Research Article

The Effect of Quranic Voice on Anxiety: A Systematic and Meta-Analytic Review Study

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Abstract:

Background: Anxiety is one of the most common problems that can disturb the performance of individuals. Various interventions have been conducted to reduce anxiety, one of which is paying attention to spirituality, and in Iranian culture, it is to use the Quranic voice. Regarding the scattered studies in this field, the present study has the Quranic with the aim to determine the effect of Quranic voice in a systematic and Meta-Analytic Review Study.

Methods: This study was conducted with a systematic review and meta-analysis method, valuable scientific databases including SID and PubMed with Quran and Anxiety keywords, in Persian and English and without time limit were surveyed. The data were analyzed using CMA software.

Results: While surveying the databases, 16 articles were obtained, That after the initial and critical evaluation, 8 articles were excluded, Data analysis indicated that the Quranic voice in 5 studies had reduced the anxiety level and the cumulative result of studies also indicates the effect of Quranic voice on anxiety (Z=-11 /23, P<0.001). Likewise, according to the type of research community, the results indicated greater effectiveness of Quranic voice on patients (Z = -10.89, P <0.001) than on university students (Z = -4.60, P <0.001). In the studies that the Speilberger questionnaire was used (P = -4.04, P < 0.001), the Quranic voice's effectiveness was significant but in other questionnaires, the anxiety level was not reduced. The shorter the length of the Quranic voice is, the greater is its effect on anxiety (Q=17.71 = Q, p <0.001). Moreover, with the increase of age, the difference in mean of anxiety before and after the intervention was higher (P = 0.013, Q = 6.15).

Conclusion: The findings indicated the effect of Quranic voice on anxiety in university students and patients. It is suggested that educational and therapeutic centers use this method for reducing anxiety in these individuals.

Keywords: Anxiety, University Students, Patients

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Background:

Anxiety is one of the most common problems of humans today. Anxiety is not impaired by itself, and even its existence is needed for life; without anxiety, humans will be carefree and maybe indifferent. On the one hand and technology, and on the other, distance from spirituality, have made the human spirit confused and distressed, and the severity of stress for most people have reached to a level that they repeatedly ask each other the ways to reduce anxiety and to achieve relaxation. Different groups have defined anxiety from their point of view, some said: Anxiety is usually an unpleasant and ambiguous emotional state which is accompanied by distress, panic, fright and phobia. Anxiety is one of the psychological alarms that, with an unpleasant and ambiguous feeling of suffering, bitter expectations and physiological reactions such as sweating, heartbeat, day mouth, shaking and restlessness (1). Fear and anxiety increase the physiological activities of the body, including vital signs and cardiac output that are very harmful to patients with cardio-vascular problems (3 and 2). Systolic blood pressure, pulse and respiratory rate decreased significantly with the reduction of anxiety (4). In a study, patients described the cause of this anxiety the unfamiliarity with the treatment environment, advanced medical equipment, and previous experience (5). According to this, it can be said that anxiety increases blood pressure, heartbeat and respiratory rate. In patients undergoing surgery, the extension and increase of anxiety period can lead to increased protein metabolism, reduction in wound healing, inhibition of immune system, increase of infection risk, and also imbalance of water and electrolyte (6 and 7). According to various studies, it seems that almost one individual out of four to five in the world suffers mental disorders due to anxiety during a year, and these individuals with anxiety are 60% females and 40% males and its prevalence usually occurs between the ages of 16 to 65 (8). In the United States, the prevalence of anxiety disorders is 11.8, representing 23 million adults in the United States (9). The disorder has affected 13.3% of adult population of the world (10). The methods used to reduce the anxiety of patients are divided into two groups of pharmacological and non-pharmacological (12 and 11). Among the pharmacological treatments we can address Benzodiazepines. Benzodiazepines are one of the most widely used medicines and there is the possibility to use them orally and parenteral (13). Usually the chemical drugs used in anxiety disorders have side effects. Some of these side effects include dependency, withdrawal syndrome (discontinuation of drug use), sleepiness and lethargy (14). Non-pharmacological methods include relaxation, touch therapy, imagination therapy, and music therapy (13). One of the music types is the music of the Quranic voice, which is one of the most magnificent aspects of the Quranic miracle. Moreover, in Islamic societies including Iran, it is a pleasant mystical music having its unique properties, melodies and rhythms (15). According to the conducted researches in different countries, religious beliefs and prayers have positive effect on the health of individuals Moreover, it is proved in the treatment of many diseases, such as cancer, cardiovascular, pulmonary, and rheumatoid. According to the studies that people with religious beliefs are less likely to experience a psychological reaction and with grief and anxiety, Roozitalab (2007) believes that his religious patients are more curable (16).

According to the results of various studies, Holy Quran's pleasant voice, which is undoubtedly the most beautiful melody and calming word in the existing system, has a tremendous a great therapeutic effect (17). The effect of listening to the Quranic voice in other clinical areas has also been investigated. For example in the study by Ilder Abadi (1998), which was conducted to survey the effect of Quranic voices on the anxiety level before open heart surgery, listening to the verses of the Quran decreased the level of anxiety in patients (18 Likewise, Mirbagher et al. (2010)explained that Quranic voice reduces theanxiety of mothers before cesareansurgery (15).

Although the relation between religious collating and health and mental illness is complicated, However, it is evident that religious beliefs and rituals play an important role in preventing and decreasing emotional and psychological

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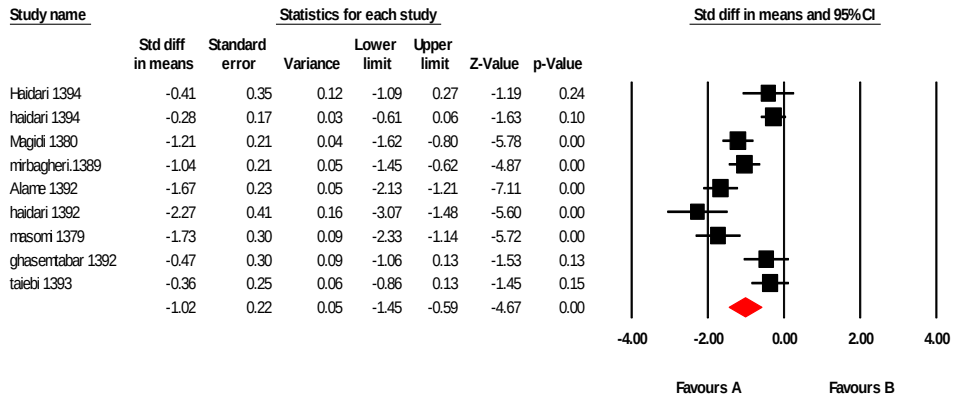

Figure 1. Impact of Quran's Voice in All Studies with Plot Chart

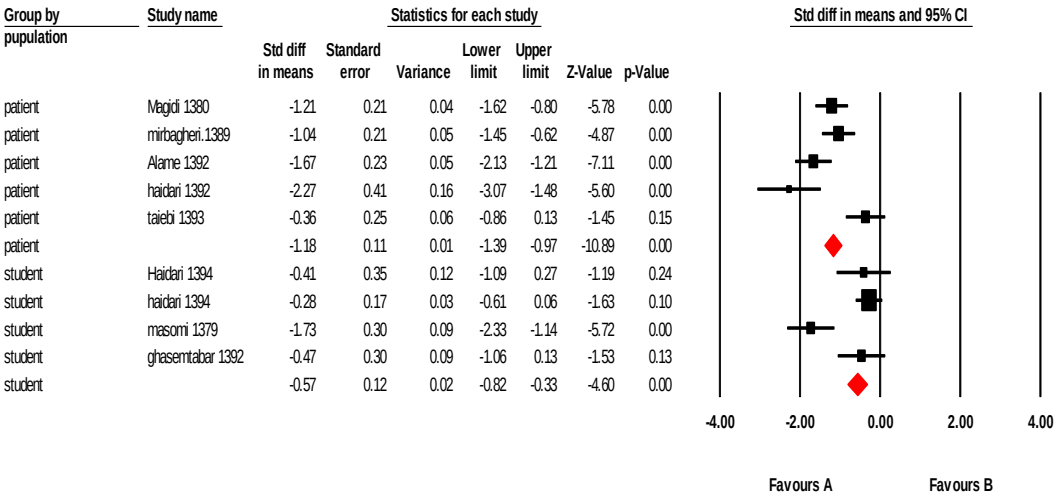

Figure 2. The Impact of Quran's Voice on Anxiety Based on the Grouping of Samples to Patients and Students

problems (19). In the study by Javadi, the religious and health attitudes in Iran and the world also studies, and 50 studies have concluded that religious people live better, act more positively ,and enjoy more physical and psychological health (20). Therefore, in this regard, and considering the intense emphasis and religious evidence on the effect of familiarity with Divine Ayah in reducing anxiety, the purpose of this study was to determine the effect of the Quranic voice on anxiety.

Methods

In this systematic and meta-analytic review study, the effect of Quranic voice on anxiety is investigated based on the published articles in national and international journals without time limits until April 2013. In order to search the articles, the SID and PubMed national and international databases were used. The search for articles was performed by the Quran /Koran and anxiety in Persian and English without time limitation. The sources of the articles reviewed were also surveyed to access the other articles.

Selection of Studies and Data Extraction

At first, all the articles addressing the effect of the Quranic voice on anxiety were collected. Acceptance of studies was conducted based on inclusion and exclusion criteria. Inclusion criteria included all the quantitative clinical trials which were about the effects of the Quran on anxiety, and the articles in which the methodology was unclear, and the written information in the text was ambiguous or incomplete, as well as studies whose full text available were excluded.

The search of articles was conducted independently by two researchers to reduce bias, in case of controversy on an article, the article was examined by another author who was an expert in meta-analysis. After

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preliminary evaluation and surveying the title and abstracts of the articles, the information of the articles having the inclusion criteria was entered into the checklist of the researcher. The checklist included the information about the title of the article, the name of the first author, the publication year, study location, the type of study (quantitative or qualitative), the sample size in the test group, sample size in the control group, the type of used questionnaire, mean age, mean and standard deviation of anxiety score before and after intervention in both groups and the research community. The selection of articles was performed based on the PRISMA instruction.

Statistical Analysis

This study was conducted for analyzing the articles in two descriptives (for qualitative studies) and analytical (for quantitative studies) methods. In order to evaluate the heterogeneity of the selected studies, Cochran's Q test and I^2 index were used (heterogeneity was divided into three categories: less than 25% (low heterogeneity), 25% to 75% (moderate heterogeneity) and more than 75% (high heterogeneity)). A Random effect model was used to combine the studies, considering the heterogeneity of selected studies and the significance the I^2 index. In order to survey the relation between anxiety score and quantitative variables, meta-regression analysis was used and to estimate the anxiety level by distinguishing the qualitative variables such as the research community and the study location, the analysis of subgroups was used. The Egger test and Funnel plot were used for investigating the propagated error. Data were analyzed using CMA (Comprehensive Meta-Analysis) version 2.

Results

This study was conducted with the aim to investigating the effect of the Quranic voice on anxiety with a systematic and meta-analytic review of clinical trials conducted on the effect of the Quranic voice on anxiety.

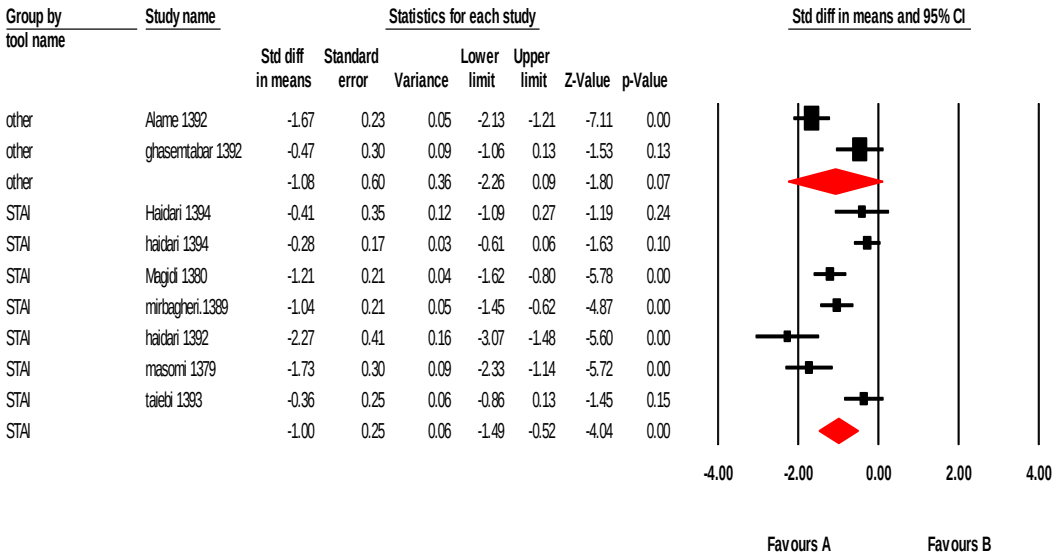

Figure 3. Impact of Quran's Voice on Anxiety Based on the Type of Instrument Used in Studies

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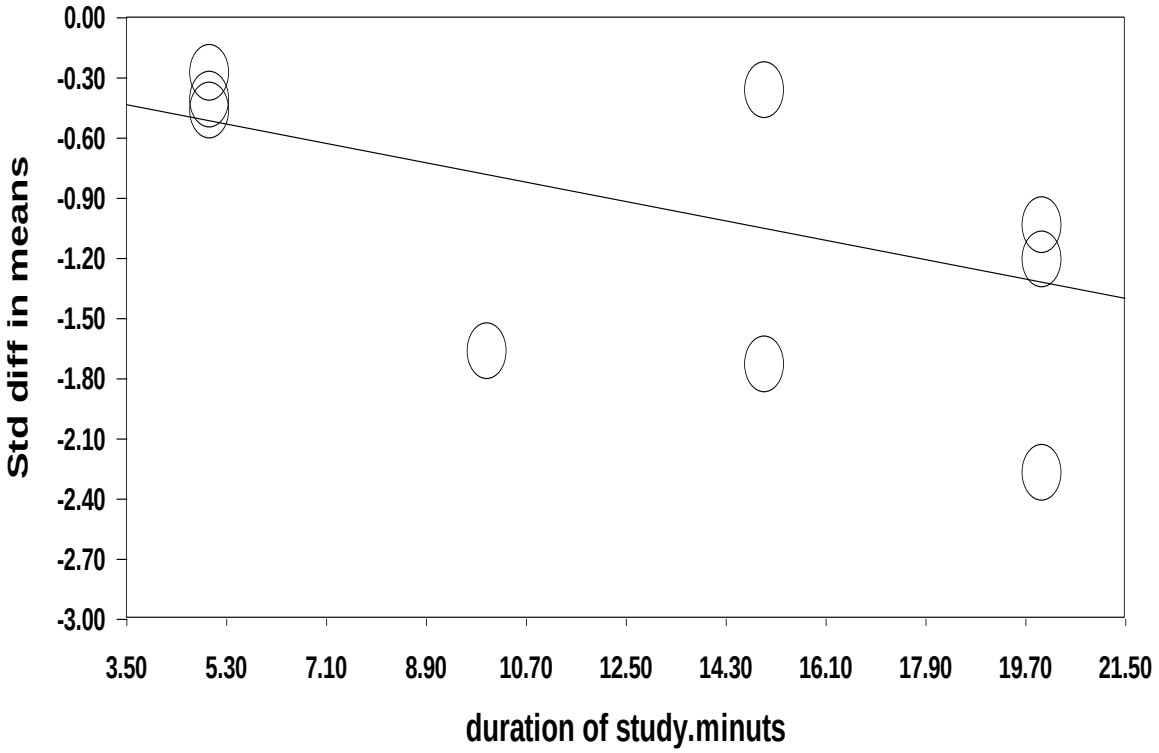

Figure 4. The Effect of Quran's Voice on Anxiety Based on the Period of Intervention Using Metarrhizia

In the preliminary search of the study in the mentioned databases, there were 16 papers, 13 in Persian and 3 in English. After preliminary evaluation of the title and abstract of the articles, three of them were excluded because they were qualitative and also lack of trial conditions. In the critical evaluation stage of studies, their full- text file was reviewed, and during this investigation, five studies that their information was incomplete, such as those that did not mention the mean and standard deviation of anxiety score, were excluded, and the final analysis was performed on eight articles. However, regarding that in the study of Heidari et al. (2011), the analysis and comparison were performed on two groups of students, and separately ; this study entered the final analysis as two studies (Figure 1), and the total number of specimens were 341 individuals. The Speilberger questionnaire was used in seven articles, in which the lower score indicated less anxiety (Table 1).

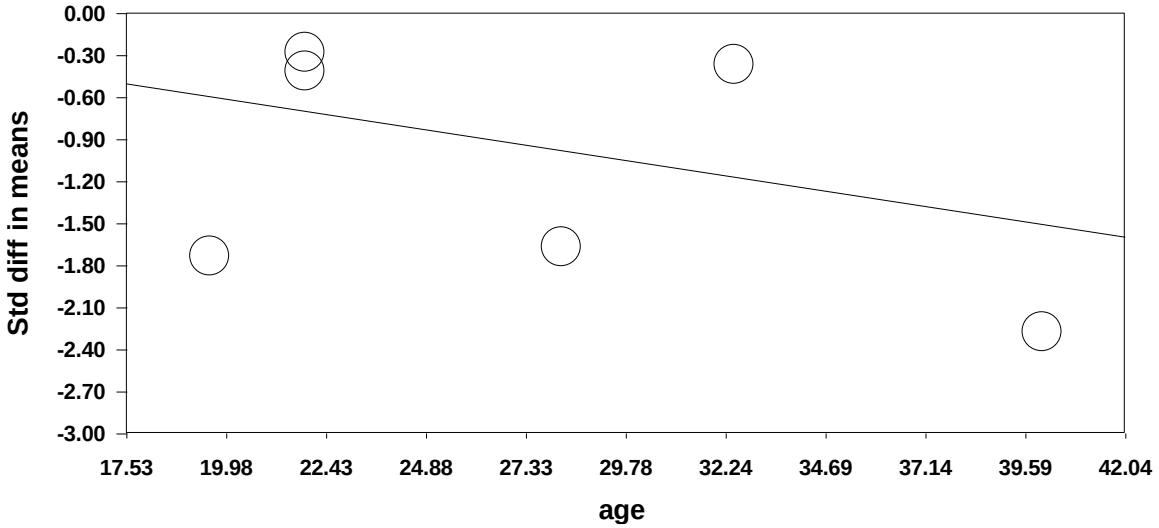

Figure 5. The Effect of Quranic Voice on Anxiety Based on Age

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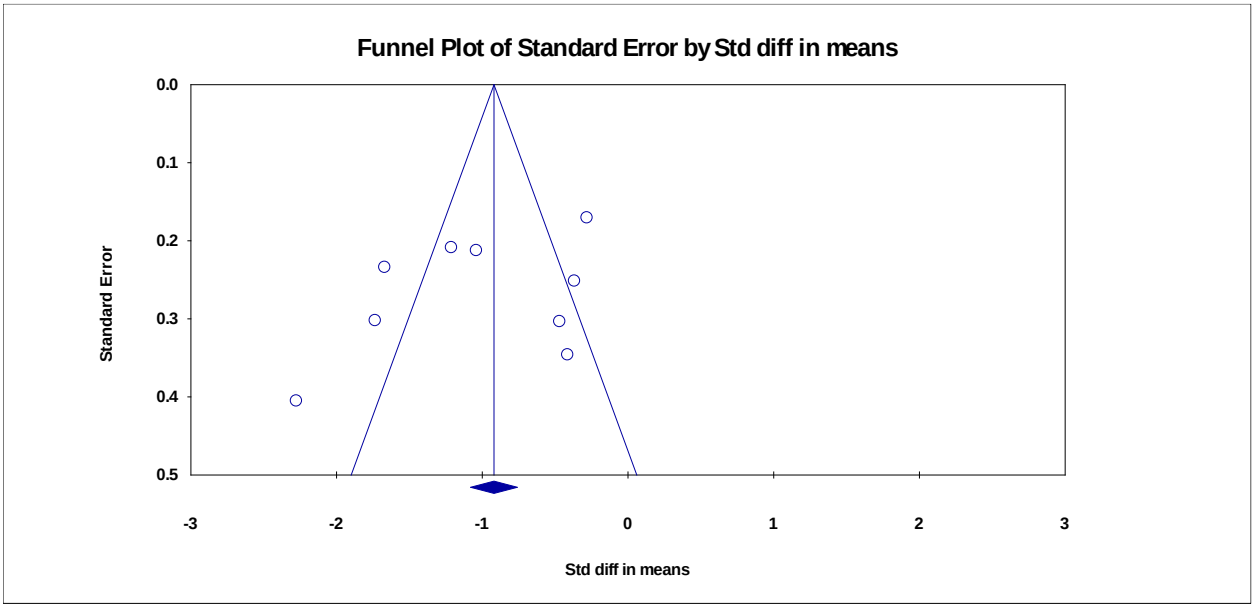

Figure 6. Funnel Plot of study

Regarding that Q = 53.97, I^2 = 85.17 and P <0.001, therefore, considering the relatively high heterogeneity of the model, the random effect model was used. The results indicated that the Quranic voice in 5 studies reduced the anxiety level and their cumulative result also represented the effect of Quranic voice on anxiety (P < 0.001, Z=-11.23) (Figure 1). According to the type of research community, the specimens were divided into two groups of patients and students or students the results indicated the greater effectiveness of the Quranic voice on patients, and also in both groups of students (Z = 4.60, P <0.001) and patients (P < 0.001, Z=-10.89) the anxiety reduction was significant (Figure 2). likewise, in studies which that used the Spielberger questionnaire (Z=4.04, P <0.001), the effectiveness of the Quranic voice was meaningful, but about other questionnaires, the anxiety level did not decrease (Figure 3). Meta-regression analysis indicated the lower time length of the Quranic voice has more effect on anxiety (Figure 4) (Q=17.71, P <0.001). This difference was not significant in patients (Q = 0.40, P <0.52), but it was significant for university students (Q = 17.61, P <0.001). Likewise, with the increase of age, the difference in mean of anxiety before and after the intervention was higher (P = 0.013, Q=6.15). However, regarding the fact that in three cases of studies the average age was not mentioned, therefore, for concluding with more assurance, there is also the need for inclusion of these studies (Figure 5). According to the Funnel plot (Figure 6), and the non-significance of the Kendal Tau test (P = 0.297, Z= 1.04), it seems that there is not any propagated error.

Discussion

The results of this study indicated that the Quranic voice causes anxiety reduction. Kazemi et al., in their study with the aim to investigating the effect of Quranic voice on the mental health of nursing students of Rafsanjan University of Medical Sciences, indicated that the average score of mental health in the test group was significantly increased (21). Galah Dar studied the effect of Quranic voice on the reducing of pre-test anxiety at Lorestan University of Medical Sciences. After the intervention of hearing the Quranic voice, a significant reduction in anxiety of the test group was observed (22). The results of the study by Ilder Abadi's study indicated that hearing a Quranic voice reduced the anxiety of patients in open- heart surgery (18). Heidari and Shahbazi's surveyed the effect of Quranic voice and instrumental music on the anxiety of patients under endoscopy, and they indicated that Quranic voice has a significant effect on the anxiety level of patients (23). In the study by Majidi et al. (2004), heard the Quranic voice reduced the anxiety of patients before angiography (24). Likewise, in the study by Tajvidi et al. (2001), the Quranic voice caused a significant reduction in anxiety of patients

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before open heart surgery (25). In the study by Attari et al. (2001) also hearing of the Quranic voice caused the reduction of anxiety and stability of the vital signs of patients before induction of anesthesia (26). Generally, it can be said that the study by Nikbakht (2004) determined the reason for anxiety reduction in individuals after hearing the Quranic voice. In his study, Nikbakht concluded that the Quranic voice by modulating the systolic blood pressure and the pulse and respiration rate, reduces the anxiety of individuals in stressful situations (27), and it can be said that the results of these studies are consistent with our general conclusion that we obtained by reviewing various articles. The results of this study remind the point that both in students at the time of the exam and patients, remembering God and Quranic voice at moments of stress and anxiety can significantly reduce the level of stress and anxiety of individuals.

In a clinical trial by Pourdehkordi et al. which was conducted to investigate the effect of progressive muscle relaxation, Quranic voice and remembrance of God on the apparent anxiety level of nursing students at the time of entering the internship at Shahrekord University of Medical Sciences, the mean apparent anxiety scores in the two groups, after the study, had significant statistical difference and the anxiety decreased (28). According to the findings of this study, the Quranic voice reduced the anxiety level in the patients more than the university students. Among the studies performed on university students, the study by Masoumi et al. (2013) can be addressed in which the students were asked to listen to the Quranic voice before the exam, then the anxiety level of students was measured, and their anxiety scores from 48.37 reached to 35.27 (29). In a study, Heydari et al. (2013) investigated the anxiety before the test in nursing and emergency medicine students and concluded that the anxiety level of students from 44.72 reached 41.36 (30). Moreover, on the contrary the study by Taj al-Sadat Allameh et al. (2013) can be addressed those patients were asked to listen to the Quranic voice in the morning of the surgical day for 10 minutes. Then it was observed that the anxiety levels of the patients from 32 reached 23.6 (31). In the study by Majidi (2001), patients who were going to have angiography were asked to listen to the Quranic voice for 20 minutes, then the anxiety level of these patients was measured, and the anxiety score of these patients from 48.11 reached 37.31 (32). The results of these studies are in line with our general conclusion of investigating various articles.

Limitations of this review

The limitations of this study are the small number of articles related to the research topic and the lack of information in the related articles

Conclusion:

The Quranic voice and remembrance of God decreases the test anxiety and medical interventions. The Quranic voice and remembrance of God not only distracts the man's attention from anxiety and distress, but also assures hope and relaxation in the turbulent era of today. Listening to the Quranic voices and meanings can be used as an easy, inexpensive and non-invasive method in hospitals and educational centers to reduce the anxiety of patients and students.

Conflict of Interest

The authors have no conflicts of interest to declare.

Acknowledgements

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