

Psychosocial problems in pregnant women: A psychometric study

Amber Ashfaq, Sadia Saleem, Nosheen Karamat,
Zahid Mahmood

Institute of Clinical Psychology, University of Management and Technology,
Lahore, Pakistan

Objective: To explore the frequently reported psychosocial problems during pregnancy and develop a valid and reliable assessment procedure that can be further use for counseling purposes.

Methodology: The current study is a mixed methods design comprised semi-structure interview technique to explore the lived experience of psychosocial problems and to generate item pool and factor analysis to establish psychometric properties of the newly developed scale. 150 pregnant women with all the three trimesters were selected through purposive sampling technique and given the Psycho social problems of Pregnant Women Scale (PPSPW) and Depression Anxiety Stress Scale (DASS-SF) along with a demographic Performa. SPSS 20 was used for analysis.

Results: A total of 150 pregnant women from urban and ruler areas with the age range of 20- 40

were selected from different Govt. and private gynecological departments of Lahore. There were an equal proportion of participants from each trimester. The results of factor analysis revealed a four-factor solution namely *Somatic Problems*, *Apprehension about Future*, *Lack of Family Support* and *Low Mood*. PPSPW found to have high internal consistency and concurrent validity. The tool developed in the current study would be helpful for measuring the psychosocial issues women face during their phase of pregnancy.

Conclusion: Pregnant women experience serious psychosocial problems which if not identified early and timely may lead to serious mental health consequences not only for the new mother, the child but for whole family. (Rawal Med J 202;45:826-829).

Keywords: Pregnancy, psychosocial problems, child bearing.

INTRODUCTION

Pregnancy period and the experience motherhood involves a great deal of bio-psycho-social and emotional changes that put a woman at greater risk of different psychosocial reactions including fears, lack of self-confidence, poor body image, lack of social support, anxiety and depression. Previous nonviable pregnancies and complicated childbirth are connected to fear of childbirth, but a woman's traumatic life events, depression, general anxiety, low self-esteem, and dissatisfaction with the partnership also contribute strongly.¹ A long duration of infertility is an independent risk factor regarding severe fear of childbirth.² All these negative perceptions, health related issues and lack of familial support may increase the risk of psychosocial problems in women that may lead to serious consequences to the child and mother's mental and physical health.^{3,4}

Pakistan has lack of basic health facilities, awareness, and myths associated with pregnancy and the pressure of having a male child can make the pregnancy period even more stressful.⁵ There are a few studies carried out to study anxiety and depression in pregnant women in Pakistan.⁶ There is no specific attempt has been made to identify the experience and expression of psychosocial issues in this local context.⁷⁻⁹ Only women with a long period of infertility appear to be a vulnerable group in terms of severe fear of childbirth.¹⁰ Previous operative delivery contributes strongly to the experience of fear and anxiety in a subsequent pregnancy.¹¹ Results from the 20th gestational week may be influenced by more pronounced general well-being than results from the other trimesters.^{12,13} Therefore, the current study is an attempt to identify the key psycho social problems during pregnancy and develop a valid and reliable

assessment procedure that can be further use for counseling purposes.

METHODOLOGY

The data were collected from 150 pregnant women in all trimesters from different Govt. and private gynecological departments of Lahore. There were an equal proportion of participants from each trimester. The study was approved by the institutional Ethical Review Committee and Informed consent was obtained from all participants.

All were given the research protocol comprising a demographic sheet, Scale Development Psycho Social Problems in Pregnant Women Scale (PPSPW) and Depression Anxiety Stress Scale (DASS-SF). A debriefing session was carried out for any queries and questions. For the purpose of generating items a sample of 25 women with the age range of 20-40 was recruited through purposive sampling technique. An open-ended, phenomenological interview approach was used to generate item pool. All women were interviewed individually and were asked to describe in detail the nature of psychosocial problems they experience during pregnancy. Each interview was recorded in verbatim and closely examined.

A list of 30 items was collated after excluding repetition. A pilot study was carried out to determine the user friendliness of PPSPW on a sample of 25 pregnant women. Participants reported no difficulty in understanding and comprehension of items. For the assessment three measures were used. A demographic sheet was developed to obtain basic information comprising age, marital status, family system and year of marriage. DASS-SF was used to determine the concurrent validity. PPSPW comprised 21 items measuring depression, anxiety and stress.¹⁰ Each item was scored from 0-3. It was also 3 point rating scale 0 (*not at all*), 1 (*very little*), 2 (*often*) and 3 (*very much*). Cronbach Alpha of DASS for the current research was .73. PPSPW an indigenous scale was developed. It comprised on 30 items those reflects psycho social problems in pregnant women on a 4- point rating scale 0 (*not at all*) to 3 (*mostly*). The score ranges from 0-90 and higher score denotes to more psychosocial problems in pregnant women.

Statistical Analysis: Statistical analysis was performed using SPSS version 20.

RESULTS

The data were subjected to factor analysis which aimed to reduce data set into meaningful sub constructs. Exploratory factor analysis with Principal axis factoring (PAF) was used to extract the underlying factor structure of PPSPW (Table 1). The scree plot and Eigen values was used to determine the number of factors and .40 factor loading was used to retain items in each factor (Fig.). A 4 factor solution with 27 items was retained with a clear factor structure which explained 48% of total variance.

Fig. Factor analysis of psychosocial problems scale for pregnant women (PPSPW).

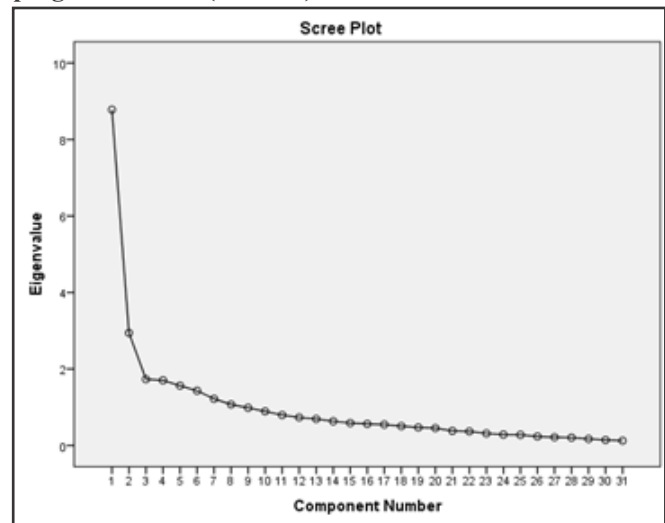


Table 1. The Factor Analysis of 27 Items of PPSPW.

Item No	F1	F2	F3	F4	Item No	F1	F2	F3	F4
1	.73	-.02	.27	.07	18	.18	.47	.24	.30
2	.55	.04	.29	.13	19	.06	.52	.39	.03
3	.67	.06	.18	.21	11	.11	.01	.54	.05
4	.72	.24	.06	.29	12	.07	.22	.47	.05
5	.69	.34	.02	.28	13	.16	.06	.52	.14
6	.42	.08	.19	.29	14	.17	.15	.50	.09
15	.48	.29	.09	-.07	20	.24	.30	.24	.53
25	.66	.30	.28	.09	21	.39	.03	.39	.52
7	.29	.72	.05	-.04	22	.39	.04	.39	.64
8	.29	.65	.05	-.04	23	.11	.01	.11	.54
9	.29	.77	.14	.08	24	.07	.22	.07	.47
10	.19	.78	.09	.05	26	.16	.06	.16	.52
16	.08	.52	-.03	-.15	27	.17	.50	.17	.50
17	.29	.54	.17	.50	Cumulative %	14.80	26.81	38.20	48.88

Factor loading >.40 or above loading are bold face in corresponding factor

Table 2. Correlations between PPSPW and Depression Anxiety Stress Scale (DASS).

Factors	F1	F2	F3	F4	FT	DASS_T
F1	---	.51***	.65***	.55***	.79***	.59***
F2	---	---	.67***	.28**	.67***	.45***
F3	---	---	---	.48***	.71***	.73***
F4	---	---	---	---	.63***	.48***
FT	---	---	---	---	---	.89***
DASS T	---	---	---	---	---	---
M	13.92	4.55	7.31	11.20	36.98	23.81
SD	6.70	1.25	4.84	4.12	16.19	12.94
α	.85	.82	.78	.74	.83	.87

p<0.01, *p<0.001 F1.Somatic Problems F2.Apprehension about Future. F3.Lack of Family Support F4.Low Mood.

Factor 1 *Somatic Problems* comprised 8 items denotes to somatic problems of the participants experienced during pregnancy including *feelings of illness, nausea, drowsiness, and aggressive behavior*. The second factor *Apprehension* consisted of 8 items related to apprehensions about future during pregnancy including *feelings of irritability, sleeplessness, fear of death, fear of miscarriage insomnia, and continuous negative thoughts about different things related to pregnancy and delivery*. The third factor *Lack of Family Support* consisted of 4 items related to lack of family support women highly experienced during pregnancy stage. Items related to lack of family support, involved relationship with spouse or other family members, attitudes of spouse or other during pregnancy, support of spouse or others, and feelings of helplessness during pregnancy. Factor 4 *Low Mood* consisted of 7 items related to low mood during pregnancy such as *feelings of exhausted, sadness, drowsiness, worried most of the time, fatigue, and unable to fulfill responsibilities on daily basis*.

The newly developed PPSPW was found to have satisfactory internal consistency (Table 2). The split half reliability of the PPSPW was established by using odd and even method indicating ($r=.69$). The concurrent validity was determined with the correlation between PPSPW and DASS score (Table 2) indicating that a significant high positive correlation of found between the total and subscale scores of two scales.

DISCUSSION

Pregnancy is a time for women when they have to go

through many biological and psychological changes which may lead to a greater vulnerability of mental health.^{14,15} Women during pregnancy experience anxiety, depression, and lack of support, fears and malnutrition.⁶ The current study therefore an attempt to identify and develop a valid and reliable scale to measure psychosocial problems that impair normal functioning of the women during pregnancy.^{16,17}

An emic approach which is open ended in nature was used to explore the lived experiences of problems, issues and apprehensions of a sample of pregnant women.^{18,19} The findings of the current study have highlighted the unique cultural-specific combination of bio-psychosocial of problems during pregnancy *Somatic Problems, Apprehension about Future, Lack of Family Support and Low Mood*. These problems clearly depict the very nature of this period in which a woman typical undergoes and also found to be consistent with literature.^{3,4}

The first factor revealed the biological nature of pregnancy period which usually consist of a combination of somatic problems. Since child bearing is a very culturally critical and sensitive phase which influence the whole family and women usually surrounded by stereotypes and myths associated that create a certain degree of apprehensions, anxiety and fear of losing a child. The third factor denotes to a lack of family support, this is again a cultural factor where women perceive lack of emotional and social support from the in-laws and spouse which is a crucial protective factor against mental health problems and if women do not perceive social support it eventually leads to low mood and depression.

CONCLUSION

Women experience serious psychosocial problems which if not identified early and timely may lead to serious consequences not only for mother, the child but for whole family. Therefore, health counseling services should be provided which include all the family especially the spouse so the changing roles and responsibilities can be better understood and managed timely to raise a physically, emotionally and socially functional child.

Author Contributions:

Conception and design: Zahid Mahmood
Collection and assembly of data: Amber Ashfaq
Analysis and interpretation of the data: Sadia Saleem, Nosheen Karamat
Drafting of the article: Nosheen Karamat
Critical revision of the article for important intellectual content: Sadia Saleem, Zahid Mahmood
Statistical expertise: Sadia Saleem
Final approval and guarantor of the article: Sadia Saleem
Corresponding author email: nosheen.karamat@umt.edu.pk
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