

Conference Paper

Husban Behavior in Pregnancy-Postpartum Care and Wife's Reproductive Health

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Abstract

Background: In the process pregnancy-postpartum, the role of the husband is very important and necessary. It is highly expected for the husbands to accompany their wives, so that their wives can have healthy pregnancy which is later able to give birth a healthy baby and the mothers can survive. **Objectives:** The purpose of this study is to find out the effect of husband's knowledge regarding Antenatal Care (ANC) and Early High-Risk Detection, husband behavior in the pregnancy-postpartum care with reproductive health problems experienced by wife and to determine which variable that has the greatest effect among the three variables. **Methods:** This research is an analytical observation, carried out in the working area of Tinggede Health Center which includes 3 villages namely Sunju, Tinggede and South Tinggede the research target is all husbands who have pregnant wife (second pregnancy) and have children under two years old with a total of 180 husbands. The survey was carried out on 180 husbands. Data collection is carried out through interviews, observations and FGDs. Data analysis technique with Chi Square value test ($p < 0.05$) **Results:** The results showed that the level of husband's knowledge about Antenatal Care and early detection of high risk was low, 58.88% and 56.66%, respectively. Husband behavior in pregnancy care was also categorized as less healthy/bad, i.e., 55.55%, and the prevalence of wife's respondents who experienced reproductive health problems was 57.7%. Husband's knowledge about ANC, early detection of high-risk pregnancy, and husband behavior in pregnancy care had a significant relationship to reproductive health problems ($p < 0.05$). The highest frequency of husband's participation in the pregnancy-postpartum care is making referrals to the healthcare facilities by 79%, Husband behavior in pregnancy care has the greatest effect on maternal reproductive health problems with a P value = 0.001. **Conclusion:** It can be concluded that the husband's knowledge regarding ANC and early detection of pregnancy and postpartum period has an effect on maternal reproductive health in Sigi Regency, Central Sulawesi. It's expected that the development of models for improving husband's Information, Advocacy and Communication (IAC) of reproductive health could be a preventive effort in improving women's reproductive health.

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1. Intorduction

The pregnancy and childbirth processes are quite struggling for every woman which are inseparable from the feelings of fear and pain. The role of the husband is very necessary during the pregnancy process. A husband should accompany his wife to have her pregnancy checked up, so that the husband can also know and follow the stages of the baby's development. In addition, the husband can have better understanding on the emotional state of the wife. The active participation of husbands during pregnancy will determine the success of their wives in giving breastfeed to their baby [1], [2].

The expected situations in women's reproductive health are safe from illness and disease, performing and enjoying safe sexual activity, able to have descendants, having a safe pregnancy and childbirth, regulating fertility without sacrificing their health and able to have healthy pregnancy which is later able to have healthy childbirth and the mother can survive [3].

In contrast to the expectations, the data show that the Maternal Mortality Rate (MMR) in Indonesia is on the highest rank in the ASEAN country, which was 228/100.000 live births, and the IDHS data in 2012 showed that MMR increased progressively to 359/100.000 live births [4]. The high of maternal and infant mortality rates in this country, is a prolonged and complex problem, that must be addressed together [5], [6].

The Profile Data of Central Sulawesi Health Office (2016) showed that the Maternal Mortality Rate of Central Sulawesi reached 358/100.000 live births [7] and decreased to 208/100.000 live births. Nevertheless, the data includes high category maternal mortality rates when paired with several regions in Indonesia. If specified by district/city, Sigi Regency has maternal mortality rate of 309/100.000 live births. This rate is one of the highest maternal mortality rates in Central Sulawesi. Similarly, the infant mortality rate reached 11/1000 live births [6]. This rate suggests that women's reproductive health is still low in Sigi Regency. The conditions before giving birth are the most tense and tiring for a pregnant woman. In such situation, the presence of a husband on the side of his wife greatly helps the feelings of his wife to be more controlled [1],[8]. This study aims to examine the husband's level of knowledge about ANC, early detection of high risk and husband behavior on pregnancy-postpartum care and to determine which variable that has the greatest effect among the three variables on the incidence of wife's reproductive health problems.

2. Method

2.1. Study Design

The research design used was analytic survey research with a quantitative approach. its location in the working area of Tinggede Community Health Center which includes 3 Villages namely Sunju, Tinggede and South Tinggede. The study was conducted for 6 months from February 2018 to June 2018.

2.2. Sample

The study sample was 180 people with the target of all husbands whose wives were pregnant and had children under two years of age.

2.3. Instrument

In this study primary data is used by filling out questionnaires that have been provided by researchers as many as 70 questions. Data were obtained through interviews with husbands about the knowledge of Antenatal Care (ANC), knowledge of early detection of high-risk pregnancy and husband's behavior during pregnancy which had an impact on wife's reproductive health.

2.4. Data Collection Procedure

Secondary data was obtained through interviews with health workers and cadres as well as observations from his wife's medical records available at the Community Health Center: personal identity, frequency and regularity go to Antenatal Care, immunization, Hb examination, early detection of high risk, and reproductive health disorders that had been experienced by his wife. Researchers also conducted focus group discussions with local community leaders, local midwives, cadres, husbands and wives to explore knowledge, behavior in postpartum pregnancy care, their impact on wife's reproductive health and appropriate models in improving information communication and education for husbands on reproductive health, especially in postpartum pregnancy care. Variable indicators as follows; 1). Knowledge about ANC, the indicators are husband's knowledge about blood pressure measurement, height and weight measurement, upper arm circumference / LiLA, UUS Fundus Height (TFU), determination of Tetanus toxoid (TT)

immunization status, administration of blood enhancing tablets (iron tablets), Hb examination, counseling and case management. 2). Knowledge of early detection of high risk pregnancy, the indicators; knowledge of the husband about Too young pregnant (≤ 16 years), Too slow to get pregnant, Too soon to get pregnant again (≤ 2 years), Too old to get pregnant (≥ 35 years), Too long to get pregnant again (≥ 10 years), Too many children (4 or more), Too old age (≥ 35 years), Too short (<145 cm), Never failed pregnancy, Never gave birth with a pull / vacuum and Cesar section. 3). Husband's behavior in the care of pregnancy, the indicators; taking the wife to get pregnancy check, determining the place for giving birth, making referrals to healthcare facilities, preparing the cost of giving birth, supporting referral efforts if necessary, reminding the wife to consume the Fe tablets, finding out the information regarding wife's pregnancy complaints, wife's pregnancy history, recommendation to carry out early detection of high risk, and performing violence during pregnancy-postpartum period. 4) Reproductive Health Problems indicators; Bleeding, Infection, Miscarriage, Pregnancy Complications, Fever/Seizure, Premature Birth, Low Birth Weight, Infant Death [4].

2.5. Data Analysis

Bivariate and multivariate data analysis was performed using the Chi Square value test ($p < 0.05$).

3. Results

The results of the study about the relationship of husband's knowledge about ANC, early detection of high risk and husband's behavior in the treatment of postpartum pregnancy with reproductive health disorders can be seen in Table 1. In table 1, it can be seen that there are 62.6 percent of husbands with low level of knowledge about ANC who have their wives experienced reproductive health problems and 37.4 percent of husbands do not have their wives experienced reproductive health problems. There are 43.4 percent of husbands with high level of knowledge about ANC who has their wives experienced reproductive health problems and 45.6 percent of husbands do not have their wives experienced reproductive health problems.

Furthermore, Table 1 shows that there are 52.9 percent of husbands with low level of knowledge about early detection of high-risk pregnancy who have their wives experienced reproductive health problems and 48.1 percent of husbands do not have their wives experienced reproductive health problems. There are 27.3 percent of husbands

TABLE 1: The Relationship between Husband's Knowledge about ANC, Early Detection of High-Risk Pregnancy, Husband Behavior in Pregnancy Care and Reproductive Health Problems.

Knowledge	Variable		Reproductive Health Problems		Total		P value
	N	%	N	%	N	%	
ANC Low	84	62.6	50	37.4	104	100	0.018
High	20	43.4	26	45.6	76	100	
Early Detection of High-Risk Pregnancy							
Low	72	52.9	64	48.1	136	100	0.015
High	12	27.3	32	72.7	44	100	
Husband Behavior in Pregnancy Care							
Healthy	76	65.5	40	34.5	116	100	0.004
Unhealthy	28	43.7	36	56.3	64	100	

with high level of knowledge about early detection of high-risk pregnancy who have their wives experienced reproductive health problems and 72.7 percent of husbands do not have their wives experienced reproductive health problems.

In terms of husband behavior, there are 65.5 percent of husbands with unhealthy/bad behavior who have their wives experienced reproductive health problems and 34.5 percent of husbands do not have their wives experienced reproductive health problems. There are 43.7 percent of husbands with healthy pregnancy care who have their wives experienced reproductive health problems and 56.3 percent of husbands do not have their wives experienced reproductive health problems.

Table 2 above described that highest frequency of husband's participation in the pregnancy-postpartum care is making referrals to the healthcare facilities by 79%, followed by preparing childbirth cost by 70% and supporting referral efforts when necessary by 58%. Meanwhile, the lowest frequencies of husband's participation are reminding the wife to consume the Fe tablets, finding out the information regarding wife's pregnancy complaints, wife's pregnancy history, and recommendation to carry out early detection of high risk, at the percentage of 0%, respectively.

Multivariate analysis to see which variables (knowledge of ANC, knowledge of early detection of high risk as well as husband's behavior) most influence the reproductive health of the wife. These results can be shown in Table 2.

TABLE 2: Results of Multivariate Statistical Test.

Variable	Model 1			
	P	B	OR	95 % CI
Knowledge about ANC	0.008	1.218	3.380	1.375 – 8.309
Knowledge about Early Detection	0.000	2.415	0.089	0.029 – 0.274
Unhealthy Behavior	0.000	1.616	5.033	2.101 – 12.059

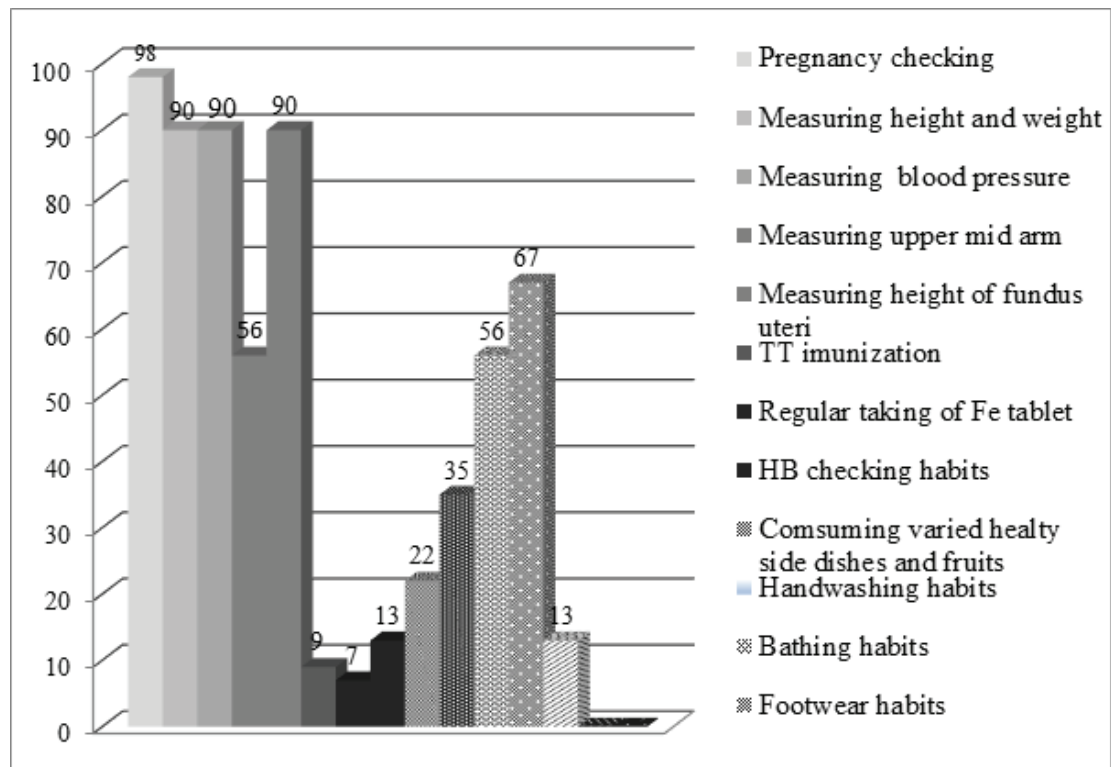


Figure 1: The Percentage of the Types of Husband Behavior in Pregnancy-Postpartum Care.

Based on the results of multivariate analysis, the variable with the greatest effect on the incidence of reproductive health problems is husband’s unhealthy behavior, then the knowledge about ANC and early detection become the protective factors. Husbands who have unhealthy/bad behavior in pregnancy is 5 times higher risk on their wives to experience reproductive health problems than those who have healthy/good behavior. Husbands with low knowledge of ANC is 3 times higher risk on their wives to experience reproductive health problems than those with good ANC knowledge.

4. Discussion

Based on the results, it shows that there were differences between groups of husbands with low education and husbands who were highly educated towards reproductive health problems with a p value 0,0018. It means that there is a significant relationship between the husband’s knowledge regarding ANC and reproductive health problems. This tendency occurs closely related to the low husband’s education level which makes them lack of insight and knowledge about the importance of ANC services for their wives. Another cause is that the husband is the head of the household who has full rights to regulate the household, including pregnancy and childbirth. The dominance of husbands in making decision regarding women’s reproductive health is often found that

women are late in getting healthcare services due to the lack of awareness regarding the importance of ANC and reproductive health [9]. In line with the results of this study, [10] also found that husbands who do not accompany their wives getting ANC checking is due to the low level of knowledge regarding the importance of ANC examinations which tends to make the wives not coming back to perform the next ANC examination due to a lack of support from the husband. Similarly, the results of the research by [11][12], which states that the level of knowledge of the husband about ANC also has an effect on the health condition of the wife, the better the level of knowledge of the husband about the ANC, the more aware the husband to know the danger signs by his wife, as it can save wife from the risk of death due to pregnancy and childbirth, on the contrary, the lower the knowledge of the husband, the higher the risk to experienced by the wife regarding reproductive health problems [13-15].

This study found that there is a significant relationship between the knowledge of early detection of high risk and reproductive health problems. This could be possible due to the low level of husband's support for Antenatal care visit, even though the wife will get an early detection service of high risk in the ANC care. This fact is in line with the research conducted by [16] which stated that the husband's knowledge regarding early detection of high risk contributed positively to the reduction in maternal mortality. Contrast to another result, Kaiser Family Foundation in America stated that women feel more responsible for raising children than men. Even a third of male respondents and 35% of female respondents said that men often felt "eliminated" if the topic was related to pregnancy and contraception planning [17]. This result is consistent with the research conducted by [18], which states that the higher the level of education of the husband, the higher the decision taken by the husband to bring his wife to treatment. Education will have an effect on the insight and knowledge of the husband as the head of the household. The lower the knowledge of the husband, the less the access to the wife's health information so that the husband will have difficulty in making decisions to be effectively [19]. Another study also found that husband has an important role on participation in postpartum care and reproductive health, their result showed that the husbands who always supports and established a good communication could lead to a better outcome of reproductive health [1], [11], [17].

Table 3 clearly shows that the husband's behaviors during pregnancy are to take the wife to get pregnancy check up, determine the place for giving birth, make referrals to healthcare facilities, prepare the cost of giving birth, support referral efforts if necessary, remind the wife to consume the Fe tablets, find out the information regarding wife's pregnancy complaints, wife's pregnancy history, recommend to carry out early detection

of high risk, and perform violence during pregnancy-postpartum period. The lowest behaviors are to remind to consume Fe tablets and Hb examination, find out information about wife's complaints and pregnancy history, and recommend early detection of high risk with a percentage of 0%, respectively. The most concerning behavior is seen from the percentage of violence during pregnancy-postpartum by 40%, all of which have an impact on wife's reproductive health. Pregnant women who do not know themselves at high risk, irregular consuming Fe tablets, and experience violence from their husband regarding the occurrence of bleeding have an effect on the incidence of maternal death. The results of this study are in accordance with the findings of the research conducted by [6], [20] which describes that the husband behavior during pregnancy to not to perform violence, and to love and accompany his wife, will be able to improve the reproductive health of his wife and baby which will reduce the number of cases of maternal and infant mortality in Indonesia.

Table 3 shows that among the three analyzed variables, husbands who have unhealthy/bad behavior in pregnancy is 5 times higher risk on their wives to experience reproductive health problems than those who have healthy/good behavior. Husbands with low knowledge of ANC is 3 times higher risk on their wives to experience reproductive health problems than those with good ANC knowledge. While, the knowledge about ANC and early detection become the protective factors. This finding is in line with the study conducted [5] stated that the bad husband behavior in pregnancy postpartum care may also be due to the lack of knowledge about antenatal care, early detection of high risk, and patriarchal culture where the behavior of individuals in the family, including husband's violence against the wife in the pregnancy postpartum period cannot be separated from the existence of social and religious norms allowing men's behavior to control women in cultural *setting*. *Naeya* culture (Kaili culture in Sigi) or moral guarding in which women are seen as a *naeya* symbol of a family. As a result, women are controlled, closely monitored by family members and even by the surrounding community which is more appropriately referred to as *tomasiri*' (the person who is responsible to guard the *naeya* of a family [5]).

5. Conclusions and Suggestions

The results showed that the level of husbands of knowledge about *Antenatal Care* and early detection of high risk was low, 58.88% and 56.66%, respectively. Husband behavior in pregnancy care was also categorized less healthy/bad, i.e., 55.55%, and the prevalence of wife's respondents who experienced reproductive health problems

was 57.7%. Husband's knowledge about ANC, early detection of high risk pregnancy, and husband behavior in pregnancy care had a significant relationship to reproductive health problems ($p < 0.05$). Husband behavior in pregnancy care has the greatest effect on maternal reproductive health problems with a P value = 0.001. It can be concluded that the husband's knowledge about antenatal care and early detection of pregnancy and postpartum period has an effect on maternal reproductive health in Sigi Regency, Central Sulawesi. It is expected that the development of models for improving husband's Information and Advocacy Communication of reproductive health can be a preventive effort in improving women's reproductive health.

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Conflict of Interest

The authors declare that they have no competing interests.

References

- [1] Thapa, D. K., & Niehof, A. (2013). Women's autonomy and husbands' involvement in maternal health care in Nepal. *Social Science and Medicine*, Vol 93, 1–10. <https://doi.org/10.1016/j.socscimed.2013.06.003>
- [2] Sapkota, S., Kobayashi, T., & Takase, M. (2013). Impact on perceived postnatal support, maternal anxiety and symptoms of depression in new mothers in Nepal when their husbands provide continuous support during labour. *Midwifery*, 29(11), 1264–1271. <https://doi.org/10.1016/j.midw.2012.11.010>
- [3] ICPD. (1994). International conference population Depelovment, Cairo.
- [4] Rosmala Nur, A. M., & Indah P Kiyai Demak, Fadliah, Elli B Yane, Nurhaya S Patui, Marselina, Muhammad Rusydi, Muhammad Asep Dwitama, R. E. T. (2019). Early age Married and Impact of Healt Reproduction Women. *MEDWELS*. Retrieved from <http://docsdrive.com/Pdfs/Medwelljournals/Jeasci/2019/981-986.Pdf>
- [5] Nur, R., Darwin, M., & Maria, A. (2017). Hegemony of Men and Violence against Women During Pregnancy-Post Childbirth in Sigibiromaru and Donggala Regency,

- Central Sulawesi, 4531, 299–312.
- [6] Nur, R., & Mallongi, A. (2016). Research Article Impact of Violence on Health Reproduction Among Wives in Donggala. <https://doi.org/10.3923/pjn.2016.Research>
- [7] Survey, I. D. and H. (2012). Jakarta Indonesia. Macro, International Calverton, Maryland, USA.
- [8] Ismail, R., He, M. T. D., Voss, J. G., Woods, N. F., John-stewart, G., Lowe, C., ... Boutain, D. (2018). A content analysis study: Concerns of Indonesian women infected with HIV by husbands who used intravenous drugs Rita. *Journal of the Association of Nurses in AIDS Care*. <https://doi.org/10.1016/j.jana.2018.04.012>
- [9] Mizukoshi, M., Ikeda, M., & Kamibeppu, K. (2016). The experiences of husbands of primiparas with depressive or anxiety disorders during the perinatal period. *Sexual and Reproductive Healthcare*, 8, 42–48. <https://doi.org/10.1016/j.srhc.2016.02.002>
- [10] Påfs, J., Musafili, A., Binder-Finnema, P., Klingberg-Allvin, M., Rulisa, S., & Essén, B. (2015). “They would never receive you without a husband”: Paradoxical barriers to antenatal care scale-up in Rwanda. *Midwifery*, 31(12), 1149–1156. <https://doi.org/10.1016/j.midw.2015.09.010>
- [11] Rahman AE1, Perkins J2, Islam S3, Siddique AB3, Moinuddin M3, Anwar MR3, Mazumder T3, Ansar A3, Rahman MM3, Raihana S3, Capello C2, Santarelli C2, El Arifeen S3, H. D. (2018). Knowledge and involvement of husbands in maternal and newborn health in rural Bangladesh. *BMC Pregnancy Childbirth*, 18(1).
- [12] Sialubanje, C., Massar, K., Kirch, E. M., Van Der Pijl, M. S. G., Hamer, D. H., & Ruiters, R. A. C. (2016). Husbands’ experiences and perceptions regarding the use of maternity waiting homes in rural Zambia. *International Journal of Gynecology and Obstetrics*, 133(1), 108–111. <https://doi.org/10.1016/j.ijgo.2015.08.023>
- [13] Deependra Kaji Tapa, A. N. (2013). Women’s autonomy and husbands’ involvement in maternal health care in Nepal. *Social Science & Medicine*, 93, 1–10.
- [14] Kawungezi PC1, AkiiBua D1, Aleni C1, Chitayi M1, Niwaha A1, Kazibwe A1, Sunya E2, Mumbere EW2, Mutesi C3, Tukei C3, Kasangaki A4, N. S. (2015). Attendance and Utilization of Antenatal Care (ANC) Services: Multi-Center Study in Upcountry Areas of Uganda. *Open J Prev Med.*, 1(3), 132–142.
- [15] Mboane, R., & Bhatta, M. P. (2015). Influence of a husband ’ s healthcare decision making role on a woman ’ s intention to use contraceptives among Mozambican women.???, 1–8. <https://doi.org/10.1186/s12978-015-0010-2>
- [16] Zaman SB1, Gupta RD2, Al Kibria GM3, Hossain N4, Bulbul MMI5, H. D. (2018). Husband’s involvement with mother’s awareness and knowledge of newborn

danger signs in facility-based childbirth settings: a cross-sectional study from rural Bangladesh. *BMC Res Notes.*, 11(1).

- [17] Aarnio, P., Kulmala, T., & Olsson, P. (2018b). Husband's Role in Handling Pregnancy Complications in Mangochi District, Malawi: A Call for Increased Focus on Community Level Male Involvement. *Sexual & Reproductive Healthcare*. <https://doi.org/10.1016/j.srhc.2018.02.005>
- [18] Febyanti, N. K., & Susilawati, D. (2007). Relationship of Knowledge of Pregnant Women About Antenatal Care Against Pregnancy Visit Behavior. *JNursing Journal of Sudirman*
- [19] Science, E. (2018). Factors Affecting Husband Participation in Antenatal Care Attendance and Delivery Factors Affecting Husband Participation in Antenatal Care Attendance and Delivery.
- [20] Santhya KG. (2011). Early marriage and sexual and reproductive health vulnerabilities of young women: a synthesis of recent evidence from developing countries. *Current Opinion Obstetry & Gynecology*, 23(5), 334–339.