

The effect of Yoga on anxiety symptoms in women with obsessive compulsive disorderFatemeh Ranjbar^{1*}, Mehdi Broomand², Amirhossein Akbarzadeh³¹Clinical Psychiatry Research Center, Tabriz University of Medical sciences, Tabriz, Iran²Razi University Hospital, Tabriz University of medical science, Tabriz, Iran³Medical student, Faculty of Medicine, Tabriz University of Medical Sciencesranjbarf@tbzmed.ac.ir

Abstract: This study examined the therapeutic effect of Yoga on symptoms of women with obsessive compulsive disorder. In this assessor blinded randomized clinical trial, 40 women with obsessive compulsive disorder (OCS) aged between 19 and 55, were assigned to practice Yoga (intervention) or watching TV as comparison. Yale–Brown Obsessive Compulsive Scale (YB-OCS) was used to assess the severity of OCD that was later compared between trial groups. The YB-OCS score for obsessive thoughts was 12.5± 3.1 in intervention group versus 12.3±3.05 in comparison group (p=0.36). The YB-OCS score for obsessive compulsive condition was 11.65± 3.1 in intervention group versus 11.1±2.8 in comparison group (p=0.35). Severity of anxiety decreased significantly after Yoga and participants reported well-being and a better function. Based on paired t-test results, only the intervention group patients experienced a significant decrease in severity of anxiety (P<0.05) and the change in comparison group was not statistically significant. Short term Yoga exercises didn't appear to be effective for patients with obsessive compulsive disorder.

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1. Introduction

The definition of Yoga is given as a practice that consists of three components: gentle stretching; exercises for breath control; and meditation as a mind-body intervention (1). Its history is said to be back in India thorough which Hindus plasticized incorporating physical postures with breathing exercises in order to reach a balance between the mental and physical status(2). It is aimed to improve spiritual development and has got popular in recent decades mostly as a relaxation method (3;4). Yoga has been used also for medical purposes to manage various clinical and psychological conditions. A wide range of conditions has been field of interest in this regard such as osteoarthritis, epilepsy, hypertension, hyperlipidemia, low back pain, cancer, insomnia, etc. as well as some out of the core areas such as eye problems like ammetropia (5-14). It has been of special interest for psychological and psychiatric conditions such as anxiety and depression (12; 15-21).

Obsessive compulsive disorder is classified as anxiety disorders with a life time prevalence of 2-3% in general population. Side effects of drugs and long duration of therapy urges the need for an alternative treatment. Yoga is suggested as an alternative method. Regardless of the wide range of research done in this field, specifically designed randomized clinical trials to assess the role of Yoga on obsessive compulsive disorders are quite rare and

all the recent systematic reviews have encouraged more randomized trials to be done (22-24). This study examined the therapeutic effect of Yoga on symptoms of women with obsessive compulsive disorder.

2. Material and Methods

A randomized clinical trial study was conducted in psychiatry clinic of Tabriz University of Medical Sciences, Tabriz-Iran, over the period of March 2010 -March 2011. The patients diagnosed to have obsessive-compulsive disorder (OCD) were enrolled to this study. The diagnosis was confirmed based on DSM-IV-TR after an interview by a psychiatrist. The Structured Clinical Interview for DSM-IV Axis I Disorders (SCID-I) was then done for the patients to rule out other psychiatric disorders. Yale–Brown Obsessive Compulsive Scale (YB-OCS) was used to assess the severity of OCD. Beck anxiety inventory was completed for the patients before and after the study.

Inclusion criteria:

Age >18 years, Confirmed diagnosis of obsessive-compulsive disease, able to contribute in Yoga practice and consent to participate in the study.

Exclusion criteria:

Physical comorbidities, major depression or anxiety along with obsession, psychosis, drug addiction or specific drug consumption, cognitive disorders or other problems preventing valid assessments.

In this assessor blinded randomized clinical trial, 40 women with obsessive compulsive disorder aged between 19 and 55, were assigned to practice Yoga (intervention) or watching TV (comparison). The two groups were matched with respect to age, severity of disorder and duration of treatment. Yoga was practiced twice per week for 10 sessions and controls watched television in same periods. The patients in intervention group received standard Yoga (Hatha yoga) treatment under supervision of trained instructors for a period of 12 sessions two times weekly which was continued for six weeks. In the meantime, the patients kept to receive their prescribed medications as they did before.

The main variables measured in this study were age, education, severity of disorder, intervention

variable, YB-OCS score, Beck anxiety inventory score, confirmed OCD. The physicians responsible for assessments were blind to the assignment.

The institutional review boards of Tabriz University of Medical Sciences as the responsible regional committee of ethics approved the study protocol. Written informed consent was obtained from all patients after full discussion of the study process with the patients.

3. Results

The age range of the participants lied between 19-55 years. The background variables are compared between groups in table 1. The distribution of background variables were not found to be statistically different.

Table 1: Background variables compared between the study groups

Variable		intervention	Comparison
Age; mean(SD)		31.5 ± 7.1	33.4 ± 8.8
YB-OCS total score		23.8 ± 7.4	23.4 ± 5.7
Beck score		28.6 ± 12	21 ± 13
Mean duration		8.2 ± 6.1	8.1 ± 5.8
Marital status		80%	85%
Education	Non-academic	12	14
	Academic	8	6
Job	housewife	13	12
	Employed	7	8

The patients also didn't differ with respect to their consumed medications. The groups were also compared at baseline for the subgroup scores of YB-OCS. The YB-OCS score for obsessive thoughts was 12.5 ± 3.1 in Yoga group versus 12.3 ± 3.05 in comparison group (p=0.36). The YB-OCS score for obsessive compulsive condition group was 11.65 ± 3.1 in Yoga group versus 11.1 ± 2.8 in comparison group (p=0.35).

Based on paired t-test results, both groups experienced a significant decrease in severity of obsessions (P<0.05). As depicted in Figure 1, the decrement was descriptively lower in intervention group when compared to controls, however the observed difference was not found to be statistically significant.

Severity of anxiety decreased significantly after Yoga and participants reported well-being and a better function. Based on paired t-test results, only the intervention group patients experienced a significant decrease in severity of anxiety (P<0.05) and the change in comparison group was not statistically significant.

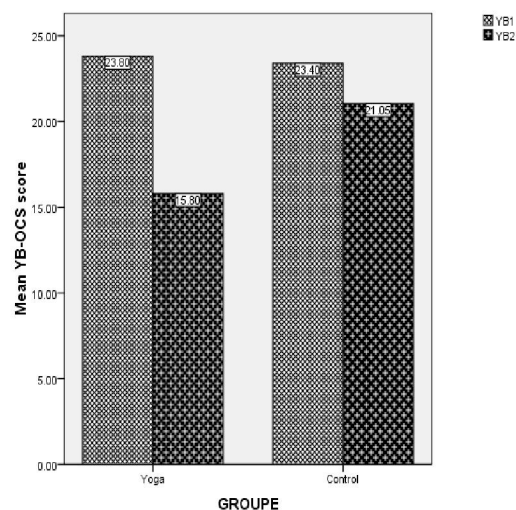


Figure 1: Mean severity of OCD before and after the study compared for Yoga intervention and comparison groups

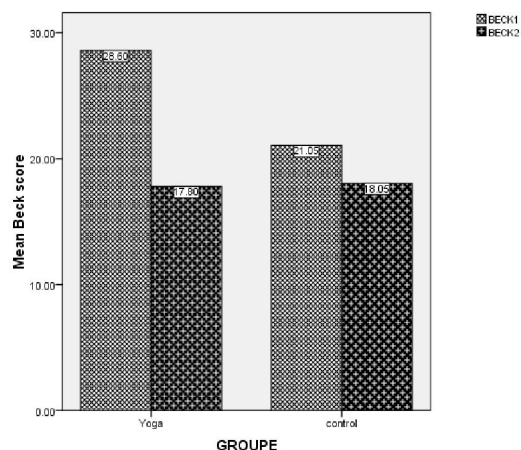


Figure 2: Mean severity of anxiety before and after the study compared for Yoga intervention and comparison groups

4. Discussions

As the aim of improving the health care standards, it may be preferable to move a health care customer from a dependent person to a mentally and emotionally interdependent person (25). Considering of non-pharmacological treatments and those focusing on mental and spiritual capabilities of patients, such as Yoga practice could be a solution in this regards. In present study, although the decrease in severity of obsessions was descriptively lower in intervention group, when compared to comparison, the observed difference was not found to be statistically significant. An explanation should be sought in length of the intervention. In this study the yoga practice was taken for six weeks, while obsessive symptoms may need a course of 8-16 weeks of treatment. Nevertheless, this may not apply to the pharmacologic treatment because the patients have been using it earlier than the yoga intervention. Shannahoff-Khalsa describes Kundalini yoga that includes a vast array of meditation techniques to be of value in treating the obsessive-compulsive disorder (26). Nevertheless, only preliminary evidence exists for obsessive-compulsive disorder (22). Regarding the obsessive symptoms our study although not supportive by itself improves the paucity of information needed to make conclusions based on sound meta-analysis of individual studies in future reviews.

The paucity of information and diversity of conditions treated by Yoga has been has given rise to inconclusiveness with respect to effect of Yoga on in various conditions. When it comes to anxiety disorders a previous review published states of no evidence for efficacy of Yoga in general, while, evidence being promising for obsessive compulsive disorder(23) Similarly, another review published in 2009 has concluded that some reasonable evidence

supports the that yoga may be beneficial in depression treatment. Nevertheless, they also didn't support that the evidence is sufficient to make strong conclusions on role of Yoga in anxiety disorders (22). Similarly, the most recent Cochrane review enrolled only two randomized clinical trials for the effect of Yoga on anxiety (27;28). Transcendental meditation used in one of these studies indicated a decrease in anxiety symptoms and electromyography score comparable with electromyography-biofeedback and relaxation therapy. The second study didn't find a significant difference between the groups comparing Yale-Brown Obsessive Compulsive Scale. Shannahoff et al used yoga in treating obsessive compulsive disorder in a group of patients with OCD in USA. In a randomized clinical trial they compared the effect of Yoga on 12 patients practicing a version of kundalini yoga with 10 controls which was considered very study. Therefore, due to the small number of studies the Cochrane review was not even able to make a conclusion on this and recommended conduction of future studies (24). Then, although the present study helps in accumulation of information with results mostly not in support of Yoga efficacy in short run, there is a need even now for more studies to be conducted over geographical and population varieties and benefiting from randomized clinical trial design and with long term assessments to make a more stronger conclusion whether Yoga is worth using for treatment of obsessive compulsive disorder.

Conclusion:

Short term Yoga exercises didn't appear to be effective for patients with obsessive compulsive disorder. According to their desire for continuing the exercises and results of previous studies, it seems that short term effects of Yoga on anxiety may be followed by long term beneficial effects on obsession as well.

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