

Mindfulness Therapy in Reducing Stress and Anxiety Among Women with Infertility

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Abstract: This paper presents an overview on mindfulness therapy in reducing stress and anxiety among women with infertility.

Keywords: mindfulness therapy

1. Introduction

Infertility is a disease of reproductive system defined by the failure to achieve a clinical pregnancy after 12 months or more of regular unprotected sexual intercourse. As per Indian National Family Health Survey, infertility rates were highest in women living in urban areas and increases proportionately with level of education. However, many times men are also accountable for infertility. Interestingly, the social consequences due to infertility affect the women more often. It is necessary to identify and treat the amount of stress and various coping methods by infertile women population. In this connection we have evaluated psychological impact of infertility and coping strategies employed in women population attending infertility OPD at Department of Obstetrics and Gynecology in a tertiary care teaching hospital in south India.

Segal et al. developed mindfulness-based cognitive therapy (MBCT). Kabat-Zinn defined mindfulness as “intentional and nonjudgmental awareness, and paying attention in a particular way: on purpose, in the present moment, and nonjudgmentally.” MBCT consists of two skill sets: thought and mindfulness. The skills taught in MBCT aim to help participants to identify and accept negative thought patterns and to respond in intentional ways. The aim of the cognitive therapy in MBCT is for an individual to gain freedom from automatic reactions to thoughts, feelings, and events. The cognitive therapy in MBCT emphasizes the acceptance of thoughts and feelings without judgment. The mindfulness skill consists of teaching participants various stress management techniques, including yoga and self-care techniques, in a systematic way. MBCT also uses meditation practice to increase attention and awareness. Evidence indicates that MBCT reduces psychological problems anxiety and depression in women.

2. Methodology

The research approach and design used for this study was evaluative approach and quasi-experimental pretest and posttest control group design and conducted at selected hospitals in

Nital. The conceptual frame work was based on the Modified Roy's adaptation (1991) model. The sample size was 60 women with infertility. Out of 100 samples, 50 as experimental group and 50 as control group. The samples were selected by purposive sampling and were assessed with Perceived stress scale and Modified Hamilton anxiety scale for the effect of meditation therapy in reducing stress and anxiety. The data of demographic variables were analyzed by using descriptive statistics (frequency and percentage). Pretest and posttest level of stress and anxiety were analyzed by using descriptive statistics (mean, standard deviation, frequency and percentage). For comparisons of pretest and posttest level of stress and anxiety in experimental group were analyzed by using paired 't' test. Effectiveness of meditation therapy between experimental group and control group was analyzed by using independent 't' test. Chi-square test was used to find the association between demographic variables and posttest level of stress and anxiety scores in the experimental group.

3. Results and discussion

Distribution of women with infertility regarding age, majority of women were belong to 21-30 Yrs. of age [16(53.3%)] in control group and [20 (66.6%)] in experimental group. Less number of women were belong to above 40 yrs of age [1(3.3%)] in control group. These findings are consistent with Kalavathi, S., (2006) reported that majority of the women were in the age group of 21-30 yrs (68%).

According to educational status among women with infertility, majority of women were graduates [13(43.3%)] in control group whereas majority of women had higher secondary education [10 (33.3%)] in the experimental group. Less number of women had primary education [1(3.3%)] and [2(6.6%)] no formal education in control group where as in the experimental group [2(6.6%) each] of women had primary education and no formal education respectively. These findings are consistent with Vashumathi, S.P., (2006) reported that majority of women (66.66%) finished graduation.

According to occupation among women with infertility, majority of women were house wives [23 (76.6%)] in control group and [20(66.6%)] in experimental group. Less number [1(3.3%)] of women were government employees in control group and none of them were government employees in the experimental group. These findings are consistent with

Kalavathi, S., (2006) reported that majority of the women were house wives (73.3%).

According to type of family among women with infertility, in the control group majority of women [16 (53.3%)] were belong to nuclear family and [14 (46.6%)] women were belong to joint family. In the experimental group [15(50%)] each were equally from nuclear and joint family. These findings are consistent with Kalavathi, S., (2006) reported that infertile women were living equally in nuclear (45.3%) and joint families (44.0%).

According to religion among women with infertility, majority of women [27(90%)] each were Hindus in both control group and experimental group. Less number of women [1(3.3%)] and [2(6.6%)] were Muslims and Christians in the control group whereas [2(6.6%)] and [1(3.3%)] woman were Muslims and Christians in the experimental group. These findings are consistent with Kalavathi, S., (2006) reported that majority of the women were Hindus (73.3%).

According to family monthly income among women with infertility, most of the women [14(46.6%)] were having monthly income Rs. 5001-10000 in the control group where as in the experimental group most of the women [13(43.3%)] each were having monthly income of less than Rs.5000 and Rs. 5001-10000 respectively. Less number of women [3(10%)] and [1(3.3%)] were having monthly income of Rs. 15001 and above in control group and experimental group respectively. These findings are consistent with Vashumathi, S.P., (2006) reported that majority of the women (68.33%) belong to the monthly income of above Rs.5001.

According to duration of infertility among women with infertility, most of them [14(46.6%)] and [12(40%)] were having duration of infertility for 6-10Yrs in control group and experimental group respectively. Less number of women [2(6.6%)] and [3(10%)] were having duration of infertility for less than 2Yrs in control group and experimental group respectively. These findings are consistent with Osterweil, N., (2007) reported that on average, the women had been infertile for 4 ± 2.1 years.

According to family history of infertility among women with infertility, majority of women [22(73.3%)] and [28(93.3%)] had no family history of infertility in the control group and experimental group. Less number of women [8(26.6%)] and [2(6.6%)] had family history of infertility in control group and experimental group.

According to duration of treatment for infertility among women with infertility, majority of women [16 (53.3%)] and [14(46.6%)] went to treatment for infertility about 2-5 years in control group and experimental group respectively. Less number of women [1(3.3%)] and [2(6.6%)] went to treatment for infertility about more than 10 years in control group and experimental group respectively.

Data analysis showed that in pretest, majority of women [20(66.6%)] had moderate level of stress and less number of women [10(33.3%)] had high level of stress in the control

group. In pretest, Majority of women [16(53.3%)] had high level of stress and [13(43.3%)] women had moderate level of stress in the experimental group. These findings are consistent with Vashumathi, S.P., (2006) reported that majority of the women (55%) experiences moderate level of stress, (30%) experiences low level of stress and (15%) experiences severe level of stress.

In pretest regarding anxiety, majority of women [18(60%)] had moderate anxiety, [9(30%)] women had mild anxiety and less number of women [3(10%)] had severe anxiety in the control group. In pretest, majority of women [24 (80%)] had moderate anxiety, [4(13.3%)] women had mild anxiety and less number of women [2(6.6%)] had severe anxiety in the experimental group. These findings are consistent with Ramezanzadeh Fatemeh et. al., (2004) reported that the level of anxiety among women with infertility, (38.1%) women experiences moderate anxiety and (17%) experiences severe anxiety.

Data analysis showed that in the post test, majority of women with infertility [22(73.3%)] had moderate level of stress in the control group where as in the experimental group majority of women [18(60%)] had low level of stress. None of them had low level of stress in the control group whereas none of them had severe level of stress in the experimental group.

In the post test, majority of women with infertility [22(73.3%)] had moderate anxiety in the control group whereas [26(86.6%)] had mild anxiety in the experimental group. Less number of women [2(6.66%)] had severe anxiety in the control group whereas none of them had severe anxiety in the experimental group.

Data analysis showed that the post test mean score ($15 + 4.95$) was lower than the pretest mean score ($26.2 + 4.35$), the t' value 8.86 which was significant at 0.05 level in the experimental group. Hence the research hypothesis (H1), the mean post test scores of stress is significantly lower than the mean pretest scores of stress in the experimental group was accepted.

The post test mean score ($24.7 + 4.14$) was slightly lower than the pretest mean score ($25.4 + 3.62$) the t' value 1.08 which was not significant at 0.05 level in the control group

These findings are consistent with Venkatesan, L., (2009) reported that in experimental group the post test stress level ($M=164.30$, $SD=19.03$) was less than the pretest stress level ($M=247.51$, $SD=23.14$) and the difference was statistically significant at $p < .001$ level. In control group, there was no statistical difference between the pretest ($M=246.65$, $SD=22.18$) and posttest ($M=247.06$, $SD=21.89$) stress levels.

Data analysis showed that the post test mean score ($15 + 6.14$) was lower than the pretest mean score ($36.03 + 9.05$) the t' Value 9.99 which was significant at 0.05 level in the experimental group. Hence the research hypothesis (H2), the mean post test scores of anxiety is significantly lower than the mean pretest scores of anxiety in experimental group was accepted. The post test mean score ($34.9 + 10.5$) was higher

than the pretest mean score (33.5 + 8.42), the *t'* value 1.31 which was not significant at 0.05 level in the control group.

Data analysis showed that the mean post test scores of stress in the experimental group (15 + 4.95) was significant lower than the mean post test scores of stress in the control group (24.7 + 4.14) the '*t*' value 8.29 which was significant at 0.05 level. Hence the research hypothesis (H3), the mean post test scores of stress in the experimental group is significantly lower than the mean post test scores of stress in the control group was accepted.

These findings are consistent with Venkatesan, L., (2009) reported that the post test stress levels in the experimental group (M=164.30, SD=19.03) was lower than the posttest (M=247.06, SD=21.89) stress levels in the control group which was statistically significant at $P < .0001$ level.

Data analysis showed that the mean post test scores of anxiety in experimental group (15 + 6.14) was significantly lower than the mean post test scores of anxiety in control group (34.9 + 10.05) the '*t*' value 12.83 which was significant at 0.05 level. Hence the research hypothesis is (H4), the mean post test scores of anxiety in the experimental group in significantly lower than the mean post test scores of anxiety in the control group was accepted.

Data analysis showed that there is no significant association between post test level of stress scores with their demographic variables such as age, education, occupation, type of family, religion, family monthly income, duration of infertility, family history of infertility and duration of treatment for infertility in the experimental group. Hence the research hypothesis (H5), there will be a significant association between the post test levels of stress of women with infertility with their demographic variables in the experimental group, was rejected.

This findings are consistent with Venkatesan, L., (2009) reported that in the post test among the experimental group women irrespective of their demographic variables all of them had low levels of stress. In this study also posttest scores reveals that among the experimental group

Data analysis showed that there is no significant association between post test level of anxiety scores with their demographic variables such as age, education, occupation, type of family, religion, family monthly income, duration of infertility, family history of infertility and duration of treatment for infertility in experimental group. Hence the research hypothesis (H6), there will be a significant association between the post test levels of anxiety of women with infertility with their demographic variables in the experimental group, was rejected.

4. Conclusion

The study findings revealed that there was a significant reduction in the level of stress and anxiety among women with infertility after administration of mindfulness therapy. During pretest, majority of women had moderate level of stress 66.6%

in the control group and 53.3% in the experimental group. During post test, majority of women with infertility 73.3% had moderate level of stress in the control group where as in the experimental group majority of women 60% had low level of stress. During pretest, majority of women had moderate anxiety 60% in the control group and 80% in the experimental group. During post test, majority of women with infertility 73.3% had moderate anxiety in the control group where as 86.6% had mild anxiety in the experimental group. Based on statistical findings, it is evident that the provision of meditation therapy will help to reduce stress ('*t*' value=8.29) and anxiety ('*t*' value=12.83) among women with infertility in the experimental group comparing to control group. Thus meditation therapy helps them to reduce stress and anxiety and improve the chance of fertility.

References

- [1] Domar A.D., Zuttermeister PC., Friedman R. The psychological impact of infertility: a comparison with patients with other medical condition. *J Psychosom Obstet Gynaecol.* 1993;14(suppl):45–52.
- [2] Fast Facts About Infertility. <http://www.resolve.org/about/fast-facts-about-fertility.html>.
- [3] Chen TH., Chang SP., Tsai CF., Juang KD. Prevalence of depressive and anxiety disorders in an assisted reproductive technique clinic. *Hum Reprod.* 2004;19(10):2313–2318.
- [4] Volgsten H., Skoog Svanberg A., Ekselius L., Lundkvist O., Sundström Poromaa I. Prevalence of psychiatric disorders in infertile women and men undergoing in vitro fertilization treatment. *Hum Reprod.* 2008;23(9):2056–2063.
- [5] Sejbaek CS., Hageman I., Pinborg A., Hougaard CO., Schmidt L. Incidence of depression and influence of depression on the number of treatment cycles and births in a national cohort of 42 880 women treated with ART. *Hum reprod.* 2013;28(4):1100–1109.
- [6] Holley SR., Pasch LA., Bleil ME., Gregorich S., Katz PK., Adler NE. Prevalence and predictors of major depressive disorder for fertility treatment patients and their partners. *Fertil Steril.* 2015;103(5):1332–1339.
- [7] Pasch LA., Holley SR., Bleil ME., Shehab D., Katz PP., Adler NE. Addressing the needs of fertility treatment patients and their partners: are they informed of and do they receive mental health services? *Fertil Steril.* 2016;106(1):209–215.
- [8] Lakatos E., Szigeti JF., Ujma PP., Sexty R., Balog P. Anxiety and depression among infertile women: a cross-sectional survey from Hungary. *BMC Womens Health.* 2017;17(1):48.
- [9] Shani C., Yelena S., Reut BK., Adrian S., Sami H. Suicidal risk among infertile women undergoing in-vitro fertilization: Incidence and risk factors. *Psychiatry Res.* 2016;240:53–59.
- [10] De Berardis D., Mazza M., Marini S., et al. Psychopathology, emotional aspects and psychological counselling in infertility: a review. *Clin Ter.* 2014;165(3):163–169.
- [11] Maroufizadeh S., Karimi E., Vesali S., Omani Samani R. Anxiety and depression after failure of assisted reproductive treatment among patients experiencing infertility. *Int J Gynaecol Obstet.* 2015;130:253–256.
- [12] Crawford NM., Hoff HS., Mersereau JE. Infertile women who screen positive for depression are less likely to initiate fertility treatments. *Hum Reprod.* 2017;32(3):582–587.
- [13] Gameiro S., Boivin J., Peronace L., Verhaak CM. Why do patients discontinue fertility treatment? A systematic review of reasons and predictors of discontinuation in fertility treatment. *Hum Reprod Update.* 2012;18(6):652–669.
- [14] Gameiro S., Boivin J., Domar A. Optimal in vitro fertilization in 2020 should reduce treatment burden and enhance care delivery for patients and staff. *Fertil Steril.* 2013;100(2):302–309.