STUDY OF FACTORS RELATED TO STRESS AMONG WOMEN UNDERGOING TERMINATION OF PREGNANCY (TOP) IN A COLLECTIVIST CULTURE

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ABSTRACT

BACKGROUND

India is a country where people are dependent on each other for psychological support. Traditional Indian culture follows a collectivist pattern where the woman cares more about her family and society than herself. An unmarried woman who is pregnant poses a problem for both herself and her baby here, where traditional values are held high and pregnancy without marriage is almost always a taboo.

AIMS

To find the impact of Termination of Pregnancy (TOP) on the anxiety and depression levels among pregnant women, correlation with period of gestation and the impact of perceived social support on anxiety and depression levels of these women.

SETTING

One hundred women who attended the outpatient department of ESICMC- PGIMSR, Bengaluru, India, requesting for Termination of Pregnancy, between August 2011 and December 2014 were studied.

DESIGN

A Prospective Observational study.

METHODS AND MATERIAL

Hospital Anxiety and Depression Scale (HADS) and Multidimensional Scale of Perceived Social Support (Zimet, 1988) were measured both pre-TOP and Hospital Anxiety and Depression Scale (HADS) was measured post TOP in women fulfilling the Inclusion and Exclusion criteria.

STATISTICAL ANALYSIS

Averages and proportions were calculated for the study and appropriate statistical tests like Wilcoxon Signed Ranks Test and Spearman's Correlation Coefficient were done using MiniTab version 16.

RESULTS

1) There is a reduction of depression and anxiety after Termination of pregnancy ($p < 0.05$) more so among unmarried women with an unwanted pregnancy.
2) The higher the period of gestation, the higher the levels of HADS anxiety levels were observed (p value of <0.05).
3) The lower the social support scores, the higher the levels of HADS anxiety and depression (p value of <0.05).

CONCLUSIONS

There is a need for larger number of abortion care providers in India with increased contraception awareness and education regarding the need for Termination of Pregnancy in medical professionals. Women undergoing termination of pregnancy, especially when recognized as having social issues like a pregnancy without a husband, should be provided with counseling for not only the women, but also the family to improve the mental status of the woman especially in a country with a collectivist culture like India.

KEYWORDS

Stress among women undergoing TOP in a collectivist culture.

MESHTERMS

Stress; Termination; Collectivist Culture.

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INTRODUCTION: BACKGROUND/RATIONALE: India is a country where people are dependent on each other for psychological support. Traditional Indian culture follows a collectivist pattern[1] where the woman cares more about her family and society than herself.

In India, around 10-12 million abortions takes place annually, of which 15-20 thousand deaths are due to illegal/unsafe abortions.[2] 90% of induced abortions are in

the first trimester alone. To reduce maternal mortality and morbidity, the provision of safe legal abortion to women in a variety of health care settings is the most important component of reproductive health services.

Most women seeking medical termination of pregnancy come from the lower socioeconomic group, low educational standard and poor residential status.[3] With very little knowledge of reproductive biology and contraceptive practice, this creates an environment conducive to an unwanted pregnancy. The legality of abortions for them is unknown and their environment is such that they are afraid to seek medical help.[4]

Stigma is another major factor in getting an abortion in a country with a collectivist culture like India. Pregnancy among the unmarried is so stigmatized that it is perceived to damage a family's reputation.[5]

A woman, especially when pregnant, needs utmost care, physically and psychologically. This care, many women do not get. An unmarried woman who is pregnant poses a problem for both herself and her baby, here where traditional values are held high and pregnancy without marriage is almost always a taboo.[6] This leads to concealment of the pregnancy from the society to preserve her and her family's status, delay in seeking termination and illegal measures of abortion- often unsafe-are resorted to.[7]

The incidence of these unsafe abortions increase when there are lack of trained TOP providers in her vicinity or unwillingness of trained providers to perform TOPs.

Unmarried young women's situation make them more vulnerable to unsafe abortion-related outcomes than do those of married young women in a number of aspects. They may make multiple attempts to terminate the pregnancy and seek it from unqualified providers. Other factors like- delay in decision making regarding when and where to seek termination, fear of disclosure and consequent priority to confidential rather than skilled services and lack of partner and family support makes them more vulnerable to unsafe abortion.[8]

Abortion being a sensitive issue, many service providers do not approve of it. Provider's negative attitude towards such matters could make a major difference in the quality of counselling, provision of services and overall client-provider interaction. It was found that the doctors approving TOP unconditionally was less than 20 percent.[4] There is a need to find out if performing Medical Termination of Pregnancy on women requesting for termination of pregnancy had an effect on their anxiety and depression levels and if their perceived social support influenced these levels.

METHODS: We conducted a Prospective Comparative Hospital based study of 100 women who attended the outpatient department of ESICMC-PGIMSR, Bengaluru, India, requesting for a Termination of Pregnancy (TOP), between August 2011 and December 2013. Hospital Anxiety and Depression Scale (HADS) and Multidimensional Scale of Perceived Social Support (Zimet, 1988) were measured both pre TOP and Hospital Anxiety and Depression Scale (HADS) was measured post TOP in women fulfilling the Inclusion and Exclusion criteria.

The Hospital Anxiety and Depression Scale (HADS), was developed by Zigmond and Snaith in 1983 and is a self-report rating scale of 14 items which is designed to measure anxiety and depression (7 items for each subscale).[9] Its purpose is to provide clinicians with an acceptable, reliable, valid and easy to use practical tool for identifying and quantifying depression and anxiety.

The Multidimensional Scale of Perceived Social Support (MSPSS)-Zimet, 1988-is designed to assess perceptions of social support adequacy from three specific sources: family, friends, and significant other (husband, boyfriend or sexual partner). The MSPSS is shown to be psychometrically sound, with good reliability, factorial validity, and adequate construct validity. It is an ideal research instrument for use when subject time is limited and/or a number of measures are being administered at the same time.[10]

Ethical Approval: We obtained approval from the Departmental and Hospital Clinical Research Committee on 16th July 2011 before starting this study.

STUDY POPULATION AND SETTING:

Method of Collection of Data:

Inclusion Criteria: Women requesting for termination of pregnancy and willing to give written informed consent.

Intrauterine gestation less than 12 weeks' period of gestation without detected fetal abnormalities.

Exclusion Criteria: Women with psychiatric disorders and treatment for the same Pregnant women attending the Outpatient Antenatal Clinic requesting for termination of pregnancy when examined and investigated, if found medically fit and if fell into the inclusion criteria were registered as inpatients in the hospital. Informed written consent was obtained for the procedure, the need for surgical procedure (Suction Evacuation or Manual Vacuum Evacuation or Dilatation and Curettage) that may arise and for the necessary follow up, if required. Gestational age, viability and site of implantation of pregnancy (intrauterine) were confirmed by ultrasonography.

Hospital Anxiety and Depression Scale (HADS) and Multidimensional Scale of Perceived Social Support (MSPSS) were measured pre TOP along with the period of gestation with the help of questionnaires. Women with abnormal HADS scores were referred to the psychiatric department of this hospital.

The HADS score is the sum of the 14 items. For each subscale of anxiety and depression, the score is the sum of the respective seven items (ranging from 0–21). A score of below 7 is considered normal.

The MSPSS score is a total of 12 questions- 3 questions, each pertaining to support from family, friends and significant other-scored from 1 to 7 depending on support received.

On the day of the admission, oral Mifepristone 200mg was given under supervision and 24 hours later, the patient was

administered with 400µg sublingual Misoprostol and repeated 3 hourly up to 5 doses.

They were routinely offered pain relief with NSAIDs during medical abortion. Some women required additional narcotic analgesia.

All patients received Inj. Tetanus Toxoid intramuscularly.

The patients were in the hospital for 24 hours and then observed on outpatient basis once a week for up to 14 days and monitored for the possible expulsion of products of conception, vaginal bleed and adverse effects such as nausea, vomiting, diarrhea, abdominal cramps, fever and treated accordingly. They were monitored by the resident doctors in the hospital who were not involved in the study.

Surgical evacuation of the uterus is not required routinely following medical abortion. The surgical procedure (Vacuum aspiration or dilatation and curettage) was performed at any time during the follow up period for either incomplete abortion or if patient requested for it.

Anti-D IgG was given, by injection into the deltoid muscle, to all non- sensitized RhD negative women within 72 hours following abortion.

Following termination of pregnancy, they were provided with verbal and written information about symptoms they may experience, emphasizing those which would necessitate an urgent medical consultation and symptoms suggestive of continuing pregnancy. A 24 hour helpline was made available for women to use if they had any concerns.

Hospital Anxiety and Depression Scale (HADS) was again measured 14 days after initial visit (after termination of pregnancy).

The patients were counselled for the use of suitable contraceptive method after termination of pregnancy depending on their marital status, age and parity.

Statistical Analysis: Averages and proportions were calculated for the study and appropriate statistical tests like Wilcoxon Signed Ranks Test and Spearman's Correlation Coefficient were done using Mini Tab version 16.

Sample Size: No previous studies have been done on this topic. Using Paired T Test, Pre-test mean=2.33, Post-test mean=1.98, Standard deviation in Pre-test=1.2001 and Standard deviation in Post-test=0.9421, the sample size was calculated to be 100 with the power being 90%, with an alpha error of 5%.

Study Outcomes: The primary outcome was to find the impact of Termination of Pregnancy (TOP) on the anxiety and depression levels among pregnant women. The secondary outcome measures were to find out if any correlation existed between Period of Gestation (POG) and anxiety and depression levels in these women and to find the impact of perceived social support on anxiety and depression levels in them. This was evaluated with the help of Hospital Anxiety and Depression Scale (HADS) and Multidimensional Scale of Perceived Social Support both measured pre TOP and Hospital Anxiety and Depression Scale (HADS) which was measured post TOP in the above women.

RESULTS:

Study Group: Demographic characteristics between both the groups (Table 1) were analysed with respect to age and weight.

Pre and Post TOP HADS Scores: Overall, 80 women had abnormal Anxiety Scores and 62 women had abnormal Depression Scores pre TOP. Post TOP, 17 women had abnormal Anxiety Scores and 12 women had abnormal Depression Scores.

Among unmarried, 16 women out of 17 patients had an abnormal pre TOP HADS anxiety score and 11 of them had abnormal pre TOP HADS Depression Score; 5 women had abnormal post TOP anxiety scores while only 3 women had abnormal post TP depression scores.

Period of Gestation: Overall, 87 women had a pregnancy of ≤9 weeks with the remaining carrying a pregnancy of >9 weeks up to 12 weeks of gestation. Among the unmarried women, a higher proportion had a pregnancy of >9 weeks up to 12 weeks of gestation, i.e., 8 out of 17 women.

MSPSS: Thirty two women had an MSPSS score between 31 to 40 while 24 women had a very low score between 21 to 30.

STATISTICS:

HADS Scores-Anxiety-Pre and Post TOP (Table 2): The effect of TOP on anxiety was statistically significant when comparison was made between pre and post TOP scores using Wilcoxon Signed Rank test (p value of <0.05). A large proportion of women with an unwanted pregnancy were anxious (80% overall and 94% in unmarried women).

HADS Scores-Depression-Pre and Post TOP (Table 3): The effect of TOP on depression was statistically significant when comparison was made between pre and post TOP scores using Wilcoxon Signed Rank test (P value of <0.05). A major proportion of women with an unwanted pregnancy were depressed (62% overall and 65% in unmarried women).

Period of Gestation (Table 4): There was significant correlation between period of gestation and pre TOP Anxiety (P value of <0.05) with insignificant correlation between period of gestation and pre TOP Depression.

MSPSS (Table 5): There was a positive correlation between pre TOP anxiety and depression and social support which was statistically significant. (P value of <0.05). The lower the social support scores, the higher the levels of HADS anxiety and depression.

Demographic Characteristics	Group A (n=50)	Range	Group B (n=50)	Range	P- value
Age (Years)	25	18-33	25	18- 35	0.57
Weight (kg)	55	38- 82	56	39- 89	0.76

Table 1: Demographic Characteristics

Samples	Time	Mean	Std. Dv.	Mean Diff.	SD Diff.	% of Change	z-value	P-value
Total	Pre top	14.33	5.21	7.75	5.98	54.08	7.4613	0.0001*
	Post top	6.58	5.10					
Married	Pre top	13.87	5.33	7.69	6.18	55.43	6.6513	0.0001*
	Post top	6.18	5.06					
Unmarried	Pre top	16.59	3.95	8.06	5.03	48.58	3.4386	0.0006
	Post top	8.53	4.95					

Table 2: Comparison of Pre and post TOP anxiety scores in total, married and unmarried groups by Wilcoxon matched pairs test

*p<0.05

Samples	Time	Mean	Std. Dv.	Mean Diff.	SD Diff.	% of Change	Z-value	P-value
Total	Pre top	10.43	3.85	5.32	4.39	51.01	7.2674	0.0001*
	Post top	5.11	3.74					
Married	Pre top	10.23	4.03	5.34	4.32	52.18	6.5705	0.0001*
	Post top	4.89	3.58					
Unmarried	Pre top	11.41	2.67	5.24	4.84	45.88	3.0954	0.0020*
	Post top	6.18	4.43					

Table 3: Comparison of Pre and post TOP depression scores in total, married and unmarried groups by Wilcoxon matched pairs test

*p<0.05

Groups	Mean	SD	Mean rank	U-value	Z-value	P-value
Married	41.58	13.30	46.80			
Unmarried	57.71	20.88	68.56	398.50	-2.8171	0.0048*

Table 4: Comparison of married and unmarried groups with respect to POG scores by Mann-Whitney U test

*p<0.05

Groups	Mean	SD	T-value	P-value
Married	43.06	13.54	2.3494	0.0208*
Unmarried	34.76	11.77		

Table 5: Comparison of married and unmarried groups with respect to social support scores by Mann-Whitney U test

DISCUSSION:

Main Findings: The effect of TOP on depression and anxiety was statistically significant when comparison was made between pre and post TOP scores using Wilcoxon Signed Rank test ($p < 0.05$). Women with lesser social support had higher anxiety and depression levels.

A significant proportion of women seeking TOP are anxious and depressed requiring medical help, counselling and good social support with unmarried women having higher anxiety and depression levels. Timely administration of Medical Termination of Pregnancy reduces their anxiety and depression.

Strengths and Weaknesses of the Study: The major strength of this trial is that it is unique and has never before been studied. Some limitations to this study may apply as this was a small study conducted in a unit of a teaching hospital. Large multi-centric studies with a mixed ethnic population would be of value in this field. Another limitation to the current study may be that the outcomes evaluated were all short-term.

CONCLUSIONS: After abortion, most women with an unwanted pregnancy experience relief and decrease in stress despite their sense of loss. Many women denied abortion show ongoing resentment that may last for years, while children born when the abortion is denied have numerous, broadly based difficulties in social, interpersonal, and occupational functions that last at least into early adulthood.

Factors that are shown to be associated with higher rates of psychological distress after abortion include prior psychiatric contact, second trimester abortions, perceived lack of social support and ambivalence regarding abortion decision.

In health care providers as well, pregnancy termination engenders major social, legal and religious turmoil. The physician is a facilitator who helps the woman understand the physical and mental implications of continuing her pregnancy or seeking termination.

Most of the literature regarding pregnancy termination and psychological sequelae are flawed with either small sample sizes, poor study designs or lack of follow up and lack of appropriate control. Increased research into these areas, focusing on why some women are adversely affected by the procedure is therefore important.

There is a need for larger number of TOP care providers in India with increased contraception awareness and education regarding the need for TOP in medical professionals. Women undergoing termination of pregnancy, especially when recognized as having social issues like a pregnancy without a husband, should be provided with counselling for not only the women, but also the family to improve the mental status of the woman.

Contribution to Authorship: All authors had full access to the data in the study and take responsibility for the integrity of the data and the accuracy of the data analysis. All authors reviewed and approved the final version of the paper.

Details of Ethics Approval: The study was approved by ESI Hospital Ethical Committee.

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