

## Family Center Maternity Care (FCMC) is Effective in Reducing Anxiety in Pregnant Women

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### ABSTRACT

*The COVID-19 pandemic poses a risk to pregnant women due to physiological and immunological changes that can increase the risk of obstetric complications from respiratory infections in pregnant women. Anxiety for pregnant women during the Covid pandemic can impact pregnancy disorders until postpartum, such as anxiety can be anticipated during pregnancy. Care support from family, friends, and health workers, both physically and psychosocially, is needed for pregnant women. The research method is quasi-experimental with a pre-post test two-group design. The population is pregnant women in Gajah Village, Kutawaringin sub-district, Bandung Regency, with a sample of 30 people per group, using a purposive sampling technique. Before the intervention, pregnant women were given a pre-test using a questionnaire. The time to fill out the questionnaire is approximately 15 minutes. The FCMC intervention is in the form of providing education using the module and assisting pregnant women. The duration of education and assistance for pregnant women is approximately 30 minutes. Education and assistance are carried out twice an interval of 1 week. Post-test was conducted to determine the anxiety of pregnant women—analysis with T-test dependent test and independent T-test. The results showed an effect of the FCMC intervention on reducing the anxiety of pregnant women, with a p-value of 0.000. FCMC interventions and modules can be a reference in improving services for pregnant women and support for pregnant women and their families in preventing anxiety.*

**Keywords:** Family Center Maternity Care (FCMC); pregnancy; Anxiety

### ABSTRAK

Pandemi covid 19 berisiko terhadap ibu hamil, karena adanya perubahan fisiologis dan imunologis yang dapat meningkatkan risiko komplikasi kebidanan dari infeksi pernapasan pada ibu hamil (Khan et al., 2020). Kecemasan ibu hamil pada masa pandemi covid dapat berdampak pada gangguan kehamilan sampai masa postpartum, seperti kecemasan ,yang dapat diantisipasi sejak masa kehamilan. Dukungan perawatan dari keluarga, teman, tenaga kesehatan baik fisik maupun psikososial sangat diperlukan bagi ibu hamil. Metode penelitiannya adalah quasi

eksperimen dengan pre-post test two group design. Populasi adalah ibu hamil di Desa Gajah kecamatan Kutawaringin Kabupaten Bandung dengan sampel tiap kelompok 30 orang , menggunakan teknik purposive sampling. Sebelum intervensi ibu hamil diberikan pre test dengan menggunakan kuesioner. Waktu untuk mengisi kuesioner kurang lebih 15 menit Intervensi FCMC berupa pemberian edukasi menggunakan modul dan pendampingan ibu hamil. Lama edukasi dan pendampingan ibu hamil kira kira 30 menit. Edukasi dan Pendampingan dilakukan sebanyak 2 kali dengan interval 1 minggu. Post test dilakukan untuk mengetahui Kecemasan ibu hamil. Analisis dengan uji T test dependent dan uji T independent. Hasil penelitian terdapat pengaruh intervensi FCMC terhadap penurunan kecemasan ibu hamil, p-value 0,000. Intervensi FCMC dan modul dapat menjadi acuan dalam meningkatkan pelayanan ibu hamil dan dukungan terhadap ibu hamil dan keluarga dalam mencegah kecemasan.

**Kata kunci:** Family Center Maternity Care (FCMC ); ibu hamil; Kecemasan

## INTRODUCTION

Restrictions on health services, such as antenatal care, and programs for pregnant women, such as exercise for pregnant women, can increase the risk of declining the health of pregnant women due to a lack of monitoring. Reduced support from health workers during the Covid 19 pandemic and families during pregnancy can cause stress for mothers. Weak physical conditions and high anxiety can lead to a lack of health care for both mother and baby, which can cause stress in pregnant women. The family approach can improve health indicators for pregnant women (Samal, 2016)

The Covid 19 pandemic risks increasing the threat of risk to vulnerable groups. One of the groups that are vulnerable to the Covid-19 virus is pregnant women (Luo and Yin, 2020; Hazfiarini *et al.*, 2022). The risk for pregnant women can increase due to

physiological and immunological changes that increase the risk of obstetric complications from respiratory infections in pregnant women (Suliman *et al.*, 2020). Information about Covid-19 during pregnancy is still limited, which can hurt the health of pregnant women during their pregnancy during the Covid-19 pandemic (Liang and Acharya, 2020). Anxiety during the covid pandemic can impact pregnancy disorders even up to the postpartum period.

This study aimed to analyze the effect of Family Center Maternity Care on mothers' anxiety. Care support from family, friends, and health workers, both physically and psychosocially, is needed for vulnerable groups (Hardeman, Almanza and Kozhimannil, 2020). This intervention is in line with programs that focus more on vulnerable targets and can be implemented with the consideration that clients in the community need assistance from families,

cadres, and health workers in helping to overcome problems caused by changing situations such as during the pandemic where people, especially pregnant women, really need to pay attention to their physical condition. A psychological to avoid

## **METHOD**

This research is a Quasy Experimental study with a pre-test - post-test two-group design. The population is pregnant women in the work area of the Bandung District Health Center, with a sample of 30 people per group, so the total sample is 60 people. The sampling technique used purposive sampling technique. The time for conducting the research is from July to December 2022. The intervention is in the form of providing education using educational modules and assisting pregnant women. Assistance was carried out by the research team by involving cadres as a team by facilitating the presence of family, husbands, and parents to discuss the module material provided. The pre-test was carried out by filling out the anxiety questionnaire. The post-test was carried out in the treatment group after the FCMC intervention was given. The control group was only given the module without assistance.

complications of pregnancy and the after-effects of the postpartum period for both pregnant women and the unborn fetus, as well as prevention of infection which is very urgent to prevent disease, especially covid

This research consists of two stages, namely:

1. Preparatory stage. At this stage, the researcher prepares the media that will be used for research, namely, doing learning modules about FCMC. At this stage, it takes 1-2 months with the details of the activities as follows. First, the researcher developed the concept of learning material which consisted of 2 sub-topics. After that, editing was carried out according to what the researcher expected.
2. Implementation stage. At this stage, testing was started on groups of pregnant women. Giving material in the form of modules was given twice with an interval of 1 week. Before the intervention, a pre-test/anxiety measurement was carried out using the Hamilton rating scale for anxiety (HARS) instrument. After that, the anxiety measurement was carried out again.

Intervention in the form of providing education using modules in Empowering pregnant women. Pre-test using a questionnaire in the form of a questionnaire.

The time required to fill out the questionnaire is approximately 15 minutes. Furthermore, pregnant women are given FCMC interventions, namely providing education using modules and mentoring. The time for

educating and assisting pregnant women is approximately 30 minutes. Education and assistance are carried out two times an interval of 1 week. Post-test was conducted to determine the anxiety of pregnant women.

**RESULTS AND DISCUSSION**

**Table 1.** Characteristics of Respondents in the intervention and control groups

No	Variable	Intervention		Control	
		Frequency	(%)	Frequency	
1	<b>Age (Years)</b>				
	Means	28.77		27,53	
	Min	20		19	
	Max	41		39	
	<b>Parity</b>				
	a.0 (Primi)	5	16.7%	9	30%
2	b. 1	11	36.7%	9	30%
	c.>1	14	46.16%	12	40
	<b>Amount</b>	<b>30</b>	<b>100</b>	<b>30</b>	<b>100</b>
	<b>Education</b>				
	Elementary School	20	66.7%	14	46.7%
3	Junior High School	8	26.7%	15	50%
	Senior High School	2	6.7%	1	3.3%
	<b>Amount</b>	<b>30</b>	<b>100</b>	<b>30</b>	<b>100</b>

Education of the most respondents is Elementary School. Most of the respondents

already have 1 or more children, some are primigravidas.

**Table 2.** Distribution of Respondents' Average Anxiety Score before the intervention

Group	Means	SD	SE	<i>p - value</i>	N
Intervention	11.70	3,669	0.670	0.467	30
Control	10.33	4.130	0.754		30

Analysis of the average Anxiety Score difference showed no significant difference in the pre-test with a  $p$ -value = 0.467.  $p > 0.05$ , then the variance is equal. At alpha 5%, there was no significant difference in anxiety

scores before the intervention between the intervention and control groups. This shows that the two groups were equal before the intervention, or there was no difference between the intervention and control groups.

**Table 3.** Distribution of Respondents' Average Anxiety Score after the intervention

Group	Means	SD	SE	<i>p-values</i>	N
Intervention	10.03	3,079	0.562		30
Control	9.23	4,376	0.799	0.010	30

Analysis of the average anxiety score difference showed a significant difference in the post-test with a  $p = 0.010$ .  $p < 0.05$ , then the variances are not equal (not equal). The  $p$ -value  $< \alpha$  (0.000), then at 5% alpha, there can be a significant difference in the

average anxiety score between the intervention group and the control group after being given the intervention. This shows a significant difference in the anxiety scores of the respondents after being given the FCMC intervention.

**Table 4.** Changes in Average Anxiety Score before and after intervention

Variable	Intervention (n=30)				Control (n= 30)			
	Pre	Post	Different	<i>p.s</i>	Pre	Post	Different	<i>p.s</i>
Worry	11.70	10.33	1.4	0.00	10.03	9.23	1,1	0.000

The mean pre-test anxiety for the intervention group was 11.70, and post-test anxiety was 10.33. The mean difference between the pre-test and post-test is 1.4. Statistical test results obtained  $p$ -value = 0.000, it can be concluded that there is a significant difference between anxiety before and after the FCMC intervention. So, it can be concluded that there is an effect of FCMC intervention on decreasing

respondent's anxiety,  $p$ -value  $< \alpha$  (0.05), so statistically, there is an effect of FCMC intervention on anxiety. In both groups, both the intervention and control groups showed a significant effect. The intervention group (the application of FCMC) showed a greater increase than the control group. The FCMC approach is through assessing the needs of pregnant women, facilitating the presence of family, husband, parents, friends, cadres, and

family assistance on an ongoing basis, utilizing health education media and involving families in physical and psychological care for pregnant women. This nursing intervention is very important as a *supportive-educative system* (Denis, Michaux and Callahan, 2012)

Parental assistance, as an inseparable part, is a source of motivation for pregnant women to improve their psychology of pregnant women (Stelwagen *et al.*, 2020). Father's support, especially mother's pregnant women as the closest person to pregnant women, is crucial in providing motivation and confidence. Support for families in its implementation needs support from interprofessional (Lega *et al.*, 2022).

Mothers with family support through the FCMC approach are expected to have optimal ability to adapt maternally during the postpartum period and care for babies (Clay and Parsh, 2014). Family-centred care (FCMC) is designed to meet the informational, social, emotional, comfort, and support needs of normal pregnant women (those without complications or comorbidities) and their families during pregnancy. Family Centered Maternity Care (FCMC) is family-centred care that integrates pregnancy, childbirth, postpartum,

and then baby care (Widhiastuti, R.; Muryani, 2021).

The social support, including health services, needs to be improved. Efforts to increase support during a pandemic are very important because many psychological problems during pregnancy, such as financial difficulties, emotional disturbances, and anxiety before and during pregnancy, need support from all parties (Lega *et al.*, 2022). About 60% of pregnant women complain about changes in antenatal care, so support from friends and family helps reduce psychological problems during pregnancy.

## CONCLUSION

The results showed an effect of the FCMC intervention on reducing pregnant women's anxiety, *with a p-value* of  $0.010 < \alpha (0.05)$ . There was also a decrease in the control group, so it can be concluded that both FCMC and without FCMC intervention or only with the module can reduce anxiety. The implications of this research can be used as a reference in developing the FCMC program by emphasizing education through modules and assistance that allows pregnant women to take an active role in improving their health and encourages the involvement of family members. Care support from

family, friends, and health workers, both physically and psychosocially, is needed for pregnant women to prevent the anxiety that can hurt them and their fetuses.

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