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The Effect of Social Support And Cognitive Behavior Therapy (CBT) on Postpartum Depression in Postpartum Mothers

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ABSTRACT

Background: The World Health Organization (WHO) estimates that there are 10 per 1000 live births of women with mild depression and 20 to 30 per 1000 live births of women with moderate or severe depression. **Objectives:** This study aims to determine This study aims to determine the effect of a combination of social support and CBT in overcoming maternal postpartum depression in the postpartum period. **Methods:** This research was a Quasy Experimental Pre-Posttest Design of nonequivalent control groups which was conducted from February to August 2024 in Mengwi I Health Center, Badung Regency, Bali. The sample in this study consisted of 44 postpartum mothers in the control group and 44 postpartum mothers in the intervention group. Pre-data was in the form of quality of life before the intervention was given to the control and intervention groups and post-data was taken after the intervention was given and then data analysis was carried out using the Mann-Whitney test and the Wilcoxon test. **Results**: The results showed that the mean value of the increase in life quality scores in the intervention group was greater than the control group. In this study both groups had similar characteristics in age, birth weight, parity, gravida, education, income, planned pregnancy and type of delivery (ρ>0.05). Sedangkan pada pekerjaanibuterdapatperbedaan yang signifikan (ρ<0,05).In the involusio domain there was a significant difference between the two groups after study (p-value = 0.071). In the breastfeeding domain there was no a significant difference between the two groups after study (p-value = 0.030). In the current baby weight domain there was no a significant difference between the two groups after study (p-value = 0.938). In the sleep quality domain there was a significant difference between the two groups after study (p-value = 0.000). Lastly, in the Postpartum Depression domain there was a significant difference between the two groups after study (p-value = 0.000). **Conclusions:** There is an decrease in the sleep quality andpostpartum depression after being given a combination of social support dan CBT.

Keywords : Cognitive behavior therapy, post partum depression, post partum, social support.

Introduction

The puerperium begins 1 hour after the birth of the placenta until six weeks later. In the puerperium there are changes both physically and psychologically that not all postpartum mothers successfully adapt to these changes.Post partum depression is an affective symptom that occurs several days or weeks after childbirth and is characterized by depressed mood, excessive anxiety, difficulty sleeping, and weight changes. Post partum depression stems from postpartum biological reactions due to a decrease in the hormone progesterone which then affects changes in chemical reactions in the brain coupled with fatigue, stress, and psychosocial factors that accompany the postpartum process. Mothers who have just given birth usually about 70% have mild depressive symptoms which in two to five days then reach an increase and subside two weeks postpartum.The onset of postpartum depression can generally occur up to 12 weeks postpartum according to the Diagnostic and Statistical Manual, 5th ed with symptoms associated with major depression including depressed mood, anhedonia, low energy, fatigue, loss of interest, reduced concentration, and suicidal ideation (1), (2).

Based on data from WHO in 2017, the prevalence of postpartum depression globally ranges from 0.5% to 60.8%, in Indonesia, psychological problems in postpartum mothers range from 50-70% for the prevalence of postpartum blues and 22.4% for the prevalence of postpartum depression (3, 4). The negative impact of postpartum depression is not only experienced by the mother, but also affects the child and family. The mother will lose interest in the baby, respond less when the baby cries, looks into the eyes, or gestures. In severe cases, postpartum depression can develop into a psychotic disorder with hallucinations, delusions, and thoughts of killing the baby. (5)

Nonpharmacological treatment strategies are useful for mothers with mild to moderate depressive symptoms. Individual or group psychotherapy that includes cognitive-behavioral and interpersonal therapy has been shown to be very effective. One of them is Cognitive Behavior Therapy (CBT) which is a form of counseling to help mothers become healthier, have satisfying experiences, and be able to meet certain lifestyles by modifying certain thought patterns and behaviors.In addition, CBT can reduce the anxiety level of mothers who experience postpartum depression. CBT is recommended for mothers with moderate and mild symptoms of postpartum depression who do not respond to psychosocial interventions and social support (6-8).

Social support from family and health professionals has been shown to affect postpartum depression. A professional home visiting model with structured postpartum depression prevention interventions has improved maternal and child health (8).

Some studies suggest that CBT and social support interventions can reduce postpartum depression. So many nonpharmacological studies have been conducted to overcome mood swings and feelings of inadequacy in postpartum mothers who fail to adapt so that they do not continue to become postpartum depression (9). Currently it is estimated that no one has conducted research in the form of a combination of CBT and social support on postpartum depression in mothers in the postpartum period. So this is the novelty of this study.

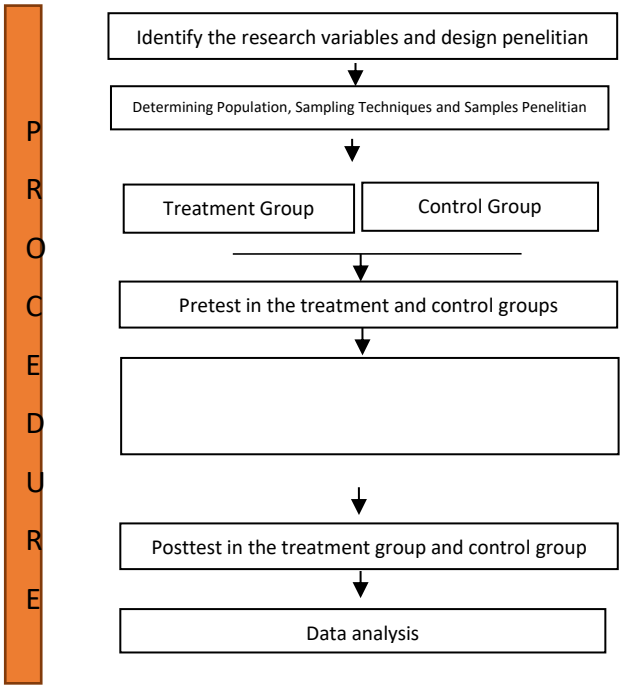
Method

This study is a quantitative study with a Quasy Experimental research design with Pre-Posttest Design With Nonequivalent Control

Groups which aims to determine the effect of a combination of social support and Cognitive Behavior Therapy (CBT) on postpartum depression in postpartum mothers. The research subjects were divided into 2 groups, namely the control group and the treatment group. The treatment group was given an intervention in the form of a combination of social support and Cognitive Behavior Therapy (CBT) and the control group was given standard care such as bonding with the baby, counseling about new role as a moother. In the first stage, an initial measurement (pre-test) was carried out in both groups. Then after each group was given the intervention, the final measurement (post test) was carried out.Contains

The population studied was all postpartum women in the working area of the Mengwi I Community Health Center in Badung Regency.The sampling method used a lottery number. Determination of sample size using the unpaired categorical comparative analytic formula, based on these calculations, the sample size of each group was 40 people. This number was added 10% to anticipate dropouts, so that the minimum sample size of each group was 44 people or a minimum total sample of 44 people.This study was conducted in the working area of Mengwi I Health Center, Badung Regency. This study was conducted from January to August 2024.The sampling technique uses probability sampling of simple random sampling type, namely all members of the population have the same opportunity as a research sample. The sampling method uses a lottery number.

The procedure of this reseachare :



Research instrument on the independent variable uses standard operating procedures (SOP) which contains steps of social support and cognitive behavior therapy (CBT). There are 4 sesion for the SOP, first session (Introduce the concept of CBT, explain the relationship between thoughts, feelings, and behaviors.), identify negative thoughts (Help the patient recognize and record negative thoughts that arise in certain situations), cognitive restructuting (Teach the patient how to challenge and replace negative thoughts with more positive and realistic ones), Behavioral Training (Encourage the patient to engage in enjoyable activities and increase social engagement) .While the research instrument on postpartum depression variables used the Edinburg Postnatal Depression Scale (EPDS) to measure postpartum depression in normal postpartum mothers. This study uses a data difference test, using a significance of 0.05. Datapostpartum outcomes were tested for

normality using Kolmogorov-Smirnov, provided that if the data were normally distributed (significance > α) then use the T test. If the data were not normally distributed (significance < α) then use Wilcoxon. The data that has been collected is processed with computer assistance using the SPSS version 23.0 system.

Result

Table 1. Postpartum outcomes were analyzed in terms of breastfeeding success, infant weight gain, maternal sleep quality and postpartum depression symptoms.

Description	Group		
	Control (n=44)	Treatment (n=44)	P value
Involusio			
Subinvolusio	10 (22,7%)	3 (6,8%)	
Normal involution	34 (77,3%)	41 (93,2%)	0,071
Breastfeeding			
Formula /parsial	10 (22,75%)	2 (4,5%)	0,030
Breast Milk	34 (77,3%)	42 (95,5%)	
Current Baby Weight			
Average (SD)	3981,8 (391,9)	3975,0 (424,3)	0,938
Median (IQR)	4000,0	4000,0	
Range	3200-4800	3300-4700	
Increased baby weight			
Average (SD)	709,1 (254,1)	872,7 (186,0)	0,001
Median (IQR)	750,0	900,0	
Range	100-1200	500-1400	
Sleep quality			
Average (SD)	13,09 (2,95)	6,16 (2,47)	0,000
Median (IQR)	14,0	7,0	
Range	8-17	2-10	
Postpartum Depression			
Average (SD)	9,85 (2,52)	6,98 (2,86)	0,000
Median (IQR)	11,0	7,0	
Range	6-15	3-13	

The mean PSQI score of sleep quality in the control group was higher than the intervention group (13.09 (2.95); 6.16 (2.47)) and significantly different (p value =0.000). The mean EPDS score of postpartum depression in the control group was higher than the intervention group (9.85 (2.52); 6.98 (2.86)) and significantly different (p value =0.000).

Discussion

In this study, all subjects were able to complete the study well. The social support model and Cognitive Behavioral Therapy (CBT) are psychotherapeutic approaches that focus on changing negative thought patterns and maladaptive behaviors that can affect individual well-being. In this study both groups had similar characteristics in age, birth weight, parity, gravida, education, income, planned pregnancy and type of delivery (ρ>0.05). However, there was a significant difference in maternal occupation (ρ<0.05). The results of previous studies show that characteristics such as, parity and age are not correlated with sleep disturbance problems and post partum depression.This is because primiparous mothers are still learning how to be a mother while multiparity is associated with more burden on the family so that both are still at risk of experiencing sleep disturbances in the postpartum period (5).

In this study, the intervention group experienced a better involution effect than the control group. The effect of breastfeeding in the postpartum period can support the production of oxytocin to contract the uterus so that involution is better. Research that specifically examines the effect of CBT on uterine involution is still limited. CBT, which is effective in reducing stress and improving mental well-being, has the potential to support better uterine involution (6). Therefore, by reducing symptoms of depression and anxiety through CBT, it can be assumed that the process of uterine involution can also run more optimally (7).In this study, breastfeeding success in the intervention group was better than the control group. This shows that there were more mothers who succeeded in the breastfeeding process at the beginning of the first month. This can be seen by the increase in baby weight in the intervention group more and compared to the control group. The increase in baby weight in the control group was less than in the intervention group (709.1 (254.1); 872.7 (186.0)) and there was a significant difference (p value 0.001).

The social support and CBT framework states that people's cognitive dysfunction patterns are the cause of their emotional distress and maladaptive behaviors. To improve the emotional and behavioral state, postpartum women should change their dysfunctional cognitive patterns into adaptive behaviors by increasing knowledge, cognitive and psychological support (8).

In this study, the average PSQI score for sleep quality in the control group was higher than the intervention group (13.09 (2.95); 6.16 (2.47)) and significantly different (p value 0.000). was 14.5 (2.6). In this study, the control group experienced an average sleep disturbance in PSQI score of 13.09 (2.95). This means that postpartum women experience moderate to severe sleep disturbances.Postpartum women with PSQI sleep disorders of more than 7.54 ± 0.40 will be at risk of needing treatment and immediate action to prevent complications in the postpartum period such as depression and anxiety (11). Stone et al's study showed that postpartum women who experience sleep disturbances since pregnancy and the postpartum period, will be at risk of experiencing symptoms of postpartum depression and less breast milk production compared to postpartum women who get enough sleep (12).Mothers who attended the CBT program reported a significant decrease in the time taken to fall asleep and an improvement in overall sleep quality (14).

In this study, the average EPDS score of postpartum depression in the control group was higher than the intervention group (9.85 (2.52); 6.98 (2.86)) and significantly different (p value 0.000). In this study the control group had a higher EPDS score of 9.85 (2.52) where the EPDS score was more than nine, the mother would experience a moderate to high risk of depression (17).

The existence of this behavioral activity can increase relevant competencies in postpartum women in cognitive and interpersonal improvement (18). Supported by research by Amani et al shows that the provision of CBT to postpartum women using CBT applications can improve the psychological condition of the postpartum period and be able to prevent postpartum depression (19).

The strength of this study is that this social supportive and CBT model assesses the postpartum period from day 1 to the end of the postpartum period at day 42 and measures postpartum outcomes related to involution, breastfeeding, sleep quality and depression syndrome. Given the negative impact of postpartum depression, we assume that providing social psychological support and CBT education during the early postpartum period (e.g., within the first month postpartum) may be helpful in preventing the development of sleep disturbances, breastfeeding problems and postpartum depression.

Conclusion

The characteristics of the respondents were in accordance with the researcher's inclusion and exclusion criteria. The variables of age, baby weight, parity, education, occupation of the two groups were not found to be significantly different (P value> 0.05).

The average PSQI score of sleep quality in the control group was higher than the intervention group (13.09 (2.95); 6.16 (2.47)) and significantly different (p value 0.000). was 14.5 (2.6). The mean EPDS score of postpartum depression in the control group was higher than the intervention group (9.85 (2.52); 6.98 (2.86)) and significantly different (p value 0.000).

Conflict Of Interest

Acknowledgement

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