

PREPONDERANCE OF PSYCHOLOGICAL DISTRESS AMONG WOMEN WITH INFERTILITY

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Abstract

INTRODUCTION: Infertility is a major health concern nowadays in women. Due to lifestyle changes and hormonal factors it has been increased. There are various medical technologies which has increased the chance of fertility. But the psychological influences of infertility and its treatment are of huge impact on the fertility outcome. **AIM:** To explore the stress and coping among infertility women. **METHODOLOGY:** This was a descriptive cross sectional design method involving 85 samples of infertility women attending infertility clinic at government hospital Dindigul were selected using a convenient sampling technique. Fertility problem inventory scale and coping scale were used to collect data from the patients. **RESULTS:** Based on the stress score 85% of the participants reported having a moderate level of stress score, 20% had severe level of stress score whereas no one had mild stress. Domain wise score in fertility problem inventory majority of the participants (74.97%) had need for parenthood. The coping score among the participants based on the level of coping was 94% of them sometimes used coping and only 6% of the participants often deployed coping strategies. Regarding the domains scores in coping scale about 84.20% had Hope, and 87.73% were having Spousal relations. There is a not significant, positive, poor correlation between Stress score and Coping score which means coping decreases their stress scores also decreases poorly($r= 0.12$ $P=0.52$) .**CONCLUSION:** Psychological concerns during infertility treatment are huge which should be minimised for a better fertility outcome. Long-term infertile people were able to survive by staying away from challenging settings and accepting the issues as they were. Various stress reduction measures enhances the individuals coping ability. Hence which in turn improve their quality of life and the fertility outcomes of women.

Keywords: Infertility, Stress, Coping.

INTRODUCTION

Infertility is a substantial healthcare and psychological issues affecting a vast population of women. After 12 months of unprotected sexual activity, or 6 months for women over 35, infertility is a disorder that makes it impossible to get pregnant. [1] Women who are having trouble getting pregnant say they experience emotions of melancholy, anxiety, loneliness, and loss of control. An estimated 1 in 8 couples, or 12% of married women, struggle to conceive or maintain a pregnancy. [2] As a result of their diagnosis, infertile patients go through a great deal of emotional pain. Infertile women are more likely to experience despair and anxiety. [3]

Millions of people worldwide who are of reproductive age, including 48.5 million couples and 192 million individuals, are affected by infertility.[4] Only a 12.5% compound annual growth rate is predicted for the Indian market for infertility diagnosis and treatment between 2022 and 2028.[5]

Infertility being a terrible emotional experience can lead to a variety of psychological problems, including as stress, worry, and depression, as well as lower self-esteem, decreased sexual pleasure, and a lower quality of life.[6] Particularly in communities where there exist biases against women, the female gender is negatively affected by the resulting psychological disorders more than her partner.[7]

Women from all over the world are affected by the life catastrophe of infertility. Women who are diagnosed as infertile go through a great deal of emotional upheaval as a result of their condition. For Women who are infertile, there is a substantial risk of sadness, worry, and discomfort.[8]

Women who encounter infertility go through a lot of stress. Even if the cause is attributed to their spouse, some who seek therapy engage in physically exhausting and emotionally draining medical treatments in an effort to become pregnant. [9]

A coping strategy is behaviour, a set of behaviours, or a style of thinking used to handle a difficult or unpleasant situation or alter one's reaction to it.[10] Coping mechanisms often demand an intentional and direct reaction to problems, in contrast to defensive systems[11]

Several researches have looked at the connection between psychological symptoms before and during ART cycles and future conception rates, with varying degrees of success. The research aims in exploring the stress and coping among infertility women.

MATERIALS AND METHODS

A descriptive cross sectional study was utilised for this study. Data collection was done among 85 infertile women selected using convenience sampling techniques. The research was conducted in the infertility clinic at government medical college hospital, Dindigul. The prerequisites were as follows: a) women diagnosed for infertility for the first time and on treatment for more than three months; b) the ability to understand and speak Tamil; c) age group of 20-35 years are included and those with co-morbidities and other psychiatric illness are excluded from study.

DATA COLLECTION PROCEDURE

Data was collected from the participants after obtaining the proper permissions from the authorities of the institution. Permission from the ethics committee obtained vide ref no: -VMMC/NURS/2021/77 prior the study process. The tool and the process of the study were validated by the experts of the fields of medicine, Obstetricians and nursing personnel.

The data collection included a standardised demographic and research questionnaire, fertility problem inventory scale and coping scale. Approximately 15-20 minutes were spent on each participant to collect data using the chosen instrument.

RESULTS & DISCUSSION

Among 85 participants in total, 44% were between 20 – 25 years, 80% belongs to Hindu religion, and 48% of them had their secondary school level education. 76% of them are house wives, 60% belongs to middle income group of family. Most of the participants (56%) live in rural area, 69% belongs to nuclear family and 62% of them received economical support for their treatment from their family. Considering their research variables under study, 72% of them got married at the age group of 21-25 years. 65% of the married life span was between 4-6 yrs. 84% of them had a regular menstrual cycle and 75% participants were between 1-3 years of infertility treatment.

Based on Table 1, 85% of the participants reported having a moderate level of stress score, 15% had severe level of stress score, and no one had mild stress.

Table 1: Stress Score among Infertile Women

Level	%
Normal	0.00%
Mild	0.00%
Moderate	85.00%
Severe	15.00%

Table 2 shows a Domain wise score in fertility problem inventory was 69.10 % of them had social concern,72.15 % had sexual concern,67.17% of them had relationship concern, 69.35% of them belong to rejection of child free lifestyle and majority of the participants (74.97%) had need for parenthood respectively.

Table 2: Domain wise Stress Score Among Infertile Women

DOMAINS	PERCENTAGE OF STRESS SCORE
Social concern	69.10%
Sexual concern	72.15%
Relationship concern	67.17%
Rejection of child-free lifestyle	69.35%
Need for parent hood	74.97%
TOTAL	70.53%

The investigation of the stress scores of infertile women revealed that 92.71% of them had severe level of stress score [12].Another study revealed that infertile women had 75% of severe stress whereas the remaining 25% had moderate stress level.[13]

Table 3 exhibits the coping score among the participants based on the level of coping was 94% of them sometimes used coping and only 6% of the participants often deployed coping strategies.

Table 3: Coping Score among Infertile Women

LEVEL OF COPING	%
Always used coping	0.00%
Often used coping	6.00%
Sometimes used coping	94.00%
Rarely used coping	0.00%

Table 4 illustrates regarding the domains scores in coping scale about 59% of them had preoccupation with thoughts, 46.17% practiced Spiritual coping, 80.10%used Denial, 50.73%were having Social withdrawal, 58.77% had Negative self-perception,84.20% had Hope,73.90%were Social Support seeking people ,81.24%

always accept their condition , 50.47% were Investing in self, 87.73% were having Spousal relations.

Table 4 : Domain wise Coping Score among Infertile Women

DOMAINS	%
Preoccupation with thoughts	59.06%
Spiritual coping	46.17%
Denial	80.10%
Social withdrawal	50.73%
Negative self – perception	58.77%
Hope	84.20%
Social Support seeking	73.90%
Accept	81.24%
Investing in self	50.47%

Similar research corroborates the results of the current report, showing that 53% of respondents report moderate coping, 24% report insufficient coping, and 23% report adequate coping.[14] The majority of the individuals employ the self-controlling, optimistic reappraisal, and social support seeking coping strategies.[15]

Considering stress score and coping score, there is a not significant, positive , poor correlation between Stress score and Coping score. It means coping decreases their stress scores also decreases poorly($r = 0.12$ $P=0.52$) .

Table 5: Correlation Between Stress Score And Coping Score Among Infertile Women

Correlation	Mean gain score Mean \pm SD	Karl pearson Correlation coefficients	Interpretation
Stress score Vs Coping score	194.66 \pm 5.10Vs 162.16 \pm 7.38	$r = 0.12$ $P=0.52$	poor correlation

CONCLUSION

Due to enhanced medical technology such as assisted reproductive technology (ART) can effectively treat infertility issues. But the psychological impact of treatment produces detrimental effects on the fertility outcome. Treatment must take psychological elements into account because of the extensive psychosocial effects on female infertility. The management of infertility requires holistic techniques, such as psychological approaches. Various programmes for infertile women to rebuild their capacities and live with a regular schedule and high quality of life.

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Conflicts of Interest

There are no conflicts of interest.

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Bibliography

- 1) Geetha J, et al, "Social Factors on Fertility Behaviour among Rural Women in Tiruchirappalli District. Tamil Nadu International Journal of Health Science and Research Article: 2018
- 2) Porkodi R, et al. Infertility: An Emotional Roller Coaster. J Nur Today. 2018 ; 6 (1).
- 3) Poonam N, et al. A Prospective study to assess the mental health and quality of life in women undergoing assisted reproduction. 2018. <http://www.fertilityscienceresearch.org>
- 4) World Health Organization, Infecundity, infertility, and childlessness in developing countries.DHS Comparative Reports 2018, No 9. Calverton, Maryland, USA: ORC Macro and the World Health Organization.
- 5) National Health Mission (NHM). Accessed on 25 June 2018. <http://nrhm.gov.in/nhm/aboutnhm/goals.html>
- 6) Rooney KL, Domar AD. The relationship between stress and infertility. Dialogues Clin Neurosci. 2018; 20(1):41-47. doi:10.31887/DCNS.2018.20.1/klrooney
- 7) 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
- 8) Ghorbani M, Hosseini FS, Yunesian M, et al. Dropout of infertility treatments and related factors among infertile couples. *Reprod Health*.2020; **17**(192). <https://doi.org/10.1186/s12978-020-01048-w>
- 9) Harper JC, Aittomäki K, Borry P, et al. Recent developments in genetics and medically assisted reproduction: from research to clinical applications. *Eur J Hum Genet*. 2018;26(1):12-33. doi:10.1038/s41431-017-0016-z
- 10) Maduakolam IO, Umeh UA, Ndubuisi IF, Onyekachi-Chigbu AC. Coping strategies of infertility clients attending gynecological clinic in South-eastern Nigeria. *Niger J Med* 2021;30:40-6
- 11) Palomba S, Daolio J, Romeo S, Battaglia FA, Marci R, La Sala GB. Lifestyle and fertility: the influence of stress and quality of life on female fertility. *Reprod Biol Endocrinol*. 2018;16(1):113. Published 2018 Dec 2. doi:10.1186/s12958-018-0434-y
- 12) Teklemicheal AG, Kassa EM & Weldetensaye EK. Prevalence and correlates of infertility related psychological stress in women with infertility: a cross-sectional hospital based survey. *BMC Psychol*.2022; **10**(91). <https://doi.org/10.1186/s40359-022-00804-w>
- 13) Prasad M, Venkatesh S, Kumar S, Pentakota A, Vijaylakshmi. Psychological correlates in women with infertility. *Nepal J Obstet Gynaecol [Internet]*. 2022 Jan. 1 [cited 2023 Feb. 20];16(2):33-9.
- 14) Smita. A Study to Assess the level of Stress and Adapted coping mechanism among Infertile women at selected Infertility clinic, Dehradun Uttrakhand In a view of developing an information booklet. *International Journal of Advances in Nursing Management*. 2021; 9(3):264-8. doi: 10.52711/2454-2652.2021.00060
- 15) Kyei JM, Manu A, Dwomoh D, Kotoh AM, Agyabeng K, Ankomah A. Ways of coping among women with infertility undergoing assisted reproductive technologies in Ghana. *Pan Afr Med J*. 2022;41:29.