

THE IMPACT OF STRESS REDUCTION PROGRAM BASED ON MINDFULNESS AND CONSCIOUS YOGA ON DEPRESSION, PERCEIVED STRESS AND QUALITY OF LIFE IN PREGNANT WOMEN

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Abstract

Objective: There are a lot of physical and inner changes during pregnancy period. These can start with slight psychological disorders and then leads to severe psychological disorders or even psychosis. The present study was aimed at evaluating the effect of stress reduction program based on mindfulness and conscious yoga on depression, perceived stress and lifestyle of pregnant women.

Methodology: In this study, a randomized controlled clinical trial with measurements in pre-test, post-test, and control group was used and 30 pregnant women diagnosed with depression and stress were selected by convenience among the patients who were taken to the maternity ward of Shariati hospital in Tehran. Consequently, they were randomly put into two groups including test group (n=15; under the treatment of mindfulness-based stress reduction program and conscious yoga in eight weekly group session) and control group (n=15). Hamilton depression scale perceived stress scale and quality of life questionnaire were completed by the participants in all three phases.

Results: Based on the analysis of variance with repeated measures, this intervention was effective in quality of life and psychological components. The signs of depression and perceived stress decreased compared to baseline and it lasted for two months of follow-up.

Conclusion: The results of this research suggests that mindfulness-based stress reduction program and conscious yoga can be considered as a suitable remedy for improving the quality of life and decreasing stress in pregnant women. Thus, implementation of mindfulness-based stress reduction program and conscious yoga is suggested.

Keywords: stress reduction program based on mindfulness and conscious yoga, quality of life, depression, perceived stress, pregnant women.

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Introduction

The incidents related to pregnancy period are mostly known to be the grounds for women's emotional issues⁽¹⁾. Recent studies have shown that the depression during pregnancy is even more common than the depression after pregnancy⁽²⁾. Women in pregnancy period are more likely to get depressed and stressed⁽³⁾. The studies have shown that pregnancy associated with major changes in neural glands functions⁽⁴⁾.

These changes include variations in hormone level especially stress related hormones (Hypothalamic and pituitary-adrenal) and variations in hormonal control mechanisms which is vital for providing a suitable environment for growth and development of fetus⁽⁵⁾. Also, depression in pregnancy period can cause IUGR and preterm delivery⁽⁶⁾. In a research on 79 Pakistani pregnant women, it has been shown that the depression during pregnancy is associated with preterm delivery or low weighted babies.

One of the most common treatments for decreasing stress and depression is the mindfulness-based stress reduction program which is developed by Kabat-Zinn at Massachusetts University in 1979. Investigating the impact of mindfulness-based stress reduction program on the immune system in patients diagnosed with cancer and AIDS have shown its effect on activities of NK cells in them⁽⁷⁾. In a quasi-experimental research with pre-test and post-test and a control group, it has been found that mindfulness exercises have an effect on improvement the quality of life in the control group⁽⁸⁾.

In this research, in order to make the treatment more effective, the patient's husband has been trained in one session to manage the stress in the family. Due to psychological problems of pregnant women and the existence of evidence that the mindfulness-based stress reduction program has an effect on decreasing mindfulness-based stress in psychological-physiological disorders, the present study has been carried out to determine the impact of mindfulness-based stress reduction program and conscious yoga on improving the quality of life and decreasing depression and perceived stress.

Methodology

The present research was of quasi-experimental with pre-test, post-test, and follow-up (2 months) study. The study population consisted of pregnant women who referred to maternity ward during autumn 2015 at Shariati hospital in Tehran. The sample volume was 30 pregnant women who were selected by continence and this process was carried out by a person who was not familiar with the study. The utilized tools in this research include a demographic questionnaire, Hamilton depression scale, perceived stress scale and quality of life questionnaire. The demographic questionnaire consisted of patient's age, the level of education, occupation, salary, history of physical, psychological disease and mood disorders. This questionnaire was prepared and evaluated by the researchers.

Hamilton depression scale

The Hamilton depression scale was used to measure the severity of depression. This test was being created during 1960 and 1970 by Max Hamilton⁽⁹⁾. This test is using for determining the severity of depression and it has 24 signs of depression which scored in a 3 or 5-point scale. 8 signs are related to physical complaints, 5 signs are relat-

ed to behavioral problems, 2 signs are related to cognitive problems, and 2 signs are related to emotional changes and also signs of hypochondriasis, sexual issues, job, suicide and sleep of the patients. This test designed in a way that an evaluator grades the signs of the patient after clinical observations⁽¹⁰⁾. The validity of the test was reported to be 78% based on Cronbach's alpha in a study which was conducted in Rome and O'Hara in 1985; also, the validity of this test estimated to be 0.90 among different graders. This test successfully distinguished the healthy group from the patient group. The Iranian researchers used this test as well and achieve a suitable validity⁽¹¹⁾.

Cohen perceived stress scale (PSS)

This tool has been developed by Sheldon Cohen in 1983 and it has three versions consists of 4, 10, and 14 items which are used to measure the perceived stress during the last month. Each item graded according to 5-point Likert scale from never (score 0) to most of the time and questions 4-5-7-9-10 and 13 graded in a reverse manner. Cronbach's alpha was 0.84, 0.85, and 0.86 for this scale in three studies⁽¹²⁾.

Quality of life questionnaire SF-36

This questionnaire was designed by⁽¹³⁾. This is a comprehensive questionnaire to order to measure the quality of life in all aspects of health issues. This questionnaire evaluates 8 aspects of quality of life in which it has 36 options that have been completed by the participant or via interview. Cronbach's alpha for reliability test was between 77% and 95% for all aspects of questionnaire except the vitality, which was 65%⁽¹⁴⁾.

Findings

The average and standard deviation of depression, perceived stress and quality of life in pre-test, post-test and follow-up for test and control group is reported in table 1.

Table 2 shows the average and standard deviation of subject's scores in quality of life, depression, and perceived stress.

The results from analyzing variance with repeated measures for evaluating the variables in the quality of life showed that there is a significant difference in general health, physical limitations, physical functions and social functions of the two groups. Studying the severity of depression and perceived stress in three steps of the evaluation

showed that there is a significant difference between the two groups. Also, η^2 indicates the effectiveness of mindfulness-based stress reduction program on depression and perceived stress in pregnant women.

Variables	Group	Test	Average	S.D.	Minimum score	Maximum score
General health	control	Pre-test	7.25	0.45	7	8
		Post-test	7	1.12	5	9
		Follow-up	7.25	0.62	6	8
	Test	Pre-test	7.66	0.88	6	9
		Post-test	5.5	0.67	5	7
		Follow-up	6.58	0.66	6	8
Depression	control	Pre-test	68.08	2.84	63	73
		Post-test	56.41	2.96	51	63
		Follow-up	58.41	2.96	50	55
	Test	Pre-test	68.08	1.78	66	71
		Post-test	46.75	1.71	44	51
		Follow-up	47.25	2	44	50
Perceived stress	control	Pre-test	55.91	1.78	50	55
		Post-test	55.58	2.53	47	55
		Follow-up	55.83	2.97	46	57
	Test	Pre-test	52.25	3.51	46	58
		Post-test	43.08	2.39	38	47
		Follow-up	44	2.29	40	47

Table 1: The average and standard deviation of subject's scores in quality of life, depression and perceived stress.

	Sum of squares	df	Average of squares	F	Level of significance	η^2
General health	2.042	1	2.042	4.975	0.036	0.184
Depression	289.352	1	289.352	80.711	0.0001	0.786
Perceived stress	192.667	1	192.667	44.705	0.0001	0.67

Table 2: Summary of results and variance with repeated measures to determine the effect of mindfulness-based stress reduction program on quality of life.

Results and discussion

The findings have shown that the mindfulness-based stress reduction program and conscious yoga in group treatments can improve the general quality of pregnant women and decrease depression and perceived stress. This is in consistent with previous studies which had shown that this program can be an effective psychosocial intervention in life⁽¹⁵⁾.

These findings are in consistent with previous studies in which all of them endorsed the effect of supportive groups in decreasing the mood and mental disorders such as depression and anxiety. It can be suggested that meeting similar people is a source of comfort and reassurance for the patients since it can make them learn coping styles to overcome and solve the difficulties. When women with high body mass communicate, have sympathy and extensively discuss their problems and experiences, a supportive environment is created. In general, therapeutic agents of group such as sharing emotions, feeling acceptance, altruism, public approval, empathy, identification, imitation, insight, interaction, learning, reality testing, transportation, public-concept and many other factors can increase the coping abilities, adaptability, a sense of hope, more responding to treatment and therefore, reducing stress and improving the quality of life

Mindfulness help them to manage their negative emotions. Achieve more adaptive coping skills and be able to re-evaluation the stressful factors (e.g. see fighting the problems as an opportunity for development, not a threat). In order to explain this assumption is should be mentioned that what mindfulness does is to keep a distance from all positive and negative thoughts. The present study has some drawbacks in which they should be noted in generalizing the results and ultimate inference. One of these limitations is the impossibility of random sampling from the study population, the limited volume of sample and selecting the sample in a specific geographical area -Tehran.

Since there are geographical, economic, cultural and social differences among different areas of the country, we should be cautious in generalizing the results to other regions. The existence of uncontrolled variables such as social class, and interfering them with the results, the low initial motivation of the patients due to a poor health condition, time limitation and consequently the limited period of follow-up and difficulties in preventing withdrawal of participants are some factors that should be noted.

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