, 46(2), (4-12); 2004
- [34]. Varshney, S. Predictors of successful aging: Associations between social network patterns, life satisfaction, depression, subjective health and leisure time activity for older adults in India. Dissertation. Health Psychology and Behavioral Medicine. University of North Texas; 2007.
- [35]. Li L, Chang H-J, Yeh H-I, Hou CJ-Y, Tsai C-H, Tsai J-P. Factors associated with leisure participation among the elderly living in long-term care facilities. International Journal of Gerontology, 4, issue 2, 69-74; 2010