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## Husband's Role in Detecting Danger Signs of the Wife's Pregnancy through the Husband's Book

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### Abstract

This study was to determine the effectiveness of husband's book android-based on the ability to detect danger signs in pregnant women. This is an experimental study of one group pre-post test design with a sample of 144 people from a population of 71,970 pregnant women in the study location. The data were then analyzed using the Paired t test statistical test. 72.2% of the husband's ability to detect danger signs in pregnant wife on the pre-test was not good, and the post-test with the percentage of the husband's ability to detect danger signs in pregnant women after being given the husband's digital book was 75.7% good. Paired t test ( $p = 0.000$ ) shows the effect of giving a husband's digital book on the husband's ability to detect danger signs of pregnant wife. Husband's digital book has an effect on the husband's ability to detect danger signs of pregnant wife. We suggest that the authorities establish regular procedures to increase the husband's knowledge of the danger signs of pregnant women in order to function as a companion.

**Keywords:** Pregnancy danger sign; Digital Book; Husband's Role.

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## **1. Introduction**

Pregnancy and childbirth put a woman in danger of life due to ravelment. Per annum, expectant mortality worldwide redoundoverinings million deaths, of which 99% are found in developing countries [1]. The presence of appropriate health care services can reduce expectant morbidity and mortality, with these qualities it must be utilized as well as possible[2,3]. Husbands have a very important role for pregnant wives such as accompanying both during pregnancy and during childbirth [4]. Pregnant women really need social support, especially from their husbands, because spouse's support is prominentelement in the success of mothers through difficult times in pregnancy [5]. Husband's participation during pregnancy improves maternal health [6]. Health education provided to husbands or future fathers can increase participation in health programs, especially health related to pregnant women [7]. Forms of husband's participation include emotional support, knowing the needs of pregnant women and the risks of pregnancy [8]. The importance of the spouse's part both throughoutimpregnated and in delivery process is clearly seen in the people of developing countries. It is recognized that increasing husband's knowledge as to the needs of pregnant wife and the danger signs of pregnant women can increase the role of a husband in assisting pregnant women. Health services ought target spouse as recipients of mother health service counseling [9]. The men part in maintaining maternal well-being has escalated research concern in late years[10,11]. Men participate in managing complications of pregnancy and childbirth, such as questing medical assistance, settle transportation, and setmenagerevenue [12,13]. Nevertheless, this duty is sometimes ignored and neglected by the husband. As a survey results in South-Asia, most of the patriarch have limited comprehension and impression of gestation [14,15]. thus reducing their involvement in their wives' pregnancy [11]. Certainly, this problem has a serious impact on maternal health. A husband is a decision maker in his household, regardless of their level of understanding in pregnancy, but in an emergency situation they are obliged to control the situation [12]. Indeed, traditionally women take more roles, however they still really need the involvement of their spouse, especially in the delivery process [12–14]. It turns out that there is a need to reject the view of men as "oppressors" and to acknowledge them as partners in life[15]. There are very few studies focused on the role of the husband in pregnant women so that it is less understood than the role of the husband in other health sectors [16–18]. Another study conducted in developed countries reveals a gap to developing countries in performing men's role, where they are fitted to the role than in developing countries [18]. In low resource countries, Mostly, the role of men in accompanying their partners is only done in conditions of complications [19], some are just waiting outside the clinic whilst theirwife partake in health discourse and advicewith the health worker [20]. Hence, the spouses are ignorant the health promotion and ailmentdeterrencemanuever due to the lack of understanding [21]. Current day, there are massive individual internet penetration through Smartphone, WHO recommends mobile health (M-Health) as a breakthrough in health services [22]. Android-based health promotion is quite effective in enabling the husband's understanding of the danger signs in pregnant women. Husband and wife application is a media choice that allows the husband's understanding to increase in maximizing his role in assisting a pregnant wife. Previous study has shown increased through counseling the husband can understand more about pregnancy, especially about the danger signs. The husbands with risk during pregnancy knowledge was higher by “**Suami Siaga Plus**” application than face to face counseling (61.5 to 62.6). Combining these both strategies improved the score up to 20% which indicates high effectiveness [23]. This study focuses on exploring Android-based partner

assistance leverage the discovering ability of danger signs in pregnant women. To the best of our knowledge, this research has never been done so that it can make a scientific contribution.

## **2. Materials and Methods**

This is an experimental study using pre and post design with two measurements conducted in Jambi Province in 2020. All husbands with pregnant wives constitute the population of this study; using non-probability sampling techniques obtained a sample of 144 people. The sample is selected with criteria including having an Android cell phone and filling out the questionnaire link using the Google form. Respondents also need to sign an informed consent as part of the ethical issue. At the beginning of the implementation, we educated husbands regarding the use of the Husband- Love-Wife application. The wives are free to access the program. The four main features of information are (1) female characteristics (age, parity, Hb level, height, birth distance and upper arm circumference) and stage of pregnancy. This application also records the first day of the last menstruation to calculate gestational age, complaints, and the main signs of danger and complications. Another feature of this application also provides an ANC schedule reminder, fetal thrive information and expectant exercise. In the confinement feature, the husband intended to identify the main risk presagelabor, also instruct to note the wife's complaints (if any) during the delivery process and what the husband should do in case of danger signs of pregnancy. We conducted univariate analysis based on varied studied and bivariate analysis using the Paired t test statistical test aimed at determining the effect of using the Husbands Wife Smartphone application. Ethical Committee Board of the Health Polytechnic of the Ministry of Health in Jambi (Jambi Health Polytechnic), Jambi, Indonesia approved with reference number LB.02.06 / 2/140/2020, on August 14, 2020.

## **3. Results**

### Respondents' Characteristics

The average age of husbands was 35 years with varied education, where most of them completed secondary school (81.2%) and a small proportion at the elementary level (13.2%) and tertiary education (5.6%). The ages of the wives tended to be younger, in the range of 21 to 45 years (mean 28.2 years). Most of the wives are no longer working (30.6%) with a secondary education level (60.4%). Based on their pregnancy status, most were primigravida (52.1%), and others were multigravida. These characteristics of husband and wife as spouse can be seen in Table 1.

**Table 1:** The Frequency Distribution of Spouse Characteristics

Characteristics	Frequency	Percentage
<b>Husband Age (Years Old)</b>		
23 – 28	22	15.3
29-34	23	16.0
35-40	65	45.1
41-46	34	23.6
<b>Husband's Employment</b>		
Employed	100	100.0
Unemployed	0	0
<b>Husband Education Level</b>		
Elementary	19	13.2
Junior High School	97	67.3
Senior High School	20	13.9
Bachelor	8	5.6
<b>Wife's Age (Years Old)</b>		
21 – 26	14	9.7
27 – 32	85	59.0
33 – 38	33	23.0
39 – 45	12	8.3
<b>Wife's Employment</b>		
Employed	100	69.4
Unemployed	44	30.6
<b>Wife's Education</b>		
Elementary	44	30.6
Junior High School	55	38.2
Senior High School	32	22.2
Bachelor	13	9.0
<b>Pregnancy Status</b>		
Nullipara	40	27.8
Primigravida	75	52.1
Multigravida	29	20.1

Comparison of Husband's Ability

**Table 2:** Comparison of Husband's Ability in detecting danger signs in pre and post Pregnant Women, given the digital book of Husband and Wife n = (144)

Criteria of the Variable	Pre test		Post test	
	n	%	n	%
Poor	104	72,2	35	24,3
Good	40	27,8	109	75,7

In the pre test, 104 respondents (72.2%) had less ability to detect danger signs in pregnant women, while after

being given digital books, the husband's ability increased to 109 (75.7%) good. This comparison is shown in Table 2.

#### Analysis of Husband's Ability

**Table 3:** The frequency distribution of the husband's ability to detect danger signs of pregnant women before and after given the digital book application for husbands love wife

	Average (s.b)	Deviation (s.b)	Value <i>p</i>
Before being given the application (n:144)	60,20 (23,98)	24,38 (23,28)	0.000
After being given the application (n:144)	84,58 (15,81)		

The results of the paired t test led to p-Value = 0.000 ( $p < 0.05$ ), confirming the effect of giving a husband's wife's digital book on the husband's ability to detect danger signs of pregnant women. The analysis can be seen in Table 3. So far, the Guidelines for SEDICD for cadres have only been found in the MCH Handbook and SEDICD Guidelines for health workers. Previous researchers have developed guidelines in the form of SEDICD booklets for health cadres. Currently, learning needs require several effective learning methods, especially in digital form.

#### 4. Discussion

This study describes the weak ability of the husband in detecting danger signs of pregnant women in Jambi Province based on the results of the pre-test given. The previous study in Southern Ethiopia is in line with the current study with the evidence that 42% of husbands are aware of the emergency situation of pregnant women, with the other intention that husband's participation in emergency situations is not good [24]. The low ability of the husband in detecting the early danger of childbirth is probably influenced by eastern or Indonesian culture which upholds the principle that the husband as the leader of the family focuses on the main function of finding money to meet the needs of the wife during pregnancy and preparation for delivery, so that the spouse's participation in escorting the pregnant wife is rare. Other researchers also share the same result that sizable socio-demographic variations are less supportive of their partners in processes related to maternity care, labor and delivery, and first day care at home are more dependent on health workers providing services [25]. The involvement of men in supporting pregnant women to use midwifery services early in an emergency situation may make pregnant women prepare for birth and face complications. The strategy of entangle spouse in the care aims to increase their sensible of tocology emergencies [24]. Perinatal Care (PNC) needs spouse engage effective strategy for improving maternal health. To be able to participate, men / husbands need to receive health education. The most education that husbands need is how to provide emotional support to pregnant women, changes in physiology and signs of risk during pregnancy [26]. In general, after being given the Digital Book of Husband and Wife, the evaluation proved that the husband's ability level had increased in detecting the early dangers of pregnancy. This research not only proves the success of the media in disseminating information related to health programs effectively, but also proves the effectiveness of the media in increasing awareness of husbands as the closest person to pregnant women in identifying early risks of

pregnancy. The participation of couples during pregnancy in this study is characterized by husbands attending counseling sessions, taking their wives to the doctor's clinic, and supporting their wives better in preparing for labor, providing transportation for mothers to check up, providing information about high-risk pregnancies, giving praise to encourage mothers check themselves, exchange opinions with mothers and families and discuss problems solving. In addition, another study concluded that awareness of pregnancy complications can be achieved through health education methods [23]. Smartphones are effective in providing health education to the public with ease and convenience in transferring knowledge so that knowledge, childbirth preparedness practices and readiness for complications can increase [27,28]. As stated in previous researches, there is a vast difference between the impact on health behavior between educating wives alone and educating married couples.[13,29].

## **5. Limitation**

Some husbands have not maximized the use of smartphone media to improve their knowledge in detecting signs of danger in pregnancy.

## **6. Conclusion**

The husband and digital wife book has been proven to increase the husband's ability to detect the dangers in early pregnancy, so it is imperative to be applied to all husbands who have pregnant women to increase the husband's role in preventing pregnancy complications.

## **7. Recommendation**

Health workers need to provide structured assistance to husbands of pregnant women to increase their knowledge of the use of Smartphone devices.

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