

Emotional Regulation and Marital Adjustment among Pregnant Women Across all Trimesters: A Comparative Study

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Abstract: The present study is intended to measure the emotional regulation and marital adjustment among pregnant women across all trimesters. The cross sectional design was carried out at Department of Psychology, University of Gujrat. Purposive sampling technique was used to select the sample. Data collected from the community, public and private hospitals. The construct were measured using translated version of Dyadic Adjustment Scale (Sana & Riaz, 2015) and Multidimensional Emotional Questionnaire (Shahid & Mushtaq, 2023). For data analysis, regression, independent t-test, cluster analysis and ANOVA were employed. Among 420 pregnant women the results of the ANOVA indicated that pregnant women have lower level of emotional regulation ($M= 28.3929$) and marital adjustment ($M= 75.5000$) during first trimester. The study shown that pregnant women from joint family have low marital adjustment and emotion regulation. Further, findings revealed that emotional regulation negatively predicted marital adjustment ($\beta = -.443$, $p < .001$). Women with high emotional intelligence understand and manage their own and others' emotions well. They handle emotional reactions better than those with low emotional regulation. This ability helps them make positive adjustments in their married life. When the findings are examined in depth, it becomes obvious that pregnant women do not receive the attention they deserve. The majority of the worries have related to the symptoms are concerned about the state of their finances, family support, understanding or the health of their child. They require help as well as guidance from healthcare providers. This study will be useful for the heath and clinical settings to spread awareness for pregnant women, how to control the psychological issues along with health problems.

Keywords: Emotional Regulation, Marital Adjustment, Pregnancy, Trimesters

Introduction

Pregnancy is a crucial time that often comes with a higher risk of mental health issues (Aldao, 2013). The mental health and well-being of women during the perinatal period have emerged as significant global health concerns (Basharpoor & Taherifard, 2019). Due to numerous additional life events, including menstruation; pregnancy, and menopause, women possess a greater at risk for anxiety. One of the least significant events throughout the life of a woman is through her pregnancy because the pregnancy causes numerous changes, not exclusively biologically but as well mentally and emotionally. Anxiety in pregnancies frequently brought on by anxiety of the undetermined, pressure, an unsustainable emotion, and every-day problems connected to both physiological and modifications or changes in hormones (Batool & Khalid, 2012).

An increasing amount of research supporting the impact of Emotional regulation on pregnant women's psychological and physical well-being is growing. In pregnant women, the increasing ratio of hair cortisol depends on the poor emotional regulation (Bloch et al., 2014). Emotional regulation also plays a role in cases of prenatal anxiety, prolonged levels of stress, and worries with regard to potential health problems (Carey et al., 1993), just like difficulties with properly controlling these kinds of emotions during pregnancy may lead to the maintenance or just exacerbation of those conditions. Similarly, poor emotional regulation during pregnancy can lead to higher levels of depression, anxiety, symptoms of unstable personality disorder, and harmful thoughts and behaviors in pregnant women (Conradt et al., 2020).

The study found that pregnancy primarily elicited feelings of joy, strength, security, and worry. While couples reported lower levels of contentment, fortitude, and security, pregnant women reported higher levels of stress, shame, and rage. Between couples or within couples, the emotions brought on by

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pregnancy did not dramatically change over time. The emotional trajectories of pregnant women and their partners were distinct and varied, suggesting that they shouldn't be treated as a single emotional unit (DiPietro, 2012). The symptoms of the nausea and acidity, stomach or heart burn was noticed among women during pregnancy. These symptoms lead towards the distress, problems in understanding and complications in the marital relationship (Everaert & Koster, 2015).

The experience of pregnancy changes across the changing trimesters and there are different challenges and stresses in each trimester. The first trimester is characterized by riskiness and adaptability to pregnancy. Second trimester is the time of stability and adaptation and third is the trimester of expectation and preparation for child birth (Fagbenro et al., 2018). These varying phases impact differently on emotional regulation and marital adjustment and facilitate with different strategies to cope with the challenges (Fatori et al., 2020). Despite of the vast literature present there is the still gap to understand the relationship between the emotional regulation and marital adjustment across all trimesters. This study aims to conduct a comparative analysis to understand these variables throughout the pregnancy to fill this gap and to introduce the interventions to promote emotional wellbeing among expectant couples.

Method

Study Design and Target Population

Cross sectional research design was used to check the emotional regulation and marital adjustment among pregnant women during 1st 2nd and 3rd trimesters. Population of this study included all the pregnant women from the district Gujrat, Punjab, Pakistan. All the pregnant women whether they are having the 1st trimester, 2nd trimester or 3rd trimester of pregnancy were population study. A total number of 420 pregnant women were approached for the study. Meanwhile 140 pregnant women had the first trimester, 140 had the 2nd trimester, and 140 had the 3rd trimester of pregnancy. Sample size has been calculated using sample to item ratio as total number of item is 42. This value when multiplied with 10 yields 420. Thus the sample size would be 420 (Fisher et al., 2011).

Sampling Technique and Instruments

For the present study, Purposive sampling technique has been used for sample selection from the participants. It is the type of non-probability sampling in which researcher select the participants on the basis of his own judgment. The demographic sheet was used to obtain the necessary identifying as well as important information regarding the participant of the research. The first part of the demographic variables was developed by the researchers themselves which include the following: Items like age, income detail or educational background, miscarriages, children they had. It will help the researcher to gain the basic initial information about the participants. Spinier (1976) developed a scale to measure dyadic adjustment levels and this sale use widely as research and clinics tool which assess "marital satisfaction" The latest version of this DAS is a 32 item series, which are in the form of self-report measurement of marital quality [12]. This is a valid and reliable scale. Items on this scale are rated on a six-point Likert scale, with 1 indicating "always disagree" and 6 indicating "always agree." The "DAS" generates a total score and also scores for four subscales: dyadic consequences, dyadic cohesion, affection expression, and dyadic satisfaction. The DAS produces an overall adjustment score along with scores for the four subscales: Dyadic Consensus, Dyadic Satisfaction, Dyadic Cohesion, and Affection Expression. Cronbach's alpha is .87, and the Gutman Split Half is .79. Validity studies show that the DAS significantly correlates with other measures of marital or dyadic satisfaction (Spanier, 1976). High subscale scores indicate a high level of adjustment in couples. Overall scores of 98 or higher suggest that the couple is well-adjusted.

The questionnaire developed by Klonsky, Victor, Hibbert, and Hajcak in 2019 measures emotional experiences. The MEQ (Measure of Emotional Experience) aims to assess emotional reactivity in both positive and negative dimensions, as well as the intensity, persistence, and frequency of these reactions¹³. It evaluates ten specific emotions, including five positive (happy, proud, excited, inspired, enthusiastic) and five negative (sad, angry, anxious, afraid, ashamed). The MEQ shows strong test-retest reliability, with the reliability of the scale ranging from .66 to .88. Consisting of 10 items, this tool is particularly useful for researchers seeking a comprehensive, reliable, and valid assessment of emotional experience. Each item is rated on how often the emotion is experienced, its intensity, its duration, and how well the emotion can be regulated and managed.

Statistical Analysis

The Statistical Package for Social Sciences version 26 (SPSS-26) was used to compute, analyze, interpret, and represent the data in both tabular and graphic forms. Normality statistics for variables and reliability analysis for scales were conducted.

Ethical Considerations

Research ethics was strictly be taken into account in the present study. Formal documented permission was granted by authors to use the scales for research purpose. Permission from authorities of hospitals for data collection had taken and informed consent was signed by every participant who was volunteer for the present study. The aim of the current study along with confidentiality of personal information of participants and its usage only for the research purpose was clearly elucidated to participants both orally and in written consent. Participants were informed that their participation was voluntary and that they had the right to withdraw from the study at any time. All participants and authorities were personally thanked for their cooperation.

Results

Normality analysis was done to determine whether data is normally distributed. Normality analysis was done to conclude whether data meet the assumption of parametric tests. The data is normally distributed and values of skewness and kurtosis are acceptable. The Cronbach's α value for the Marital Adjustment scale was .902, indicating high internal consistency ($>.80$). Similarly, the Cronbach's α value for the Emotional Regulation scale was .86, also indicating high internal consistency ($>.80$).

Table 1

Demographic Characteristics of the Sample (N= 420)

Variables	F	%
Age in years		
17-22	72	17%
23-28	175	41%
29-34	126	30%
35-40	42	10%
41-46	5	1.1%
Education		
Uneducated	25	5.9%
Primary	65	15.4%
Secondary	80	19.04%
Matric	103	24.5%
Inter	85	20%
Bachelors	54	12.8%
Masters	8	1.9%
Family System		
Joint	241	55.9%
Nuclear	179	41.5%
Children		
0	44	10.2%
1	95	22%
2	141	32.7%
3	84	19.5%
4	38	8.8%
5	15	3.5%
6	3	0.7%
Miscarriage		
Yes	154	35.7%
No	266	61.7%

Variables	F	%
Monthly income		
5000-15000	134	31.1%
15000-25000	140	32.5%
25000-35000	92	21.3%
35000-45000	38	8.8%
45000-more	16	37. %

Table 1 shows (f) and (%) for the demographic characteristics of the sample as the total number of the sample was 420. Demographic variables were age, education, family system, children, miscarriage, and monthly income. According to the age category the pregnant women between 17-22 years were 72 with 17%, The age from 23 to 28 consisted of 175 pregnant women with 41%, from 29 to 34 years of age included 126 pregnant women with 30%, There were 42 pregnant women from age 35 to 40 with 10 % and 5 pregnant women were from the age of 41 to 46 with 1.1%. This indicates that the women from the age 23-28 (n=175, %= 41) have shown greatest percentage than any other age.

The sample of 420 pregnant women has shown that the women with education of matric (n=103, 24.5) were greater in percentage than other category of education.

variable of miscarriage shown the greater number of pregnant women with no miscarriage (n=266, %=61.7) as compared to the pregnant women had miscarriage (n=154, %=35.7).

Table 2

Mean, Standard Deviation and One Way Analysis of Variance in Marital Adjustment and Emotional Regulation across different trimesters

Variables	1st Trimester		2nd Trimester		3rd Trimester		F(2,417)	η^2	Post Hoc
	M	SD	M	SD	M	SD			
MA	75.50	20.94	107.45	10.91	122.4	11.26	352.15	0.42	3>2>1
ER	28.39	3.67	20.20	3.77	22.70	4.55	152.80	0.62	1>3>2

The ANOVA results indicate significant differences in Marital Adjustment scores across trimesters, $F(2,417) = 352.156$, $p < .001$. Similarly, Emotional Regulation scores also significantly differed across trimesters, $F(2,417) = 15.806$, $p < .001$. Scores were lower in the 1st trimester compared to the 2nd and 3rd trimesters, indicating lower levels of emotional regulation early in pregnancy.

Table 3

Regression Coefficient of Emotional Regulation on Marital Adjustment

Variable	B	β	SE
Constant	151.11		4.99
Marital adjustment	-2.075	-.433	.205
R ²	.196		

N = 420, *** $p < .001$.

The R² value of .196 indicates that the predictor variable (emotional regulation) explains 19.6% of the variance in the outcome variable (marital adjustment), with $F(1,418) = 102.13$, $p < .001$. The findings show that emotional regulation negatively predicted marital adjustment ($\beta = -.443$, $p < .001$), suggesting that poorer emotional regulation is associated with lower levels of marital adjustment in this population.

Table 4

Mean comparison of family system on Marital Adjustment and Emotional Regulation

Variables	Joint family		Nuclear family		t(418)	p	Cohen's d
	M	SD	M	SD			
MA	101.58	24.86	102.05	24.579	.042	.847	.004
ER	23.77	5.548	23.75	4.901	-.193	.967	.019

Table 4 showed a non-significant mean difference in Marital Adjustment, $t(418) = 0.042$, $p > .05$. Pregnant women from joint families had a higher mean score on Marital Adjustment ($M = 101.5851$, $SD = 24.86049$) compared to women from nuclear families ($M = 102.055$, $SD = 24.57909$). The Cohen's d value was 0.004, indicating a small effect size. This suggests that the type of family structure did not significantly affect marital adjustment scores. Similarly, there were non-significant mean differences in Emotional Regulation, $t(418) = -0.193$, $p > .05$. Pregnant women from joint families ($M = 23.7759$, $SD = 5.54899$) showed slightly higher scores on emotional regulation compared to women from nuclear families ($M = 23.7542$, $SD = 4.90195$). The Cohen's d value was 0.019, indicating a small effect size. This indicates that family type did not significantly influence emotional regulation scores among pregnant women in the study.

Table 5(a)

Auto Clustering table Showing Possible Number of Best Clusters (N= 420)

Number of clusters	Schwarz's Bayesian criterion (BIC)	(BIC) Change	Ratio of BIC Changes	Ratio of Distance Measures
1	302.702			
2	158.074	-144.628	1.000	2.255
3	100.668	-57.406	.397	2.780
4	87.751	-12.917	.089	1.668
5	84.849	-2.902	.020	2.638
6	91.250	6.402	-.044	1.166
7	98.460	7.210	-.050	1.413
8	107.094	8.634	-.060	1.905
9	117.365	10.271	-.071	1.106
10	127.809	10.444	-.072	1.103
11	138.406	10.597	-.073	1.148
12	149.195	10.789	-.075	2.271
13	160.706	11.512	-.080	1.178
14	172.304	11.598	-.080	1.019
15	183.911	11.607	-.080	1.003

Table 5(b)

Results of Cases Distribution in Each Cluster (N=420)

Cluster	N	% of Combined	% of Total
1	182	43.3%	42.2%
2	154	36.7%	35.7%
3	84	20.0%	19.5%
Combined	420	100.0%	97.4%
Total	431		100.0%

The table displays the distribution of 420 cases across three clusters. The allocation of cases is as follows: 182 cases are assigned to the first cluster, 154 cases to the second cluster, and 84 cases to the third cluster. This indicates a significant disparity in the frequency of cases among the clusters, with the majority of cases falling into the first cluster.

Table 5(c)

Auto Clustering Table Showing Possible Number of Best Clusters (N= 420)

Number of clusters	Schwarz's Bayesian criterion (BIC)	(BIC) Change	Ratio of BIC Changes	Ratio of Distance Measures
1	302.702			
2	173.545	-129.157	1.000	1.681
3	101.610	-71.935	.557	2.534

4	80.533	-21.077	.163	3.098
5	81.912	1.379	-.011	1.449
6	86.607	4.696	-.036	2.274
7	95.441	8.834	-.068	1.715
8	105.628	10.187	-.079	1.053
9	115.911	10.283	-.080	1.260
10	126.565	10.653	-.082	1.167
11	137.423	10.858	-.084	1.546
12	148.712	11.290	-.087	1.283
13	160.176	11.464	-.089	1.469
14	171.837	11.661	-.090	1.015
15	183.504	11.667	-.090	1.430

Table5 (d)

Results of Cases Distribution in Each Cluster (N=420)

Cluster	N	% of Combined	% of Total
1	157	37.4%	36.4%
2	57	13.6%	13.2%
3	59	14.0%	13.7%
4	147	35.0%	34.1%
Combined	420	100.0%	97.4%
Total	431		100.0%

The table shows how the 420 cases were distributed in four clusters. Particularly, there are 157 cases in the first cluster, 57 cases in the second cluster, 59 cases in the third cluster and 147 cases in the fourth cluster. The distribution indicates that there is a significant difference in the frequency of cases across the clusters with most of the cases belonging to the fourth cluster.\\

Discussion

The objective of the current research was to examine emotional regulation and marital adjustment in pregnant women during all the trimesters. The sample size of the study was 420 pregnant women, which was split equally in the three trimesters, 140 each in the first trimester, 140 in the second trimester, and 140 in the third trimester.

The initial research hypothesis assumed that there is a significant difference in the emotional regulation and marital adjustment of pregnant women in all three trimesters. The results of the ANOVA confirmed that there were significant differences in Marital Adjustment scores in various trimesters, $F(2, 417) = 352.156$, $p < .001$. In particular, the results showed that the first trimester had a lower degree of marital adjustment than the second and third trimester. Likewise, the scores on Emotional Regulation varied significantly as well, $F(2, 417) = 15.806$, $p < .001$. The findings indicated that the emotional control was less during the first trimester as opposed to the second and the third trimesters.

These results indicate that marital adjustment and emotional regulation are slightly low in the first trimester. The value of the effect size was .62, which showed a huge effect. As a result, the scores that were obtained on the scales applied in the research were negatively correlated: the higher the score on the Marital Adjustment scale, the better the relationship was adjusted, and the lower the score on the Emotional Regulation scale, the better the emotional regulation.

A research study was carried out in Pakistan to investigate the psychological problems that pregnant women experience with special attention to the stress levels, anxiety, and depression levels during pregnancy. The findings implied that expected women are more susceptible to depression, anxiety and stress in the first and second trimesters than they are in the third trimester. This implies that the early pregnancy phases are especially difficult on the psyche of the pregnant women (Schaffer et al., 2008).

A research carried out in Nigeria focused on how the various stages of pregnancy disturb the psychological health of the pregnant women. These results showed that trimesters have a significant impact on the psychological well-being of pregnant women, and women who were in the first trimester had bad Mental Health than those in the second and third trimesters (Jonsdottir et al., 2020). The results showed that the women lacked care, and they continuously neglected by their healthcare providers, isolated, and lacked empathy, particularly when they were experiencing vomiting and nausea (Jonsdottir et al., 2020). Nausea, acidity, stomach or heartburn is some of the common symptoms that are observed among women during pregnancy. The symptoms may cause distress, difficulties in understanding and complications in marital relationships (Klonsky et al., 2019).

This was the evidence of the second hypothesis of the study that assumed that emotional regulation is connected to marital adjustment. A t-test was calculated to find out whether the differences are significant in all trimesters. The findings established that in joint family the pregnant women scored higher in Marital Adjustment ($M = 101.5851$, $SD = 24.86049$) than nuclear family pregnant women ($M = 102.055$, $SD = 24.57909$). Nevertheless, the results showed that there were no significant differences in the means of the Emotional Regulation, $t(418) = -0.193$, $p > .05$. It states that pregnant women in joint families ($M = 23.7759$, $SD = 5.54899$) had a little higher Emotional Regulation score, than those in nuclear families ($M = 23.7542$, $SD = 4.90195$).

Past studies have been directed towards many variables, especially the role of perceived male partner assistance in promoting the emotional wellbeing of women during perinatal period, and this is consistent with the outcome of this study (Lin et al., 2019).

Renshaw, Rodebaugh, and Rodrigues (2010) and Frye-Cox and Hesse (2013) state that people in psychological distress tend to be less satisfied with their marriage and face issues in the marital relationships (Maneta et al., 2015). Similarly, emotional distress reported during pregnancy has been identified as a predictor of a general decline in relationship satisfaction, which influences one to adapt to parenthood during the gestation period until postpartum (Memon & et al., 2020). In the case of the facilitating role of emotional distress, Perry, DiLillo, and Peugh (2014) established that psychological discomfort in new couples was the manifestation of the adverse effect of cumulative emotional maltreatment (CEM) on their satisfaction with the marriage (Mirgain & Cordova, 2007).

An empirical study has validated the theory and demonstrated that there is a relationship between psychological suffering in men and women, the negative interaction with one another, and the general dissatisfaction of their marriage. This implies that personal mental suffering may greatly affect marital satisfaction and quality of interaction (Misri et al., 2004).

Depressed women are likely to see only the bad things so they can interpret the states and behavior of their husbands and in this case, they are more likely to remember more instances of disagreement. Such a negative focus helps to manifest less marital satisfaction among depressed people (Perry et al., 2014).

The third hypothesis meant that emotional regulation would be a major negative predictor of marital adjustment. This hypothesis is confirmed in this study, suggesting that the emotional regulation is a negative predictor of marital adjustment, and regression coefficients of Emotional Regulation and Marital Adjustment ($\beta = -0.443$, $p = .001$) are negative. This can be attributed to a study by Bloch et al. (2014) that revealed a strong relationship between the emotional regulation and lack of emotional regulation by pregnant women and their marital satisfaction stating that the deterioration of the ability to control emotions adversely affects the marital adjustment (Peter et al., 2017).

According to another study, marital adjustment is predicted by emotional intelligence. That is, good emotional skills allow women to have better marital adjustment. This implies that the capacity to recognize and deal with emotions in a proper way can be helpful in ensuring that there is a smooth relationship in a marriage (Pilkington et al., 2015).

Mirgain and Cordova (2007) disclose that there is a high level of correlation between effective emotion control and marital satisfaction. This observation indicates that people who are able to control and manage their emotions have a higher degree of satisfaction in their marriages (Renshaw et al., 2010). A study

carried out by Aldao in 2013 revealed that the quality of the relationship between couples was found to be correlated with the ability of the couples to manage their emotions. According to this research, the quality of relationships correlates with the better emotional control of the couples (Renshaw et al., 2010)

Shaid and Kazmi (2016) established that emotional regulation is positively related to marital satisfaction. In their results, emotional regulation is a predictor of marital pleasure which means that a person who is able to regulate their emotions is more likely to enjoy their marriage (Røsand et al., 2011).

Based on the results, childhood traumas have been statistically associated with reduced emotional regulation and marital satisfaction of adulthood both in men and women. Part of the investigation is consistent with the prior literature and corroborates the findings, showing that childhood negative events may have in the long-term a significant impact on emotional well-being and quality of relationships (Røsand et al., 2011). Lack of partner support and conflict between spouses during pregnancy has been associated with high maternal emotional distress after delivery. This relationship implies that poor support and unresolved disputes during pregnancy may be one of the causes of important emotional difficulties among mothers after birth (Şafak et al. 2023).

The research identified that personal and social resources served as shields to the harmful impact of stress on prenatal anxiety and depression symptoms. Such resources were emotional regulation and dyadic satisfaction. Also, certain socioeconomic background factors played a dominant role in such findings, which means that the individual resources and the larger social conditions are important in alleviating the effects of pregnancy stress (Sand et al., 2013).

During pregnancy, psychological distress and marital adjustment have negative correlation. The pregnant woman who has a higher level of anxiety has less marital adjustment meaning that the more the anxiety a woman has the worse the quality of her marital relationships (Shahid & Kazmi, 2016). Certain researchers indicate that emotional distress in pregnancy is a predictive variable of marital adjustment disturbances. This means that increased emotional distress among the pregnant women may cause serious difficulties and disturbances in their marital relationships (Stapleton et al., 2012).

Some studies have shown that marital satisfaction has a negative relationship with psychological distress in pregnancy. As an example, studies have found out that anxiety among pregnant women is connected to reduced marital satisfaction. This shows that increased anxiety in the course of pregnancy can result in decreased satisfaction in marital relationships (Sutton et al. 2017). Research found that a good partner relationship would help to alleviate the adverse impacts of various forms of emotional strain. The dissatisfaction of partners is also a major predictor of maternal emotional distress and is associated with emotional distress in pregnancy (Zheng et al., 2022). Depressed individuals tend to selectively attend to negative information, evaluate emotions and actions in marital relationships in a more negative way, and they also remember more events that relate to conflict. As a result, depressed people will report lesser marital satisfaction.

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