

Original/Research Paper

Secondary-traumatic stress and academic self-concept in children of veterans: A cross-sectional study

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<https://doi.org/10.32598/JNACS.2401.1006>

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Abstract

This study aimed to evaluate the relationship between secondary traumatic stress and academic self-concept in children of veterans. This cross-sectional study, conducted in 2017 within Mazandaran province, Iran, focused on 150 children of veterans diagnosed with post-traumatic stress disorder. The instruments utilized for data collection in this investigation encompass demographic variables (such as gender, age, children's education level, father's education, mother's education, father's occupation, mother's occupation, and father's veteran percentage), the secondary traumatic stress scale, and the academic self-concept questionnaire. The mean scores for secondary traumatic stress and academic self-concept among children of veterans were 43.97 (SD=13.8) and 40.52 (SD=17.09), respectively. Furthermore, a statistically significant correlation was observed between secondary traumatic stress and academic self-concept, indicating that an increase in secondary traumatic stress was associated with a decrease in academic self-concept ($P < 0.01$). The findings of this study underscore a discernible correlation between secondary traumatic stress and the academic self-concept observed in the children of veterans. Notably, academic success emerges as a significant factor contributing to the enhancement of self-concept among this demographic.

Keywords: Secondary Traumatic Stress, Academic Self-concept, Children, Veterans, Nursing, Nurses.

1 | Introduction

Post-traumatic stress disorder (PTSD) is a psychiatric condition that arises in response to an overwhelming traumatic experience exceeding an individual's coping capacity [1]. This disorder is commonly associated with events of significant stress, such as warfare, natural disasters like floods and earthquakes, or instances of sexual assault [2]. Among these, warfare stands out as a prominent catalyst for the development of PTSD [3]. Notably, a substantial proportion of returning military personnel manifest symptoms indicative of this disorder [4]. The repercussions of PTSD, stemming from war-related incidents, extend beyond the affected individuals and exert adverse effects on the lives of their

family members [5]. Remarkably, the psychological ramifications of war-related trauma may persist, manifesting complications more than three decades post-conflict [6].

Secondary traumatic stress represents a syndrome characterized by symptoms akin to PTSD, arising from prolonged exposure to an individual who has undergone psychological trauma related to warfare [7]. The ramifications of stress disorders after war-related incidents manifest in children and family members of veterans, who, as indirect victims of war, grapple with associated complications [8, 9]. In essence, the offspring of second-generation veterans comprise family members who bear witness to the complexities and injuries of war following their parents' experiences [10].

Secondary traumatic stress emerges as a significant post-war complication, with discernible symptoms and complications akin to PTSD evident in the offspring of affected individuals [11]. The progeny of veterans are susceptible to exposure to trauma-induced injuries, resulting in deleterious consequences across personal, social, and academic dimensions [12]. Psychological and emotional challenges constitute prevalent issues among the children of veterans afflicted by PTSD [13]. The enduring repercussions of war extend to emotional numbness, anger, and apprehension, as well as a spectrum of emotional and psychological adversities [14].

The progeny of veterans' wives commonly contend with academic challenges, marked by a decrease in academic motivation and a propensity for academic failure [15]. This phenomenon is attributed to the diminished learning rates and memory capabilities observed in the children of veterans, stemming from the recurrent stresses of life [16]. Consequently, academic underachievement and reduced self-esteem manifest in these individuals [17]. Conversely, a positive academic self-concept serves as a mitigating factor, fostering enhanced self-esteem and favorable psychological outcomes [18]. Academic self-concept, a pivotal non-cognitive variable, plays a crucial role in shaping students' attitudes toward school and influencing their academic performance [19]. It is integral to an individual's general self-concept, reflecting one's perceptions of personal abilities and limitations as a student. Notably, disruptions in an individual's overall self-concept correspondingly impact dimensions such as academic self-concept [12]. Grounded in this context, the symptoms of vicarious stress in the children of veterans are identified through a decline in self-esteem and a deterioration in academic performance [15]. Consequently, the researchers have investigated the correlation between secondary traumatic stress and the academic performance of the offspring of veterans afflicted by secondary-traumatic stress disorder.

2 | Methods

2.1 | Study design and subjects

This cross-sectional study, conducted in 2017 in Mazandaran province, Iran, focused on 150 children of veterans diagnosed with PTSD. The inclusion criteria encompassed children aged above 15 years, with fathers possessing a verified veteran record acknowledged by educational institutions due to stress resulting from a war-related incident. Additionally, participants were required to be free from chronic mental illness and presently residing with their parents. Exclusion criteria comprised the voluntary

non-participation of both children and their parents in the research endeavor.

2.2 | Ethics consideration

After receiving approval from the Research Council and securing ethical clearance with the code of ethics IR.IAU.CHALUS.REC.1397.028 from the Bioethics Committee of Chalus Islamic Azad University, this study was initiated. The researcher provided a formal letter of introduction to education authorities, elucidating the research's objectives. Subsequently, during face-to-face interactions, the research objectives were communicated to potential participants who met the inclusion criteria. Following the solicitation of written informed consent from the participants, assurances were extended regarding the safety of the research and the preservation of participant anonymity. Additionally, participants were explicitly informed of their prerogative to withdraw from the study at any juncture without consequence.

2.3 | Data collection

The instruments utilized for data collection in this investigation encompass demographic variables (such as gender, age, children's education level, father's education, mother's education, father's occupation, mother's occupation, and father's veteran percentage), the secondary traumatic stress scale, and the academic self-concept questionnaire.

Secondary traumatic stress scale, developed by Bride *et al.*, (2004), comprises 17 items employing a Likert scale ranging from one (never) to five (very much) for responses [20]. The scale encompasses three subscales annoyance, avoidance, and arousal, with the total score derived from the cumulative scores of these subscales. Previous research by Bride *et al.*, (2004) [20] has demonstrated the scale's reliability, convergent and divergent validity, and acceptable construct validity [21]. The Cronbach's alpha coefficient for the entire scale was reported as 0.93, with subscale values of 0.80 for annoyance, 0.87 for avoidance, and 0.83 for arousal [20]. The Persian version of the secondary traumatic stress scale was validated by Rezapour *et al.*, (2017) among Iranian adolescents, confirming construct validity through factor analysis and demonstrating Cronbach's alpha coefficients of 0.891 for the total score, 0.748 for annoyance, 0.741 for avoidance, and 0.774 for arousal [7]. Notably, a substantial and significant correlation was observed among secondary traumatic stress scale factors [22], and convergent validity was established through correlations with anxiety, stress, and depression scores in the spouses and children of veterans, with a Cronbach's alpha coefficient of 0.92 in the spouses of veterans [7].

Academic self-concept, developed by Chen & Thompson (2004) and administered to 1612 Taiwanese students, consists of 15 questions evaluating an individual's mental self-image and self-concept across three levels general, school, and non-school. Respondents use a four-point Likert scale, ranging from completely disagree (1) to completely agree (4). The questionnaire yields both an overall score and scores for the individual subscales. The minimum score achievable on this test is 15, with a maximum score of 60. The reliability of the questionnaire was confirmed with a Cronbach's alpha coefficient of 0.84 for the entire instrument 0.86 for general self-concept, 0.75 for educational self-concept, and 0.55 for non-academic self-concept subscales [23]. The Persian version of the academic self-concept was standardized by Afsharzadeh *et al.*, (2013), confirming validity through form validity, content validity, construct validity, and convergent validity. The questionnaire's reliability was also established with a Cronbach's alpha coefficient of 0.78 [24].

The study received approval from the research council and ethical clearance from the biological ethics committee of Islamic Azad Chalous University. Participants were assured of the research's safety, and the anonymity of research subjects was maintained through an introductory letter provided to education officials, elucidating the research's purpose. Non-random sampling was employed for participant selection, and the researcher was present during questionnaire completion to address any queries from research subjects.

2.4 | Statistical analysis

Statistical analyses for this study were conducted utilizing the SPSS software package (version 16.0, SPSS Inc., Chicago, IL, USA). Descriptive statistics were employed to present continuous variables in the form of the mean (standard deviation (SD)), while categorical variables were expressed as frequency (percentage). Linear regression tests were utilized to examine relationships between variables. All statistical tests were conducted as two-sided analyses, with a predetermined significance level set at 0.05.

3 | Results

3.1 | Participants' characteristics

In the present study, Table 1 illustrates the involvement of 150 offspring of military veterans. Within this cohort, 52.80% were female, and 56.30% were enrolled in the twelfth grade. The educational background of fathers indicated that 46.50% possessed a diploma, while 32.40% of mothers held a diploma. In terms of

occupation, 32.20% of fathers were employed, and a substantial 87.30% of mothers were engaged in employment.

3.2 | The relationship between secondary traumatic stress and academic self-concept in children of veterans

As delineated in Table 1, the findings of this study revealed that the magnitude of secondary traumatic stress in the offspring of veterans averaged 43.97 (SD=13.80). Similarly, the academic self-concept level among these individuals was recorded at 40.15 (SD=17.09), indicating an average level of educational self-concept in the children of veterans.

As detailed in Table 2, the outcomes of the linear regression analysis indicated a statistically significant association between secondary traumatic stress and academic self-concept ($P < 0.01$). Specifically, as secondary traumatic stress increased, there was a corresponding decrease in the level of academic self-concept.

4 | Discussion

The findings of this investigation indicate an elevated level of secondary traumatic stress among the offspring of veterans, surpassing the mean. Conversely, the level of academic self-concept was found to be average. Statistical analysis demonstrated a noteworthy correlation between secondary traumatic stress and academic self-concept. Consequently, as secondary traumatic stress escalated, a corresponding reduction in the academic self-concept of students was observed.

The impact of secondary traumatic stress manifests in various psychological consequences among the offspring of veterans, leading to consequential psychological challenges within this demographic [25]. Notably, PTSD symptoms and their associated complications are not exclusive to veterans; rather, they extend to encompass their children and other family members as well [4, 26]. Within this context, emotional responses and challenges in learning are identified as potential sequelae of stress and secondary traumatic stress experienced by the children of veterans [27]. Onzo *et al.*, (2016) posited that stress following a wartime incident significantly contributes to a decline in the academic performance of veterans' children, highlighting the intricate interplay between stress and academic outcomes [16]. Consequently, feelings of despondency, hopelessness, and educational underachievement are frequently observed in the offspring of veterans [28].

A pivotal determinant of academic success in students is the cultivation of a positive self-concept [19]. Notably, anxiety and depression emerge as prevalent manifestations of PTSD in the

offspring of veterans, thereby exerting a deleterious influence on their academic performance [28]. A study by Rutter *et al.*, (2022) established a correlation between diminished self-esteem and reduced self-efficacy in students, positing that individuals with lower self-esteem possess a less comprehensive understanding of

themselves [27]. Consequently, fostering psychological well-being assumes significant importance, as it serves to ameliorate psychological symptoms and enhance students' self-concept and self-esteem [29].

Table 1. Demographic characteristics and secondary-traumatic stress and academic self-concept score (N=150).

	Frequency (%) or Mean (SD)
<u>Demographic characteristics</u>	
Gender	
Male	68 (47.20)
Female	75 (52.80)
Children education level	
8 th year	13 (9.20)
9 th year	19 (13.40)
10 th year	16 (11.30)
11 th year	14 (9.90)
12 th year	80 (56.30)
Father education level	
Elementary	20 (14.10)
Cycle	9 (6.30)
High school	10 (7.00)
Diploma	66 (46.50)
Associate Degree	15 (10.60)
University	22 (15.50)
Mother education level	
Elementary	41 (28.90)
Cycle	30 (21.10)
High school	18 (12.70)
Diploma	48 (32.40)
Associate Degree	7 (4.90)
Fathers job	
Self-employed	32 (22.50)
Unemployed	20 (14.10)
Employee	46 (32.20)
Retired	44 (31.00)
Mothers job	
Housewife	124 (87.30)
Employee	11 (7.70)
Self-employed	7 (5.00)
Veteran percentage	
<25	67 (47.20)
25 to 50	40 (28.20)
>50	35 (24.60)
<u>Secondary traumatic stress</u>	
Annoyance	13.51 (SD=4.52)
Avoidance	17.54 (SD=6.04)
Arousal	12.91 (SD=5.63)
Total	43.97 (SD=13.80)
<u>Academic self-concept</u>	
General	12.66 (SD=2.16)
School	21.21 (SD=4.21)
Non-school	5.28 (SD=1.24)
Total	40.15 (SD=17.09)

Values are given as mean (SD) for continuous variables and frequency (%) for categorical variables.

Table 2. The relationship between secondary traumatic stress and academic self-concept in children of veterans (N=150).

	Mean (SD)	P-value
Secondary traumatic stress	43.97 (SD=13.80)	
Academic self-concept	40.15 (SD=17.09)	<0.01

P-value was obtained with a linear regression test.

The research conducted by Rezapour Mirsaleh *et al.*, (2016) revealed a noteworthy inverse relationship of statistical significance between secondary traumatic stress and both academic performance and motivation. Specifically, heightened symptoms of PTSD were associated with a concomitant decline in academic motivation [30]. Expanding on this theme, Boffa *et al.*, (2018) observed an increased prevalence of despair and distorted self-concept among the offspring of individuals with PTSD, underscoring the psychological ramifications of such conditions [31]. In a similar vein, Habibzadeh *et al.*, (2016) established that PTSD significantly impacts students' sense of cohesion and self-concept. Moreover, a discernible distinction was identified between two groups—children of veterans and their counterparts without such familial background—about their sense of cohesion and academic self-concept [32].

Raeisoon *et al.*, (2014) conducted research, determining a positive correlation between elevated self-concept and self-esteem in students and their academic achievements [33]. Similarly, Nasiri *et al.*, (2017) demonstrated, through their study, that an accurate academic self-concept contributes to enhanced consistency in students' academic performance. This correlation is rooted in the premise that a precise comprehension of stressful circumstances augments self-efficacy [34]. Consequently, social support mechanisms play a pivotal role in fostering accurate self-concept among students [35]. Additionally, interventions centered around motivation management training have exhibited efficacy in augmenting both academic vitality and academic self-concept among students, as indicated by relevant studies [36].

4.1 | Limitations

The inherent limitation of employing a cross-sectional design in this study impedes the comprehensive assessment of long-term effects or temporal changes over an extended duration. Additionally, potential sampling bias arises from the composition of the sample of children of veterans, rendering it possibly non-representative of the entire population. If the sample predominantly comprises individuals from a specific region or demographic, the external validity of the findings may be compromised, limiting their generalizability to the broader population of children with veteran backgrounds. These constraints underscore the need for cautious interpretation and consideration of the study's scope of broader demographic contexts.

4.2 | Recommendations for future research

Undertake longitudinal research endeavors to thoroughly investigate the dynamic interrelationship between secondary traumatic

stress and academic self-concept over an extended period. Employing this methodological approach is crucial for attaining a more nuanced understanding of the enduring effects. Integrate both quantitative and qualitative research methods to gain a comprehensive perspective on the experiences of children of veterans. Qualitative data, specifically, can offer richer insights into the lived experiences and perceptions of the participants. Systematically examine the effectiveness of interventions or support programs designed to alleviate the impact of secondary traumatic stress on academic self-concept in children of veterans. Investigate the outcomes of specific interventions to derive evidence-based practices that can inform future initiatives and support frameworks.

5 | Conclusions

The findings of this study underscore a discernible correlation between secondary traumatic stress and the academic self-concept observed in the children of veterans. Notably, academic success emerges as a significant factor contributing to the enhancement of self-concept among this demographic. In light of these insights, educational administrators and stakeholders must cultivate a precise and nuanced comprehension of this relationship. Consequently, the development of educational and support programs should be undertaken with a comprehensive understanding of the psychological needs of students, particularly those with a familial connection to veterans. This strategic approach ensures a targeted and effective response to the intricate interplay between secondary traumatic stress and academic self-concept in this specific cohort.

Acknowledgements

Not applicable.

Authors' contributions

Substantial contributions to the conception or design of the work; or the acquisition, analysis, or interpretation of data for the work: MH, MT, RK, RM; Drafting the work or revising it critically for important intellectual content: MH, MT, RK, RM; Final approval of the version to be published: MH, MT, RK, RM; Agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved: MH, MT, RK, RM.

Funding

Self-funded.

Ethics approval and consent to participate

After receiving approval from the Research Council and securing ethical clearance with the code of ethics IR.IAU.CHALUS.REC.1397.028 from the Bioethics Committee of Chalus Islamic Azad University, this study was initiated. Before participation, all individuals provided informed consent after receiving detailed information about the study's aims. Participants were explicitly informed of their right to withdraw from the study at any time if they chose to do so.

Competing interests

We do not have potential conflicts of interest with respect to the research, authorship, and publication of this article.

Availability of data and materials

The datasets used during the current study are available from the corresponding author on request.

Using artificial intelligent chatbots

None.

References

- Demirovic D, Rattan SI. Establishing cellular stress response profiles as biomarkers of homeodynamics, health and hormesis. *Exp Gerontol.* 2013;48(1):94-98.
- Mohmadi S, Hojjati H. The effect of continuous care model on sleep quality in veterans with post-traumatic stress disorder referred to psychiatric clinics of Alborz province. *J Mil Med.* 2019;21(4):418-424.
- Hojjati H, Sarbani A, Alimmohammadzadeh K. The Relationship between Daily Spiritual Experiences and Perceived Stress in the Spouses of War Veterans with Post-traumatic Stress. *J Mil Med.* 2017;19(2):135-142.
- Hojjati H, Ebadi A, Akhoondzadeh G, Zarea. K, Sirati M, Heravi M, Nohi E. Sleep Quality in Spouses of War Veterans with Post-Traumatic Stress: A Qualitative Study. *Mil Caring Sci.* 2017;4(1):1-9.
- Habibi K, Alimohammadzadeh K, Hojjati H. The Effect of Group Reality Therapy on the Coping of Spouses of Veterans with Post-traumatic Stress Disorder. *J Health Promot Manag.* 2018;6(6):1-7.
- Hojjati H, Ebadi A, Zarea K, Akoundzadeh G, Alostani J, Nouhi E. Relationship between Social Support and Quality of Life Dimensions of Spouses of Veterans with Posttraumatic Stress Disorder-rans of war. *Mil Caring Sci.* 2017;4(2):87-94.
- Rezapour Mirsaleh Y, Ahmadi K. Psychometric Characteristics of Secondary Trauma Questionnaire (STQ) in Warfare. *Iran J Psychiat Clin Psychol.* 2017;23(3):348-361.
- Thapaliya R, Leshner G, Sharma Ghimire P, Bhochhibhoya A. An extension of the extended parallel process model to promote heart-healthy exercise behavior: An experimental study. *Health Promot Perspect.* 2022;12(4):358-366.
- Yambo TW, Johnson ME, Delaney KR, Hamilton R, Miller AM, York JA. Experiences of Military Spouses of Veterans With Combat-Related Posttraumatic Stress Disorder. *J Nurs Scholarsh.* 2016;48(6):543-551.
- Finklestein M. Risk and Resilience Factors in Families Under Ongoing Terror Along the Life Cycle. *Contemp Fam Ther.* 2015;38(2):129-139.
- Leshem S, Keha E, Kalanthroff E. Post-traumatic stress in war veterans and secondary traumatic stress among parents of war veterans five years after the 2014 Israel-Gaza military conflict. *Eur J Psychotraumatol.* 2023;14(2):2235983.
- Gori D, Guaraldi F, Cinocca S, Moser G, Rucci P, Fantini MP. Effectiveness of educational and lifestyle interventions to prevent paediatric obesity: systematic review and meta-analyses of randomized and non-randomized controlled trials. *Obes Sci Pract.* 2017;3(3):235-248.
- Ahmadi K, Rezapour Mirsaleh Y, Behjati Ardakani F. Standardization of The Secondary Trauma Questionnaire (STQ) in a Sample of Iranian Warfare Victimsâ™ Children. *J Mil Med.* 2016;18(3):242-252.
- Khodabakhshi-Koolaei A, Najmi-Sadegh S. Living with veteran fathers: analyzing the psychological and emotional needs in daughters of veterans (A phenomenological study). *J Mil Med.* 2019;21(5):479-489.
- Hamzeh M, Hojjati H, Akhondzadeh G. The Relationship between Post-Secondary Stress and Academic Motivation in the Children of Veterans of Mazandaran Province. *J Mil Caring Sci.* 2020;7(3):207-214.
- Onzo GA, Huemer J, Etkin A. History of childhood maltreatment augments dorsolateral prefrontal processing of emotional valence in PTSD. *J Psychiatr Res.* 2016;74:45-54.
- Weingarden H, Scahill L, Hoepfner S, Peterson AL, Woods DW, Walkup JT, et al. Self-esteem in adults with Tourette syndrome and chronic tic disorders: The roles of tic severity, treatment, and comorbidity. *Compr Psychiatry.* 2018;84:95-100.
- Marsh HW, Martin AJ. Academic self-concept and academic achievement: relations and causal ordering. *Br J Educ Psychol.* 2011;81(Pt 1):59-77.
- Postigo Á, Fernández-Alonso R, Fonseca-Pedrero E, González-Nuevo C, Muñiz J. Academic Self-Concept Dramatically Declines in Secondary School: Personal and Contextual Determinants. *Int J Environ Res Public Health.* 2022;19(5):3010.
- Bride BE, Robinson MM, Yegidis B, Figley CR. Development and validation of the secondary traumatic stress scale. *Res Soc Work Pract.* 2004;14(1):27-35.
- Ting L, Jacobson JM, Sanders S, Bride BE, Harrington D. The Secondary Traumatic Stress Scale (STSS). *J Hum Behav Soc Environ.* 2005;11(3-4):177-194.

22. Rezapour Mirsaleh Y, Ahmadi K, Davoudi F, Mousavi SZ. Validity, Reliability, and Factor Structure of Secondary Trauma Stress Scale (STSS) in a Sample of Warfare Victims' Children. *Iran Psychol Clin Psychol*. 2014;20(2):134-143.
23. Chen Y-H, Thompson MS. Confirmatory factor analysis of a school self-concept inventory. Paper presented at the Annual Conference of Arizona Educational Research Organization. Retrieved June 5, 2019.
24. Afsharzadeh SA, Karashki H, Naserian H. Psychometric Properties of School Self-concept in Primary Students of Tehran. *Psychol Meth Models*. 2013;3(11):53-66.
25. Renkiewicz GK, Hubble MW. Secondary Traumatic Stress in Emergency Services Systems (STRESS) Project: Quantifying Personal Trauma Profiles for Secondary Stress Syndromes in Emergency Medical Services Personnel With Prior Military Service. *J Spec Oper Med*. 2021;21(1):55-64.
26. Diehle J, Brooks SK, Greenberg N. Veterans are not the only ones suffering from posttraumatic stress symptoms: what do we know about dependents' secondary traumatic stress? *Soc Psychiatry Psychiatr Epidemiol*. 2017;52(1):35-44.
27. Rutter LA, Lind C, Howard J, Lakhan P, Germine L. Posttraumatic stress symptom severity is associated with impaired processing of emotional faces in a large international sample. *J Trauma Stress*. 2022;35(4):1263-1272.
28. Maalouf FT, Haidar R, Mansour F, Elbejjani M, Khoury JE, Khoury B, et al. Anxiety, depression and PTSD in children and adolescents following the Beirut port explosion. *J Affect Disord*. 2022;302:58-65.
29. Casino-García AM, Llopis-Bueno MJ, Llinares-Insa LI. Emotional Intelligence Profiles and Self-Esteem/Self-Concept: An Analysis of Relationships in Gifted Students. *Int J Environ Res Public Health*. 2021;18(3):1006.
30. Rezapour Mirsaleh Y, Behjat Manesh A, Tavallaei SV. Role of Secondary Post-Traumatic Stress Disorder and Resilience on Academic Motivation and Performance of Veteran's Student Children. *Iran J War Public Health*. 2016;8(4):225-233.
31. Boffa JW, King SL, Turecki G, Schmidt NB. Investigating the role of hopelessness in the relationship between PTSD symptom change and suicidality. *J Affect Disord*. 2018;225:298-301.
32. Habibzadeh A, Monajem A, Lajvardi H. The sense of coherence and education self-concept in children of veterans with secondary trauma stress disorder and normal children. *J Mil Med*. 2016;17(4):283-290.
33. Raeisoon M, Mohammadi Y, Abdorazaghnejad M, Sharifzadeh G. An investigation of the relationship between self-concept, self-esteem, and academic achievement of students in the nursing-midwifery faculty in Qaen during 2012-13 academic year. *Modern Care J*. 2014;11(3):236-242.
34. Nasiri M, Micaeli Manee F, Issazadegan A. Structural Relationship between Perceived Difficulty, Social Comparison and Academic Self-Concept with Academic Adjustment of BA Students Urmia University. *Res Sch Virtual Learn*. 2017;5(1):9-22.
35. Sheikholeslami A, Karimianpour G, Mohammadi Y. Predicting students' school affiliation based on academic support and academic self-concept. *J Educ Psychol Stud*. 2018;15(30):187-206.
36. Hassanzadeh R, Vatandoust L. Effectiveness of motivation management training on students' academic buoyancy and self-concept. *Res Sch Virtual Learn*. 2017;5(3):67-72.

How to cite this article: Hamzeh M, Taheri M, Kolbadi R, Moradi R. Secondary-traumatic stress and academic self-concept in children of veterans: A cross-sectional study. *J Nurs Adv Clin Sci*. 2024;1(1):24-30. <https://doi.org/10.32598/JNACS.2401.1006>.