Effect of hardiness training on stress and post partum depression

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Abstract

This research has performed to examine the effectiveness of hardiness training on stress and post partum depression. The society under the study were all 223 mothers that delivered without any complications 3 till 6 months ago and for health care to one of four health centers located in four geographic areas Rasht were referred, randomly. 120 persons of them were selected as samples based on Morgan’s table. Conducting the questionnaire of stress (Hari) and post partum depression (Edinburgh) showed that 55 persons of them have the highest amount of stress and post partum depression, 30 of them were selected randomly who were divided to 15 persons as the test group and 15 persons as the control group. The test group received training in 10 sessions during 2.5 months and the control group did not receive any training. After the training programmed ended a post-test was taken on both groups and the results of statistical indicators of covariance analysis showed that hardiness training had been effective on stress and post partum depression among test group at level of p<0.01. Therefore, it can be concluded that hardiness training has an effective role on reduce stress and post partum depression.

Keywords: hardiness, post partum depression, stress, IRAN

1. Introduction

Postpartum depression is the most common psychological complexity after the birth (Robertson et al., 2004) which refers to the period of non-psychotic depression that has either started in the post partum period or is a continuation of the depression of period of pregnancy (Seyfried and Marcus, 2003; Cox et al., 1993). Clinical symptoms of postpartum depression are similar to the diagnostic criteria of a period of major depressive disorder, and include the presence of at least five of the symptoms of depressed mood (based on the DSM-IV-TR) as the following: lack of pleasure from usual daily activities, changes in appetite and weight, insomnia or hypersomnia, confusion, psychomotor slowness, felling of fatigue and loss of energy, feeling worthless, and excessive guilt, decreased concentration, and recurrent thoughts of suicide in a two-week period (Sadock and Sadock, 2005).

Stress is including of physical, mental, and emotional reactions those results due to individual changes and needs. Stress is a complex of illness symptoms that include depressed mood, loss of interest, anxiety, sleep disturbances, loss of appetite, lack of energy and thinking about suicide (Lindsay and Powell, 1994).

The term of hardiness is a psychological concept which is also named: stamina, stamina training (Pourafkari, 1382), the ability to handle difficult problems (Longman, 2005), bravery and courage, impetuosity, being hardy (Aryanpur, 1380), gameness (Atkinson, 1996), hard working (Janda, 2001), tenacity (Sappington, 1989) and assiduity (Berk, c2007). The main objective of this research is the evaluation of the effect of psychological hardiness training on the reduction of post partum stress and depression in mothers referred to health centers in Rasht city.
2. Materials and Methods

The present research is a pilot plan of the type of pretest – post test with a control group, which is composed of two groups of subjects, and both the groups were measured twice. The first measurement was performed by running a pretest, and the second measurement after applying an independent variable for test group, was performed for both the test group and control group with a post test.

2.1. Statistical population

The statistical population of the present research was all the women who had given birth with no complication between 3 to 6 months ago and had referred to one of the 4 health centers situated in the 4 geographical directions of Rasht city which had been randomly selected, and their number was 223 persons.

2.2. Statistical sample and data collection tool

Based on the Table of Morgan, 120 persons were selected as sample, and after administering the postpartum depression questionnaire of Edinburg (Cox et al., 1987) and stress questionnaire of harry (Hari, 2005), among 55 persons with the highest rates of post partum depression and stress, 30 persons were randomly selected as research unit, and among these, 15 persons were chosen as test group and 15 persons were chosen as control group. For hardiness training, training sessions including ten 90 minute sessions, once a week, were arranged. The test group attended these sessions for 2.5 months. After the end of ten training sessions, both the test and control groups completed the questionnaires in a similar and identical situation.

2.3. Data analysis

Multivariate covariance test were used to compare the situation of the groups with themselves before and after running the training courses (i.e. the results of pretest and post test). Excel 2007 software was used to adjust the diagrams, and SPSS 17 software package was used for statistical analysis.

3. Results

From the view point of the depression index, the mean score was changed from 13.93 ±1.98 in pretest to 11.4 ±1.55 in posttest. While in control group it changed from 14.4±2.06 to 14±1.65.

From the view point of stress test, the mean score of test group was changed from 160.07 ± 8.29 in pretest to 149.33 ± 6.87 in post test. This change in control group was from 160.33 ±7.6 to 159.27 ±6.7 (table 1). Thus, the scores range in test group, from the view point of both the indexes, is more than the control group, which indicates the reduction of post partum depression and stress in test group.

The results of table 2 shows the effect Size and the amount of variance explained in dependent variables (post partum depression and stress) by each factor. Based on the following:

Partial Eta Squard= 0.855; wilks Lambda= 0.145; P < 0.001;  F(2,25)=73.413

Regarding the calculated amount of Lambda and Eta coefficient for group variable and meaningfulness of the (P< 0.05 ) in combined explanation of dependent variable (postpartum depression and stress) it can be said that 'hardiness training was 85.5% effective in post partum depression and stress changes rate'.

About dependent variable of postpartum depression, the results of table 2 showed that:

Partial Eta Squard= 0.450,  wilks Lambda= 0.550,  P< 0.001,  F(2,25)=10.229
Therefore, considering the effect size of calculated Lambda and its meaningfulness, hardiness training was effective in reducing post partum depression.

About dependent variable of stress, the results of table 2 show that:
Partial Eta Squared= 0.561; wilks Lambda= 0.439; P < 0.001; F(4,21)=15.970
Therefore, considering the calculated effect size and its meaningfulness, hardiness training was effective in reducing the stress.

<table>
<thead>
<tr>
<th>Effect</th>
<th>Value</th>
<th>F</th>
<th>Hypothesis df</th>
<th>Error df</th>
<th>Sig.</th>
<th>Partial Eta Squared</th>
<th>Noncent. Parameter</th>
<th>Observed Power</th>
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</thead>
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<td>Pretest Edinbourg</td>
<td>0.550</td>
<td>10.23*a</td>
<td>2</td>
<td>25</td>
<td>0.001</td>
<td>0.450</td>
<td>20.459</td>
<td>.975</td>
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<tr>
<td>Pretest Hari</td>
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<td>15.97*a</td>
<td>2</td>
<td>25</td>
<td>0.000</td>
<td>0.561</td>
<td>31.940</td>
<td>.999</td>
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<tr>
<td>Group</td>
<td>0.145</td>
<td>73.41*a</td>
<td>2</td>
<td>25</td>
<td>0.000</td>
<td>0.855</td>
<td>146.825</td>
<td>1.000</td>
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</table>

Also, the results of table 3 for the variable of postpartum depression showed that:
F(1,26)=50.014 & P < 0.001
Because significant level is less than 0.05 of adjusted alpha of Bonferoni, and the calculated F is meaningful, therefore, the two groups, from the view point of post partum depression, are different with each other with 99 percent confidence level.
And finally, the results for the dependent variable of stress also showed that:
F(1,26)= 47.787 & P < 0.001
Because significant level is less than 0.05 of adjusted alpha of Bonferoni, and the calculated F is meaningful, therefore, the two groups, from the view point of stress, are different with each other with 99 percent confidence level.
Finally, it can be concluded that training was effective in reducing the postpartum depression and stress both separately, and totally as a new combined variable (postpartum depression and stress).
4. Discussion and conclusion

The results showed that training was not only effective in all the individual aspects of variables, but was also effective in Variable combination of them. Regarding the mean difference of 99% confidence level, it could be stated that the persons who receive hardiness training, show significant difference from the view point of post partum depression and stress. The results of this research are compatible with the results of the studies of the following researchers: Chan (2000), Chan (2003), Beasley et al. (2003) and Dreyer (2004).

Hardiness training includes planning, impact on the thoughts, feelings and behavior, amenability, different methods to deal with problems, and different attitude to problems and situations of life.

The above findings about the effectiveness of hardiness on improvement of depression are compatible with the findings of Jamhari (2001), Maddi et al. (1998) and Fresco et al., (2007).

Hardiness training leads increased responsibility for thoughts, feelings and acts in individual life, increases one's flexibility, increases disease resistance in individual, ensures physical and mental health, and finally, gives the person a feeling of success.

The above findings about the effectiveness of hardiness on coping with stress are compatible with the findings of Feizi (1380), Amanzadeh (1387), Rahnama (1387), Dadestan (1388), Chan (2000), Gonnellea (2004) and Sara et al., (2008).

By hardiness training, opportunities arise for mothers to formulate their goals in life. Besides, while learning how to choose their goals, they also learn decision making skills, and properly dealing with stressors.

Briefly, the present research verifies the significant effect of hardiness training on depression and stress reduction. Hardiness, by helping the people to recognize their disadvantages and to try to improve themselves, helps them to choose certain and controllable goals for themselves (control), choose efficient methods (Challenge), precisely take their efforts under consideration, receive feedback, and evaluate their improvement, and act responsibly (commitment).

New researches indicate a relation not only between the hardiness and disease, but also between the hardiness and longevity. Therefore, having this feature, not only immunes us against the diseases, but also increases our lifetime.

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<table>
<thead>
<tr>
<th>Source</th>
<th>Dependent Variable</th>
<th>Type III</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
<th>Partial Eta Squared</th>
<th>Noncent. Parameter</th>
<th>Observe d Powerb</th>
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<td>post-test Harry</td>
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<td>0.342</td>
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<td>384.1</td>
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References


