International Journal of Sciences: Basic and Applied Research (IJSBAR)

ISSN 2307-4531
(Print & Online)

http://gssrr.org/index.php?journal=JournalOfBasicAndApplied

Effectiveness of Comprehensive Midwifery Care on Anxiety Level of Pregnant Mother in Facing Labor Period

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Abstract

Anxiety is a physiological problem that almost everyone has experienced throughout its life span, especially for pregnant women as part of the process of reasonable adjustments to the physical and psychological changes that occur during pregnancy. The older age of pregnancy, the expectant mother's attention and thoughts start focused on something that is considered the climax, so the anxiety and fear they experienced will intensify just before delivery. Primigravida experiencing severe anxiety level reached 83.4% compared multigravida, maternal age was too young, or too old, and the most important is the support of a husband against his wife to be part of the aspects that potentially increase the risk of more severe anxiety. Midwifery care is a significant intervention in obstetrics that its effectiveness is very beneficial for a pregnant woman to terminate her pregnancy safely without worry. This study uses a quasi Experimental with pre-test-post-test control design. The aims of this study are to identify the effectiveness of comprehensive care to the level of mothers anxiety in facing labor period. Which correctly describes the level of stress experienced by the pregnant mother in comprehensive care, to analyze the relationship between age and gravidity with the levels of pregnant women concern in facing labor period.

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The subject of this study are pregnant woman with gestational age was 32 weeks, giving Service Facilities (hospitals and health centers) in Makassar. Purposive sampling of 64 mothers then divided two with the ratio of 1:1 for the comprehensive and non-comprehensive group as a comparison. The conclusion, there are significant differences in the effectiveness of comprehensive care with no comprehensive on the level of maternal anxiety in facing labor period. Age and parity did not significantly associate with maternal stress levels in facing labor time. Suggested the need for a comprehensive care made a permanent program made for pregnant women, regardless of age and parity.

Keywords: comprehensive care; anxiety levels; social support; labor.

1. Introduction

Discomfort and anxiety is an inevitable occurrence, and almost always accompanies pregnancy as part of a process of reasonable adjustments to the physical and psychological changes that occur during pregnancy. Anxiety is a term that concerns the feeling situation (mood) characterized by physical tension and worries about the future cause a person to anticipate the possibility of danger or misfortune in the future which may involve feelings, behavior, and responses is physiological [1,2]. Everyone has the potential to experience anxiety throughout its life span, especially for women in pregnancy up to the time of delivery. The older age of the pregnancy, the expectant mother's attention and thoughts start focused on something that is considered the climax, so the anxiety and fear they experienced will intensify just before delivery [3,4]. The prevalence of anxiety levels of pregnant women vary in each country, in Portugal (18.2%), Bangladesh (29%), Hongkong (54%), and Pakistan amounted to (70%). In Indonesia in 2012-2013 found that the anxiety level of primigravida reached 83.4% as severe and 16.6% as moderate; whereas the stress levels of multigravida reached 7% as serious, 71.5% as moderate, and 21.5% as mild [5,6,7]. The essence of concern assessed as a positive thing, but in extreme conditions will result in a bad adaptation, physical disturbance and inability to solve the problem, which in turn increases maternal morbidity and even mortality as contextual determinants [8]. Midwifery care comprehensively useful an alternative approach in anticipation of anxiety. This method allows the pregnant woman will get supervision in integrated during pregnancy, childbirth and post partum. Until the woman recovered to later carry out the activities as before pregnancy, particularly for they are at the risk of the various factors that can aggravate anxiety levels such as age, parity, and spacing pregnancies [9,10]. A different from the concept of "Hospital Spouse Friend" that justifies a husband to accompany and stand beside his wife throughout the delivery process as implemented by the Ministry of Health in Malaysia [11]. This description is the essential reason need for a study through research on the effectiveness of comprehensive midwifery care on the anxiety level of pregnant women in facing labor period by taking into account several other factors such as age, parity and husband support.

2. Materials and Method

2.1. Collection of Samples

This research uses a Quasi Experimental with "pre-test - post test control design." This research was done in Bara-Baraya health centers, Kassi-Kassi health centers, Pertiwi Hospital Makassar, by considering practices The

Comprehensive Midwifery Care, and its period since August 2014 until January 2015. The population is a pregnant mother and listed on the Antenatal Care in the Hospital and Health Center in Makassar. The sample is divided in two of the population that is a pregnant mother who reaches the gestational age of trimester III (> 32 weeks) at the time of the study. Withdrawn by purposive sampling then be observed and given intervention in the form of comprehensive care until postnatal. Samples for the comparison group is pregnant women who have the same characteristic as the intervention group but no response in same health centers and hospitals to those observed respectively 32 so that all of them to 64 people.

2.2. Instrument

The tool used in this research is a questionnaire for anxiety using a HARS scale, while to assess the effectiveness of midwifery care using formats includes Antenatal Care, Intra Natal, Post-Natal, Postpartum, until the form of care for family planning that had been prepared previously associated with the variable in this research. The data collection done by using the technique: 1) Participatory observation to assess the effectiveness of comprehensive care. 2) Structured interviews to obtain data regarding the identity and other variables such as age, parity, husband support and anxiety were measured using a HARS scale. 3) For observation, the group distributed a questionnaire on the elected initial as a sample, and post-test is given at the end of the visit, while for comparison given a questionnaire before delivery and then after coming back from the hospital/health center where she gave birth.

2.3. Data Analysis

The data collected, further processed and analyzed using descriptive analysis was conducted to see the characteristics of this research by using frequency distribution tables, and inferential analysis that carried out to see the relationship between variables by using independent t-test and paired, or nonparametric Wilcoxon if assumptions to the test t fail. Of the data using a computer. For simple data views frequencies and percentages, medians and minimum value-maximum. Statistical data using Mann-Whitney and Spearman. To see correlations between variables and other variables associated with postpartum depression and see the predicted value, using linear regression analysis, significant if $p < 0.05$.

2.4. Ethical Clearance

Ethical approval for this study obtained from Research Ethics Committee, Faculty of Medicine, Hasanuddin University, Makassar, Indonesia. Number; 651/H4.8.4.5.31/PP36-KOMETIK/2016.

3. Results

The research conducted in Makassar for 77 pregnant women since August 2014 as an initial evaluation, until the completion of a comprehensive care until the end of observation obtained 32 subjects observed completely while the rest be dropped out because of problems in finding the issue. For control are obtained of same health centers and hospitals. As described earlier of 77 pregnant women who were observed at the beginning of observation after the implementation of final evaluation is not all can be identified as a result of many

respondents are difficult to find because the address is not clear, since they are mostly family moved around the rented. The results of further research to test the validity to maintain data accuracy, given the limited time available so that invalid items excluded from the study indicators. The result of validity test 12 elements is invalid. Once eliminated the data is invalid then performed the reliability test and it turns out the features of the instrument sufficient reliability with *Cronbach's Alpha* (0.905). Data also carried out normality test that allows adjustment of analysis used and the result of validity test of instrument on the level of stress, there are 12 items (29.3%) as invalidity of 41 existing items, all of which ignored by the consideration that there are a fairly representative elements that represent indicators. Based on the result of validity test then conducted a reliability test in which the instrument is quite reliable with *Cronbach's Alpha* (0.905). Carried out a normality test to determine the type of test to be used, and the results are only three indicators of 64 samples there with a significance greater than 0.05 indicates that the data are normally distributed, so that the reason for the use of *t-test* in proving the effectiveness of comprehensive care on the level of pregnant mother anxiety in facing the end of gestational.

Table 1: Distribution of Age, Parity and Stress Level of Respondents. The Result of Research on the Effectiveness of Comprehensive Care on Anxiety Level in Facing Labor Period.

Age	Frequency	Percentage
<20 & > 35 years	8	12,5
20-35 years	56	87,5
Total	64	100,0
Parity	Frequency	Percentage
>= 4	11	17,2
1 -3	53	82,8
Total	64	100,0
Stress Level	Frequency	Percentage
Severe	42	65,6
Moderate	22	34,4
Total	64	100,0

Source: Primary data

Noting the existing sample of Table 1 above shows that reproductively there are 56 (87.5%) is categorized safe enough for a problem that may increase the risk of various disorders due to complications of pregnancy and childbirth, the remaining 8 (12.5%) including high risk group reproductively.

Parity group showed that 64 respondents still found there were 11 (17.2%) of pregnant mother included in the groups at high risk of complications of pregnancy and childbirth, 53 people (82.8%) are more in a safe group.

In contrast to the age and parity in Table 1 show that woman in pregnancy until delivery. Even up to 2 weeks postpartum were still experiencing anxiety conditions (stress). It was seen from 64 respondents was dominated by severe stress levels as much as 42 people (65.6), the remaining 22 people (34.4%) including moderate

category, in fact, they have not been found at levels of mild anxiety or who did not experience anxiety.

Table 2: Difference of Stress Level *Pre-test* and *Post-test*. The Effectiveness of Comprehensive Care on Anxiety Level in Facing Labor Period.

Comprehensive group		Mean	SD	SE	p. value	n
Comprehensive	Pre Test	63.78	14.33	2.54	0.000	32
	Post-test	41.72	6.23	1.11		
Non-Comprehensive	Pre Test	53.69	9.95	1.76	0.15	32
	Post-test	50.13	11.11	1.96		

Source: Primary data

The results of inferential analysis using statistical *t-test* showed an average difference in anxiety levels between *pre-test* and *post-test* in both groups. For the panel of respondents who received comprehensive care in the pretest showed a mean value of 63.78 ± 14.33 and the post-test with a mean value of 41.72 ± 6.23. Whereas in the group of non-comprehensive in the pretest is not much different from the average value of 53.69 ± 9.95 and the post-test with a mean value of 50.13 ± 11.11. That difference is then tested with paired t-test and generate p= 0.000 (2-tailed) showed that there are significant differences in anxiety levels of respondents who received comprehensive care.

The same test results continued in the non-comprehensive group then obtained p=0.145 indicates that we reject the hypothesis which means there is no significant difference in anxiety levels between pre-test and post-test on the non-comprehensive respondent.

Table 3: Effectiveness of Comprehensive Care on Anxiety Level in Facing Labor Period in Post-test.

Comprehensive Group	Mean	SD	SE	p. value	n
Comprehensive	41.72	6.23	1.11	0.000	32
Non Comprehensive	50.13	11.11	1.96		32

Source: Primary data

The results of independent t-test analysis showed the average value of the anxiety level of respondents who received comprehensive care was 41.72 with a standard deviation of 6.23, whereas for women who did not receive comprehensive care was 50.13 with a standard deviation of 11.11.

The results of t-test on Levene test with a $p=0.002 < \alpha$ (0.05) shows that the variance in both groups is not same (not assumed) so that it can be concluded that the average level of stress in both groups with different variants. Furthermore, the *equal variance* with $p=0.000 < \alpha$ (0.05) indicates that there are significant differences in

anxiety levels between mothers who received comprehensive care with non-comprehensive.

Table 4: The Relationship of Age and Parity with Anxiety Level ion Facing Labor Period.

	Anxiety Level				Total		Alfa
	Severe		Moderate		%		0,05
	n	%	n	%			
Ages (Year)							
<20 & >35	5	62,5	3	37,5	8	100	p.value
20-35	37	66,1	19	33,9	56	100	
Total	42	65,6	36	34,4	64	100	1,000
Parity							
>4	7	64,6	4	34,4	11	100	p.value
1 -3	35	66,0	18	34,0	53	100	1,000
Total	42	65,6	36	34,4	64	100	

Source: Primary data

Analysis of these two factors in Table 4 shows the respondents who experienced severe anxiety more than a factor of age and parity not seen a marked difference between the groups with high risk and low-risk categories. Results of hypothesis testing using the *chi-square* for age and parity did not show any statistical evidence with each $p=1,000 > \alpha = 0.05$. Based on these tests then statistically inferred reject the hypothesis that means there is no significant relationship between age and parity with the anxiety level of pregnant women in facing labor period.

4. Discussion

Conceptually, there is no denying that efficient services will provide a considerable influence on the health condition of individual, especially for pregnant women to undergo pregnancy until after delivery, and until the time they make their choice to manage when they will become pregnant and give birth again, even terminate their hope to get pregnant through family planning programs [12].

Through a comprehensive midwifery care allows a pregnant woman and give birth even postpartum mothers to obtain maximum service. It is understood that various aspects that can be bad can be detected early start during pregnancy until the end of puerperium so that every woman will get a quick handling and appropriate treatment. The results of this research prove the effectiveness of comprehensive care on anxiety level of a pregnant mother in facing labor period [13, 14].

The interesting thing of paired-test reflected that the average level of anxiety both groups at the beginning of assessment are higher on those belonging to non-comprehensive. Rationally, could have occurred because the evaluation of anxiety level is done long before labor begins and the moment in which the respondent has not been touched by a care, while for the control group (non-comprehensive), pre-test conducted a time when

women are already ahead of future delivery so psychologically they are a bit relieved and felt protected [15,16].

In contrast to the anxiety level of post-test seen lower mean in the group receiving the comprehensive care. It is understandable because they get comprehensive care, experienced a maximal adaptation because in these phases they always get a greeting, even services so that they feel the attention and protection that enables stressor factor will decrease [17].

In general, in reproductive health is a factor that could potentially increase the risk to the health problems of each, especially in women in their gestational. In this research, indicates that respondents are chosen to be sampled are likely more in the category of safe reproductive age, i.e., 20-35 years of age. It shows the defendant at this time already at the right time to get pregnant, give birth and have children. H1 is in line with the recommendation of BKKBN that the age limit for marriage would be safer at the age of 20 years and over, so many people are choosing to get married in that age range, although it is undeniable that in this research are still some of them with age is relatively still very young (< 20 years) [18].

Marriage, pregnancy, childbirth, and childcare will bring many changes. That change will be experienced by every woman who of course requires physical and psychological readiness, and when aged between 20-35 years is considered ready to face the adaptation period, so in turn when she gave birth to optimize the level of maturity in the way of thinking and behaving with increasing age. Nevertheless maturity think it will be inversely proportional to the physical maturity, because of advancing age physically individual will undergo a process of degeneration that is physiologically element in the body will decrease its function so that when a woman reaches the age of aging which is of reproductive age > 35 years will increase the risks to the mother's health condition [19].

Qualitatively, a researcher more get information and views from respondents during the interview, in which they revealed that he had heard a lot of information if a woman who has aged, or otherwise they are still relatively young say a lot of experience golden with that condition, but after receiving care advice of midwife when he gets midwifery care, causing the assumption to be lost [20,21].

The results of this research are not by the results of research by Yunita Laurensia and his colleagues that age was significantly associated with the anxiety level. Parity is the number or frequency of pregnancies ending with birth by a woman. Physiologically, pregnancy and childbirth are too often given the increasing trend in morbidity, and even become one of the leading causes of high maternal mortality rate [22,23].

These results are not in line with these assumptions, particularly in the anxiety level of a woman in pregnancy to face their labor. Based on the results of hypothesis showed that parity was not significantly associated with the stress level of respondents in facing their labor.

The fact indicates that although people have given birth many times if she gets adequate services will automatically lower the potential for anxiety, especially when they get treatment started during pregnancy, childbirth until the puerperal period. Because at that time every woman will easily get services needed and that early identification of various factors that are considered at risk will easily get proper treatment.

5. Conclusion

There is influence the effectiveness of Comprehensive Midwifery Care on the stress level of the mother in facing labor period. There was no correlation between age and parity to the stress levels of pregnant women in facing labor. It is suggested the need for Comprehensive Midwifery Care as standard operating procedure in the service of pregnant women during childbirth until the end of puerperium.

6. Recommendations

This study recommends for Comprehensive midwifery care for every pregnant woman during pregnancy, childbirth, and puerperium.

Acknowledgments

We give our gratitude to all Kassi-Kassi and Pertiwi Hospital staffs that have supported this research. Our appreciation also for all pregnant women that have participated in this study.

Footnote

Conflicts of Interest: The authors have no conflicts of interest to declare

Reference

[1] Barlow, D. H. D. D., V Mark 2006. Intisari Psikologi Abnormal, Yogyakarta, Pustaka Pelajar.

[2] Buultjens, M., Murphy, G., Robinson, P. and Milgrom, J., 2013. The perinatal period: A literature review from the biopsychosocial perspective. Clinical Nursing Studies, 1(3), p.19.

[3] Cantwell, R., 2016. Maternal, perinatal psychopathology: an overview. In Joint Care of Parents and Infants in Perinatal Psychiatry (pp. 13-24). Springer International Publishing.

[4] Carolan-Olah, M. and Barry, M., 2014. Antenatal stress: an Irish case study. Midwifery, 30(3), pp.310-316.

[5] Gao, L.L., Liu, X.J., Fu, B.L. and Xie, W., 2015. Predictors of childbirth fear among pregnant Chinese women: A cross-sectional questionnaire survey. Midwifery, 31(9), pp.865-870.

[6] Rashidi-Fakari, F., Tabatabaeichehr, M., and Mortazavi, H., 2015. The effect of aromatherapy by essential oil of orange on anxiety during labor: A randomized clinical trial. Iranian journal of nursing and midwifery research, 20(6), p.661.

[7] Europe, J., Thierry, A., Lempp, F., Aupetit, L., Saad, S., Dodane, C., Bednarek, N., De Mare, L., Sibertin-Blanc, D., Nezelof, S. and Rolland, A.C., 2014. Emotional reactions of mothers facing premature births: a study of 100 mother-infant dyads 32 gestational weeks. PloS one, 9(8), p.e104093.

[8] Cunningham FG, L. K., Bloom SL, Hauth JC, Rouse DJ, Spog CY 2010. Williams Obstetrics [e-book]. Edisi ke-23 New York: Mc Graw Hill Medical.

[9] Elvira.S 2006. Depresi Pasca Persalinan, Jakarta, Fakultas Kedokteran Universitas Indonesia.

[10] Hendrick, V. 2006. Psychiatric Disorders in Pregnancy and Postpartum Principles and treatment,

Totowa. New Jersey, Humana Press.

[11] Keumalahayati., S., Yati Afiyanti 2008. Dukungan Suami Terhadap Kesiapan Ibu Primigravida Menghadapi Persalinan di Daerah Pedesaan Di Langsa Nangroe Aceh Darussalam. FIK UI.

[12] Laili, R. 2009. Hubungan Usia, Tingkat Pendidikan, dukungan suami dan keluarga dengan Tingkat Kecemasan Menjelang Persalinan pada Ibu Primigravida Trimester III di Poliklinik Kebidanan RSUP Dr. M. Djamil Padang Tahun 2009. Keperawatan Maternitas.

[13] Sadock, B. A. S. V. K. S. S. 2011. Synopsis of Psychiatry Behavioral Science Clinical Chemistry. New York: Lippincott Williams & Wilkins.

[14] Yulianti, D. 2004. Manajemen Stress, Jakarta, EGC.

[15] Yunita Laurensia., M. 2013. Hubungan Umur dengan Tingkat Kecemasan Ibu Primipara pada Masa Nifas di Wilayah Kerja Puskesmas K [1] Khorsandi, M., Vakilian, K., Salehi, B., Goudarzi, M.T. and Abdi, M., 2016. The effects of stress inoculation training on perceived stress in pregnant women. Journal of health psychology, 21(12), pp.2977-2982.

[16] Alden, K.R., Lowdermilk, D.L., Cashion, M.C. and Perry, S.E., 2013. Maternity and Women's Health Care-E-Book. Elsevier Health Sciences.

[17] Rallis, S., Skouteris, H., McCabe, M. and Milgrom, J., 2014. A prospective examination of depression, anxiety, and stress throughout pregnancy. Women and Birth, 27(4), pp.e36-e42.

[18] Barber, C.C. and Starkey, N.J., 2015. Predictors of anxiety among pregnant New Zealand women hospitalized for complications and a community comparison group. Midwifery, 31(9), pp.888-896.

[19] Bowen, A., Baetz, M., Schwartz, L., Balbuena, L. and Muhajarine, N., 2014. Antenatal group therapy improves worry and depression symptoms. Isr J Psychiatry Relat Sci, 51(3), pp.226-231.

[20] Gourounti, K., Anagnostopoulos, F. and Sandall, J., 2014. Poor marital support associate with anxiety and worries during pregnancy in Greek pregnant women. Midwifery, 30(6), pp.628-635.

[21] Stewart, R.C., Umar, E., Tomenson, B. and Creed, F., 2014. A cross-sectional study of antenatal depression and associated factors in Malawi. Archives of women's mental health, 17(2), pp.145-154.

[22] Lau, Y., Wong, D.F.K., Wang, Y., Kwong, D.H.K. and Wang, Y., 2014. The roles of social support in helping Chinese women with antenatal depressive and anxiety symptoms cope with perceived stress. Archives of psychiatric nursing, 28(5), pp.305-313.

[23] Meltzer-Brody, S. and Jones, I., 2015. Optimizing the treatment of mood disorders in the perinatal period. Dialogues in clinical neuroscience, 17(2), p.207.