

Comparison of anxiety, feelings of loneliness and quality of life of single women with and without Foster child

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Abstract

Introduction: Today, the medical community of Iran is witnessing many psychological and physical injuries in two important populations of unmarried women and girls and orphaned and abused children in the country. Therefore, the aim of the present study was to compare anxiety, loneliness and quality of life of single women with adopted children and those without adopted children.

Materials and methods: In this descriptive, causal-comparative study, the number of 140 people (70 single women with adopted children and 70 single women without adopted children) who referred to the welfare department of Tehran province and met the entry criteria, were selected by sampling method in Available were selected. Data collection tools included loneliness questionnaires quality of life questionnaire SF-36 and Kettle's anxiety questionnaire. Data were analyzed with SPSS version 26 software and statistical hypothesis tests and multivariate analysis of variance.

Results: respectively between the two groups and their components in anxiety ($F=24.283$, $P=0.000$, $\eta=0.150$) and quality of life ($F=93.089$, $P=0.000$, $\eta=0.403$) and loneliness ($F = 118.630$, $P = 0.000$, $\eta = 0.462$), there is a statistically significant difference ($p < 0.05$). The mean of hidden and overt anxiety in single women with adopted children less, the average feeling of romantic, family and social loneliness in single women with adopted children was significantly higher and in the quality of life variable, the average general health component was lower in single women with adopted children.

Conclusion: Therefore, it is necessary to implement the adoption program for qualified single women and the need for necessary interventions to prevent and treat anxiety and improve the quality of life of single women without adopted children and to intervene to solve the problems caused by public health and the feeling of loneliness in single women with adopted children.

Keywords: anxiety, loneliness, quality of life, single women with adopted children, single women without adopted children

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Introduction:

In today's industrialized and advanced society of Iran, the increase in the age of marriage and the permanent celibacy of a large number of girls and the celibacy of women due to divorce or the death of their spouses have made them face serious challenges psychologically and then physically, which can affect the quality of life. He pointed out the feeling of loneliness and anxiety in them. At the same time, hiding the natural needs of girls and unmarried women can cause them problems in social relations, because staying single means not having children and motherly identity [1]. On the other hand, every day the number of orphaned or abused children is increasing in the country, and the combination of these problems increases the scope of social damage. Therefore, one of the practical solutions to solve the two problems of absolute celibacy and orphaned children is to accept custody of children for single women [2].

According to the latest public and international relations report of the country's welfare organization and the census in 2017, there are 25,000 orphaned and abused children in the country's welfare centers, and 10,000 children are supported in pseudo family welfare centers and 157,396 unmarried girls and women between 30 and 50 exist in Tehran province. It is under these conditions that the new law on adoption in 2012 in the form of 36 articles and 17 notes under the title "Law for the Protection of Abandoned and Mistreated Children and Adolescents" was approved by the Islamic Council. According to this law, the priority is to adopt a child with a childless couple, then women and girls without a husband without children, and finally a husband and wife with children. Unmarried girls and women, whether they stay single or get married later, or are already married and currently live single and are eligible to adopt a child, including not less than 30 years old, can have a 7-year-old girl as an adopted child [3].

we believe that, in the current situation of the society, there are many single women who have financial ability and good social status; this law can complement the maternal emotions of these women, reduce the psychological problems caused by celibacy and loneliness, and provide guardianship of these children [4,5]. A number of women who were old and single had referred to counseling centers, have shown states such as lethargy and disregard for pleasures and desires, decreased ability to concentrate, make decisions, and think, which are all signs of anxiety and depression. Delay in marriage also causes women to gradually ignore their natural tendencies and become isolated [6]. In the experience of adopting a child and building their maternal identity, single mothers go through four processes: 1) self-recovery 2) preparation 3) acquiring maternal identity 4) growing and strengthening maternal identity, which is similar to the process of having children and building identity in biological mothers. Having a child within the framework of healthy goals and motives entails commitment and responsibility and ensures the maintenance of the mental health of the young generation [8]. In fact, when a person is single and cannot get married for any reason, he will meet his needs elsewhere, A large number of young people with their displacement needs There will be a risk of deviation and with the mental and psychological problems that afflict them, every day the society must witness the increase in the statistics of addiction, delinquency, unrestrainedness, immorality, aggression and the spread of all kinds of physical and mental diseases among young people

[9]. Anxiety is a negative mood that is characterized by physical symptoms such as physical tension and fear about the future and directly affects the quality of life of women [10].

Significantly, anxiety disorders in unmarried women lead to the risk of mood disorders, depression or suicide. Also, traumatic life events and psychological stress play a major role in the etiology of anxiety disorder [11, 12, and 13]. The most common psychological disorder in a person's lifetime is the Anxiety disorder with a prevalence of 5-27% in the general population [14]. In the stressful conditions of today's society, the feeling of loneliness in single women is one of the reasons for anxiety and reduced quality of life, people who have made the effort to develop their minds and thoughts and decide to take guardianship, have not only been able to remove negativity and anxiety from their minds, but somehow by forming a family and achieving peace, they have brought happiness to their lives, made better use of the facilities of their society, and have left positive and profound effects on the people around them [15, 16]. Quality of life is considered as one of the most important indicators of mental well-being and social welfare and important development achievements [17]. Quality of life is a broad concept that affects a person's physical and mental health. The quality of life is the qualitative and subjective perception of each person about their mental health status and the level of satisfaction with this situation [18, 19].

In the study of Novelis et al. (2023), the quality of life of single women was not desirable study and the lowest average score related to psychological aspects. and has been environmental [20]; Also, in the study of Khatoob et al. (2023), after an extensive review of the life situation of single women aged 35 to 45 in 14 Latin American countries, while expressing concern about the conditions of this group, they emphasized the use of empowerment strategies for these people by related institutions and unions. [21]. Examining the results of previous researches showed that researches have been carried out in relation to the adoption of children by infertile couples, but no researches have been carried out in relation to the custody of children in single women. Therefore, the present research aims to compare the anxiety, feeling of loneliness and quality of life in single women over 30 years old with and it was done without adopted children [22, 23].

Research methods:

The research was a causal-comparative description. The statistical population of this research included unmarried women over 30 years of age with adopted children (who adopted a child from 1397 to 1398) and without adopted children in Tehran province, who met the entry criteria, and their number was 140 (70 with adopted children and 70 without adopted children).

The criteria for entering the study were: unmarried women aged between 35 and 50 years, at least two years have passed since accepting a child, having written informed consent to participate in the study, and the homogeneity of both study groups in terms of demographic characteristics educational, social and economic status according to the standards of the welfare organization). The exclusion criteria were: unwillingness to continue participating in the research and migration, and lack of access to the mother and child during the research period. In order to collect research data, after making the necessary arrangements with the people and getting their consent to participate in the research, Kettle's anxiety and loneliness

questionnaires and SF-36 quality of life questionnaires were distributed. At the beginning of the questionnaire, the ethical principles of the research were written, and during that, free and voluntary participation and the confidentiality of the answers were explained. These principles were read to them and informed written consent was obtained from the subjects. This project was approved by the Research Ethics Committee of the Faculty of Medical Sciences of Azad Karaj University and was registered with the ID IR.IAU.K.REC.1402.021.

Kettle Anxiety Questionnaire: This questionnaire was developed by Raymond Bernard Kettle in (1957) and today it has many research and diagnostic applications. 20 questions of this test are for hidden anxiety and 20 questions are related to overt anxiety. This test has a general anxiety score and the person's condition in five modes; Emotional instability, mistrust combined with anxiety, self-confidence, control of will and stability of mood, nervous tension. This questionnaire is included in objective tests and has validity. It also has a soft (norm) that can help the examiner in interpreting the scores. The reliability coefficient of this questionnaire has been reported as 0.72. This questionnaire can accurately measure the physiological aspects of anxiety according to its visible complications. This questionnaire has been standardized since the beginning of 2017 with the cooperation of a group of students of Tehran University. The reliability value of the questionnaire was obtained using Cronbach's alpha of 0.89.

Loneliness Questionnaire: Loneliness Questionnaire was created by Di Tommaso, Brannen and Best in 2004. This questionnaire has 14 questions and its purpose is to investigate the level of social and emotional loneliness of people (romantic loneliness, family loneliness, social loneliness). The scoring method is based on 5 options: I completely disagree (1), I disagree (2), I have no opinion (3), I agree (4), I completely agree (5). Of course, this scoring method is reversed in question 14. This questionnaire has three dimensions of romantic loneliness questions: 10, 8, 6, 3; Family loneliness questions 1, 13, 12, 9, 5; and social loneliness questions are 2, 14, 11, 7, 4. The reliability of this test in the new revised version was reported as 0.78. The reliability of this questionnaire in the research of Sessin (2007) through Cronbach's alpha method for the subscales of romantic, social and family loneliness is 0.79 and 0.87, respectively and it was 0.81. The validity and reliability of this questionnaire has been obtained for the romantic loneliness component of 0.92, family loneliness 0.84 and social loneliness 0.78.

Quality of life questionnaire: The 36-item form was designed by Varo Sherbon (1992) in the United States, and its validity and reliability have been investigated in different groups of patients. The concepts measured by this questionnaire are not specific to age, group or disease. The purpose of designing this questionnaire is to evaluate the state of health in terms of both physical and mental state, which is obtained by combining the scores of the eight areas that make up health. And each subscale consists of 2 to 10 items: general health, physical performance, and role limitation due to physical reasons, role limitation due to emotional reasons, physical pain, social functioning, fatigue or vitality, mental health. The points of each scale are variable from zero to 100, where zero is the worst and 100 is the best situation in the desired scale. The reliability test of the questionnaire was evaluated using statistical analysis of internal consistency and validity test using the method of comparing known groups and convergent validity. The internal consistency showed that except for the vitality scale, other scales of the Persian version of SF-36 have minimum standard reliability coefficients in the

range of 0.77 to 0.9. The statistical test comparing the known groups showed that the Persian version of SF-36 is able to differentiate population subgroups by gender and age. Convergence validity test in order to check the measurement assumptions using the correlation of each question with the hypothesized scale also obtained favorable results and all the correlation coefficients were more than the recommended value of 0.4. The factor analysis test also obtained two main components that justified 0.95% of the dispersion among the scales of the questionnaire. In total, the results showed that the Persian version of this questionnaire has the necessary reliability and validity to measure the quality of life.

Findings:

Table 1 shows the frequency and percentage of demographic information of single women with and without adopted children according to the standards of the country's welfare organization.

Table 1: Demographic characteristics of the two groups

Age	foster child		No adopted children	
	Number	Percent	Number	Percent
35-45	10	14/3	21	30
46-50	60	85/7	49	70
Total	70	100	70	100
Education				
Masters	13	18/6	17	24/3
Superior	49	70/00	42	60
P.H.D	8	11/4	11	15/7
Total	70	100	70	100
monthly income	17	24/3	29	41/4
Above 12 million tomans	53	57/7	41	58/6
Total	70	100	70	100

In Table 2, the descriptive data between the two groups, the average anxiety and its components are lower in single women with adopted children, the average physical performance, fatigue or vitality and emotional health are higher in women with adopted children, and the average pain component is higher in women without adopted children. The components of role limitations of physical health and general health in women with adopted children are lower, emotional role limitations are almost equal in both groups. Romantic, family and social loneliness is higher in single women with adopted children.

Table 2: Mean and standard deviation of two groups

Variable	component	group	Number	Minimum score	Maximum score	Average	The standard deviation
anxiety	Total	With	70	86	86	77/60	3/75
	anxiety	adopted	70	73	97	81/81	5/06
		no adopted					

anxiety	hidden	With	70	33	44	39/11	2/52
	anxiety	adopted	70	37	49	42/12	2/7
		no					
	Obvious	adopted	70	70	33	38/48	2/43
	anxiety	With	70	70	37	60/44	3/77
		adopted					
		no					
		adopted					
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	Physical	With	70	10	30	22/28	57/24
	performance	adopted	70	30	30	8/54	7/55
		no					
		adopted					
	Role	With	70	4	8	6/85	1/82
	playing	adopted	70	4	8	7/60	1/20
	limitation	no					
	due to	adopted					
	physical						
	health						
	Condition	With	70	3	6	5/64	1/36
	Role	adopted	70	3	6	5/70	0/90
	playing	no					
	limitation	adopted					
	due to						
	emotional						
	problems						
	Fatigue or	With	70	8	20	12/28	3/15
	excitement	adopted	70	7	17	11/08	2/35
		no					
		adopted					
Quality of Life	emotional	With	70	17	26	21/07	2/35
	health	adopted	70	12	20	15/31	1/16
		no					
		adopted					
	Social	With	70	52	52	22/28	0/08
	Performance	adopted	70	10	30	21/00	0/00
		no					
		adopted					
	the pain	With	70	2	10	2/74	1/99
		adopted	70	5	8	5/82	0/82
		no					
		adopted					
general	With	70	70	86	19/11	2/52	
health	adopted	70	10	18	23/57	3/22	
	no						
	adopted						

	Romantic	With	70	13	20	17/62	2/24
	loneliness	adopted	70	4	16	10/41	5/06
		no					
		adopted					
Feeling	family	With	70	16	25	22/75	2/49
lonely	loneliness	adopted	70	5	20	12/68	6/08
		no					
		adopted					
	Social	With	70	14	24	18/88	2/35
	loneliness	adopted	70	7	22	14/41	4/76
		no					
		adopted					

Therefore, variance analysis can be used in research data.

Table 3: Variance analysis of groups' scores

Test	Value	F statistics	error df	df hypothesis	Significance level
Pillai effect	1/000	48/986	3	136	0/000
Wilks Lambda	0/000	48/986	3	136	0/000
Hotelling'swork	1/081	48/986	3	136	0/000
The largest zinc root	1/081	48/986	3	136	0/000

Adoption in unmarried women has a significant effect on anxiety, quality of life and loneliness in them with 95% confidence. To investigate the effect of adoption on research variables in single women, multivariate analysis of variance was used in Table 4.

Table 4: Variance analysis of anxiety, quality of life and loneliness of single women with and without adopted children

source of scatterin g	The dependen t variable	sum of squares SS	Degree s of freedo m df	average of squares MS	the amount of F	Significanc e level P	Eta square d η
group	anxiety	450/007	1	450/007	24/283	0/000	0/150
	Quality of Life	2436/114	1	2436/114	93/089	0/000	0/403
	feeling alone	16568/064	1	16568/064	118/630	0/000	0/462
error	Anxiety	2557/386	138	26/170			
	Quality of Life	3611/429	138	18/532			

	feeling alone	19273/32 9	138	139/662
Total	Anxiety	3007/393	139	
corrected	Quality of Life	6047/543	139	
	feeling alone	35841/39 3	139	

The results of this test [WILK'S Lambda= 48.99, F=0.000, P<0.000] indicate that there is a difference between at least one of the variables of anxiety, quality of life and feeling of loneliness of single women with adopted children and without adopted children. There is a meaning. The amount of this difference is equal to 15%, 40% and 46% for anxiety, quality of life and feeling of loneliness, according to the squared eta. It can also be concluded that the quality of life in single women with adopted children has a higher average, anxiety in single women with adopted children has a lower average, and the feeling of loneliness in single women with adopted children has a higher average.

Discussion and conclusion:

in the last century the goal of clinical professionals was to help people to overcome their pains and sufferings. Although this goal is admirable, it is not enough to eliminate suffering and pain. Lee said, should be helped to clients to show their capabilities and discover their new strengths, overcome their unpleasant feelings and anxiety-provoking thoughts, and facilitate their personal relaxation field [24]. Taking action to reduce anxiety shows a person's interest and attention to growth and change in his personal life. According to the results, anxiety was higher in single women without adopted children than single women with adopted children. Today, single women have more independence, have more freedom of action, are more financially developed and have more financial difficulties, maybe their biggest worries are getting married and finding making a life partner is suitable, single women do not have a permanent life partner who can help them in the path of growth and excellence, and finally, with more motivation and perseverance, they can shape their life path, so adopting a child is a way to reduce anxiety and negative thinking about loneliness for Single women [25]. In line with the results of Ebrahimi et al.'s research (1401), Butlinsky and Pinkurat (2023) and Hoxbergen (2018), it is obvious that single women with adoption can be somewhat like married women according to Maslow's pyramid of needs, physiological needs (except sexual needs), safety , go through the love and belongingness that is not provided in single women without adopted children and finally be able to reach the fourth and fifth stage which is the need for self-esteem and the need for self-fulfillment[26].

The feeling of loneliness is a complex and mostly unpleasant response to isolation or the lack of conversation, which includes the feeling of anxiety not having a companion and sharing with others, and can be the result of various factors such as social, mental and emotional factors. The findings of this research showed that single women with adopted children have more romantic loneliness than single women without adopted children. But single women without

adopted children can have more emotional relationships with their partners due to not having the commitment of raising children, while single women with adopted children are deprived of the deep experience of such feelings. It seems that the results of meaningful family and social loneliness of single women with adopted children indicate this. that due to cultural and social issues, many families still cannot accept their unmarried daughter to adopt a child without a husband, because most of the time, due to the lack of knowledge of the law on the adoption of unmarried women, they cannot easily accept the sudden presence of a child in the family justify; Also, another important reason for the conflicts between the family and the single women adopting children is that they often choose to live and live independently, which is also a reason for the family not accepting the category of adoption. The result was consistent with the researches of Meydan Miri (1400), Swalski (2024) and Asher and Wezner (2022).

Kahani et al. (1401) stated that having a good quality life has always been a human desire, and for many years, finding the concept of a good life and how to achieve it has occupied his mind and thoughts [27]. Single women with adopted children are automatically assigned a series of responsibilities by adopting a child and committing to the child's life. These responsibilities can wear them out physically and affect their health. But unmarried girls do not suffer from degeneration of physical strength because they live in their father's house and have few responsibilities. It is also obvious that single women without adopted children have better general health than single women with adopted children who spend most of their time and energy on parenting, housekeeping and jobs outside the home because they spend more time on health care, exercise and recreation. [28].

The results of the research indicated that the average hidden and overt anxiety in single women with adopted children was lower, the average feeling of romantic, family and social loneliness in single women with adopted children was significantly higher, and in the variable of quality of life, the average general health component was lower in single women with adopted children.

Limitation: The most important limitation of the current research is that this study was carried out in a short period of time from custody, which can affect the decision-making about the results in long-term conditions. And the social aspect of the research samples, which had an effect on answering the questions on the results of the research, pointed out that the researcher tried to reduce the effect of these factors by homogenizing. The limitation of choosing only women in the research should be taken into account and it should be noted that the adoption law for single men and transgender people should be studied separately because the current research is not able to generalize these two groups. Despite the limitations and based on the findings Research, it is suggested that workshops and training courses on self-awareness and adoption skills should be held for single women adopting children in order to increase their readiness to face the problems ahead. Also, various socio-cultural committees, conventions and conferences should be formed with the aim of examining the needs of single women with adopted children and single women without adopted children in different cities in order to increase the quality of life of adopted women by academic institutions and social organizations, and in order to change the social image and culture towards the adoption of unmarried women

and girls, efforts should be made to remove the social pressure from the shoulders of the applicants for adoption.

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References

1. Alemu A. Dendir G. Gonfa A. Sisay Y. Tadesse T. Abebe A. Health-related quality of life and associated factors among adult patients with epilepsy in public hospitals of Wolaita zone, southern Ethiopia. An embedded mixed method study *Epilepsy and Behavior*. 2024; 145. <https://doi.org/10.3390/challe15010002>
2. Asgarizadeh Z. Giford R. Colborne L. Predicting climate change anxiety. *Biological Psychiatry*, 2023; 90(6): 102-208. <https://doi.org/10.1016/j.jenvp.2023.102087>
3. Bamidele J. Abiodun O. Sodeinde K. Daniel K. Quality of life among tuberculosis patients on treatment in Southwest Nigeria. *Indian Journal of Tuberculosis*, 2024. <https://doi.org/10.1016/j.ijtb.2023.04.009>
4. Gonzalez C A. Tosin M. Goets C G. The plight of loneliness in Parkinson's diseases: new opportunities. *Parkinsonism & Related Disorders*, 2022; 105(11): 145-148. <https://doi.org/10.1016/j.parkreldis.2022.10.029>
5. Stewart S. Graham A.A. Poss J.W. Examining the mental health indicators and service needs of children living with foster families. *Children and Youth Services Review*. 2023; 147(4): 101-187. <https://doi.org/10.1016/j.childyouth.2023.106833>
6. Lee K. Effects of formal center based care and positive parenting practices on children in foster care. *Child Abuse & Neglect*, 2023; 142(1): 203-285. <https://doi.org/10.1016/j.chiabu.2022.105946>
7. Nadorff D.K. Scott R.K. Griffin R. Custodial grandchildren and foster children: A school performance comparison. *Children and Youth Services Review*. 2021; 131(6): 268-405. <https://doi.org/10.1016/j.childyouth.2021.106253>

8. Pellegrina A. Sabbagh C. Berdah S. Menahem B. Quality of life after sigmoid diverticulitis. *Journal of Visceral Surgery*. 2023; 160(4): 269-276. <https://doi.org/10.1016/j.jviscsurg.2023.06.003>
9. Platt C. Gephart S.M. Faan F. Placement Disruption of children with disabilities in foster care. *J of Pediatric Nursing*. 2022; 44(4): 30-35. <https://doi.org/10.1016/j.pedn.2022.05.004>
10. Bas-Hoogendam J. Subcortical brain volumes in social anxiety disorder: An enigma anxiety international mega-analysis of 37 samples. *Biological Psychiatry*. 2023; 93(9): 85-86 <https://doi.org/10.1016/j.biopsych.2023.02.222>
11. Butlinski A. Pinqrqt M. Rates and predictors of depression in adoptive mothers: moving toward theory. *Nursing & the environment sci*. 2023; 35(1): 51-63. DOI: 10.1097/ANS.0b013e318244553e
12. Krygsman A. Anxiety symptoms before and during the COVID-19 pandemic: A longitudinal examination of Canadian young adults. *Journal of Anxiety Disorders*. 2024; 14(99): 124-136. <https://doi.org/10.1016/j.janxdis.2023.102769>
13. Brown L. White L.K. Balderston N.L. Role of the intraparietal sulcus in anxiety related disorders. *International Journal of Clinical and Health Psychology*. 2023; 23(4): <https://doi.org/10.1016/j.ijchp.2023.100385>
14. Chen Z. Song X. Lee T. Zhang R. The robust reciprocal relationship between loneliness and depressive symptoms among the general population: Evidence from a quantitative analysis of 37 studies. *Journal of Affective Disorders*, 2024; 343: 119-128. <https://doi.org/10.1016/j.jad.2023.09.035>
15. Chiplunkar G. Weaver J. Marriage markets and the rise of dowry in India. *Journal of Development Economics*, 2023; 164(10), 60-72. doi.org/10.1016/j.jdeveco.2023.103115
16. Holmberg R. Langballe E.M. Hansen T. Time trends in loneliness from 1948 to 2019 among 27,032 older adults in Norway. *Preventive Medicine*. 2023; 175(6): 107-167. <https://doi.org/10.1016/j.ypmed.2023.107659>
17. Kasparian N.A., Kovacs A.H. Quality of Life and Other Patient-Reported Outcomes Across the Life Span Among People With Fontan Palliation. *Canadian Journal of Cardiology*, 2023; 38(7): 963-976. <https://doi.org/10.1016/j.cjca.2022.04.025>
18. Rahman W. Stefan S. Ahmed A. Siddiqi M. Malek R. The effects of calcitonin on quality of life in hypothyroid patient's a pilot study. *Endocrine and Metabolic Science*, 2023; 11(4): 100-125. <https://doi.org/10.1016/j.endmts.2023.100125>
19. Potluka O. Why and how to use the quality of life as an evaluation criterion? *Evaluation and Program Planning*, 2023; 100(11): 234-262. <https://doi.org/10.1016/j.evalprogplan.>
20. Chang E.C. Yang H. Personal and family growth initiative as predictors of study engagement in Chinese and American college students: Is there any evidence for group differences. *Journal Personality and Individual Differences*. 2021; 102: 186–189. <https://doi.org/10.1016/j.paid.2016.07.004>

21. Lutomski J. Hoekstra T. van den Akker M. Blom J. Marengoni, A. Multi morbidity patterns in older persons and their association with self-reported quality of life and limitations in activities of daily living. *Archives of Gerontology and Geriatrics*. 2023; 115. <https://doi.org/10.1016/j.archger.2023.105134>
22. Miranda P. Rejano J. Tristanchó A. Holgado M. Comparative effect of different patient education modalities on quality of life in breast cancer survivors: A systematic review and network meta-analysis. *European J Oncology Nursing*. 2024; 67, <https://doi.org/10.1016/j.ejon.2023.102411>
23. Othman E.H. Alosta M. Abu-Snieneh H.M. Zeilani R. Shamoun S.A. The effect of burdensome symptoms and functional status on quality of life among older patients with cancer: A correlational study. *European Journal of Oncology Nursing*. 2024. <https://doi.org/10.1016/j.ejon.2023.102434>
24. Kasparian N.A. Kovacs A.H. Quality of Life and Other Patient-Reported Outcomes across the Life Span among People with Fontan Palliation. *Canadian Journal of Cardiology*. 2023; 38(7): 963-976. <https://doi.org/10.1016/j.cjca.2022.04.025>
25. Mund M. Yang J. Qualter P. Loneliness in action: behavioral correlates of loneliness in friendship interactions. *Current Research in Behavioral Sciences*. 2023; 112(5): 100-135, <https://doi.org/10.1016/j.crbeha.2023.100135>
26. Sattler K.M.P. Herd T. Fontes A. Foster care, kinship care, and the transition to adulthood: do child welfare system processes explain differences in outcomes? *Children and Youth Services Review*. 2023; 153(1): 70-98. <https://doi.org/10.1016/j.childyouth.2023.107098>
27. Dagostin Ferraz S. Rodrigues A.C. Rodrigues Uggioni M.L. Assessment of anxiety, depression and somatization in women with vulvodynia: A systematic review and META-analysis. *Journal of Affective Disorders*. 2024. <https://doi.org/10.1016/j.jad.2023.10.025>
28. Clayton S. Karazsia B. T. Development and validation of a measure of climate change anxiety. *Journal of Environmental Psychology*. 2020; 69: 101-103. <https://doi.org/10.1016/j.jenvp.2020.101434>