
ANXIETY IN MIDDLE-AGED ADULTS IN THE “EMPTY NEST” PHASE

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Abstract: Transitions in the adult life cycle can have significant psychological effects, with the “empty nest” phase—when adult children leave the parental home—being particularly sensitive and meaningful. Although empty nest syndrome has been associated with loneliness, depression, and stress, empirical evidence regarding anxiety in middle-aged adults remains limited. This cross-sectional study examined levels of anxiety and the association between anxiety, gender, social support, and perceived role change among adults in the empty nest phase. The sample consisted of 64 participants (aged 45–60 years) who completed the adapted DASS instrument (anxiety subscale) and a demographic questionnaire. The sample consisted of 64 middle-aged participants (54.7% women; mean age = 52 years) who had at least one adult child who had left home. Anxiety was measured using the Anxiety subscale of the DASS-21. Descriptive statistics, independent samples t-tests, correlation analyses, and multiple regression were conducted. Results indicated that 53% of participants reported moderate to extremely severe levels of anxiety ($M = 10.9 \pm 4.5$), suggesting that the empty nest transition may constitute a psychologically vulnerable period. Women demonstrated significantly higher anxiety scores than men ($t = 3.1, p = 0.003$). Social support was negatively correlated with anxiety ($r = -0.46, p < 0.001$), whereas perceived role change was positively correlated with anxiety ($r = 0.52, p < 0.001$). Multiple regression analysis revealed that female gender ($\beta = 0.28, p = 0.007$), lower social support ($\beta = -0.34, p < 0.001$), and greater perceived role change ($\beta = 0.41, p < 0.001$) were significant predictors of anxiety, explaining 42% of the variance ($R^2 = 0.42$). The results indicated elevated anxiety in a significant portion of the sample, suggesting the need for interventions to support psychological well-being during this critical life transition. Additionally, the study showed that women in the sample had higher average levels of anxiety compared to men, consistent with previous research on gender differences in psychological vulnerability. Social support emerged as a significant protective factor, as participants reporting higher levels of support from family, friends, or the community demonstrated lower anxiety. Perceived role change, particularly among those who experienced it as substantial, was strongly associated with higher anxiety levels. Psychological stress related to adjusting to new roles and the absence of daily child-related responsibilities may increase the prevalence of anxiety symptoms. These findings highlight the importance of developing psychosocial interventions focused on stress management training, relaxation techniques, and mental health support within family and social contexts. The results also emphasize the need to consider individual differences in the experience of the empty nest and to develop personalized coping strategies. Psychological interventions may include group sessions, psychoeducation, cognitive-behavioral techniques, and activities aimed at enhancing social connectedness. The study further suggests that preventive measures prior to children leaving home could reduce anxiety and facilitate the transition. Overall, the findings indicate a complex interaction between personal characteristics, social environment, and gender differences as determinants of anxiety in middle adulthood.

Keywords: empty nest, anxiety, middle adulthood, life transition, coping strategies.

1. INTRODUCTION

The adult life cycle is characterized by a series of transitions that may have significant psychological effects. One such critical transition is the empty nest phase, which occurs when adult children leave home and parents face a change in their role within the family (Ahmadi Khatir, Modanloo, Dadgari, Yeganeh, & Khoddam, 2024). This life period is often associated with emotional reactions such as loneliness, depression, stress, and anxiety (Wang, Shentu, Xu, & Liang, 2020).

Anxiety among middle-aged adults in the empty nest phase is particularly significant, as it may affect psychological well-being, overall health status, and social functioning (Luo & Wang, 2025). Empirical data indicate that a considerable proportion of adults aged 45 to 60 report increased anxiety due to feelings of emptiness and the redefinition of the parental role (Shi et al., 2025).

These findings underscore the need to develop interventions and strategies aimed at strengthening psychological resilience and well-being during this transitional period. Some studies suggest that social support, positive perceptions of aging, and personal coping strategies can reduce anxiety among empty nesters and improve quality of life (Wang et al., 2020; Luo & Wang, 2025; Shi et al., 2025).

Within the context of middle adulthood, these psychological changes are significant not only for individual health but also for family relationships and broader social networks, making this topic critical for research and intervention (Ahmadi Khatir et al., 2024).

2. MATERIALS AND METHODS

The sample consisted of 64 middle-aged adults (aged 45–60 years) in the empty nest phase, defined as having at least one adult child who had left home, which was a requirement for participation. A convenience sampling method was used, making this a preliminary study. All participants provided informed consent for voluntary and anonymous participation. A specially constructed demographic questionnaire was used to collect basic information, focusing on gender, age, time since the last child left home, number of children, perceived role change, and level of social support. Anxiety was assessed using the Anxiety subscale of the DASS-21 (Depression, Anxiety and Stress Scales), developed by Lovibond & Lovibond (1995). The DASS-21 is a psychometrically validated instrument consisting of three subscales: depression, anxiety, and stress, each with 7 items (14 per scale in the original DASS-42 version). In this study, only the Anxiety subscale was used. It measures symptoms such as nervousness, fear, agitation, and tension using a 4-point Likert scale (0 = never, 3 = almost always). Higher scores indicate higher levels of anxiety. Data were collected using paper-based questionnaires. Participants received an information sheet detailing the study's objectives, procedures, and their right to withdraw at any time without consequences. Demographic characteristics and DASS-20 anxiety scores were analyzed using descriptive statistics. Gender differences were examined using independent samples t-tests. Additionally, multiple regression analyses were conducted to identify predictors of anxiety, including gender, level of social support, and perceived role change. Data were processed using SPSS 20 and Excel.

3. RESULTS

The sample consisted of 64 middle-aged adults in the empty nest phase. The gender distribution was relatively balanced, with a slight majority of women (54.7%). The mean age was 52 years, and the average time since the last child left home was approximately 2.6 years. Most participants reported moderate or significant changes in their parental role, which is expected during the empty nest phase. Anxiety was measured using the DASS-21 Anxiety subscale.

Table 1. Anxiety Levels According to the DASS-21 Anxiety Subscale

Anxiety Level	n	%
Normal (0–7)	20	31.3%
Mild (8–9)	10	15.6%
Moderate (10–14)	22	34.4%
Severe (15–19)	8	12.5%
Extremely Severe (20+)	4	6.2%

Source: Authors' research

Approximately 53% of participants reported moderate to extremely severe anxiety, suggesting that the empty nest phase may be psychologically stressful for individuals in middle adulthood. Mean anxiety score: $M = 10.9 \pm 4.5$

Table 2. Anxiety by Gender

Gender	N	Mean \pm SD	t	p
Men	29	9.4 \pm 4.2		
Women	35	12.1 \pm 4.3	3.1	0.003*

*p < 0.05 – statistically significant

Source: Authors' research

Women in the sample showed statistically significantly higher levels of anxiety compared to men, consistent with previous research on gender differences in psychological vulnerability.

Table 3. Correlation of Anxiety with Social Support and Perceived Role Change

Variable	r	p
Social support	-0.46	<0.001*
Perceived role change	0.52	<0.001*

*p < 0.05 – statistically significant

Source: Authors' research

Higher social support was significantly associated with lower anxiety, while greater perceived role change was associated with higher anxiety. These findings emphasize the protective effect of support and the stress related to role transition.

Table 4. Multiple Regression Predicting Anxiety

Predictor	β	t	p
Female gender	0.28	2.77	0.007*
Social support	-0.34	-3.58	<0.001*
Perceived role change	0.41	4.33	<0.001*

Model: $R^2 = 0.42$, $F(3,60) = 14.5$, $p < 0.001$

Source: Authors' research

Female gender, lower social support, and greater perceived role change were significant predictors of anxiety. The model explained 42% of the variance in anxiety, indicating that these factors are important for understanding psychological reactions in the empty nest phase.

Overall, the results show that middle adulthood in the empty nest phase is associated with moderate to high anxiety levels, particularly among women. Social support emerged as a protective factor, whereas perceived role change represented a risk factor.

4. DISCUSSION

The results of this study indicate that middle-aged adults in the empty nest phase experience moderate to high levels of anxiety, particularly women. More than half of the participants reported moderate to extremely severe anxiety. These findings are consistent with research by Wang et al. (2020), who found increased anxiety among empty nest elders in China, with pronounced gender differences.

Our analysis also highlighted the significant role of social support as a protective factor. Participants reporting higher levels of support from family, friends, or the community had significantly lower anxiety levels. These findings align with previous research demonstrating that social support reduces psychological distress and enhances resilience among middle-aged and older adults (Golovchanova et al., 2021; Royena, 2024).

Perceived change in the parental role emerged as a risk factor for anxiety. Participants who experienced this transition as substantial reported higher anxiety levels, consistent with conceptual analyses emphasizing the stress associated with redefining parental identity (Ahmadi Khatir et al., 2024).

The gender differences identified (higher anxiety among women) align with findings by Luo and Wang (2025) and Kristensen, König, and Hajek (2021), which suggest that women over 45 may be particularly vulnerable to anxiety and depressive symptoms during the empty nest transition.

Overall, the results confirm the complex interaction between personal characteristics, gender differences, and social support as determinants of anxiety among middle-aged adults in the empty nest phase.

5. CONCLUSION

This study examined anxiety among middle-aged adults in the empty nest phase. A substantial proportion of participants reported moderate to high anxiety levels, with women demonstrating higher scores than men. Social support emerged as a key protective factor, while greater perceived role change was associated with higher anxiety. These findings highlight the complex interaction between individual characteristics, social environment, and gender differences as determinants of psychological well-being during this critical life transition. Enhancing social support, developing coping strategies for role changes, and implementing gender-sensitive psychological support may significantly reduce anxiety and improve quality of life among parents in the empty nest phase. Future research should focus on the long-term effects of the empty nest transition, the effectiveness of specific psychosocial interventions, and the role of cultural and social factors in adaptation to life without adult children at home.

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