



## Evaluation of Complications Associated in Empty Middle-aged Mothers

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### ABSTRACT

**Introduction:** Middle age is considered as a bridge between youth and senility. This is one of the golden and most fertile times of life. This period coincides with menopause, infertility, reduction or loss of physical abilities and children's moving out of home or even the death of their partners. **Materials and methods:** The present study is cross-sectional and analytical. The sample population was selected by a stratified random sampling method (n=500). The data were collected through a demographic researcher-made questionnaire, UCLA Loneliness Scale, social support, Worthington's Religious Commitment Inventory, and socioeconomic status questionnaire. Data were analyzed by SPSS software (version 21) using Chi-square, independent T-test, and Pearson Correlation Coefficient. **Results:** The results showed that there is a significant relationship between the empty nest syndrome and the age of mother or caretaker, age of the father, degree, social support, religious commitment, employment status, and the number of children (p<0.001). However, there wasn't any significant relationship between this syndrome and the duration of marriage (p>0.001). The prevalence of this syndrome in women was 62%. **Conclusion:** parents, and especially women require some planning for heightening their efficiency and capability spirit to reduce the feeling of loneliness and controlling the empty nest syndrome. For instance, they must look for spare-time activities such as going on religious-recreational tours, spending time with beneficiary activities and new social relations and acquaintances.

**Keywords:** *empty nest syndrome, middle-aged women.*

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### INTRODUCTION

Empty nest syndrome is the lasting feeling of loneliness and grief that mothers experience when their children leave home for higher education, marriage, or even migration [1]. The probability of this syndrome's prevalence is more in women as compared with men [2]. This syndrome coincides with women's menopause and men's retirement, which occurs in the 40s and 50s.

The lower the age difference between the last child's and the parents, this coincidence between empty nest syndrome and women's menopause or men's retirement will be less probable which is considered as significant [2]. This syndrome is more prevalent among super mothers than other mothers. Super mothers are those mothers who have a high influence on their children, largely managing them, while spending most of their time on their children's affairs. The condition of being a super mother

appears as a result of losing a close emotional tie or an intimate relationship [3].

This period is accompanied by feelings of distress and negative stress. Loneliness in itself will lead to depression and Alzheimer and will affect the quality of upcoming years of life [2]. If they fail to engage in fun activities, they will be depressed at this age. Feeling of loneliness among the afflicted population will make them confront feelings of emptiness, sadness and not belonging and will affect individual patient's social interactions, living, and his/her physical and mental health [4]. Generally, feeling of loneliness is associated with many other mental-social disorders (such as low self-esteem, low competence, and poor social interactions), mental disorders (such as anxiety, depression and suicide-seeking behaviors), and physical disorders (such as immune system's performance and a variety of sleep disorders) [5]. Women who act only as housewives feel that they've lost their role when their children leave home or get married. Therefore, their social interactions and activities will be limited and they would suffer from empty nest syndrome, depression and disorders related to drug-abuse [6].

Losses and changes may result in loss of meaningfulness and relating to life. extra-committed parents are at greater risk than parents who experience active and meaningful relationships in their lives (such as good job, degrees, family relationships, and skilled in coping with stress) [3]. Literature has shown that most people afflicted with empty nest syndrome don't have adequate welfare amenities and good and proper housing [7]. Social support, religion and religious attitudes, economic status, and marital life are among the wealth of factors contributing to depression in the middle-aged population [8]. Zhang et al. (2009) conducted a study on the prevalence and related factors influencing empty nest syndrome in the rural region of Yang Zhua in China. They concluded that individuals with empty nest syndrome suffer from depression more than the rest of the population [9]. Wang et al. (2013) conducted another study in Sichuan to investigate anxiety disorder and its risk factors among individuals with empty nest syndrome. They showed that 30.11% of people with empty nest syndrome suffer from anxiety disorders

and their symptoms. There was a positive significant correlation between anxiety and feelings of depression and loneliness. Anxiety levels were significant in terms of gender, degree, occupation, place of residence, marital status, and income [10].

The phenomenon of Empty nest syndrome is increasingly growing and has become an important social issue. At present, the country faces significant problems such as feelings of loneliness, depression and the prevalence of empty nest syndrome among the middle-aged and aged population, especially women as a result of population decline and observed growth in the aged population. Considering the increasing number of single-child families, it's expected that this syndrome's prevalence will reach more than %90 until 2030 [11]. Bills believe that depression will appear in %20-30 of aged people appear as lethargy, tiredness, lack of concentration, lack of proper mood, frequent waking up at night, lack of appetite, and physical pains. Anxiety is also a common problem among aged people because this age is full of shortcomings and disabilities. Thus, reducing depression and anxiety has a positive relationship with the aged population's health status and their relationships with others [12]. Accordingly, the prominence of health in middle-age and its impact on the quality of life for all people is clear that, given the growing middle-age population in various societies, especially Iran, it's necessary to conduct effective and proper interventions to prevent, diagnose and treat this syndrome. Training activities using cultural centers' and cultural-sport complexes as well as forming new social relations are among the solutions to cope with this syndrome and other related disorders.

## METHOD

This is a cross-sectional study and conducted in 2019-2020. Initially, the official introduction letter received from the NAJA's deputy of health and rescue. The sample population was 500 according to the professor of statistics and relevant literature. Then, a letter of introduction was provided to the Plan and Budget Organization of Iran to specify the city blocks. The blocks were randomly selected from North, South, East, and West of Ahvaz. Sampling was

done at the door of aged people's houses. The questionnaires were filled out by the researcher after gaining written consent and describing the purpose of the study and ensuring the confidentiality of the data.

The inclusion criteria for this study were having children, the absence of any refractory disease and Demetial Brain. Using the UCLA scale, the study samples were divided into two categories: empty nest syndrome and not having empty nest syndrome. Different scales have been used to collect the required data. They included VUX social support survey to determine the amount of social support, Worthington's religious commitment questionnaire, the Garmaroudi's socioeconomic status questionnaire, and a demographic researcher-made questionnaire (including age, menopause age, occupation, wife and husband's degrees, original parents/caretaker, age of last-child, age of the last child leaving home, etc.). The collected data were analyzed using SPSS software (version 21). Statistical tests such as Chi-square, T-test, and logistic regression were used to analyze the final data.

### Instruments

The UCLA Loneliness Scale was developed in 1980, which included a 20 four-Likert scale (never=1, rarely=2, sometimes=3, and always=4), 10 positive, and 10 negative statements. The scoring procedure for items 5, 6, 9, 10, 15, 16, 1, and 0 is the inverse i.e. never=4, rarely=3, sometimes=2, and always=1). The score range is between 20 (minimum) and 80 (maximum). Scores above 20 indicate a feeling of loneliness.

VUX et al. (1986) used the measure of social support to measure respondents' social support. This index includes 23 items in three different domains of the family (8 items), friends (7 items) and others (8 items). The minimum and maximum scores vary between 0-23 and scores above 12, indicating high and moderate social support.

The Religious commitment questionnaire was developed in 2003 by Worthington et al. this included subscales such as intrapersonal religious commitment and interpersonal religious commitments. There are a total of 10 items used to assess an individual's religious commitment. The questionnaire was

administered on a 5-Likert scale (totally disagree=1; disagree=2; no idea=3; agree=4; totally agree=5). The score range is between 10 (minimum score) and 50 (maximum score).

Garmaroudi's socioeconomic status questionnaire includes four domains such as parents' degrees and occupations, family cost and income, housing and facilities, and leisure. The study population was divided into two high and low socioeconomic status groups by calculating 10% and 90% of the questionnaire scores. Those with a score below 10% have a low socioeconomic status and those with a score lower below 90% have a high socioeconomic status.

### Instruments' reliability and validity

Measured reliability for the UCLA revised Loneliness Scale was reported to be 78%. Reliability was measured by UCLA (1978) as 89% with a test-retest method. Bahira'ee et al. showed that the UCLA measure has a reliability of 89% and convergent validity of 55% through correlation measurement [13].

The VUX social support test was translated into Persian by Ebrahimi Ghavam (1992) and was administered to 100 Iranian students with a score of 0 and 1. The reliability coefficient among university students was 90% and among school students 70%. This figure reached 81% after six weeks for students in the re-test. The reported reliability coefficient for the social support scale was 70% [14]. The Worthington et al.'s religious commitment questionnaire had reliability of 93% (Cronbach's alpha= 0.93). Also, the reliability coefficient of the questionnaire within three weeks was 87% test-retest method. There was a significant correlation between the scale of religious commitment scale and self-report suicide, the amount of participation in religious rituals, cooperation with religious entities and self-reports of being religious meaning that the test has criterion and construct validity [14].

The reliability of the Garmaroudis socioeconomic status questionnaire was calculated 0.6 using Cronbach's alpha. In addition, the content validity of the questionnaire items was confirmed by the experts. Construct validity has been measured through factor analysis [15].

## RESULTS

500 people participated in this study, 190 of which were suffering from empty nest syndrome and 310 were healthy and they were compared with each other. The mean age of female participants with empty nest syndrome was 62.16 years and 53.12 for those without the syndrome. The mean age of the partners of those suffering from empty nest syndrome was more than 66.18 and it was 60.15 for partners of those without this syndrome. 86.63% of those

with this syndrome were illiterate or could only read and write and only %13.17 of individuals with a higher education degree suffered from this syndrome. Another factor examined in this study was marital status. %80.3 of married people didn't suffer from this syndrome. On the other hand, 60% of widowed individuals suffer from the syndrome. Another factor under investigation was their employment status. Only %7 of the study population under study were employed and 80.1% of those with this syndrome were housewives.

**Table 1:** Frequency distribution of empty nest syndrome in two experimental groups

Variable	Empty nest syndrome		Total
Number	Suffering	Not suffering	500
	310 (%62)	190 (%38)	

According to the results, the empty nest syndrome shows the prevalence rate of %62 in the study population.

**Table 2:** Demographic information of the study population

Empty nest syndrome		Suffering (n=310)		Not suffering (n=190)		p-value
		Number	Percentage	Number	Percentage	
Marital status	Married	22	11.57	253	81.61	0.001
	Divorced	71	37.36	18	5.80	
	Widowed	98	51.57	39	12.58	
Employment status	Unemployed	201	94.52	37	11.93	0.001
	Employed	39	7.91	273	88.07	
Degree	Illiterate	99	52.10	17	5.48	0.001
	Primary and secondary school	66	34.73	44	14.19	
	University degree	10	13.17	259	83.54	
Parents' family relationship	Yes	68	35.78	66	21.29	0.001
	No	122	64.22	224	78.71	
Woman's age	Mean and standard deviation	62.16(3.18)		53.12(5.11)		0.001
Man's age	Mean and standard deviation	66.18(2.34)		60.15(1.22)		0.001
Number of children	Mean and standard deviation	1.34(1.02)		4.98(1.12)		0.001
Marriage duration (in years)	Mean and standard deviation	46.12		45.78		p>0.001

**Table 3:** Empty nest syndrome scores in two experimental groups based on their socio-economic status

Empty nest syndrome	Favorable socioeconomic status			Unfavorable socioeconomic status			p-value
	Number	Mean	SD	Number	Mean	SD	
Isolation	190	5.34	1.98	310	8.30	2.55	0.001
Unsociable	190	12.73	4.73	310	16.38	5.74	0.001
Lack of close or intimate relationships	190	3.91	1.5	310	5.50	1.94	0.001
Feeling of loneliness	190	0.82	0.13	310	1.50	0.28	0.001

The above table shows four different factors related to the unfavorable socioeconomic status

variable that was significantly different between the two groups based on an independent T-test.

**Table 4:** Mean socioeconomic status scores in two groups

Variable	Empty nest syndrome			Total	p-value
		Suffering	Not suffering		
Socioeconomic status	Favorable	18	31	61	0.001
	Unfavorable	172	267	439	
Total		190	310	500	

**Table 5:** Mean internal and external religious commitment scores in two groups

Variable		Empty nest syndrome						p-value
		Suffering			Not suffering			
Religious commitment	Internal	190	16.96	3.84	310	25.98	2.37	0.001
	external	190	9.99	0.15	310	3.85	0.98	

The above table shows the high internal religious commitment in the “not suffering from syndrome” group and the higher external religious commitment in the “suffering from the syndrome” group. The results of the

independent sample T-test showed a significant difference in terms of internal; and external religious commitment between the two experimental groups.

**Table 6:** Comparin frequency and prevalence of Empty nest syndrom subscales studied in 2 groups

Variable	Empty nest syndrome			p-value
	Suffering (n=190)		Not suffering (n=310)	
Religious commitment	High	(38.43)	(%61.57)	0.001
	Low	117(%61.57)	31(%10)	
Economic status	Favorable	18(%9.47)	267(%86.12)	
	Unfavorable	172(%90.52)	53(%17.09)	
Social support	High	23(12.10)	282(90.96)	
	Low	167(87.89)	28(9.04)	

**Table 7.** Mean social support status scores in 2 groups

Variable		Empty nest syndrome		Total	p-value
		Suffering	Not suffering		
Social support	High	47(15.21)	262(15.78)	309	0.001
	Low	153(80.10)	38(19.89)	191	
Total		200	300	500	

In the table above, higher social support was reported in the “not suffering from the syndrome” group. According to the Chi-square test, there was a significant difference between the two groups.

## DISCUSSION AND CONCLUSION

Table 1 reports the frequency of empty nest syndrome in the study population. According to the results, the prevalence rate of this syndrome is %62 and a high percentage of women and caretakers suffer from complications of being apart from their children. The prevalence of this syndrome in single-child families was even higher. In a study [16], the prevalence of the

syndrome in Finland was 39.4% and in China 35%. It's predicted that this prevalence rate will reach up to %90 because of the increasing trend of single-child families and the migration of children to other countries for having a better life [11].

The high prevalence of this syndrome in Iran may be due to longer living with parents and more complexity and depth of family relationships. Literature has shown that leaving children out of the home has been described as a major disadvantage to parents, which will materialize in the form of loneliness, anxiety, and depression [17].

People who live on their own feel more isolated and lonely as compared to married ones. This

may be due to higher social, economic and emotional supports and lower feeling of loneliness among these patients.

The results of the frequency distribution of marital status showed that most of the participants in the “not suffering group” were married (%81.61). Jones and Victor [18] suggested that feeling of loneliness is correlated with being a widow, especially in people who have just recently lost their partner. Je et al. [19] showed that people who leave on their own, feel lonelier as compared to married people. Probably, married people may be less likely to suffer less from empty nest syndrome due to their marital status and favorable social, economic, social, and emotional supports.

Frequency distribution of employment status showed that 94.52% of the individuals in “suffering from syndrome” group were housewife and 88.07% of the individuals in “not suffering from syndrome” group were employed. Wang et al. (2013) showed that employment status has a significant relationship with anxiety resulting from empty nest syndrome [10]. Because employed women have broader social relationships with friends, and colleagues in their workplace, therefore, they are happier and spend more time outdoors, and suffer fewer from the syndrome’s complications. Women, who simultaneously play the role of a housewife and an employee, may be less likely to suffer from the syndrome and its complications.

The results regarding participants’ degree showed that most of the individuals with the “suffering from syndrome group” were illiterate or low-literate (86.83%). One of the main reasons may be that literate people are well aware of the fact that moving out will result in better educational and occupational outcomes for their children, and that they will become more independent and consider it a positive consequence. Je also stated that people with higher education degrees are less likely to suffer from the syndrome [19]. Zhu et al. (2012) presented the same finding as well [20].

In this study, the mean age in the “not suffering from the syndrome” group was lower for both parents. The results illustrated a significant difference between the two groups. The prevalence of this syndrome was significantly correlated with higher age. Harz and Boilu found

a positive significant correlation between age and feeling of loneliness [21]. The prevalence of physical diseases will be increased upon any increase in the individual’s age. Changes in physical appearance, menopause crisis, and lack of good mood may result in a higher feeling of loneliness in mothers. Another reason lies in the low social relationships among the elderly. In this study, there is a significant positive relationship between the duration of the marriage and this syndrome. This factor has not been addressed in other studies.

In this study, the number of children with “suffering from empty nest syndrome” was lower ( $1.34 \pm 1.02$ ) than “not suffering from syndrome” group ( $4.98 \pm 1.12$ ). On the one hand, Iranian children are inclined toward their child’s progress and development. They want their children to marry successfully and have a high education degree, but because of their traditional way of thinking and cultural taboos they can’t cope with their moving out. Mahdiar (2016) also found that the number of children in the “suffering from syndrome” group was lower [22].

The results of this study showed that people were less religiously committed (61.57%) in “suffering from empty nest syndrome” and they were more religiously committed (90%) in “not suffering from syndrome” group. The Chi-square test showed a significant correlation between the two groups. Comparison of the score of religious commitment in high and low-level groups with the factors associated with low religious commitment indicates that isolation, unsociability, lack of close or intimate relationships and feeling of loneliness in the highly religiously committed group have a higher score. Those who consider themselves highly committed to religious values are better prepared to counteract anxiety, and adverse events and they also have a higher capability to cope with any distress. Zhu et al. found that the group, which suffers from empty nest syndrome in rural and urban areas, has a lower religious commitment score. Communication with God and prayer is a good way to deal with emotions such as loneliness and grief and plays a vital role in filling any gaps in life. Religion and spiritual growth are an energy-giving source for individuals that can lead to improved self-

esteem, self-flourishment, and finally improved quality of life as well as mental health[21].

Another factor examined in this study was the socioeconomic status of the participants. According to the results, the mean economic score was low in the group “suffering from empty nest syndrome”, with 90.52% of participants didn't have a favorable socioeconomic status and only 86.12% of them having a favorable socioeconomic status. The Chi-square test showed a significant relationship between these two groups. The results of Wang's study showed that economic conditions may have imposed severe pressures on people suffering from this syndrome. The results of the Je (2013) study in China showed that low socioeconomic status was positively associated with the syndrome. People with higher incomes and independence experience less grief and loneliness after their children leave. Je et al. showed that income is indirectly relationship related to loneliness, such that low-income individuals feel more alone [19].

Social support includes support from family, friends, and others' support of the individual. The results of this study showed that people with “suffering from empty nest syndrome” had lower social support (87.89%) compared to those with “not suffering from empty nest syndrome” group (90.96%) and there is a statistically significant difference between these two groups. In Wang [10] and Je [19], the authors have shown that people with this syndrome have lower social support that confirms the result of the present study. People who have more social support and social relationships feel less alone. Lack of social support will lead to a feeling of loneliness, isolation and reduced mental health. Social support helps people cope with their distress. One of the limitations of this study is the lack of easy association with age group because of their isolation. The questionnaire items seemed too boring and too many for them.

### CONCLUSION

The present study is an attempt to investigate the complications of single-child families and empty nest syndrome. The results show that strong maternal feelings in women make them worry about meeting the needs of others than

their own. Sometimes this attention is drawn to the fact that women are completely immersed in the world of their children. Therefore, when children leave their homes, the mother interferes with this behavior of lack of support, emotional connection, and lack of appreciation for what mothers have done so far. Therefore, women may feel incompetent and incapable and feelings of depression and loneliness.

Thus, to reduce the feeling of loneliness and control the empty nest syndrome, women need to develop plans to increase their productivity and morale. For instance, they should spend time on pilgrimages, tours, benefactors, and attending various classes held at cultural centers and sports complexes; they should also look for new relationship and acquaintances because specialists believe the best way to counteract this syndrome is predicting and planning for compensating and supporting actions.

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