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Self-Consciousness, Couple's Satisfaction, Maternal-Fetal Attachment and Psychological Distress in Women during Pregnancy

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Identification of psychological distress, especially in first time pregnant women, is fundamental due to its negative impact on physical and mental health of the mother and the child to be born. The purpose of the present study was to find out the relationship between self-consciousness, couple's satisfaction, maternal-fetal attachment and psychological distress among first-time pregnant women. The sample (N=100) included first time pregnant women with an age range of 18-37 years (M= 26.23; SD= 3.36) from different hospitals of Lahore, Pakistan. Participants were administered Self Consciousness Scale; The Couple's Satisfaction Index; Cranley's Maternal-Fetal Attachment Scale; Kessler Psychological Distress Scale and Demographic Form. The Correlation research design was used. The results of regression analyses revealed that private self-consciousness and social anxiety were positive predictors of psychological distress whereas, public self-consciousness and couple satisfaction emerged to be negative predictors of psychological distress. The current findings have clear implications for mental health practitioners, researchers, and social workers wishing to identify and develop social and clinical therapeutic interventions which enhance positive well-being and decrease psychological distress in pregnant women.

Keywords: self-consciousness; couple's satisfaction; maternal-fetal attachment; psychological distress

Becoming a parent with a new child is an imperative lifetime experience which involves not only the pregnant woman, but also the spouse and extended family especially in south Asian region. For nearly every married woman, pregnancy is a blissful experience linked with positive expectations, whilst distress and discomfort also increase. Pregnancy establishes substantial life changes that are commonly linked to stress and anxiety (Hepper et al., 2014). A mother's mental health is cardinal to the physical and psychological well-being of her child and her family (Ehlert et al., 2018). During pregnancy, changes may occur in self-image, priorities, behaviors, social networks, and problem-solving skills. Certain emotionally charged issues such as problematic family relations and impractical expectations may also surface during pregnancy (Nosrati et al., 2018).

A mother can be at the risk of having psychological issues during pregnancy if there is a lack of emotional and social support as an unborn child's health is also dependent on the maintenance of good psychological health of the pregnant mother (Mcleish, & Redshaw, 2017). During pregnancy a woman expects emotional support from her partner and significant others in her social network. Salehi and Mehralian reported high prevalence (67%) of domestic violence, including physical, psychological and sexual during pregnancy (Salehi, & Mehr, 2003). Women who reported dissatisfied spousal relation were four times more likely to experience perinatal distress (Jonsdottir et al., 2017). In addition, physical problems, depression, isolation, anxiety, fear, emotional instability, distress and sexual dysfunction have also been linked with marital dissatisfaction in the course of pregnancy (Delgosha, 2006; Mangeli & Gholami, 2007; Boyce et al., 2007).

Self-consciousness is one of the integral parts of one's personality. From a societal perspective, viewing one's own personality according to someone else's point of view is known as self-consciousness. High level of self-awareness is related to psychological well-being

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(DaSilveira et al., 2015). The presence of social pressure regarding thinness in society leads to high body dissatisfaction (Agostini et al., 2016). Research supports the fact that body satisfaction is affected by the culturally defined roles where the burden to attain a culturally ideal figure is considered more important in certain social roles (Bauer et al., 2012; Ehlert et al., 2018). A woman's body changes drastically during pregnancy and an analysis of body image of pregnant women showed a variety of responses to the physical changes that their body goes through during pregnancy ranging from distress to neutral to liberation (Rasheed & Sadiq, 2017).

A pregnant woman develops a caring relationship with her fetus during pregnancy known as prenatal attachment (Nierenberg, 2017). According to Arck et al. women who show extra likeness towards their fetus were more self-confident in their role as a mother later on. Maternal-fetal attachment plays a vital role (Arck et al., 2007). Maternal-fetal attachment has a strong link with positive health practices and also predicts a healthy mother and child relationship in the early stages (Jonsdottir et al., 2017). Researchers have reported a significant relationship between marital relationship and psychological distress among first time pregnant women. For example, a significant relationship has been reported between marital satisfaction and anxiety, lack of social support, work-related stress, family- income and somatic diseases (Scheier & Carver, 1985; Salehi & Mehr, 2003). Research also revealed that pregnant women are more depressed and unsatisfied with their marriages compared to non-pregnant women married women. Further, couples whose pregnancy was planned, had a higher level of pre pregnancy satisfaction. Pregnant women with high anxiety also reported poor mental health (Bradbury et al., 2008).

Psychological distress during pregnancy has been linked to many factors including low social support and marital dissatisfaction (DaSilveira et al., 2015; Framarzi, & Rezaee, 2014). According to researchers, psychological distress related to disturbing experience may cause labor pains (Salehi & Mehr, 2003). Rasheed and Sadiq concluded that when a couple's relationship is not satisfactory, and expectations are not met, it may lead to psychological distress during pregnancy (Hodgkinson et al., 2015). During the pre- and post-period of pregnancy, up to 1 in 7 women undergo mental health issues. Women with better mental and physical health are more likely to handle situations adaptively during pregnancy period (Mecca, 1981). Research conducted on partner relationship satisfaction and maternal emotional distress in early pregnancy has evaluated the interface effects between marital relationship satisfaction and maternal emotional distress threatening elements. Results of 49,425 pregnant women revealed that relationship dissatisfaction was one of the significant predictors of emotional distress in pregnant women (Eberhard-Gran et al., 2011).

A brief recap of the potential value of investigating these variables would strengthen the rationale for this paper. In the present study, it is hypothesized that high self-consciousness, dissatisfaction in partner relationship and maternal-fetal attachment are significant positive predictors of maternal psychological distress in the first time pregnant women sample.

Method

A sample of 100 women, aged between 18-37 years (MA=26.23; SD=3.36) was taken from different government and private hospitals of Lahore, Pakistan. These women were first time pregnant. Demographic analysis revealed that 49% were working and 51% were house wives, with majority living in joint family set up (67%).

Measures

Demographic Form

A self-constructed demographic form was used to gather demographic information from participants i.e., age, duration of marriage, occupation, joint/single family, working or non-working, duration pregnancy.

Self- Consciousness Scale- (SCS-R)

It evaluates public, private self-consciousness and social anxiety. The Self-consciousness scale (SCS-R) is a revised version developed by Scheier and Carver (Scheier, & Carver, 1985). It involves 22 items that are addressed using 4 Likert scale (where 3 = a lot like me, and 0 = not like me at all). It consists of 3 subscales i.e., Public self-consciousness; Private self-consciousness and Social anxiety. The internal reliability value of subscale public self-consciousness is 0.75, private self-consciousness's value is .84 and social anxiety's is 0.77. High score indicates that the person is very conscious about his/her self.

The Couple's Satisfaction Index (CSI-4)

Funk and Rogge developed the Couple's Satisfaction Index (CSI-4) to evaluate marital satisfaction (Funk, & Rogge, 2007). It consists of 4 items addressed on 7 point Likert scale (0 = extremely unhappy to 7= could not possibly be any happy). The reliability of scale is 0.94 which is excellent. The scale score ranges from 0 to 21. High score indicates higher level of relationship satisfaction and score below 13.5 denotes relationship dissatisfaction.

Cranley's Maternal- Fetal-Attachment Scale

Mecca developed a 24-item scale to measure the extent to which pregnant woman are engaged in behavior which expresses a sense of belongingness and interaction with the fetus (Mecca,1981). It consists of 5 sub-scales i.e., differentiation of self from fetus, interaction with the fetus, attributing characteristics to the fetus, giving of self and role taking. It is evaluated on a 5-point Likert scale from 1 (definitely no) to 5 (definitely yes). Higher scores indicate higher maternal fetal attachment. The reliability of the scale is 0.80.

The Kessler Psychological Distress Scale (K10)

Kessler developed this scale to measure symptoms of anxiety (tension, restlessness & sleep disturbance) and depression (Kessler, 1992). It comprises 10 questions that are answered using a five-point Likert scale (5 = constantly to 1 = none of the time). The reliability value for the K10 is .93 which indicates good reliability. The highest score is 50 which indicate extreme pain and lower score is 10 which indicate no distress.

Procedure

First of all, permission was obtained from authors of tools to be used in this study. Hospital authorities were informed about the purpose and procedure of the study and written permission was sought. Study participants were also briefed about the nature and purpose of the study. Written consent was obtained from partakers who fulfilled the inclusion criteria. They were assured about the confidentiality of their data. They were told about their right to leave the study at any point. They were administered assessment tools. Subjects took approximately 20 to 25 minutes to fill in the questionnaires.

Results

Normality of the data was checked using Shapiro Wilks, Durban Watson and Tolerance statistics. The Statistical Package for Social Sciences (SPSS) 21 version was used to analyze the data. Reliability analysis was done to check the reliability of the scales used in this study. Relationship between the variables was assessed employing Pearson Product Moment Correlation Coefficient. Multi-Hierarchical Linear Regression was used to check prediction.

Table 1

Psychometric Properties of Major Study Variables

Variables	*K*	*M*	*SD*	*α*	*Skewness*	*Kurtosis*
1. Private Self-Consciousness	9	17.91	4.33	.69	-.59	-.34
2. Public Self-Consciousness	7	15.42	4.03	.82	-.72	.21
3. Social Anxiety	6	10.92	3.84	.72	-.65	-.11
4. Couple Satisfaction	4	15.07	3.75	.89	-.69	.46
5. CMFA	24	92.11	16.75	.85	.58	.16
6. KPDS	10	30.62	9.31	.90	.02	-.66

Note. k = Total no of items, α = Cronbach's alpha, *M* = Mean, *SD* = Standard Deviation; CMFA= Cranley Maternal fetal attachment; KPDS= Kessler Psychological Distress Scale.

As shown in Table 1 data was normally distributed as all the skewness values lied between the acceptable ranges of +2 to -2.

Table 2

Inter correlations between Self-consciousness, Couple Satisfaction, Maternal Fetal Attachment and Psychological Distress in First Time Pregnant Women (N=100)

Measures	*1*	*2*	*3*	*4*	*5*	*6*
SCSsub1	-					
SCSsub2	.75**	-				
SCSsub3	.61**	.64**	-			
CS	-.17	-.17	-.18	-		
CMFA	.39**	.36**	.27**	.06	-	
KPDS	.45**	.28**	.44**	-.35**	.20**	-
M	18.35	15.42	11.74	15.07	92.35	30.62
SD	5.41	4.03	4.01	3.75	16.74	9.31

Note: SCSsub1= Self-Consciousness Subscale 1, *SCSsub2*= Self-Consciousness Subscale 2, *SCSsub3*= Self-Consciousness Subscale 3, *CS*= Couple Satisfaction, *CMFA*= Cranley Maternal Fetal Attachment, *KPDS*=Kessler Psychological Distress Scale, *M*= mean, *SD*= Standard Deviation, **= p<0.01

Table 2 shows that pregnant women who are more self-conscious, dissatisfied in acouple relation and have high maternal-fetal attachment exhibited high psychological distress.

Table 3

Multiple Hierarchical Linear Regression Analysis Predicting Psychological Distress in First time Pregnant Women (N = 100)

Predictors	Psychological Distress	
	ΔR^2	β
Block 1	0.05	
Age		-0.02
DOM		0.00
DOP		0.02
Block 2	0.24***	
Subscale 1		0.37**
Subscale 2		- 0.30*
Subscale 3		0.31**
Block 3	0.07***	
CS		- 0.28***
Block 4	0.01***	
MFA		0.12
Total R^2	0.37***	

Note: DOM= duration of marriage, *DOP*= duration of pregnancy, CS= couple satisfaction, MFA= maternal fetal attachment, $\Delta R2$= adjusted R square, β= standardized coefficient.

The assumption of independent error was tested by Durban Watson. Its value was 1.33 falling within the acceptable range of 1 to 3 so this assumption was met suggesting that residuals were not correlated for any two observations in regression output. The second assumption of "no perfect multicollinearity" was tested by *tolerance* statistics and its value below 0.2 is worthy of concern. This assumption was also met.

In the first model, age, duration of marriage, and duration of pregnancy were added that did not predict psychological distress, R^2= 0.05, [F (3, 95) =1.67, p =.18]. In model 2, the effect of private self-conscious subscale, public self-conscious subscale and social anxiety subscale were added which made the model significant, R^2= 0.28, [F (6, 92) = 6.22, p < .001]. Model 2 remained significant when the effect of age, duration of marriage and pregnancy were excluded, R^2= 0.23, [F (3, 92) = 10.27, p< .001]. In model 3, the effect of couple satisfaction was added which kept the model significant, R^2= 0.35, (F (7, 91) = 7.26, p < .001). Model 3 remained significant when the effect of age, duration of marriage, pregnancy and self-consciousness were excluded, R^2= 0.07, [F (1, 95) = 9.93, p < .001]. In model 4, the combined effect of age, duration of the marriage and pregnancy, all subscales of self-consciousness, couple satisfaction and maternal-fetal attachment were seen for psychological distress, and the model was significant, R^2= 0.37, [F (8, 90) = 6.63, p < .001]. When the effect of age, duration of marriage and pregnancy and self-consciousness and couple satisfaction were subtracted from model 4 it turned non-significant, R^2= 0.01, [F (1, 90) = 1.78, p= 0.18].

Discussion

The results of this study support the hypotheses that were examined in first-time pregnant women recruited from different government and private hospitals of Lahore, Pakistan. The present study indicated that private self-consciousness and social anxiety were positive predictors of psychological distress whereas; public self-consciousness and couple satisfaction emerged to be negative predictors of psychological distress. Further, it was found that a higher level of maternal-fetal attachment emerged to be a significant positive predictor of psychological distress the sample in first time pregnant women.

The present findings are in line with previous studies (Hodgkinson et al., 2015) indicating that the women who get pregnant for the first time are more self-conscious compared to the ones who have already experienced pregnancy. The change in women's bodies causes body displeasure and makes them more conscious, causing distress (Hodgkinson et al., 2015). In 2015, DaSilveira et al. conducted a study on pregnant women and found that high self-awareness was found to be related with low psychological well-being. In another recent study, it has been found that age, duration of marriage, duration of pregnancy, self-consciousness and couple satisfaction are significant predictors for psychological distress (Agostini et al., 2016). Studies (Boyle et al., 2017; Rasheed & Sadiq, 2017) and pregnant women with high score trait anxiety reported high psychological distress. In a Pakistani sample, higher psychological distress predicted lower social support and poor marital relationships among first time pregnant women (Rasheed & Sadiq, 2017).

Relationship dissatisfaction was found to be one of the significant predictors of emotional distress in Norwegian pregnant women. Other predictors of emotional distress were dissatisfaction at work, work-related stress, family-income, and somatic diseases (Eberhard-Gran et al., 2011). In contrast, Bunk et al. (2013) found that pregnant women reported high couple satisfaction as compared to non-pregnant women. This may be explained in the light of different societal practices as more emphasis is given to arranged marriages (Eberhard-Gran et al., 2011) particularly in the south Asian region, along with dwelling in a collectivist culture which may make a female low in couple satisfaction. Moreover, these findings may be explained in the light of Pakistani socio-cultural practices which generally include early marriages (Bergbom et al., 2011), low education of women and pressure on women to conceive immediately after marriage (Bergbom et al., 2011) may make women more conscious especially when they get pregnant for the first time. Women experience significant mental pressure that may be manifested in the form of psychological distress (Markman et al., 2009).

A cross sectional study investigated prenatal attachment and related aspects during pregnancy in the third trimester (Bustos et al., 2012). Results revealed poor prenatal attachment to be associated with unwanted pregnancy, dissatisfaction with the pregnancy, a low level of support from family, depression and high stress. According to Boyle et al. social support and trait anxiety were found to be the significant predictors of maternal-fetal attachment among pregnant women (Boyle et al., 2017). The results also revealed that when social support is provided to pregnant women, anxiety was reduced. Moreover, an increase in social support can also improve maternal-fetal attachment among pregnant women. Recently, Buratta et al. (2015) conducted a study on the role of mother's attachment style, maternal prenatal attachment to the fetus and dyadic adjustment during pregnancy. Results suggested that pregnant women who showed high relationship anxiety were low in prenatal attachment and women who had a high level of dyadic adjustment, also had high prenatal attachment. It has been found (Hepper et al., 2014) that women reporting high pregnancy anxiety, and romantic attachment anxiety reported poor mental health. Further, mental health and care-giving responsiveness were found to be significant predictors of the maternal-fetal

relationship (Hepper et al., 2014). Abbasi et al. (2012) investigated the effective factors of maternal-fetal attachment in pregnant women. Those women who reported satisfaction in their marital relationship scored high on the maternal-fetal attachment scale. Mothers who were more attached to their fetus reported high social support and self-esteem and low anxiety and depression. Moreover, psychological distress linked to disturbing experiences caused labour pains in pregnant women (Hodgkinson et al., 2015). Social support and trait anxiety have also been found to be the significant predictors of maternal fetal attachment among pregnant women (Boyle et al., 2017).

Conclusion

High self-consciousness, maternal-fetal attachment and dissatisfaction in partner relationships are found to be significant positive predictors of maternal psychological distress during pregnancy. Positive mental health and contented partner relationships can have a protective effect against psychological distress. These findings will help in providing supportive environment and prevent future suffering in first-time pregnant women.

Limitations and suggestions

The study sample was drawn from Lahore cosmopolitan city, for future studies other cities and especially rural areas may be included. Using a mixed method approach may be useful as qualitative aspect may help in gathering more in-depth information. In addition, using tools in Urdu language in future studies will increase the validity of results. Our results suggest a need for a comprehensive antenatal program which focuses on the fetus development and woman's mental well-being during pregnancy. The magnitude of a good partner relationship that consisting emotional and practical support should be drawn attention to specially for first time expecting couples. All around the world, many expecting couples participate in courses which prepare them for the delivery (Eberhard-Gran et al., 2011). This is not a usual practice in Pakistan. Such programs may be introduced in Pakistan too with a major focus on psycho-education and partner relationship strengthening. All concerns of a pregnant woman in adapting to pregnancy should be seriously addressed by doctors, nurse/midwives, and mental health professionals. Early intervention which involves both the woman and her partner may be successfully initiated in some cases to strengthen the foundation for the family's future development. Moreover, results of a clinical trial concluded paternal-fetal attachment training promoted marital satisfaction in men during pregnancy, so it is suggested to organize training programs for couples during pregnancy to enhance their marital satisfaction (Nosrati et al., 2018).

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