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PSYCHOLOGICAL DISTRESS AMONG PRIMIGRAVIDA UNDERGOING SPONTANEOUS ABORTION IN A TERTIARY CARE HOSPITAL IN SOUTH INDIA.

Nursing

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ABSTRACT

Introduction: A women becoming pregnant and giving birth to a baby is a wonderful movement and feeling of satisfaction and accomplishment in her life. Women will be the center of the family and their psychological health is of prime importance to the wellbeing of the whole family. The present study aimed to assess the level of psychological distress and the sociodemographic and clinical factors associated with psychological distress.

Methods: The study was conducted among 57 primigravidae women, who were selected by convenience sampling technique. Data was obtained by socio-demographic proforma, and clinical variables. Level of psychological distress was measured by using (Depression Anxiety and Stress scoring scale) DASS21Scale. Association of socio-demographic and clinical characteristics with depression or anxiety or stress was assessed using Chi-square test or Fishers exact test and unadjusted prevalence ratios with 95% CI were calculated.

Results: Majority of the women 66.6% (38) expressed anxiety, 56.1% (32) had stress and 36.8% (21) had depression. Mean age of the women was 24.14±3.356 years. Women residing in urban area (p=0.02), obesity (p=0.03), women who got married before 20 years (p=0.01) and who had comorbidities (p=0.02) were depressed. Age at marriage (<20 years; p=0.03), genetic abnormalities (p=0.007) in pregnancy were showing significant association with anxiety. Women living in urban area (p=0.01), and heavy workers (p=0.05) had stress.

Conclusion: The present study concludes that, the women living in urban area were showing more psychological distress. The women experienced more anxiety followed by stress and depression and they had been referred to the counsellor and prepared them for betterment for their future.

KEYWORDS

Psychological distress, primigravida, spontaneous abortion, Depression, Anxiety, Stress.

INTRODUCTION:

A woman is the light of the family and plays several roles such as daughter, wife, mother and will take great responsibility to look after her family members (Coleman, 2018).So, the physiological and psychological health of the women is extremely important for the health of the entire family. While the entire family anticipate to welcoming the baby, but any interruption in achieving this goal makes women's life considerably frustrating, annoying and feeling of incompleteness. Therefore, abortion is one of the painful moments in women's life in achieving her success in continuing pregnancy and affects all aspects of her compromise.(Dutta, 2016)

Women may have concern regards hospital environment, emotional aspects, duration of the procedure as well as existentialism and reflections about life, sickness and mortality. (Dutta, 2016) The health care provider has identified the causes and associated risk factors for psychological distress and counseled the women to cope up with the stressful situation and prepared them for future pregnancy.

MATERIALS AND METHODS

The sample for the present study consisted of a single group – primigravida underwent spontaneous abortion in a tertiary care hospital in South India. This study was conducted with the objective to assess the level of psychological distress and to identify the sociodemographic and clinical variables associated with the level of psychological distress.

The study was conducted in OG Casualty and Septic Labor Room in Women and Children's Hospital (WCH) at Jawaharlal Institute of Postgraduate Medical Education and Research (JIPMER) during August 2019 to February 2020.This was a cross-sectional descriptive design and non-probability convenience sampling technique was chosen. 57 primigravida were included as per inclusion and exclusion criteria.

Sample size was estimated with an expected proportion of women with primigravida underwent spontaneous abortion with impaired psychological distress as 0.75 and sample size was estimated at 5% level of significance and 15% relative precision.

Procedure

After getting approval from Nursing Research Monitoring Committee, permission was obtained from the Institute Ethical Committee, Human studies **(Reg.No:JIP/IEC/2019/033).** Ethical issues involved in the study were a minor increase over minimal risk or low. Informed consent was obtained from every participant after a brief explanation regarding the study by the investigator. Confidentiality of the data, the right to withdraw from the study, and the anonymity of the subjects were explained before data collection. The socio-demographic and clinical determinants consist of age, age at marriage, type of marriage, type of family, educational status, occupation, activity, domicile, BMI and stressors. Distress was assessed by using standardized Depression, anxiety and Stress Scoring scale (DASS21) (Gomez, 2016).

Statistical Analysis

The data were entered in Microsoft Excel sheet and analyzed using Stata version 14. Categorical variables like education, domicile, type of marriage, type of family, activity, BMI, medication use, genetic abnormalities during pregnancy, comorbidities and previous history of infertility were expressed as frequency and percentages. Continuous variables such as age, and age at marriage were expressed as mean (SD). The prevalence of depression, anxiety and stress were summarized as percentage with 95% confidence intervals (CIs). Association of socio-demographic and clinical characteristics with depression or anxiety or stress was assessed using Chi-square test or Fishers exact test and unadjusted prevalence ratios with 95% CI were calculated.

Adjusted prevalence ratios with 95% CIs were calculated using multivariable model. We used log binomial model with depression or anxiety or stress as outcome variable by including all variables in the unadjusted analysis, and adjusted prevalence ratios with 95% CI was calculated. A p-value of less than 0.05 was considered statistically significant.

RESULTS:

Primary Outcome

Majority of the women 66.6% (38) had expressed anxiety, 56.1% (32) had stress and 36.8% (21) had depression, which shows that women who underwent spontaneous abortion was having more anxiety and

stress about the future pregnancies than depression.

Secondary Outcome

Table 1: Distribution Of Sociodemographic And Clinical Characteristics Of The Participants (N=57)

Characteristics	N	%
Age in years		
Less than 20 years	7	12.2
21-25	33	57.8
>25	17	29.8
Education		
Primary	20	35.1
Secondary	12	21.1
Graduate and above	25	43.9
Domicile		
Rural	39	68.4
Urban	18	31.6
Type of marriage		
Non-consanguineous	44	77.2
Consanguineous	13	22.8
Type of family		
Nuclear family	24	42.1
Joint family	33	57.9
Activity		
Sedentary worker	11	19.3
Moderate worker	31	54.4
Heavy worker	15	26.3
BMI (kg/m2)		
Under weight (<18.5)	4	7
Normal BMI (18.5-24.9)	36	63.2
Obesity (25)	17	29.8
Age at marriage		
Less than 20 years	13	22.8
21-25	33	57.8
>25	11	19.2
Stressors		
Medication use during pregnancy	18	31.5
Genetic abnormalities in pregnancy	13	22.8
Blood group incompatibility	8	14.0
Any comorbidities	19	33.3
Previous history of infertility	13	22.8

Table 1 shows distribution of sociodemographic and clinical characteristics of the participants. Among 57 participants, 57.8% of the participants were between the age group of 21-25 years. Mean (SD) age of the women was 24.14±3.356 years. About 43.9% (25) women were educated, 68.4% (39) were living in rural area, 77.2% (44) had non-consanguineous marriage, 57.9% (33) were from joint families, 54.4% (11) were moderate workers, 63.2% (36) had normal BMI; (ranging 18.5-24.9), 57.8% (33) married at the age of 21-25 years.

Table 2: Sociodemographic And Clinical Characteristics Associated With Depression (N=57)

Characteristics	Depressive	Normal	CPR (95% CI)	APR (95% CI)	p-value
Depression	**21 [36.8%, 95% CI 24.2-50.7]**				
Age in years					
Up to 20	2 (28.6)	5 (71.4)	Reference	Reference	
21-25	14 (42.4)	19 (57.6)	1.48(0.43-5.11)	4.91 (0.70-34.27)	0.108
>25	5 (29.4)	12 (57.6)	1.03(0.26-4.11)	1.06 (0.15-7.33)	0.956
Education					
Primary	9(45.0)	11(55.0)	1.40(0.66-2.97)	1.55(0.48-4.99)	0.462
Secondary	4(33.3)	8(66.7)	1.04(0.38-2.78)	2.73(0.75-9.89)	0.125
Graduate and above	8(32.0)	17(68.0)	Reference	Reference	
Domicile					
Rural	12(30.8)	27(69.2)	Reference	Reference	
Urban	9(50.0)	9(50.0)	1.62(0.84-3.14)	3.23(1.20-8.67)	**0.020***
Type of marriage					
Non-consanguineous	17(38.7)	27(61.3)	1.25(0.51-3.07)	2.11(0.94-4.72)	0.069
Consanguineous	4(30.8)	9(69.2)	Reference	Reference	
Type of family					
Nuclear family	9(37.5)	15(65.5)	1.03(0.51-2.04)	1.31(0.59-2.91)	0.499
Joint family	12(36.8)	21(63.1)	Reference	Reference	
Activity					
Sedentary worker	3(27.2)	8(72.8)	0.70(0.24-2.03)	1.78(0.53-5.93)	0.348
Moderate worker	12(38.7)	19(61.2)	Reference	Reference	
Heavy worker	6(40.0)	9(60.0)	1.03(0.48-2.21)	1.97(0.84-4.60)	0.116
BMI (kg/m2)					
Under weight (<18.5)	0(0.00)	4(100.0)	Reference	Reference	
Normal BMI (18.5-24.9)	13(36.1)	23(63.9)	Reference	Reference	
Obesity (25)	8(47.0)	9(52.9)	1.3(0.66-2.53)	2.11(1.04-4.28)	**0.037***
Age at marriage					
Less than 20 years	5(38.4)	8(61.5)	0.97(0.43-2.18)	4.25(1.26-14.23)	**0.019***
21-25	13(39.3)	20(60.6)	Reference	Reference	
>25	3(27.2)	8(72.7)	0.69(0.24-1.98)	3.54(0.41-30.62)	0.249
Medication use during pregnancy					
Yes	6(33.3)	12(66.6)	0.86(0.40-1.86)	1.80(0.78-4.14)	0.166
No	15(38.4)	24(61.5)	Reference	Reference	
Genetic abnormalities in pregnancy					
Yes	5(38.4)	8(61.5)	1.05(0.47-2.33)	0.83(0.29-2.40)	0.738
No	16(36.3)	28(63.6)	Reference	Reference	
Blood group incompatibility					
Yes	3(37.5)	5(62.5)	1.02(0.38-2.68)	3.33(0.71-15.6)	0.127
No	18(36.7)	31(63.2)	Reference	Reference	
Any comorbidities					
Yes	5(26.3)	14(73.7)	Reference	Reference	
No	16(42.1)	22(57.9)	1.6(0.69-3.70)	2.56(1.12-5.88)	**0.026***
Previous history of infertility					
Yes	3(23.0)	10(76.9)	Reference	Reference	
No	18(40.9)	26(59.0)	1.77(0.61-5.08)	1.81(0.39-8.29)	0.443

Table-2 shows the socio-demographic and clinical characteristics which are associated with depression i.e., domicile (p= 0.020), BMI (p=0.037), the women who got married before 20 years of age (p=0.019), and who had history of comorbidities (0.026).

Table 3. Sociodemographic And Clinical Characteristics Associated With Anxiety (N=57)

Characteristics	Anxiety	Normal	CPR (95% CI)	APR (95% CI)	p-value
Anxiety	**38 [66.6%, 95% CI 42.4-69.3]**				
Age in years					
Up to 20	6(85.7)	1(14.2)	1.61(0.94-2.78)	1.12(0.46-2.72)	0.792
21-25	23(69.7)	10(30.3)	1.31(0.79-2.17)	2.37(0.79-7.16)	0.123
>25	9(52.9)	8(47.0)	Reference	Reference	
Education					
Primary	14(70.0)	6(30.0)	Reference	Reference	
Secondary	9(75.0)	3(25.0)	1.07(0.69-1.65)	1.51(0.88-2.59)	0.130
Graduate and above	15(60.0)	10(40.0)	0.85(0.55-1.31)	1.22(0.72-2.08)	0.454
Domicile					
Rural	26(66.7)	13(33.3)	Reference	Reference	
Urban	12(66.7)	6(33.3)	1(0.67-1.48)	1.40 (0.91-2.16)	0.125
Type of marriage					
Non-consanguineous	27(61.3)	17(38.6)	Reference	Reference	
Consanguineous	11(84.6)	2(15.3)	1.37(0.99-1.91)	1.12(0.75-1.68)	0.562
Type of family					
Nuclear family	18(75.0)	6(25.0)	1.23(0.86-1.77)	1.51(1.00-2.27)	**0.047***
Joint family	20(60.6)	13(39.3)	Reference	Reference	
Activity					
Sedentary worker	6(54.6)	5(45.4)	Reference	Reference	
Moderate worker	20(64.5)	11(35.4)	1.18(0.64-2.15)	1.33(0.63-2.81)	0.454
Heavy worker	12(80.0)	3(20.0)	1.47(0.80-2.66)	1.41(0.70-2.85)	0.330
BMI (kg/m2)					
Under weight (<18.5)	2(50.0)	2(50.0)	Reference	Reference	
Normal BMI (18.5-24.9)	23(63.9)	13(36.1)	1.28(0.46-3.50)	1.27(0.47-3.40)	0.624
Obesity (25)	13(76.4)	4(23.5)	1.52(0.55-4.21)	1.59(0.64-3.95)	0.314
Age at marriage					
Less than 20 years	11(84.6)	2(15.3)	1.32(0.94-1.88)	1.71(1.03-2.83)	**0.037***
21-25	21(63.6)	12(36.3)	Reference	Reference	
>25	6(54.5)	5(45.4)	0.85(0.47-1.55)	2.00(0.54-732)	0.292
Medication use during pregnancy					
Yes	10(55.5)	8(44.4)	Reference	Reference	
No	28(71.8)	11(28.2)	1.29(0.81-2.04)	1.20(072-2.00)	0.473
Genetic abnormalities in pregnancy					
Yes	12(92.3)	1(7.69)	1.56(1.16-2.09)	1.80(1.17-2.77)	**0.007***
No	26(59.0)	18(40.9)	Reference	Reference	
Blood group incompatibility					
Yes	4(50.0)	4(50.0)	Reference	Reference	
No	34(69.3)	15(30.6)	1.39(0.67-2.84)	1.33(0.58-3.03)	0.487
Any comorbidities					
Yes	11(57.9)	8(42.1)	Reference	Reference	
No	27(71.0)	11(28.9)	1.22(0.79-1.89)	1.42(0.77-2.61)	0.250
Previous history of infertility					
Yes	9(69.2)	4(30.8)	1.05(0.69-1.59)	1.27(0.72-2.24)	0.406
No	29(65.9)	15(34.0)	Reference	Reference	

Socio-demographic and clinical characteristics which are associated with anxiety were summarized in ***Table-3.*** The women living in nuclear family (p=0.047), the women who got married before 20 years of age (p=0.037) and the women who had genetic abnormalities in pregnancy (p=0.007) had expressed more anxiety.

Table 4. Sociodemographic And Clinical Characteristics Associated With Stress (N=57)

Characteristics	Stressed	Normal	CPR (95% CI)	APR (95% CI)	p-value
Stress	**32 [56.1%, 95% CI 52.9-78.6]**				
Age in years					
Up to 20	3(42.9)	4(57.1)	Reference	Reference	
21-25	21(63.6)	12(36.3)	1.48(0.60-3.62)	2.99(0.97-9.13)	**0.054***
>25	8(47.0)	9(52.9)	1.09(0.40-2.96)	1.02(0.26-3.97)	
Education					
Primary	10(50.0)	10(50.0)	0.78(0.46-1.32)	1.11(0.54-2.29)	0.766
Secondary	6(50.0)	6(50.0)	0.78(0.41-1.47)	1.39(0.60-3.22)	0.441
Graduate and above	16(64.0)	9(36.0)	Reference	Reference	
Domicile					
Rural	18(46.1)	21(53.9)	Reference	Reference	
Urban	14(77.7)	4(22.2)	1.68(1.10-2.56)	1.97(1.15-3.38)	**0.013***
Type of marriage					
Non-consanguineous	26(59.0)	18(40.9)	1.28(0.67-2.41)	1.64(0.83-3.24)	0.154
Consanguineous	6(46.1)	7(53.8)	Reference	Reference	
Type of family					
Nuclear family	13(54.1)	11(45.8)	0.94(0.58-1.50)	1.02(0.63-1.6)	0.925
Joint family	19(57.5)	14(42.4)	Reference	Reference	
Activity					
Sedentary worker	6(54.6)	5(45.4)	1.12(0.58-2.16)	1.34(0.65-2.75)	0.419
Moderate worker	15(48.3)	16(51.6)	Reference	Reference	
Heavy worker	11(73.3)	4(26.6)	1.51(0.94-2.43)	1.91(0.99-3.69)	**0.051***
BMI (kg/m2)					

Under weight (<18.5)	0(0.00)	4(100.0)	Reference	Reference	
Normal BMI (18.5-24.9)	21(58.3)	15(41.7)	Reference	Reference	
Obesity (25)	11(64.7)	6(35.2)	1.10(0.70-1.73)	1.32(0.71-2.44)	0.375
Age at marriage					
Less than 20 years	6(46.1)	7(53.9)	0.72(0.38-1.37)	1.85(0.77-4.45)	0.166
21-25	21(63.6)	12(36.3)	Reference	Reference	
>25	5(45.4)	6(54.5)	0.71(0.35-1.43)	1.66(0.31-8.77)	0.547
Medication use during pregnancy					
Yes	10(55.5)	8(44.4)	0.98(0.59-1.61)	0.87(0.48-1.57)	0.654
No	22(56.4)	17(43.5)	Reference	Reference	
Genetic abnormalities in pregnancy					
Yes	8(61.5)	5(38.4)	1.12(0.67-1.87)	1.06(0.56-2.00)	0.838
No	24(54.5)	20(45.4)	Reference	Reference	
Blood group incompatibility					
Yes	4(50.0)	4(50.0)	0.87(0.41-1.82)	2.05(0.70-5.98)	0.186
No	28(57.1)	21(42.8)	Reference	Reference	
Any comorbidities					
Yes	14(73.7)	5(26.3)	1.55(1.01-2.39)	1.46(0.78-2.70)	0.228
No	18(47.3)	20(52.6)	Reference	Reference	
Previous history of infertility					
Yes	7(53.8)	6(46.1)	Reference	1.25(0.56-2.78)	0.584
No	25(56.8)	19(43.1)	1.05(0.59-1.85)	Reference	

Table-4 describes the socio-demographic and clinical characteristics which were showing statistically significant associated with stress i.e., age; ranging between 21-25 years; (p=0.054), domicile; (p=0.013) and activity; heavy worker (p=0.051).

DISCUSSION:

For many women, this loss is the equivalent loss of the real baby. This may affect the psychological perceptions of the women as well as family members (Antonia, 2020)**.** Some studies showed that 50-60% of the women who underwent spontaneous abortion experienced more psychological distress. (Hussain, 2018) So, it is very important to identify the level of psychological distress and its associated socio-demographic and clinical variables.

The above findings also constituted with the findings of **Sameera K et al** conducted a cross-sectional study on the psychosocial problems following abortion from July to September 2015 in Hyderabad. The main aim of the study was to assess the psychological effects of abortions and the associated socio-demographic and other parameters.

The results showed that, among 100 women who have undergone spontaneous abortion, 57% women had no distress, 11% had typical distress, while 14% had more than typical distress,15% had psychological distress, and 3% of them had severe distress. This study also found that most of the women 81% are house wives, 23% were of lower middle socioeconomic status.(Kotta S, 2018)

Horvath S et al conducted a prospective study which was conducted in 2017 among 956 women on 'Unintended pregnancy, Induced Abortion, and Mental Health' in USA for 5 years. The main goal of the study is to review the current medical literature on depression and other mental health outcomes for women undergoing abortion. The rates of depression are not significantly different between women obtaining abortion and those denied abortion, but the rates of anxiety are initially higher in women denied abortion care.(Schreiber, 2017)

All the above-mentioned studies as well as the present study indicate that there was psychological distress among women underwent spontaneous abortion. So, it is important to create awareness regarding risk factors, symptoms, diagnosis and management of psychological distress. By early identification of psychological distress, the women and family members can be counseled as early as possible, so that the health care providers can reduce the incidence of post abortion psychological distress.

There are some limitations for the current study. Since the researcher conducted the study only in one tertiary care Hospital, the findings may not be generalized. The same study can be done with large sample size and in more than one tertiary care hospital.

CONCLUSION:

The study supported that counselling helped the primigravida women to cope up with the stress full life situation and to prepare them for future reoccurrence. The women experienced psychological distress had been referred to the counsellor and prepared them for betterment for their future. Further, health education about risk factors associated with abortion would help the women to gain knowledge.

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