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The effectiveness of relaxation on quality of life and physical symptoms of military wives with migraine in Tehran

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A B S T R A C T

Objective: The present study aimed to investigate the effectiveness of the psychotherapeutic approach, relaxation, and relaxation in reducing the physical symptoms of migraine headaches and increasing the quality of life of military spouses suffering from migraine in 2022 in Tehran.

Method: The statistical population that included women, referring to Hazrat Siddiqa Zahra Hospital located in Tehran, was used. The research design is a pre-test-post-test experiment with a control group, with a sample size of 34 people (17 experimental people and 17 control people) by random sampling method and available. The number of meetings held was 8, and once a week in the clinic. Two questionnaires on quality of life and physical symptoms were used to collect data, and multivariate covariance analysis was used for statistical analysis.

Results: The findings showed a significant difference between the average scores of physical symptoms and quality of life of the experimental group and the control group in the post-test ($P<0.01$).

Conclusion: The results showed that physical, mental, and social health, surrounding environment, and quality of life have increased, and physical symptoms have decreased. Based on the results, the relaxation approach can be used as an effective treatment in reducing migraine headaches in women suffering from this disease.

Keywords: *Relaxation, Physical Symptoms, Quality of Life, Migraine.*

1 Introduction

Nowadays, due to the change in the way of urban life and the complications caused by it, especially the stressful conditions of urban life, the ground has been prepared for various diseases, including headaches. Today's lifestyle and industrial life have caused the emergence of many neurological and mental diseases. *Migraine* headaches and tensions are among the most important types of diseases, which have affected many people of different ages and genders (Holroyd et al., 2010). Military families are different from civilian families in many ways due to the factors affected by their jobs. They form a population more at risk of personal, family and social health issues than other

families (Wu, Yang, & Chen, 2017). Military personnel faces many stressful factors (Sepahvand et al., 2022). Therefore, tension and anxiety in these people can lead to more conflicts in family life (Allen et al., 2011). Also, the specific personality traits of military personnel, such as strictness and increased tension in life due to job conditions and traumatic experiences, play a significant role in their lifestyle and the type of relationship with family members (Mirzaei Kotanaei, Shakerinia, & Asghari, 2015). Therefore, spouses of people working in military jobs are more exposed to physical and psychological injuries than others (Wu, Yang, & Chen, 2017).

Studies show that psychological protective factors have a decisive role in reducing the traumatic consequences of stressful factors and improving the *quality of life* (QOL) in people with chronic diseases (Sheybani, Mikaeili, & Narimani, 2020).

One of these problems that can be pointed to by tension and stress in people, especially in military families, is nervous and psychological pains such as migraines. Headache is one of the most common medical complaints, and over 90% of people experience at least one headache attack yearly (Holroyd et al., 2010). Migraine headache is a type of headache that is throbbing and repetitive, appears in the temporal or forehead area, and is accompanied by nausea during attacks. The prevalence of migraine headaches is approximately 10%, 2 to 3 times more common in women than in men, and its highest prevalence is between the ages of 15 and 55. Migraine is recognized as the most common form of chronic headache, with a duration of 4 to 72 hours and pain-free intervals, and sometimes with symptoms before the attack (Fantasia, 2014). Although a single pathophysiology cannot be mentioned in this disease, heredity is involved, and some foods and mental attacks are suggested as triggers (Mirzaei Kotanaei, Shakerinia, & Asghari, 2015).

According to the World Health Organization statistics, three thousand migraine attacks occur every day for every one million people. It can be stated that according to statistics, 15 to 20 percent of patients referred to medical centers and 1 to 2 percent of the general population suffer from migraine. Women have a higher share, with a rate of 18%, than men, with a rate of 7% (Kearson et al., 2019). In Iran, migraine headaches account for 90% of people's headaches (Sittironnarit, Emprasertsuk, & Wannasewok, 2020). Classic migraine (with aura or warning symptoms) and common migraine (without aura) are types of this headache (Wu, Yang, & Chen, 2017). It seems that reducing the effect of inhibitory mechanisms in the transmission of pain in the central nervous system, vascular expansion, and neurogenic inflammation are factors involved in migraine headaches (Bruloy et al., 2019). Occurrence of periodic migraine attacks has disrupted the patient's performance. Among them, we can point out the lack of concentration and refusal of any personal and social activities and long-term absences from work and school, the effect on the mood and the subsequent disturbance in the person's relationships with those around him (Shamsi et al., 2020). Regarding migraine headaches, it can be mentioned that these problems can lead to physical symptoms. Migraine headaches are often accompanied by nausea, vomiting, and lethargy (Kaki et al., 2019). These headaches disrupt the patient's performance (Bruloy et al., 2019) and reduce their ability in daily life. In fact, this disease causes physical complications and disruption in daily activities (Ahola Kohut et al., 2017).

Psychological stress is the most common cause that initiates and perpetuates chronic pressure headache attacks (Meshkati farahani et al., 2014). Several studies have also reported that headaches persist after a person's exposure to stressful events. Also, patients' reports indicate that they endured more stress a few days before or at the same time as the onset of headache (Cathcart et al., 2010). According to the studies, stress and stressful situations such as military jobs play a role in inducing headaches more than other factors (Hines et al., 2014; Meshkati farahani et al., 2014). Among the factors that are affected by migraine and migraine headaches in this group are the QOL and *physical symptoms*.

People working in military occupations report more psychological injuries due to continuous and continuous experience of stressful events, and these injuries can also affect the families of these people. In other words, it can be considered that suffering psychological injuries in the population of military personnel can also affect the families of these people. Among those who suffer the most from these injuries are the spouses, who suffer the most from the psychological problems and injuries of the spouse due to the closeness of the relationship (Bruloy et al., 2019). Among these damages, we can mention the QOL related to the family life of military personnel.

QOL indicates a person's goal, expectations, standards, awareness and views towards life (Özkan & Rathfisch, 2018). QOL is the collection of a person's perceptions of his life situation, considering the culture and value system of society and the relationship of these perceptions with goals, priorities and expectations (Kobza, Lizis, & Zięba, 2017).

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Some researchers have defined the QOL with an objective approach. Obvious things related to life standards such as physical health, personal conditions (wealth, living conditions...), social relations, occupational actions, or other social and economic factors have been equated with QOL. The subjective approach considers QOL as synonymous with happiness or satisfaction with one's life. Between these two approaches, a new approach called the holistic approach considers the QOL as a complex and multidimensional concept (Martin, Fanaroff, & Walsh, 2014). The results of various research have shown that the QOL in military families changes due to the stressful job of the head of the family (Farhadi & Sheikh, 2018).

So far, various therapeutic and educational methods have been used to improve people suffering from migraine headaches' psychological, physical, and emotional components. One of the practical methods in this field is *relaxation therapy* (Devineni & Blanchard, 2005). As mentioned, migraine and migraine headaches affect the QOL of affected people both physically and psychologically. Therefore, by properly dealing with migraine and its complications, the QOL can be increased to some extent, and the physical symptoms of migraine headaches can be reduced. In the meantime, relaxing bodybuilding has been used as a psychological approach to reduce symptoms and related mental disorders. There are various techniques for relaxation. It includes induction of relaxation, guided visualization, hypnosis, massage, meditation, progressive muscle relaxation, and yoga, the most common of which is progressive muscle relaxation training (Dayapoğlu & Tan, 2012). Relaxation therapy is a non-pharmacological intervention that is used to treat tension caused by chronic diseases or in treatments with life-threatening complications and to reduce anxiety, depression, and reduce pain (Biabani, Mogharab, & Nasirzdeh, 2019). Relaxation therapy is a technique in which a person achieves a sense of relaxation by actively contracting and then progressively relaxing specific muscle groups (Dayapoğlu & Tan, 2012). Relaxation therapy is a systematic approach of training people to gain awareness of physiological responses and achieve a physiological perception and index of relaxation and relief without using tools and equipment, which has various forms. This treatment method affects the body's physiology by reducing metabolism, heart rate and contractile strength, and secretion of epinephrine and blood pressure (Karami, Shalani, & Mokari, 2018).

Relaxation mainly means relieving tension or physical and mental release from external stressors so that at the end of performing that activity, a person feels some degree of reduced anxiety, pain, or worry. In this method, by making contraction movements and returning them voluntarily to a relaxed and expanded state within 0 to 23 seconds, the person increases the blood flow and improves the blood supply function of the organs (Dayapoğlu & Tan, 2012). These movements start from the muscles of the head, face, and neck regularly, and at the end, the middle and end parts of the body include the contraction of the muscles of the back, buttocks, thighs, legs, and toes. This method is widely used in stress control training programs for people. The result is a decrease in muscle tension, a decrease in heart rate and blood pressure caused by stress or worry, and a decrease in the number of breaths per minute, which makes a person feel better and satisfied after the end of this activity (Chuang et al., 2012). Using this method, it is possible to eliminate the adverse physical effects caused by stress and prevent symptoms caused by these harmful factors. The results of various research have shown that body-relaxation is effective on the QOL (Aksu, Erdogan, & Ozgur, 2018; Dashtbozorgi et al., 2010; Isa et al., 2013; Mazloomy et al., 2017), anxiety sensitivity and physical symptoms (Nazari et al., 2016). Considering the importance of headaches in people's lives, especially the QOL and the impact of various psychological factors on the level of headache tension, it is necessary and necessary to use different psychological approaches to reduce headaches caused by tension and migraines. For this purpose, the effectiveness of relaxation on the QOL and physical symptoms of migraine headaches of affected people has been investigated in this research. The adverse consequences of not paying attention to the severity of the pain of people suffering from migraine headaches and its wide-ranging effects on the personal, social, and professional life of these people and the fact that it can seriously harm the family and social life of the person. Therefore, it is necessary to take appropriate measures to reduce the pain intensity of these people. Therefore, the current research seeks to answer the question, is relaxation effective on the QOL and physical symptoms of military spouses with migraines in Tehran?

2 Methods

2.1 Study design and Participant

The research design was quasi-experimental, pre-test-post-test with a control group. The statistical population under study included all military spouses with migraines referred to Hazrat Siddiqa Zahra Hospital in Tehran in 2022.

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The statistical sample in this research is 34 people selected from the statistical population through accessible and voluntary sampling. The sample selection method was that the forms of voluntary participation in the research were provided to the women suffering from migraine who were referred to the mentioned hospital. Then 34 people were randomly selected from them into two experimental and control groups (17 individuals in each group).

The inclusion criteria were: Obtaining a score lower than the cut-off point in the QOL questionnaires and a high score in physical symptoms. The gender of the subjects should be female. Be a resident of Tehran. b) The exclusion criteria were: Having a psychological and physical illness at the same time. Lack of favorable cooperation of the subject in the educational program. (The reason for choosing women in this plan was the higher frequency of women visiting the center for migraine treatment than men). After visiting Hazrat Siddiqa Zahra Hospital in Tehran in 2022, 34 people who visited this center and had military spouses, and suffered from migraine headaches were selected. Then 17 people were assigned randomly to each group (experimental and Control). After that, the research questionnaires were provided to both groups, and the relaxation treatment process was performed on the experimental group in eight 90-minute sessions. Then the research questionnaires were again provided to the experimental and control groups to receive post-test information. It should be noted that the control group did not receive any intervention.

2.2 Measurements

Quality of life questionnaire (WHOQOL-BREF), and *Questionnaire of physical symptoms* were used to collect data.

2.2.1 Quality of life

The World Health Organization's QOL questionnaire is a 26-question questionnaire that measures a person's overall QOL. This questionnaire has 4 subscales which are: Physical health (items 3, 4, 10, 11, 16, 17 and 18) Y mental health (items 5, 6, 7, 8, 19 and 26), social relations (items 20, 21 and 22) Y health of the surrounding environment (9, 12, 13, 14, 15, 23, 24 and 25). The scoring method of this questionnaire is a five-point Likert scale (very bad = 1 to very good = 5) and items 3, 4 and 26 are scored inversely. The first two items do not belong to any of the fields. A higher score indicates a higher QOL. Nejat et al. (2016) obtained the reliability of this questionnaire in the field of physical health of 0.77, mental health of 0.77, social relations of 0.75, and environmental health of 0.84. Also, in the present study, the reliability of the questionnaire was calculated using Cronbach's alpha coefficient of 0.74 (Nejat et al., 2006).

2.2.2 Physical symptoms

Physical Symptoms Questionnaire was designed by Powell and Enright (1991) and has 18 items. The scoring method of this questionnaire is a four-point Likert scale (never = 0 to most of the time = 3). A score between 0 and 18 is low for physical symptoms such as heart palpitations, dizziness, etc. A score between 18 and 36 indicates moderate physical symptoms such as palpitations, dizziness, etc., and a score above 36 indicates a high level of physical symptoms such as palpitations, dizziness, etc. In the study of Powell and Enright (1991), the reliability of this questionnaire was calculated as 0.74. The reliability of this questionnaire was 0.68 in Isfahan city through two implementations two weeks apart, and its validity has been confirmed. Also, in the present study, the reliability of the questionnaire was calculated using Cronbach's alpha coefficient of 0.72 (Powell & Enright, 2015).

2.3 Intervention

In this research, after obtaining agreement from the participants to participate in the research and explaining the research objectives, they were trained in relaxation techniques.

2.3.1 Relaxation Therapy

The relaxation treatment process was also implemented in eight 90-minute sessions on the experimental group, and the contents of treatment protocol used are shown in the Table 1.

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Table 1

Summary of relaxation therapy sessions

Session	Content
1	In the first session, the introduction and introduction of the research objectives and the introduction of the relaxation approach and the purpose of implementation of the relaxation were discussed and in this session the pre-test was conducted.
2	Exercises related to increasing oxygen absorption and exercises related to muscle weight were discussed. For this purpose, the following two exercises were presented: a) increasing the absorption of oxygen in the body and reducing the speed of breathing b) the exercise of my right hand is very heavy.
3	In this session, how to relax muscles and identify non-tense muscles was discussed and an effort was made to teach patients to induce the feeling of heat in their blood vessels: A) Identification of non-tense muscles. b) Inducing the feeling of heat to relax the blood vessels, which should be done after the first stage.
4	In this session, first the previous exercises and the previously mentioned material were carefully examined, and then the new material and exercise was discussed, which was an attempt to minimize the period of muscle relaxation: a) Reducing the time to reach muscle relaxation, identifying the difference between the entangled muscles and eliminating muscle contraction. b) The desired exercise: My heart beats slowly and regularly.
5	After reviewing the exercises of the previous session and reviewing the previously mentioned materials, the conditioning process in the body was discussed: A) Creating a conditioning process in the brain, between the concept of relaxation and deep breathing as a sign. b) My breathing practice is very calm. This does not mean that you want to influence your breathing, instead your breathing should regulate itself.
6	In this session, after reviewing the exercises of the previous session and preparing to start new exercises and training, relaxation was discussed in different situations, and in this session, an effort was made to clean and generalize the stimulus to be examined and practiced: A) Differential relaxation. b) Abdominal exercises
7	A review of the materials and exercises mentioned in the previous session was done and then mental relaxation was done.
8	In this session, which was the last session, the general overview of the course was discussed, and finally, the post-test was conducted.

2.4 Data Analysis

Descriptive indices, including mean and standard deviation and inferential tests, including multivariate covariance analysis, were used to analyze the data. The data were analyzed with SPSS 22.

3 Findings and Results

Table 2 shows that all components of the QOL, i.e. physical, mental, social and surrounding health, have increased in the experimental group in the post-test phase compared to the pre-test phase, and there is no noticeable difference in the control group. Also, the results have shown that the physical symptoms in the test group have decreased in the post-test stage compared to the pre-test, and there is no noticeable difference in the control group.

Also, the results have shown that the physical symptoms in the test group have decreased in the post-test stage compared to the pre-test, and there is no noticeable difference in the control group (Table 2).

Table 2

Descriptive results

Group	Stage	Variable	Mean	SD
Exp.	Pre-test	Physical health	19.17	1.33
		mental health	16.64	1.32
		Social health	8.11	0.78
		The health of the surrounding environment	20.11	0.69
		Total QOL score	63.05	2.68
		Physical symptoms	44.05	5.00
	Post-test	Physical health	28.76	2.01
		mental health	24.70	1.04
		Social health	13.29	0.98
		The health of the surrounding environment	33.47	1.94
		Total QOL score	89.23	2.77
		Physical symptoms	21.47	1.84
Control	Pre-test	Physical health	18.76	1.14
		mental health	17.88	0.92
		Social health	8.70	0.58
		The health of the surrounding environment	21.29	1.21
		Total QOL score	66.64	2.20
		Physical symptoms	43.29	4.87
	Post-test	Physical health	18.35	1.22
		mental health	17.88	1.03
		Social health	8.70	1.76
		The health of the surrounding environment	21.29	1.76
		Total QOL score	66.70	4.27
		Physical symptoms	42.76	4.08

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Table 3

The results of homogeneity of regression slopes test for performing covariance analysis for QOL and physical symptoms

Source	Variable	Sum of squares	Df	Mean squares	f	p
group	Post-test of physical health	1791.406	۱	1791.406	151.590	0.000
	Post-test of mental health	279.22	۱	279.22	4.966	0.007
	Social post-test	2995.27	۱	2995.27	104.067	0.000
	Post-test of the surrounding environment	571.79	۱	571.79	31.295	0.000
	Post-test of physical symptoms	8954.39	۱	8954.39	581.753	0.000
Physical health pre-test	Post-test of physical health	0.137	۱	0.137	0.120	0.736
Mental health pre-test	Post-test of mental health	2.502	۱	2.502	2.233	0.166
Social pre-test	Social post-test	0.098	۱	0.098	0.075	0.789
the surrounding environment pre-test	Post-test of the surrounding environment	10.878	۱	10.878	4.247	0.066
Physical symptoms pre-test	Post-test of physical symptoms	0.025	۱	0.025	0.010	0.920
group*	Post-test of physical health	2.955	۱	2.955	2.588	0.139
Health pre-examinations	Post-test of mental health	1.538	۱	1.538	1.372	0.269
physical* mental health*	Social post-test	0.013	۱	0.013	0.010	0.921
Social * Surroundings * Physical signs*	Post-test of the surrounding environment	2.167	۱	2.167	0.846	0.379
	Post-test of physical symptoms	۰/۲۷۳	۱	۰/۲۷۳	0.113	0.139

According to Table 3, the assumption of homogeneity of regression slopes is not violated because the interaction between the group, the pre-test, is above the alpha level of 0.05.

Table 4

MANCOVA results

Source	Variable	Sum of squares	Df	Mean squares	f	p	Effect size
Group	Post-test of physical health	15117.120	۱	15117.120	957.483	0.000	0.982
	Post-test of mental health	779.355	۱	779.355	135.945	0.000	0.883
	Social post-test	1857.030	۱	1857.030	743.018	0.000	0.976
	Post-test of the surrounding environment	841.921	۱	841.921	234.092	0.000	0.929
	Post-test of physical symptoms	2774.117	۱	2774.117	3984.099	0.000	0.996
Physical health pre-test	Post-test of physical health	22.866	۱	22.866	17.498	0.002	0.614
Mental health pre-test	Post-test of mental health	1.591	۱	1.591	1.373	0.266	0.111
Social pre-test	Social post-test	1.864	۱	1.864	1.575	0.235	0.125
Surrounding environment pre-test	Post-test of the surrounding environment	14.083	۱	14.083	5.576	0.038	0.336
Physical symptoms pre-test	Post-test of physical symptoms	1.722	۱	1.722	0.777	0.397	0.066
Error	Post-test of physical health	14.374	۱۱	1.307			
	Post-test of mental health	12.744	۱۱	1.159			
	Social post-test	13.018	۱۱	1.183			
	Post-test of the surrounding environment	27.783	۱۱	2.526			
	Post-test of physical symptoms	24.377	۱۱	2.216			
Total	Post-test of physical health	14131.000	۱				
	Post-test of mental health	10394.000	۱۷				
	Social post-test	3020.000	۱۷				
	Post-test of the surrounding environment	19105.000	۱۷				
	Post-test of physical symptoms	7891.000	۱۷				

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According to Table 4, the results have shown that relaxation training effectively affects the QOL and its components, i.e. physical, mental, social, and surrounding environment and physical symptoms.

4 Discussion and Conclusion

The present study aimed to investigate the effectiveness of the relaxing tone psychotherapy approach for physical symptoms and the QOL of women suffering from migraine headaches in Tehran. The results showed that the relaxation approach significantly affects the QOL and physical symptoms of women with migraine. This means that relaxation training is more effective than drug therapy in reducing headaches in migraine patients. This finding is consistent with the research findings of Alvarez-Melcon et al. (2018) regarding the effect of physical therapy and muscle relaxation techniques on pain parameters in students with tension headaches (Álvarez-Melcón et al., 2018). It is also with the findings of Kumar and Raje (2014) regarding the effect of progressive muscle relaxation exercises against cutaneous electrical nerve stimulation on tension headaches (Kumar & Raje, 2014). It is also consistent with several past studies (Holroyd et al., 2010; Mannix et al., 1999; Mullally, Hall, & Goldstein, 2009; Nestoriuc, Rief, & Martin, 2008; Reid & McGrath, 1996). Kobza et al. (2016) have reported that massage therapy reduces pain perception in patients with migraine headaches by investigating the effect of massage therapy on reducing pain perception in female patients with migraine headaches (Kobza, Lizis, & Zięba, 2017). Houle (2012) under the title of Stress and Sleep in Migraine patients, it was shown that migraine and regular sleep lifestyle, exercise, and nutrition models independently affect the occurrence of migraine (Houle et al., 2012).

The results showed that stress management reduces the number of migraine attacks, and relaxation and self-care techniques can effectively reduce severe migraine headaches. In explaining the effect of relaxation therapy on the severity of headaches in migraine patients, it should be noted that relaxation therapy produces natural chemicals that repair cellular damage and eliminate toxins (Kumar & Raje, 2014). Also, by strengthening mental powers and increasing self-confidence, it increases the efficiency and awakening of inner talents and the power of reasoning and creativity. Therefore, relaxation therapy can lead to the reduction of psychological and physiological traumatic symptoms, as well as reduce the intensity of pain in patients with migraine headaches by applying psychological strengthening of people (Kobza, Lizis, & Zięba, 2017). Also, in explaining these findings, it can be said that considering that one of the most important causes of migraine attacks is the contraction of internal arteries and then the expansion of extracranial arteries due to anxiety and stress. Therefore, relaxing the body and gradually de-stressing as one of the main components of desensitization can effectively reduce the anxiety and tension level of the person in migraine control. In fact, the general assumption in the treatment methods used in this research is that people can consciously learn to control their muscles voluntarily.

Also, the results have shown that the relaxation approach effectively improves the QOL in patients with migraine headaches. In fact, when people use these methods, they are more comfortable, calm, and able to cope with the anxiety and headache caused by it. Also, the relaxation approach is useful and effective in treating migraine headaches compared to drug therapy because it makes the patient familiar with the meaning of pain, its quality and intensity, and the factors that trigger headaches. This familiarity causes people to practice more effective coping strategies in their mental visualization according to their clear understanding of these variables. It can be said that the objectivity, the gradualness of the changes, the direct effect in reducing the tensions resulting from the intense activity of the autonomic nervous system, etc., all indicate the extraordinary effect of this method. The relaxation technique is a systematic way to achieve a deep state of relaxation. The deep relaxation caused by the calm body approach in patients and sufferers of migraine headaches reduces the symptoms. It can reduce the psychological complications caused by the symptoms of migraine headaches, thereby increasing the sufferers' QOL. In explaining this finding, it can be said that this research's results align with the above research conducted at the international level. It shows the positive and useful effect of the non-pharmacological method of the relaxation approach. This research has proposed a new treatment method for migraine headaches, a disorder once thought to be treatable only biologically and with the help of medicine.

5 Limitations

The research limitations were as follows: 1- Since patients' self-reports were used in the field of migraine headaches symptoms and QOL, the possibility of accuracy in answering should be investigated more carefully and with medical equipment. 2- The conditions of the coronavirus

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affected the cooperation of the patients as well as the results of the research.

6 Suggestions and Applications

It is suggested that researchers conduct physical symptoms using medical tools to get correct and accurate results, especially regarding physical symptoms. It is also suggested that researchers investigate psychological tensions such as anxiety and depression in addition to the QOL of patients with migraine headaches for the effectiveness of relaxation therapy.

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Declaration of Interest

The authors of this article declared no conflict of interest.

Ethics principles

In this research, ethical standards including obtaining informed consent, ensuring privacy and confidentiality were observed.

References

Ahola Kohut, S., Stinson, J., Davies-Chalmers, C., Ruskin, D., & van Wyk, M. (2017). Mindfulness-Based Interventions in Clinical Samples of Adolescents with Chronic Illness: A Systematic Review. *The Journal of Alternative and Complementary Medicine*, *23*(8), 581-589. https://doi.org/10.1089/acm.2016.0316

Aksu, N. T., Erdogan, A., & Ozgur, N. (2018). Effects of progressive muscle relaxation training on sleep and quality of life in patients with pulmonary resection. *Sleep and Breathing*, *22*(3), 695-702. https://doi.org/10.1007/s11325-017-1614-2

Allen, E. S., Rhoades, G. K., Stanley, S. M., & Markman, H. J. (2011). On the home front: Stress for recently deployed Army couples. *Family process*, *50*(2), 235-247. https://doi.org/10.1111/j.1545-5300.2011.01357.x

Álvarez-Melcón, A. C., Valero-Alcaide, R., Atín-Arratibel, M. A., Melcón-Álvarez, A., & Beneit-Montesinos, J. V. (2018). Effects of physical therapy and relaxation techniques on the parameters of pain in university students with tension-type headache: A randomised controlled clinical trial. *Neurología (English Edition)*, *33*(4), 233-243. https://doi.org/10.1016/j.nrleng.2016.06.007

Biabani, F., Mogharab, M., & Nasirzdeh, M. (2019). The effect of muscle relaxation on nausea and dialysis adequacy in hemodialysis patient. *26*(3), 303-309. https://jsums.medsab.ac.ir/article_1193.html

Bruloy, E., Sinna, R., Grolleau, M. D. J.-L., Bout-Roumazeilles, A., Berard, E., & Chaput, B. (2019). Botulinum Toxin versus Placebo: A Meta-Analysis of Prophylactic Treatment for Migraine. *Plastic and Reconstructive Surgery*, *143*(1). https://journals.lww.com/plasreconsurg/Fulltext/2019/01000/Botulinum_Toxin_versus_Placebo__A_Meta_Analysis_of.46.aspx

Cathcart, S., Petkov, J., Winefield, A., Lushington, K., & Rolan, P. (2010). Central mechanisms of stress-induced headache. *Cephalalgia*, *n/a*(n/a). https://doi.org/10.1111/j.1468-2982.2009.01917.x

Chuang, L.-L., Lin, L.-C., Cheng, P.-J., Chen, C.-H., Wu, S.-C., & Chang, C.-L. (2012). Effects of a relaxation training programme on immediate and prolonged stress responses in women with preterm labour. *Journal of Advanced Nursing*, *68*(1), 170-180. https://doi.org/10.1111/j.1365-2648.2011.05765.x

Dashtbozorgi, B., Majidi Nasab, N., Sabeti, Z., Alikhani, H., & Latifi, M. (2010). Investigating the effect of progressive muscle relaxation on the quality of life of adolescents with epilepsy. (UNPUBLISHED)

Dayapoğlu, N., & Tan, M. (2012). Evaluation of the effect of progressive relaxation exercises on fatigue and sleep quality in patients with multiple sclerosis. *The Journal of Alternative and Complementary Medicine*, *18*(10), 983-987. https://doi.org/10.1089/acm.2011.0390

Devineni, T., & Blanchard, E. B. (2005). A randomized controlled trial of an internet-based treatment for chronic headache. *Behaviour Research and Therapy*, *43*(3), 277-292. https://doi.org/10.1016/j.brat.2004.01.008

Fantasia, H. C. (2014). Migraine Headache Prophylaxis in Adolescents. *Nursing for Women's Health*, *18*(5), 420-424. https://doi.org/10.1111/1751-486X.12150

Farhadi, A., & Sheikh, A. (2018). The Quality of Working Life of Military Organizations' Staff and Its Relationship with Defense Development (Case Study: A Military Organization). *MILITARY MANAGEMENT QUARTERLY*, *17*(68), 53-76. https://jmm.iranjournals.ir/article_30629_86240e10d8c731e25bb31223524a3844.pdf

Hines, L. A., Goodwin, L., Jones, M., Hull, L., Wessely, S., Fear, N. T., & Rona, R. J. (2014). Factors Affecting Help Seeking for Mental Health Problems After Deployment to Iraq and Afghanistan. *Psychiatric Services*, *65*(1), 98-105. https://doi.org/10.1176/appi.ps.004972012

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Psychology of Woman Journal
E-ISSN: 2783-333X

Holroyd, K. A., Cottrell, C. K., O'Donnell, F. J., Cordingley, G. E., Drew, J. B., Carlson, B. W., & Himawan, L. (2010). Effect of preventive (β blocker) treatment, behavioural migraine management, or their combination on outcomes of optimised acute treatment in frequent migraine: randomised controlled trial. *BMJ*, *341*, c4871. https://doi.org/10.1136/bmj.c4871

Houle, T. T., Butschek, R. A., Turner, D. P., Smitherman, T. A., Rains, J. C., & Penzien, D. B. (2012). Stress and sleep duration predict headache severity in chronic headache sufferers. *PAIN®*, *153*(12), 2432-2440. https://doi.org/ 10.1016/j.pain.2012.08.014

Isa, M. R., Moy, F. M., Abdul Razack, A., Zainuddin, Z. M., & Zainal, N. Z. (2013). Impact of applied progressive deep muscle relaxation training on the level of depression, anxiety and stress among prostate cancer patients: a quasi-experimental study. *Asian Pac J Cancer Prev*, *14*(4), 2237-2242. https://doi.org/10.7314/APJCP.2013.14.4.2237

Kaki, A., Sawsan, R., Samiha, M., Al Jaouni, S., Elalah, M. A., & Ibrahim, N. (2019). Wet cupping reduces pain and improves health-related quality of life among patients with migraine: a prospective observational study. *Oman Medical Journal*, *34*(2), 105. https://doi.org/10.5001/omj.2019.21

Karami, J., Shalani, B., & Mokari, Z. (2018). The effectiveness of relaxation training on depression, anxiety, and stress in infertile women [Research]. *Rooyesh-e-Ravanshenasi Journal(RRJ)*, *6*(4), 241-256. http://frooyesh.ir/article-1-128-en.html http://frooyesh.ir/article-1-128-en.pdf

Kearson, A., Samawi, L., Burrowes, S., Keaser, M., Zhang, J., Campbell, C., Gould, N., White, L., Peterlin, B., Haythornthwaite, J., & Seminowicz, D. (2019). (312) The Effects of Mindfulness-Based Stress Reduction on Pain Catastrophizing in Episodic Migraine. *The Journal of Pain*, *20*(4, Supplement), S52. https://doi.org/10.1016/j.jpain.2019.01.469

Kobza, W., Lizis, P., & Zięba, H. R. (2017). Effects of feet reflexology versus segmental massage in reducing pain and its intensity, frequency and duration of the attacks in females with migraine: a pilot study. *Journal of Traditional Chinese Medicine*, *37*(2), 222-319. https://doi.org/10.1016/S0254-6272(17)30047-X

Kumar, S., & Raje, A. (2014). Effect of progressive muscular relaxation exercises versus transcutaneous electrical nerve stimulation on tension headache: A comparative study. *Hong Kong Physiotherapy Journal*, *32*(2), 86-91. https://doi.org/10.1016/j.hkpj.2014.06.002

Mannix, L. K., Chandurkar, R. S., Rybicki, L. A., Tusek, D. L., & Solomon, G. D. (1999). Effect of Guided Imagery on Quality of Life for Patients With Chronic Tension-Type Headache. *Headache: The Journal of Head and Face Pain*, *39*(5), 326-334. https://doi.org/10.1046/j.1526-4610.1999.3905326.x

Martin, R. J., Fanaroff, A. A., & Walsh, M. C. (2014). *Fanaroff and Martin's neonatal-perinatal medicine e-book: diseases of the fetus and infant*. Elsevier Health Sciences. https://books.google.com/books/about/Fanaroff_and_Martin_s_Neonatal_Perinatal.html?id=fOyMTRl79DgC

Mazloomy, S. S., Rezaeian, M., Naghibzadeh Tahami, A., & Sadeghi, R. (2017). Association between Health–Related Quality of Life and Glycemic Control in Type 2 Diabetics of Sirjan City in 2015. *RUMS_JOURNAL*, *16*(1), 73-82. http://journal.rums.ac.ir/article-1-3450-en.html

Meshkati farahani, D., Ahmadi, K., Toulaei, A., Fathi ashiani, A., & Sheikh, M. (2014). The effectiveness of electrical stimulation of nerves on the treatment of primary headaches of military personnel. *5*(19). [Link]

Mirzaei Kotanaei, F., Shakerinia, I., & Asghari, F. (2015). The relationship between parent-child interaction and the level of students' aggressive behaviors. *5*(2), 21-34. [Link]

Mullally, W. J., Hall, K., & Goldstein, R. (2009). Efficacy of biofeedback in the treatment of migraine and tension type headaches. *Pain physician*, *12*(6), 1005. https://www.painphysicianjournal.com/current/pdf?article=MTI5MA%3D%3D&journal=52

Nazari, F., Soheili, M., Shaigan Nezhad, V., & Valiati, M. (2016). The effect of relaxation on the physical symptoms of women with multiple sclerosis. *Journal of Gorgan University of Medical Sciences*, *18*(1). [Link]

Nejat, S., Montazeri, A., Holakouie Naieni, K., Mohammad, K., & Majdzadeh, S. R. (2006). The World Health Organization quality of Life (WHOQOL-BREF) questionnaire: Translation and validation study of the Iranian version [Research]. *Journal of School of Public Health and Institute of Public Health Research*, *4*(4), 1-12. http://sjsph.tums.ac.ir/article-1-187-en.html

Nestoriuc, Y., Rief, W., & Martin, A. (2008). Meta-analysis of biofeedback for tension-type headache: Efficacy, specificity, and treatment moderators. *Journal of Consulting and Clinical Psychology*, *76*(3), 379-396. https://doi.org/10.1037/0022-006X.76.3.379

Özkan, S. A., & Rathfisch, G. (2018). The effect of relaxation exercises on sleep quality in pregnant women in the third trimester: A randomized controlled trial. *Complementary Therapies in Clinical Practice*, *32*, 79-84. https://doi.org/10.1016/j.ctcp.2018.05.008

Powell, T., & Enright, S. (2015). *Anxiety and stress management*. Routledge. https://doi.org/10.4324/9781315683867

Reid, G. J., & McGrath, P. J. (1996). Psychological treatments for migraine. *Biomedicine & Pharmacotherapy*, *50*(2), 58-63. https://doi.org/10.1016/0753-3322(96)84714-7

Sepahvand, M. J., Javadi, M., Khaghanizadeh, M., Mokhtari, J., & Babajani-Vafsi, S. (2022). Identify Coping Mechanisms to Deal with Stressors in Military Personnel. *Journal of Military Medicine*, *22*(3), 244-251. https://doi.org/10.30491/jmm.22.3.244

Shamsi, A., Refahi, A., Malmir, Mullahadi, M., & Abadi, A. (2020). Comparison of the quality of life of soldiers with and without hypertension.

Sheybani, H., Mikaeili, N., & Narimani, M. (2020). The effectiveness of Cognitive-behavioral Therapy and Emotion Regulation Training on Irritability, Depression, anxiety, and emotion regulation in adolescents with Disruptive Mood Dysregulation Disorder. *Journal of Clinical Psychology*, *12*(2), 41-50. https://doi.org/10.22075/jcp.2020.19250.1778

Sittironnarit, G., Emprasertsuk, W., & Wannasewok, K. (2020). Quality of life and subjective burden of primary dementia caregivers in Bangkok, Thailand. *Asian Journal of Psychiatry*, *48*, 101913. https://doi.org/10.1016/j.ajp.2019.101913

Wu, M.-F., Yang, Y.-W., & Chen, Y.-Y. (2017). The effect of anxiety and depression on the risk of irritable bowel syndrome in migraine patients. *Journal of Clinical Neuroscience*, *44*, 342-345. https://doi.org/10.1016/j.jocn.2017.06.009

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