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Research Article

**LIFE SATISFACTION AND DEPRESSION PATTERNS AMONG  
ELDERLY PERSONS ATTENDING A DAYCARE CENTER COMPARED  
WITH THOSE WHO DO NOT: A CROSS-SECTIONAL STUDY,  
BAHRAIN 2015.**

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**Abstract**

*Life satisfaction and overall mental well-being of elderly people has become an important aspect in geriatric care, especially with the continuous rise in percentage of elderly population worldwide including the Kingdom of Bahrain. Hence, it is important to identify the factors and social facilities – like elderly daycare centers – that are associated with better life satisfaction among elderly people. The proposed study provides a baseline guide for policy makers on whether or not there is a need for elderly daycare centers in Bahrain in order to improve elderly's psychological health and well-being. This study compared the degree of life satisfaction and prevalence of depression between two populations, each was comprised of 69 elderly subjects (56 females and 13 males) aged 60 years and above. One population attended regularly an elderly daycare center "Dar UCO Day Care Center" located in governorate of Muharraq, Kingdom of Bahrain, while the other did not attend any daycare center and was obtained by convenient sampling method from primary health care centers in the same geographic area. Life satisfaction was measured by the "Life Satisfaction Scale by Dr. Majdi Aldassoqi", on the other hand, depression was measured by the "Geriatric Depression Scale (GDS) by Sherry A. Greenberg". Both scales were in Arabic and were previously used in the Kingdom of Bahrain. Data was collected from the 23<sup>rd</sup> August to 10<sup>th</sup> September, 2015 and was analyzed using the SPSS software. The study revealed that 69.6% of those attending UCO were satisfied with life compared to 49.3% of those from the health care centers. In addition, 47.8% of the individuals in UCO population were depressed compared to 52.2% of those in the health care centers population. Such results imply that those attending daycare centers, being surrounded by others of the same age group, have higher life satisfaction and are less likely to suffer from depression.*

**Key words:** *Life Satisfaction, Depression, Psychological Health, Elderly day Care Center, Geriatric Care.*

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**INTRODUCTION:**

The world's population is ageing rapidly. Between 2000 and 2050, the proportion of the world's older adults is estimated to double from about 11% to 22%. So there is an expected increase from 605 million to 2 billion people over the age of 60 (1). In 2001, the Bahraini elderly population above 60 years of age occupied 1.1% of the total Bahraini population. In 2010 it increased to 6.3% and is expected to reach 9.6% in 2025 and sharply rise to 24% in 2050 (2,3). This increase is a result of both longer life expectancy and declining mortality rates. In addition, life Expectancy in Bahrain increased from 70.5 years to 75.8 years from the period 1980-1985 to the period 2005-2010. It is projected to reach 81.4 years in 2045-2050 (4).

Over 20% of adults aged  $\geq 60$  suffer from a mental or neurological disorders (excluding headache disorders) and 6.6% of all disability (disability adjusted life years-DALYs) among over 60s is attributed to neurological and mental disorders. The most common neuropsychiatric disorders in this age group are dementia and depression (1). These mental Health problems are under-identified by health care providers despite their high prevalence. Thus, life satisfaction among the elderly has become an important issue in geriatric care. It is affected by various physical, emotional, social and mental conditions (5). As a person becomes older, life satisfaction declines rapidly (6). Furthermore, depression is both under diagnosed and undertreated in primary health care settings. A previous study in 2009 revealed a high incidence of depression among elderly attending the local health centers in Bahrain (3).

Many studies have been done about elderly psychological health, life satisfactions and depression. However, not all of which were based on comparison between two groups of elderly. A study conducted in Turkey in 2013 compared between two groups of elderly, one living in nursing homes and other living at home, regarding living conditions, depression and dependency. It showed that the prevalence of depression among those living in nursing home (46%) is greater compared those living at home (40%) (7).

Another study was conducted in Japan and published in October 2005 about the association of social support and depression status in the elderly: result of a 1-year community-based prospective cohort study. This study somewhat meets with ours as the elderly daycare center (i.e. UCO) is obviously linked and could affect social support. The Japanese study was

subjected to 2730 eligible elderly aged  $\geq 70$  years. First, the subjects were divided into depressed and non-depressed groups using The Geriatric Depression Scale, and then the social support was assessed using 5 social support items. The study concluded that there is significant increase in the risk of depression status associated with lack of social support in Japanese elderly people (8).

Another important relevant cross-sectional study done in Bahrain and published by the Bahrain Medical Bulletin in September 2014 estimated the prevalence of depression among elderly attending daycare centers. It subjected all elderly aged  $\geq 60$  years attending all seven daycare centers in Bahrain. The shorter version of Geriatric Depression Scale was used to screen for depression. The conclusion was that the depressive symptoms were prevalent among Bahraini elderly attending daycare centers (9). Our study is a compliment of the this last study as it is going to compare between a group of elderly attending one daycare center (UCO) and others who don't, regarding life satisfaction and depression

**MATERIALS AND METHODOLOGY:**

This study is a cross-sectional study comparing two elderly groups from the same geographic area. The first group consisted of elderlies attending "Dar UCO Day Care Center", and the second group do not attended any Day care Centers (obtained from primary health care centers). Inclusion criteria included the following; Bahraini elderly  $\geq 60$  attending the elderly daycare center, and Bahraini elderly aged  $\geq 60$  attending the health centers and not attending any elderly daycare center. While the exclusion criteria included the following; people refusing to participate in the study, those with poor communication and elderlies attending other elderly daycare centers. Sixty-nine elderlies (56 females and 13 males) were the population of UCO daycare center obtained as census. The second population from the health centers comprised the same number of the first population, obtained conveniently. Total of 138 elderly subjects (112 females and 23 males).

Two instruments were used in the study. The first was the "Life Satisfaction Scale" by Dr. Majdi Moh'd Aldassoqi (1996), which has been tested for its validity and reability and was used in previous researches in Bahrain. It consists of 29 statements with a scale ranging from 0-4 (strongly disagree, disagree, in between, agree, and strongly agree). A result of  $\geq 87$  considers that a person is satisfied. The second instrumnets used was the "Geriatric Depression Scale

(GDS)" By Sherry A. Greenberg, Hartford Institute for Geriatric Nursing, NYU College of Nursing. It has been translated to Arabic and it has also been tested and is currently used by Bahrain Psychiatric Hospital.

The Statistical Package for the Social Science software (SPSS) version 23 was used for analysis. Frequencies and percentages were computed for the categorical variables, while mean and standard deviation were computed for the quantitative variables. T-test, Chi-Square and Cramer's V tests were used to test the relationship between different variables. P Value of 0.05 or less was considered as statistically significant difference. Finally, data was presented in tables and graphs.

Autonomy and confidentiality was maintained in the study. Informed consent was obtained from participants and they were informed about the process of the research. Meanwhile, Participants had the right to decline participation at any time. In addition, no demographic data of participants were entered; instead a coding number was used. The completed collected data was kept under lock and key. Moreover, all data collection forms were destroyed after writing the final report. Furthermore, Research data was managed and disseminated in accordance with Data Protection Act of the ministry

of health in the kingdom of Bahrain. Approval was taken from the UCO elderly care center and the heads of primary healthcare centers administrative boards. In addition, ethical acceptance and approval was taken from ethical department at the Arabian Gulf University.

### RESULTS:

The study was done on elderly people from 2 units, one is UCO elderly daycare center and the other is the health centers. From each unit the same number of individuals (69 subjects) was enrolled in the study with the same percentages of males (18.8%) and females (81.2%). All the individuals in the study were aged 60 and above and 67.4% of them were between 60 and 69 years of age. The mean age was 67.2 with a standard deviation of 6.8.

There was no statistically significant differences in the mean depression score among subjects in UCO unit compared to subjects in health care centers units (4.2 with a standard deviation of 2.7, compared to 5.1 with a standard deviation of 3). On the other hand, there was a high statistically significant differences in the mean satisfaction score in UCO unit compared to the health centers unit (96.1 with a standard deviation of 13.8 compared to 85.9 with a standard deviation of 19.7) (Table 1).

(Table 1) Mean and standard deviation of depression and satisfaction scores according to unit

	Unit				T-test P-value
	UCO		Health Center		
	Mean	SD	Mean	SD	
Depression score	4.2	2.7	5.1	3.0	0.062
Satisfaction score	96.1	13.8	85.9	19.7	0.001

Overall, and according to GDS, 47.8% of subjects in UCO unit (33 out of 69 subjects) were classified as depressed compared to 52.2% of those in the health centers unit (36 out of 69 subjects). Meanwhile, according to LSS, 69.6% of subjects in UCO unit (48 out of 69 subjects) were considered satisfied with life compared to 49.3% of those in the health centers unit (34 out of 69 subjects). The Chi-Square test was used to determine whether there is a significant relationship between the categorical variables, while Cramer's V test was used to determine whether there is a significant relationship between the categorical variables (more than 2x2 tables) as more than 20% of the expected values are less than 5. The p-value for depression resulted from Cramer's V test was 0.158 (not significant) while the p-value for life satisfaction resulted from Chi-Square test was 0.015 which is significant

(Table 2) Frequency and percent distribution of depression and satisfaction according to unit

				Unit				Test	P-value
				UCO		Health Center			
				N	%	n	%		
Depression	Normal	36	52.2%	33	47.8%	Cramer's V	0.158		
	Mild	27	39.1%	29	42.0%				
	Moderate	6	8.7%	3	4.3%				
	Severe	0	0.0%	4	5.8%				
Satisfaction	Dissatisfied	21	30.4%	35	50.7%	Chi-Square	0.015		
	Satisfied	48	69.6%	34	49.3%				

## DISCUSSION

The continuous rise in percentage of elderly population in Bahrain (10) brings up the importance of social facilities like elderly daycare centers – that may contribute to better mental health and well-being of elderly individuals. From this point of view this study aimed to prove or disprove the relationship of elderly daycare centers with a better mental health status of elderly individuals by assessing and comparing depression and life satisfaction among 2 groups, one attending an elderly daycare center and the other do not.

The results showed a significant difference in life satisfaction between the two groups in which the first group (attending elderly daycare centers) has a markedly higher life satisfaction (p-value 0.001). There was also a difference in depression rates between the two groups in which the first group has lower depression rates. However, the difference in depression rates is not considered as significant as the difference in life satisfaction patterns (p-value 0.062). Similarly, the Japanese study showed that lack of social support in elderly people was associated with significant increase in the risk of depression status (8). Meanwhile, the Turkish study showed that the prevalence of depression among those living in nursing home (46%) is greater compared to those living at home with their families and hence have more social support (46% and 40% respectively) (7).

## CONCLUSION:

Life satisfaction patterns are significantly higher in elderly persons attending daycare center (UCO) compared with those who do not. This demonstrates the importance of having more elderly daycare centers to promote elderly mental health and well-being.

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