




The Mediating Role of Guilt in the Relationship Between Suffering and Depression Among Caregivers of Elderly Patients with Life-Threatening Diseases

Rahele. Masoudi Sani¹, Afsaneh. Taheri^{2*}, Narges. Babakhani²

¹ PhD student, Department of Clinical Psychology, Rodehen Branch, Islamic Azad University, Rodehen, Iran

² Assistant Professor, Department of Psychology, Rodehen Branch, Islamic Azad University, Rodehen, Iran

* Corresponding author email address: a2_taheri@yahoo.com

Article Info

Article type:

Original Research

How to cite this article:

Masoudi Sani, R., Taheri, A., & Babakhani, N. (2024). The Mediating Role of Guilt in the Relationship Between Suffering and Depression Among Caregivers of Elderly Patients with Life-Threatening Diseases. *Journal of Assessment and Research in Applied Counseling*, 6(2), 129-134. <http://dx.doi.org/10.61838/kman.jarac.6.2.16>



© 2024 the authors. Published by KMAN Publication Inc. (KMANPUB), Ontario, Canada. This is an open access article under the terms of the Creative Commons Attribution-NonCommercial 4.0 International (CC BY-NC 4.0) License.

ABSTRACT

Objective: With the increasing elderly population, the prevalence of life-threatening diseases has also risen, leading to a higher demand for informal caregiving alongside professional care. Family members, serving as informal caregivers, face significant physical and psychological consequences, including depression. Thus, the present study aimed to examine the mediating role of guilt in the relationship between the experience of suffering and depression among caregivers of elderly patients with life-threatening diseases.

Methods and Materials: In this study, a correlational-descriptive method was utilized. A sample of 240 participants was conveniently selected from the oncology, CCU, and ICU departments of Imam, Fatemeh-Zahra, Bu Ali Sari, and Razi Qaemshahr hospitals. Participants responded to Beck's Depression Inventory (1996), Schulz's Suffering Scale (2010), and Eysenck's Guilt Inventory (2007). Data were analyzed using SPSS and AMOS software.

Findings: The analysis revealed that depression in caregivers can be explained through the mediation of guilt, based on their experiences of suffering. Suffering has a direct effect on depression among caregivers. Additionally, suffering directly affects the sense of guilt in caregivers; similarly, guilt directly impacts their depression. Indirect effects of suffering on depression through the mediating role of guilt were also identified.

Conclusion: Based on the findings, interventions aimed at reducing depression in caregivers of elderly patients with life-threatening diseases should pay special attention to the variables of suffering and guilt.

Keywords: Depression, Suffering, Guilt, Elderly, Life-threatening diseases.

1. Introduction

Aging is a global issue. It is projected that by 2050, the elderly population worldwide will reach approximately one billion (Aung et al., 2021). The growth in

the elderly population is expected to coincide with an increase in the prevalence of chronic diseases and, consequently, an increased dependency in daily life activities (Kazemi et al., 2021; Kazemi et al., 2019). Among these, cancer, cardiovascular diseases, and cerebral strokes

are the most prevalent in the elderly population (Jaracz & colleagues, 2014). These diseases not only affect the patients but also profoundly impact the lives of family members and caregivers (Chan et al., 2022; Chen et al., 2017), who are known as informal caregivers. These family members, who care for their loved ones without receiving any financial compensation or sufficient training, primarily do so because of emotional ties (Grosbois et al., 2022; Johansen et al., 2018).

Family caregivers (informal) are described as hidden patients and need support and self-care to cope with the negative impact of the disease or disability of their loved ones (Aghajani et al., 2018). Ignoring the issues of this group and their inability to adapt to the situation (caring for an elderly patient with a life-threatening disease) can lead to personal, family, and social crises. Based on research evidence, caregivers looking after terminally ill family members are at a high risk of developing depression (Johansen et al., 2018; Park & Kim, 2016). Experiencing depression can adversely affect the quality of life of these caregivers (Menon et al., 2017). Furthermore, studies have shown that 45% of family caregivers of patients with heart failure experience symptoms of depression (Naderi et al., 2018). This pressure can lead to factors such as inadequate patient care, abandonment of the patient, family isolation, and disruption in family relationships (Grosbois et al., 2022; Kazemi et al., 2019).

Given the discussed content, it appears necessary to examine the relationship between depression and the intensity of suffering experienced by caregivers of elderly patients with life-threatening diseases. In this area, depression is likely predictable due to the high presence of this variable, and the role of guilt seems to enhance (mediate) the relationship between depression and the experience of suffering. Based on searches in domestic and international research, no study examining the mediating role of guilt in the relationship between suffering and depression among caregivers of elderly patients with life-threatening diseases was found; hence, the importance of examining this model and the necessity of conducting this research are emphasized. Accordingly, the research question of the current study is: Is there a relationship between the experience of suffering and depression with the mediating role of guilt among caregivers of elderly patients with life-threatening diseases?

2. Methods and Materials

2.1. Study Design and Participants

The present study is foundational in purpose and quantitative (descriptive-correlational) in method, utilizing Structural Equation Modeling (SEM). The statistical population includes caregivers of elderly patients with life-threatening diseases in Mazandaran province; specifically, immediate family members over 60 years old who require care due to heart disease, cancer, and stroke, and are cared for at home (meaning they are not residing in nursing homes). Non-random, convenient sampling was employed in this research. In this way, by visiting the oncology, CCU, and ICU departments at Imam Reza, Bu Ali, and Fatemeh Zahra (S) hospitals in Sari, and Razi hospital in Qaemshahr, Mazandaran in 2022, the desired samples were identified; accordingly, the number of samples needed in this study was determined based on the number of factors in the used questionnaires, totaling 10 factors; thus, the required sample size is 150 people ($150 = 10 \times 15$). Considering the possibility of attrition (e.g., due to damaged or incomplete questionnaires), 240 participants were selected for this study. This number also increases the statistical power of the test.

2.2. Measures

2.2.1. Depression

The Beck Depression Inventory was first created by Beck and his colleagues in 1961, revised in 1971, and published in 1978. The 21-item version used in this study has a four-point scale ranging from 0 to 3, thus scores can range from 0 to 63. To assess the reliability of the Beck Depression Inventory, an extensive analysis of various efforts to determine internal consistency has shown coefficients ranging from 0.73 to 0.92, with an average of 0.86. In Iran, the reliability of this questionnaire in a sample of 94 people was as follows: Cronbach's alpha coefficient 0.91, test-retest reliability coefficient 0.89, and retest coefficient 0.94. Mansour and Dadsetan (1987) reported a reliability of 0.83 and validity of 0.80. In the research of Sharifi Darani and Ghasemi Davari (2012), the reliability and validity of the Beck Depression Inventory were estimated at 0.85 and 0.76, respectively. The correlation of the Beck Depression Inventory with its first edition was 0.93 (Basharpoor et al., 2017; Beck et al., 1996).

2.2.2. *Suffering Experience and Perception*

This scale, designed by Schulz et al. (2010), can be used to measure the experience and perception of suffering. This scale evaluates three dimensions of suffering: physical, psychological, and existential/spiritual. The physical dimension includes 9 items in two parts, where respondents rate on a four-point Likert scale from never (0) to always (3), with total scores ranging from 0 to 27 (Schulz et al., 2010). Reliability of this test and its dimensions were calculated by Schulz and colleagues (2010) in three groups: African-American (physical 0.63, psychological 0.90, and existential/spiritual 0.86), Caucasian (physical 0.43, psychological 0.87, and existential/spiritual 0.84), and Hispanic (physical suffering 0.60, psychological 0.85, and existential/spiritual 0.83). In Iran, the Cronbach's alpha coefficients for this test and its dimensions were evaluated by Pirasteh Motlagh and Nikmanesh (2012) in patients with AIDS, with the following results: physical 0.71, psychological 0.84, and existential/spiritual 0.81 (Pirasteh Motlagh & Nikmanesh, 2012).

2.2.3. *Guilt*

The Eysenck Guilt Inventory, designed to measure the sense of guilt, is scored on a scale from 0 to 1. The minimum score is 0 and the maximum is 30, with a cutoff point at 15. In Hariri's study, three items were removed due to low factor loading, and the final questionnaire contains 27 items; thus, the minimum obtainable score is 0 and the maximum is 27. A high score indicates a high sense of guilt and provides a total score for this variable. To assess the reliability of this questionnaire, both Cronbach's alpha and split-half methods were used, yielding alpha coefficients of 0.77 and a split-half coefficient of 0.76. Hariri (2008) used both Cronbach's alpha

and split-half methods to test the reliability, obtaining coefficients of 0.67 and 0.68, respectively, and correlating the score with a criterion question showed a significant relationship ($p < 0.001$, $r = 0.28$). The validity and reliability of this questionnaire were also confirmed in Zargar and colleagues' research (2012) (Arian et al., 2021).

2.3. *Data analysis*

In Structural Equation Modeling, AMOS software was used to determine the significance of model fit. The model fitting and hypothesis testing were conducted simultaneously within the framework of the initial model. In this regard, a preliminary analysis of the data's normality assumptions was conducted before performing the necessary statistical analyses with AMOS.

3. **Findings and Results**

The final sample size of the current study, after removing damaged and incomplete questionnaires, included 240 individuals. Demographic results showed that among the sample of patients, 55% were male and 45% were female. Regarding the caregivers, approximately 56% were female and 44% were male. The mean age of the patients was 70.64 years with a standard deviation of about 8 years, the minimum age was 60, and the maximum was 93 years. The mean age of the caregivers was 43.55 years with a standard deviation of about 12 years, the minimum age was 21, and the maximum was 75 years. Among the total sample of patients, about 40% were unemployed, approximately 38% were self-employed, and 21% were employed. Additionally, the results indicate that most caregivers were self-employed (about 45%), with approximately 30% unemployed and 24% employed.

Table 1

Descriptive Statistics

Variable	Number of Items	Mean	Standard Deviation	Skewness	Kurtosis	Minimum	Maximum
Depression	21	22.11	11.40	0.19	-0.62	1	53
Guilt	28	15.80	5.44	-0.01	-0.33	1	28
Physical Suffering	9	16.10	7.096	-0.023	-0.418	0	33
Psychological Suffering	15	27.19	11.026	-0.261	-0.584	1	50
Existential Suffering	9	18.72	8.459	0.519	-0.054	1	43
Total Score	62	62.01	23.347	-0.276	-0.422	5	110

The data from Table 1 show that the mean total score for depression is 22.11 with a standard deviation of 11.40. The range of scores for this variable is between 1 and 53. The

skewness and kurtosis indices for the total score of this variable range between -1 and 1, indicating a normal distribution of the variables. Statisticians consider

distributions with skewness and kurtosis indices between -2 and 2 as normal; however, some researchers conservatively accept a range of -1 to 1 as acceptable.

Table 2

Significance of Direct Coefficients for Variables

From Variable	To Variable	Standardized Coefficients (β)	Non-standardized Coefficients (b)	Standard Error (S.E.)	Critical Ratio (C.R.)	Significance Level (p)
Suffering	Depression	0.287	0.848	0.362	2.343	0.019
Suffering	Guilt	0.533	0.75	0.201	3.733	0.001
Guilt	Depression	0.27	0.566	0.142	3.979	0.001

As observed from the data in Table 2, the main path coefficient between suffering and depression in the model is significant at the 0.05 level. Therefore, this specific hypothesis is confirmed, indicating a positive and significant relationship between these two variables. The value of the critical ratio, equivalent to the observed t-value, is greater than 1.96; thus, this specific hypothesis is also confirmed at the 0.05 level. The standardized beta coefficient between the two variables is 0.287, meaning that with other variables held constant, an increase in suffering by one unit results in an increase in depression by 0.287 units.

Moreover, the main path coefficient between suffering and guilt is positive and significant at the 0.01 level. This specific hypothesis is therefore confirmed, meaning that with other variables held constant, an increase in suffering by one unit leads to an increase in guilt by 0.533 units.

Finally, the main path coefficient between guilt and depression is positive and significant at the 0.001 level. This specific hypothesis is therefore confirmed, meaning that with other variables held constant, an increase in guilt by one unit results in an increase in depression by 0.27 units.

Table 3

Indirect Standard Effects of the Suffering Variable on the Depression Variable

From Variable	Through Mediating Variable	To Variable	Indirect Effect	Significance (sig)	Lower 95%	Upper 95%
Suffering	Guilt	Depression	0.144	0.002	0.09	0.246

Based on the data in Table 3, the indirect effect between the variables of suffering and depression through the mediating variable of guilt is 0.144 and is statistically significant. Thus, the mediating role of guilt in the relationship between these two variables is confirmed.

occur that are not chosen by the individual and many of them, especially due to their sudden nature, are accompanied by great suffering; many are also associated with existential conflicts such as facing mortality, feelings of loneliness, uncontrollability of life, and the loss of current life meaning (Dimkov, 2020).

4. Discussion and Conclusion

The current study aimed to investigate the mediating role of guilt in the relationship between suffering and depression in caregivers of elderly patients with life-threatening diseases. The results indicated that suffering directly affects depression in caregivers of elderly patients with life-threatening diseases, confirmed at the significance level of 0.05 (β = 0.287); meaning that there is a positive and significant relationship between these two variables. This finding aligns with the prior research (Fong et al., 2022; Gambin & Sharp, 2018; Rodrigo-Baños et al., 2021; Schulz et al., 2010). It can be explained that in human life, events

The results also showed that suffering has a direct effect on the sense of guilt in caregivers of elderly patients with life-threatening diseases, significant at the level of 0.001 (β = 0.533). Thus, there is also a positive and significant relationship between these two variables. These findings are consistent with prior research (Applebaum et al., 2016; Arian et al., 2021; Brea et al., 2016; Breitbart, 2017; Dale, 2017; Gambin & Sharp, 2018; Hoffman, 2018; Levinson et al., 2016; Luck & Luck-Sikorski, 2021; Miller, 2017; Sangani et al., 2019). This finding can be explained by the fact that caring for a loved one who has reached old age and faces a life-threatening illness brings to mind human vulnerability, the reality of death, and the fragility of the

body, leading to immense suffering. Guilt and shame from not feeling adequate as a caregiver and being ineffective in preventing death or, at least, the pain of a loved one, trigger a self-critical and derogatory voice in this group of caregivers.

The results further demonstrated that guilt has a direct effect on depression in caregivers of elderly patients with life-threatening diseases, confirmed at the significance level of 0.001 ($\beta = 0.27$); meaning that there is a positive and significant relationship between depression and the sense of guilt. This finding is consistent with the prior research (Gambin & Sharp, 2018; Luck & Luck-Sikorski, 2021). In explaining the direct effect of guilt on depression in caregivers, one could say that facing one's own death or that of others highlights human limitations both in terms of time and function. Many existentialists explain "angst" in relation to existential guilt (Luck & Luck-Sikorski, 2021).

Additionally, the results indicated that suffering affects depression indirectly through the mediating role of guilt in caregivers of elderly patients with life-threatening diseases, confirmed at the significance level of 0.001 ($\beta = 0.144$). Therefore, it can be stated that guilt plays a mediating role between suffering and depression. This finding is consistent with prior research (Aljuaid et al., 2022; Baghcheghi & Koohestani, 2020; Lundvall et al., 2020; Rodrigo-Baños et al., 2021). In explaining this finding, it can be stated that caring and accompanying a patient facing immense suffering can be a strategy that works for a while, but eventually, a sense of emptiness is experienced (Lundvall et al., 2020). Thus, the experience of suffering, through the mediation of guilt, explains depression.

5. Limitations & Suggestions

The current study also faced limitations. Human behavior is influenced by various factors that should be examined through moderating variables; for example, caregivers may have levels of depression prior to accepting the care of elderly patients, which was not controlled in this study. Non-random sampling was used in the current study. Holding workshop sessions specifically for caregivers of elderly patients with life-threatening diseases could assist them in adapting to the caregiving role and preventing depression.

Acknowledgments

We would like to express our appreciation and gratitude to all those who cooperated in carrying out this study.

Declaration of Interest

The authors of this article declared no conflict of interest.

Ethical Considerations

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants.

Transparency of Data

In accordance with the principles of transparency and open research, we declare that all data and materials used in this study are available upon request.

Funding

This research was carried out independently with personal funding and without the financial support of any governmental or private institution or organization.

Authors' Contributions

All authors equally contributed in this article.

References

- Aghajani, A., Nazari, A. M., & Zaharakar, K. (2018). Study of psychological distresses in married children caring for their aging parents: a qualitative study. *Iranian Journal of Ageing*, 13(3), 346-361. http://salmandj.uswr.ac.ir/browse.php?a_id=1379&slc_lang=en&sid=1&ftxt=1&html=1
- Aljuaid, M., Ilyas, N., Altuwaijri, E., Albedawi, H., Alanazi, O., Shahid, D., & Alonazi, W. (2022). Quality of Life among Caregivers of Patients Diagnosed with Major Chronic Disease during COVID-19 in Saudi Arabia. *Healthcare*, 10(3), 523. <https://www.mdpi.com/2227-9032/10/3/523>
- Applebaum, A. J., Kryza-Lacombe, M., Buthorn, J., DeRosa, A., Corner, G., & Diamond, E. L. (2016). Existential distress among caregivers of patients with brain tumors: a review of the literature. *Neuro-Oncology Practice*, 3(4), 232-244. <https://doi.org/10.1093/nop/npv060>
- Arian, M., Masoumi, R., & Shojaei, S. F. (2021). Feelings of Shame and Guilt in Patients with Cancer and Their Family Caregivers [Letter]. *Int J Cancer Manag*, 14(8), e117159. <https://doi.org/10.5812/ijcm.117159>
- Aung, T. N. N., Aung, M. N., Moolphate, S., Koyanagi, Y., Supakankunti, S., & Yuasa, M. (2021). Caregiver Burden and Associated Factors for the Respite Care Needs among the Family Caregivers of Community Dwelling Senior Citizens in Chiang Mai, Northern Thailand. *International journal of environmental research and public health*, 18(11), 5873. <https://www.mdpi.com/1660-4601/18/11/5873>
- Baghcheghi, N., & Koohestani, H. r. (2020). Comparison of Depression and Quality of Life Between Patients on Hemodialysis and Their Spouses [Original Research].

- Avicenna Journal of Nursing and Midwifery Care*, 28(2), 136-143. <https://doi.org/10.30699/ajnmc.28.2.136>
- Basharpour, S., Atadokht, A., Ghaffari, M., & Mowlaie, M. (2017). Prediction of Depression through Cognitive Emotion Regulation and Resilience among Infertile Females [Research]. *Journal of nursing education*, 4(4), 34-42. <http://ijpn.ir/article-1-887-en.html>
- Beck, A. T., Steer, R. A., Ball, R., & Ranieri, W. F. (1996). Comparison of Beck Depression Inventories-IA and-II in Psychiatric Outpatients. *Journal of Personality Assessment*, 67(3), 588-597. https://doi.org/10.1207/s15327752jpa6703_13
- Brea, M.-T., Albar, M.-J., & Casado-Mejia, R. (2016). Gendering Guilt among Dependent Family Members' Caregivers. *The Spanish journal of psychology*, 19, E80, Article E80. <https://doi.org/10.1017/sjp.2016.82>
- Breitbart, W. (2017). Existential guilt and the fear of death. *Palliative and Supportive Care*, 15(5), 509-512. <https://doi.org/10.1017/S1478951517000797>
- Chan, W. C. H., Yu, C. T. K., Kwok, D. K. S., & Wan, J. K. M. (2022). Prevalence and factors associated with demoralization in palliative care patients: A cross-sectional study from Hong Kong. *Palliative and Supportive Care*, 1-9. <https://doi.org/10.1017/S1478951522001171>
- Chen, P., Fyffe, D. C., & Hreha, K. (2017). Informal caregivers' burden and stress in caring for stroke survivors with spatial neglect: an exploratory mixed-method study. *Topics in Stroke Rehabilitation*, 24(1), 24-33. <https://doi.org/10.1080/10749357.2016.1186373>
- Dale, R. (2017). *Obsessive Compulsive Disorder: Moral reasoning, imagery and guilt* Royal Holloway, University of London]. <https://core.ac.uk/download/pdf/131177337.pdf>
- Dimkov, P. (2020). Karl Jaspers' boundary situations and psychopathology: alike or distinct. *Journal of the Italian Society of Psychiatry Karl, December*, 167-171. https://www.evidence-based-psychiatric-care.org/wp-content/uploads/2020/12/07_Dimkov.pdf
- Fong, T. K.-H., Cheung, T., Chan, W.-C., & Cheng, C. P.-W. (2022). Depression, Anxiety and Stress on Caregivers of Persons with Dementia (CGPWD) in Hong Kong amid COVID-19 Pandemic. *International journal of environmental research and public health*, 19(1), 184. <https://www.mdpi.com/1660-4601/19/1/184>
- Gambin, M., & Sharp, C. (2018). The relations between empathy, guilt, shame and depression in inpatient adolescents. *Journal of affective disorders*, 241, 381-387. <https://doi.org/10.1016/j.jad.2018.08.068>
- Grosbois, J.-M., Gephine, S., Kyheng, M., Le Rouzic, O., & Chenivresse, C. (2022). Improving the wellbeing of caregivers of patients with COPD using a home-based pulmonary rehabilitation programme. *Erj Open Research*, 8(4). <https://doi.org/10.1183/23120541.00255-2022>
- Hoffman, L. (2018). Existential Guilt. In D. A. Leeming (Ed.), *Encyclopedia of Psychology and Religion* (pp. 1-3). Springer Berlin Heidelberg. https://doi.org/10.1007/978-3-642-27771-9_200194-1
- Johansen, S., Cvancarova, M., & Ruland, C. (2018). The Effect of Cancer Patients' and Their Family Caregivers' Physical and Emotional Symptoms on Caregiver Burden. *Cancer Nursing*, 41(2). https://journals.lww.com/cancernursingonline/fulltext/2018/03000/the_effect_of_cancer_patients_and_their_family.2.aspx
- Kazemi, A., Azimian, J., Mafi, M., Allen, K.-A., & Motalebi, S. A. (2021). Caregiver burden and coping strategies in caregivers of older patients with stroke. *BMC psychology*, 9(1), 51. <https://doi.org/10.1186/s40359-021-00556-z>
- Kazemi, A., Azimian, J., Mafi, M., & Motalebi, S. A. (2019). Relationship Between Burden Of Care Of Caregivers And Dependence Level Of Elderly Patients With Stroke. *UNMF*, 16(11), 841-848. <http://unmf.umsu.ac.ir/article-1-3690-en.html>
- Levinson, C. A., Byrne, M., & Rodebaugh, T. L. (2016). Shame and guilt as shared vulnerability factors: Shame, but not guilt, prospectively predicts both social anxiety and bulimic symptoms. *Eating behaviors*, 22, 188-193. <https://doi.org/10.1016/j.eatbeh.2016.06.016>
- Luck, T., & Luck-Sikorski, C. (2021). Feelings of guilt in the general adult population: prevalence, intensity and association with depression. *Psychology, Health & Medicine*, 26(9), 1143-1153. <https://doi.org/10.1080/13548506.2020.1859558>
- Lundvall, M., Hörberg, U., Palmér, L., Carlsson, G., & Lindberg, E. (2020). Young men's experiences of living with existential concerns: "living close to a bottomless darkness". *International Journal of Qualitative Studies on Health and Well-Being*, 15(1), 1810947. <https://doi.org/10.1080/17482631.2020.1810947>
- Menon, B., Salini, P., Habeeba, K., Conjeevaram, J., & Munisusmitha, K. (2017). Female Caregivers and Stroke Severity Determines Caregiver Stress in Stroke Patients. *Annals of Indian Academy of Neurology*, 20(4). https://journals.lww.com/annalsofian/fulltext/2017/20040/female_caregivers_and_stroke_severity_determines.19.aspx
- Miller, C. (2017). A balancing act: understanding the role of mother guilt and self-compassion in health-promoting behaviours in mothers with young children. <https://mspace.lib.umanitoba.ca/handle/1993/32443>
- Naderi, N., Khalili, Y., Ansarifard, A., Ghadrdest, B., & Bakhshi, A. (2018). The effect of supportive interventions on resilience and quality of life among family caregivers of people with advanced heart failure. *IJCN*, 7(2), 22-23. <http://journal.icns.ir/article-1-509-en.html>
- Park, Y.-J., & Kim, Y.-J. (2016). The relationship among financial support for offspring, caregiving to parents, preparation for their own old age, and depression of baby-boomers. *Advanced Science and Technology Letters*, 131, 78-82. <https://doi.org/10.14257/astl.2016.131.16>
- Pirasteh Motlagh, A., & Nikmanesh, Z. (2012). The Relationship of Spirituality with the Pain and Quality of Life in Patients with HIV/AIDS [Research]. *Armaghane Danesh*, 17(4), 337-348. <http://armaghanj.yums.ac.ir/article-1-247-en.html>
- Rodrigo-Baños, V., Moral-Pairada, M. d., & González-de Paz, L. (2021). A Comprehensive Assessment of Informal Caregivers of Patients in a Primary Healthcare Home-Care Program. *International journal of environmental research and public health*, 18(21), 11588. <https://www.mdpi.com/1660-4601/18/21/11588>
- Sangani, A., Khoshvaght, N., Azizi, N., & Abolghasemzadeh, M. (2019). Modeling Obsession with Guilty Feelings with Mediating Role of Self-Compassion Nurses. *Iranian Journal of Psychiatric Nursing*, 7(3), 70-77. http://ijpn.ir/files/site1/user_files_38e7a3/alirezasangani22670-A-10-1282-1-d25753d.pdf
- Schulz, R., Monin, J. K., Czaja, S. J., Lingler, J. H., Beach, S. R., Martire, L. M., Dodds, A., Hebert, R. S., Zdaniuk, B., & Cook, T. B. (2010). Measuring the Experience and Perception of Suffering. *The Gerontologist*, 50(6), 774-784. <https://doi.org/10.1093/geront/gnq033>