

THE EFFECT OF YOGA APPROACHES ON PREGNANT WOMEN ANXIETY

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Abstract

This study aimed to assess the effect of yoga on overall anxiety, of pregnant women trait and state. The population of 350 pregnant women attending prenatal care clinics in Yazd city. To conduct this study (50) pregnant women were randomly assigned to two experimental groups (n = 25) and testifier group (n = 25) were replaced. To collect the data of Eshpilberger anxiety questionnaire executed at first. Then the special program yoga, every 2 months, 2 weeks Session 1.5 hour tests were conducted on groups. To test hypotheses and analyze data, descriptive and inferential statistical methods are used. In descriptive statistics, graphs, mean and standard deviation and in part of inferential statistics to examine the first hypothesis, analysis of covariance and multivariate covariance analysis is used to examine two hypotheses. The results show that multivariate variance in the post test of experimental group, show meaningful differences from anxiety variables in level of $p < 0.005$. In other words Yoga interventions lead to significant reduction in experimental group. So yoga is effect on reducing overall state and trait anxiety.

Keywords: Yoga, Anxiety, State Anxiety, Trait Anxiety, Pregnant Women.

1. Introduction

Today, science and technology improvement in will enable people relying on new technology, learn new behaviors. Any new changes can effect different changes on all aspects of personal, social, economic and human. Because appropriate physical activity (walking, yoga, swimming, etc.) can make useful biological change in human body and has important impact on prevention of its side effects. So having the physical and mental health of pregnant women in order to create and nurture healthy generation has particular importance that at the present unfortunately outbreak mental and psychological diseases have increased during pregnancy (Cox, 2005). About 10 to 15 percent of women suffer from psychiatric disorders that anxiety disorders are the most common of them. One of complication of anxiety during pregnancy is giving unripe birth that complications of it convert to world problem. These

phenomenon in addition premature problems of newborn and expenses of keeping can lead to palsy brain, infection, newborn death and serious disorders in obtaining necessary skills to do life affairs in school children. Premature birth will affect families in terms of economic, social, psychological and health. Premature birth is the reason of two-thirds deaths worldwide that in some population groups reach to 17.5 percent, or more (Helstin , 1988). Anxiety during pregnancy has adverse effects on fetus brain and lead to weaken verbal ability and general intelligence (Morse and Donald, 1995). To treat anxiety disorders clinical experts use various techniques such as deep psychoanalysis and long term medication till drug medication. The term anxiety, of Greek origin, meaning firmly pressing or squeezing the throat, usually called arousal which is accompanied by a contraction.

According to Lafont (1973), anxiety is generally regarded as a long expectation and also is something that might happen in a widespread tension and shocking and often happen nameless. this state is a feeling like any emotional confusion appear in body two psychological levels which is related to (direct or indirect death , unlucky incident or penalty)a visual provocative threat . Anxiety separation in normal or pathological anxiety disorder is important .sickness anxiety may identify form normal anxiety due to the autonomy of the patient, severity, duration associated behaviors. Sickness anxiety can bring possible behavioral responses such as avoiding or Limitation stereotypes of lifestyle (Gulnberg & Colleauge 1991).

According to Kaplan and Sadok (2003), anxiety is a warning sign, report of coming imminent danger and prepare person to tackle the menace. Fears, the same warning sign of anxiety separate with the following characteristics; fear reaction to apparent threat, external, definite and the origin combined with conflict. Anxiety is response to uncertain threat, internal, vague with regard to the origin of the conflict. Anxiety is a response which is not focused on a specific object (Costello, 1992). Anxiety experiences in terms of cognitive, emotional, physical and behavioral are (Gulnberg & colleague, 1991).in anxiety the cognitive vague component subjectively decentralized. Instead of knowledge recognizes as an obvious and known danger, the person is suffering from concern. Physical and emotional components of anxiety look like fear, but usually more severe than them (Costello, 1992). Hadi (2008) Studies the effects of yoga on the feeling of wellness on 107 individual (44 males and 63 females). The results showed that yoga as a mental exercise, can improve physical and mental health. Nourbakhsh (2008) survey the effectiveness of yoga and aerobic exercises on depression of 60 non -athletic women. The results showed that yoga and aerobic exercises caused a significant reduction in depression.

Ayatizadeh (1999) refers to effect of physical exercise on anxiety in pregnant women .The study was conducted on 60 pregnant women. Results showed that low-intensity physical activity was effective on anxiety in experimental group. Satiyaperya & colleague (2009) study the effect of yoga on pregnant women anxiety on 122 healthy pregnant women (only 90 women completed the study among them.) Results showed that 31.5 % of anxiety decreased in experimental group and anxiety increased 6.60% in control group. Durphy & colleague (2009) study the effects of yoga on anxiety and sleep during pregnancy, on 46 pregnant women. Results of efficiency and yoga on anxiety and sleep disorders in the experimental group showed toward the control group. Tikstra & colleagues (2006) 58 pregnant women at 28-32 weeks put in active and passive group training sessions and showed both types active and passive exercises significantly reduce anxiety , but the effect was more obvious for the one who had more active relaxation .

2. Methods

A population was about 350 pregnant women who participate to Yazd meditation pregnancy clinics for the study (50) individual from pregnant with higher 45 anxiety grade through

experimental sampling and were replaced in two control and experimental group 25 for each and at the time of sampling, after acquiring content under study first before any contraction and intervention the intensity of anxiety estimated and evaluate by Eshpil Berger scale. In this special program yoga, 2 sessions per week for 2 months and 1.5 h was performed on the experimental group. In order to data analysis, descriptive and statistics approach and inferential statistics were used. In the descriptive statistics mean and standard deviation diagram have been used and in the inferential statistics to examine the first hypothesis, the covariance analysis to examine second hypotheses, and multivariate analysis covariance analysis was used. All statistical analyzes were performed by SPSS software.

The test used in the present study is, Questionnaires State - Trait Form Y (1983). Anxiety - trait were originally proposed as measureable structures by Cattell (Alexander & colleague, 1988). In this form between materials that show existence of anxiety and lack of anxiety there is better balance and the structure of this scale has improved (Spielberger, 1983). The questionnaire included 40 questions, the first 20 anxiety state questions, 20 anxiety trait questions will be assessed. Individual anxiety state scale will assess at the moment and the time of response and the scale of anxiety state assess general and usual feeling, to each of test phrase based on represented response allocate grade between 1 to 4 that 4 shows high presence of anxiety. Since Spielberger survey has been used in questionnaire the concurrent studies shows that the STAI scale trait correlated well with other anxiety trait measures. The validity of these questionnaires has been proved in different studies. Validity of the questionnaire has been demonstrated in several studies. Spielberger & colleague (1971) report that the correlation of two Spanish and English, was about 0.83 to 0.94 with Spanish forms.

3. Findings

First hypothesis: Yoga on the general anxiety of pregnant women effectively.

Table 1: Analysis of covariance between general anxiety in the experimental group and the control group

	Sum of Square s.s	Df	Mean m.s squares	F	sig	eta	Test power
The modified model	2945.214	2	1521.11	191.122	0.000	0.911	1.000
Separation, identification	8.981	1	8.981	1.211	0.311	0.027	0.94
Pre-test	468.891	1	468.891	60.118	0.000	0.564	1.000
Groups (Groups)	1301.024	1	1301.024	159.114	0.000	0.785	1.000
(error) Error	369.211	47	8.015				
Total	18271	50					
Total corrected	3321.114	49					

According to the results of table after adjusting mean pre-test (68.21) whole variable in two experimental and control groups, with respect to (F calculated DF = (1,47), F = 159.114, P <0.0005, PARTIAL η^2 = 0.785 according to the calculated effect 0.785 which is bigger of 0.14 amount shows that the effect of Yoga is high on total anxiety. Thus, the calculated effect size shows that yoga is effective in reducing anxiety in general.

According to significant level that is smaller than of the $P = 0.0005$ and meaning of calculated "f", thus Yoga is effective in reducing general anxiety.

With respect to the meaning of mean differences with 0.99, expresses with confidence that the hypothesis of yoga is effective in reducing anxiety in general, has been approved. Second hypothesis: Yoga on general anxiety (state and trait) is effective for pregnant women. Table 2: Results of multivariate analysis of covariance for state and trait anxiety variables

Source diffraction Dependent variable	Sum of Square s.s	Df	Mean squares m.s	F	sig	eta	Test power
The modified model							
The post- state test anxiety	1121.114	3	365.285	84.219	0.000	0.862	1.000
The post - trait test anxiety	701.124	3	228.845	55.167	0.000	0.784	1.000
Separating 2							
The post- state test anxiety	278.118	1	278.118	64.214	0.000	0.601	1.000
The post - trait test anxiety	0.131	1	0.131	0.032	0.877	0.001	0.057
Pre -test (1) 3							
The post- state test anxiety	0.038	1	0.038	0.009	0.935	0.000	0.055
The post - trait test anxiety	251.131	1	251.131	59.242	0.000	0.561	1.000
Pre -test (2) 4							
The post- state test anxiety	0.038	1	0.038	0.009	0.935	0.000	0.055
The post - trait test anxiety	251.131	1	251.131	59.242	0.000	0.561	1.000
(GROUP) GROUP							
The post- state test anxiety	435.311	1	435.311	98.211	0.000	0.684	1.000
The post - trait test anxiety	242.116	1	242.116	56.244	0.000	0.551	1.000
(GROUP) ERROR							
The post- state test anxiety	22.145	1	425.117	98.211	0.000	0.684	1.000
The post - trait test anxiety	242.116	1	242.116	56.244	0.000	0.551	1.000
(ERROR) ERROR							
The post- state test anxiety	202.245	46	5.021				
The post - trait test anxiety	198.214	46	5.011				
corrected total							
The post- state test anxiety	1315.221	49					
The post - trait test anxiety	892.222	49					

Based on the results of the table, after adjusting the pre- test scores about 32 .80 for state anxiety, to analysis dependent variable of state anxiety, in two control and experimental groups Bin Ferni ' s Alpha (0 .0005) is used.

According to calculated "f" ($df = (1, 46)$), $f = 98.211$, $p < 0.0005$) because level of meaning is lower of Bin Ferni ' s alpha (0.005). Thus F is significant. It can be said that the post-test scores of state anxiety in two control and experimental groups has significant differences.

Also , based on the results obtained from the above table , after adjusting pre- test scores about 13.12 for anxiety trait variable , according to calculated "F" ($df = (1, 46)$), $f = 56.244$, $p < 0 .0005$) because level of meaning is lower Bin Ferni ' s Alpha (0.005) . So "f" is meaningful. It can be said that the post-test scores of trait anxiety in two control and experimental groups has significant differences.

With respect to the meaning of mean differences with 0.99, expressed with confidence that the hypothesis of study based on yoga is effective in reducing anxiety in general, has been approved.

To survey yoga on amount of state anxiety is effective

Table 3 : Statistical analysis between experimental group and control group on state anxiety

Source of differences	Sum of Square s.s	d.f	m.s Mean squares	F	sig
Post -test state & trait anxiety	435.311	1	435.311	98.211	0.000

Comparison of mean differences between the experimental group and the control group on amount of state anxiety

groups	d,m Difference of mean	Standard deviation	P	sig
Experiment group	-6.745	0.626	0.0005	0.000
Control group				

According to calculated "f" table (4-14) (d.f = (1, 46) d.f =, f = 98.211, p <0.0005) because level of meaning is lower than 0.005 and based on meaning "F" yoga is effective in reducing anxiety .

And with comparison of mean difference between two groups determined that between average of yoga group and control group there is about (-6.745) differences that are statistically significant in the level of 0.01.

To survey yoga on amount of state anxiety is effective

Table 4: Statistical analysis between experimental group and control group on trait anxiety amount

Source of differences	Sum of Square s.s	d.f	Mean squares m.s	F	sig
Post-test anxiety trait	242.116	1	242.116		
Errors	189.884	46	5.011	56.244	0.000

Table 5: Comparison of mean differences between the experimental group and the control group on trait anxiety

groups	Difference of mean d,m	Standard deviation	P	sig
Experiment group	-7.824	0.661	0.0005	0.000
Control group				

According to the results calculated table f (df = (1, 46), f = 56.244, p <0.0005) because is smaller of the significant level of p = 0.0005 and according to the calculated F we conclude that yoga is effective in reducing trait anxiety. Also with regard to the mean difference of two groups between experiment and control group there is about (-7.824) differences which is meaningful statically in level of 0.01. With respect to the meaning of mean differences with 0.99, expressed with confidence that the hypothesis based on yoga is effective in reducing trait anxiety, has been approved.

4. Conclusions

The result of finding in this study is surveying the Yoga approaches on trait and general anxiety on pregnant women with respect to the meaning of mean differences with 0. 99 prove the coefficient of confidence on yoga effect in reducing anxiety during pregnancy and in comparison with the findings with other research , including research Hayaytizadeh (1999) Rafiee (2002) Tikra and colleagues (2006) Tachil and coworkers (2007) Haydn and

colleagues (2008) Nord Hajn and colleagues (2008) , Satiyaparya and colleagues (2009) , Kutlin and colleagues (2009) Dunkumb and colleagues (2009) Do Rify and colleagues (2009) Chin Sun and colleagues (2010) , Tiffany and colleagues (2010) Maharana and colleagues (2010) .

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