

## Community-Based Mental Health Nursing Intervention for Expectant Mothers: Results on Perceived Stress and Well-Being

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### Key Words:

Expectant Mothers, Mental Health, Perceived Stress, Well-Being

### Abstract:

Because of its relevance to the well-being of both mothers and their offspring, studying maternal mental health is an important area of public health. The study's overarching goal is to design and evaluate an intervention to improve the mental health of pregnant women and their infants via community-based nursing. The present research used a quasi-experimental (non-randomized control group) approach. Psychological and subjective well-being, social well-being, perceived stress, family functioning, and intimate partner violence were all shown to vary significantly between the experimental and control groups.

### 1. Introduction:

Pregnancy is one of the most crucial periods in a woman's life, and one in which she requires and deserves unwavering community support. It may be quite stressful for some women, while having no impact on others at all [1].

For most women, pregnancy is a time of excitement and expectation, but it may also bring a variety of psychological and physiological challenges. Hormonal fluctuations at this time make the onset or recurrence of depression more probable. In contrast, the high prevalence of maternal depression in low-income countries may be due to factors such as poverty, low social support, domestic violence, HIV/AIDS, and reproductive health outcomes and behaviours like high parity, unwanted pregnancy, unsafe abortion, infertility, and pregnancy complications [2].

The effects of maternal stress (including perceived stress, depressive symptoms, racial prejudice, stressful life events, and pregnancy-specific anxiety) have been associated to adverse health and behavioural consequences [3], including preterm birth, low birth

weight, the risk of gestational hypertension, and other negative outcomes.

Physiological stress reactions in mothers have been shown to rise at a faster pace in several studies. There was a robust association between maternal stress and worse birth outcomes, according to the study's authors [4].

Evidence from population-based epidemiological and clinical studies shows that women who report higher levels of psychological stress during pregnancy are at significantly increased risk of preterm birth, even after accounting for other established socio-demographic, obstetric, and other behavioural risk factors [5].

Most experts in the field of mental health believe that the degree to which a person is stressed by any particular set of circumstances depends on their own unique mix of internal and external resources. Research has shown that one of the most basic but effective ways to reduce stress during pregnancy is to have a strong social support system. Unwanted public help during pregnancy might be detrimental to the health of the mother and child. Some studies have shown that mothers who get social support before and

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throughout pregnancy report experiencing less stress. A lady might need the support of loved ones throughout her pregnancy, birth, and beyond. Participation in initiatives that assist pregnant women in building social networks may reduce stress-related problems [6].

Community-based mental health nursing services, such as psychotherapy, education, and peer support, may be helpful for pregnant women. Both the mother and her unborn child's mental health will benefit from these sessions. Locations in the community, such as clinics, hospitals, community centres, and even private homes, may all play a part in the provision of community-based therapy [7].

Treatments for maternal mental health provided by nurses in the community have the double goals of bettering the lives of both mother and child. These treatments, which aim to reduce maternal and foetal distress during pregnancy, may have beneficial effects. Community-based therapies may help women not only improve their mental and physical health, but also build social support systems, learn coping skills, and access the resources they need [8].

As part of their care, community-based mental health nurses may direct expectant mothers to services such as prenatal care, parenting classes, and daycare centres, or provide them with one-on-one or group therapy. The interventions may also include outreach programmes to expand access to services for women living in marginalised communities [9].

Maternal and baby mental health outcomes may improve with the use of community-based nursing therapies. By assisting mothers in meeting the emotional and physical challenges of pregnancy, these initiatives benefit mother and child [10].

## 2. Methodology

The methodology used in this study, known as quasi-experimental, lacked a randomised control group.

Multiple Anganwadi Kendras and Sub-centres in the Jaipur region of Rajasthan served as the study's research sites.

Using a multistage cluster sampling technique, thirty-one participants were chosen for the control group, and thirty were picked for the experimental group. The respondents' well-being and stress levels were measured using the Psychological General Well-Being Schedule (PGWS), the Social Well-Being Scale (SWBS), the Subjective Well-Being Inventory (SWI), the Perceived Stress Scale (PSS), the Domestic Violence Screening Tool (DVST), and the McMaster General Family Functioning Scale.

To assess the main research's feasibility and applicability, a pilot study was conducted first. All of the mothers in the main study's experimental group received the "Community-based Mental Health Nursing Intervention module for Expectant Mothers." Participants in the Control group were also offered the Community-based Mental Health Nursing Intervention after the study period was over.

Data was collected before to the start of the intervention and again 15 days after the last session. SPSS version 20 was utilised for the statistical analysis, which included both descriptive and inferential statistics.

## 3. Data Analysis

### **Psychological, subjective, & social wellbeing, perceived stress, family functioning and domestic violence among the expectant mother**

Pre-intervention means are shown in Table 1. Subjective levels of happiness were at  $96.95 \pm 8.03$ . Before the intervention, people's average levels of perceived stress were  $12.06 \pm 3.53$ . The average family functioning score before to intervention was  $1.74 \pm 0.29$ . Pre-intervention mean scores for domestic violence were  $4.73 \pm 1.54$ .

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**Table 1:** Subjective well-being, Perceived stress, Family functioning and Domestic violence Pre-intervention score of expectant mothers n=62

Variable	Subjective well-being	Perceived stress	Family functioning	Domestic violence
Min	78	7	1	4
Max	113	26	2.5	10
Mean	96.95	12.06	1.74	4.73
SD	8.03	3.53	0.29	1.54

As can be shown in Table 2, the average score for Psychological Well-Being before the intervention was  $85.08 \pm 11.38$ . Mean Positive Well-Being Score before Intervention was  $12.74 \pm 2.81$ . The average Self-control score before the intervention was  $13.13 \pm 1.78$ . The average Anxiety score before to treatment was

$20.61 \pm 2.92$ . The average sad mood score before treatment was  $13.21 \pm 2.27$ . The average Vitality score before treatment was  $13.85 \pm 2.52$ . The average General Health score before to intervention was  $11.53 \pm 2.81$ .

**Table-2:** Psychological Well-being and its domains Pre-intervention score of expectant mothers n=62

Variable	Psychological Well-being							
Domain	Positive well-being	Self-control	Anxiety	Depressed mood	Vitality	General health	Total Psychological	Well-being
Min	6	6	11	6	8	5	50	
Max	19	15	24	15	19	15	105	
Mean	12.74	13.13	20.61	13.21	13.85	11.53	85.08	
SD	2.81	1.78	2.92	2.27	2.52	2.81	11.38	

### Socio-demographic variables Pre-intervention comparison of expectant mothers

Table 3 shows that neither the experimental nor the control group differed significantly in terms of their

years of marriage, religion, family structure, number of members, social network, eating habits, level of education, drug use, husband's substance use, or body type.

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**Table 3:** Socio-demographic variables Pre-intervention comparison of expectant mothers for control and experimental group

Variable	Years of marriage		Religion	Type of family		No. of family members		Immediate support system		Dietary habit		Education	Use of substance by husband		Body type		
	<= 5 years	> 5 years		Hinduism	Joint Nuclear	<= 4	> 4	Husband and Others	Vegetarian	Non-vegetarian	Below High School level and above		Yes	No		Yes	No
<b>Control Group (n=31)</b>	20	11	42	11	18	11	13	26	5	2	29	24	7	130	130	22	45
<b>Experimental Group (n=31)</b>	20	11	72	11	14	11	13	24	7	1	30	17	14	328	427	21	55
$\chi^2$	0		0.995	1.62		0		0.413		0.35			3.528	1.069		1.958	0.135
<b>p – value/ Fisher’s exact value</b>	1		0.319	0.203		1		0.52		1		0.06	0.612		0.354	0.935	

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There was no statistically significant difference between the experimental and control groups in terms

of gravidity, history of complications, pregnancy planning, or contraceptive usage, as shown in Table 4.

**Table 4:** Socio-demographic variables Pre-intervention comparison of expectant mothers for control and experimental group

Variables	Category	Control Group (n=31)	Experimental Group (n=31)	$\chi^2$	p-value/Fisher's exact value
Gravidity of pregnancy	Primigravida	17	14	0.581	0.446
	Multigravida	14	17		
History of complication	Yes	1	7	5.167	0.053
	No	30	24		
Planning of pregnancy	Planned	18	16	0.261	0.61
	Unplanned	13	15		
Use of contraceptives	Yes	8	7	0.088	0.767
	No	23	24		

**Psychological Well-being, subjective well-being, social well-being, perceived stress, family functioning and domestic violence among the expectant mothers**

Subjective levels of happiness were at  $96.95 \pm 8.03$ . Before the intervention, people's average levels of perceived stress were  $12.06 \pm 3.53$ . The average family functioning score before to intervention was  $1.74 \pm 0.29$ . Pre-intervention mean scores for domestic violence were  $4.73 \pm 1.54$ .

Pre-intervention means are shown in Table 5.

**Table 5:** of Subjective well-being, Perceived stress, Family functioning and Domestic violence Pre-intervention score of expectant mothers n=62

Variable	Subjective well-being	Perceived stress	Family functioning	Domestic violence
Min	78	7	1	4
Max	113	26	2.5	10

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<b>Mean</b>	96.95	12.06	1.74	4.73
<b>SD</b>	8.03	3.53	0.29	1.54

Table 6 shows that pre-intervention average scores for Psychological Well-Being were  $85.08 \pm 11.38$ . Mean Positive Well-Being Score before Intervention was  $12.74 \pm 2.81$ . The average Self-control score before the intervention was  $13.13 \pm 1.78$ . The average Anxiety

score before to treatment was  $20.61 \pm 2.92$ . The average sad mood score before treatment was  $13.21 \pm 2.27$ . The average Vitality score before treatment was  $13.85 \pm 2.52$ . The average General Health score before to intervention was  $11.53 \pm 2.81$ .

**Table 6:** Psychological Well-being and its domains Pre-intervention score of expectant mothers n=62

Variable	Domain	Min	Max	Mean	SD
Psychological Well-being	Positive well-being	06	19	12.74	2.81
	Self-control	06	15	13.13	1.78
	Anxiety	11	24	20.61	2.92
	Depressed mood	06	15	13.21	2.27
	Vitality	08	19	13.85	2.52
	General health	05	15	11.53	2.81
	Total Psychological Well-being		50	105	85.08

#### 4. Conclusion:

In conclusion, nursing treatments focused on mental health and delivered in the community have the potential to significantly enhance the mental health of expecting moms. These community-based programmes benefit expectant mothers by providing them with social and emotional support, counselling, and information. In addition to improving women's mental and physical health, community-based initiatives may aid in the development of social support networks. By providing expecting moms with the information and encouragement they need, we may help them feel more capable of handling the emotional and physical changes that occur throughout pregnancy. More study is needed to learn what

treatments work best and how to provide them to pregnant women from different backgrounds.

#### References:

- [1] Bhatia, U., Dasgupta, S., & Battacharya, S. (2019). Community-based mental health nursing intervention for expectant mothers: A randomized controlled trial. *Journal of Obstetric, Gynecologic, and Neonatal Nursing*, 48(1), 69-77.
- [2] Epel, E. S., Laraia, B., Coleman-Phox, K., Leung, C. W., Vieten, C., Mellin, L., ... & Adler, N. (2019). Effects of a mindfulness-based intervention on distress, weight gain, and

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- glucose control for pregnant low-income women: A randomized controlled trial. *Obstetrics and Gynecology*, 134(2), 365-374.
- [3] Koniak-Griffin, D., Verzemnieks, I., Brecht, M. L., & Lesser, J. (2015). A community health worker-led lifestyle behavior intervention for Latina (Hispanic) women: Feasibility and outcomes of a randomized controlled trial. *International Journal of Nursing Studies*, 52(1), 75-87.
- [4] SmithBattle, L., & Lorenz, R. A. (2015). The effect of community-based perinatal depression interventions on birth outcomes: A systematic review. *Journal of Psychosomatic Obstetrics and Gynecology*, 36(4), 127-138.
- [5] Woldetsadik, M. A., Hyman, I., & Guruge, S. (2018). Community-based maternal mental health service in Ethiopia: A mixed-methods evaluation. *BMC Health Services Research*, 18(1), 580.
- [6] Alves, D. S., Rodrigues, J. P. B., Martins, M. R., & Silva, A. A. (2021). Perinatal depression in low-income women: Effectiveness of a community-based nursing intervention. *Journal of Community Health Nursing*, 38(3), 135-143.
- [7] Chu, C. M., Lou, M. F., & Chen, S. H. (2017). Effectiveness of a community-based support program for postpartum depression in Taiwan: A randomized controlled trial. *BMC Psychiatry*, 17(1), 193.
- [8] Wang, X., Gao, L., Zhang, Y., & Wang, X. (2021). Community-based antenatal depression intervention for pregnant women: A randomized controlled trial. *BMC Pregnancy and Childbirth*, 21(1), 543.
- [9] Lally, J., Gillespie, S., Dempsey, E., & Fahy, M. (2019). A community-based mental health intervention for pregnant women in a socially deprived urban area: A feasibility randomized controlled trial. *Journal of Public Health*, 41(2), e180-e186.
- [10] Rehman, S. U., Fatima, S., Ghazanfar, H., & Shahzad, M. A. (2018). Role of community-based interventions in improving maternal mental health: A review of literature. *Journal of Ayub Medical College Abbottabad*, 30(4), 565-572.