

The Relationship Of Knowledge And Attitude Of Pregnant Mothers About The Benefits Of Ultrasound On Their Pregnancy At The Silau Laut Puskesmas, Silau Laut District In 2021

Herlia Sumardha Nasution

Universitas Haji Sumatera Utara, Jl. Samanhudi No. 292, Binjai Estate, Kecamatan Binjai Selatan, Kota Binjai, Provinsi Sumatera Utara, 20727

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ABSTRACT

One of the pregnancy tests that can be used is Ultrasonography (USG). The mother's willingness to do ultrasound is very dependent on the mother's knowledge and attitude to use ultrasound to determine the development and health of the fetus. This study aims to determine the relationship between knowledge and attitudes of pregnant women about the benefits of ultrasound on pregnancy at the SilauLaut Health Center, SilauLaut District in 2021. This research is a descriptive correlation research with cross sectional approach. This research has been carried out on August 1, 2021 until August 14, 2021. The population is 275 people. Sampling using accidental sampling with a total sample of 34 people. The results showed that the majority of pregnant women's knowledge about the benefits of ultrasound at the SilauLaut Health Center in SilauLaut Sub-district in 2021 was quite good. Sea Glare In 2021 the majority of the second trimester. Based on the results of the chi-square test, it was found that knowledge ($p=0.0001<0.05$) and attitude ($p=0.0001<0.05$). The conclusion that's there is a relationship between knowledge and attitudes of pregnant women about the benefits of ultrasound on pregnancy at the SilauLaut Health Center, SilauLaut District in 2021. The suggestion in this study is that the SilauLaut Health Center provides socialization related to the importance of pregnancy checks and the use of ultrasound so that pregnant women not only assume that the use of ultrasound is only to see gender but can know the health and condition of the fetus.

E-mail:

nasutionlia5787@gmail.com

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1. Introduction

Pregnancy is a normal and natural reproductive process. A woman at any time can face various risks of complications that threaten the mother and fetus (Sukartiningsih, 2014). Pregnant women are advised to carry out pregnancy checks at least 4 times, namely once during the first and second trimesters and 2 times during the third trimester (Safitri et al, 2019).

Many examinations that can be done by mothers during pregnancy, one of which is an examination using Ultrasonography (USG). The mother's willingness to do ultrasound is very dependent on the mother's knowledge and attitude to use ultrasound to determine the development and health of the fetus. This is in line with Akbar (2017) which states that the mother's efforts to use ultrasound to check the condition of her fetus depend on the high or low knowledge of the mother about the benefits of ultrasound.

Ultrasound examination is an imaging tool that uses high-frequency sound waves to produce a cross-sectional image of the fetus. The use of ultrasound aims to determine the presence or absence of pregnancy, whether or not the fetus is alive, the location of the placenta, and gestational age (Akbar, 2017).

Based on data from the World Health Organization (WHO) in 2017, it was stated that

ultrasound examinations in Germany were carried out routinely three times, namely at the 9th to the 12th week of pregnancy, the 19th to the 22nd week of pregnancy, and the 29th week. up to 32 pregnancies, in Glasgow, Scotland pregnant women have an ultrasound examination an average of 2.8 times, in Australia, ultrasound examinations are performed twice in the 9th to 13th weeks of pregnancy and at the 14th to 13th weeks of pregnancy. 18th pregnancy (WHO, 2017).

In Indonesia, several educational centers recommend an ultrasound examination once at 18-20 weeks of pregnancy. Ultrasound examination was carried out on mothers who had just been found to be pregnant at Gatot Subroto Army Hospital, Jakarta. At the hospital, an ultrasound screening for abnormalities was also carried out twice, at 10-14 weeks of gestation and 18-22 weeks (Akbar, 2017).

Approximately 17% of fetal abnormalities are difficult to detect in the first trimester and can be detected in the second trimester. These abnormalities include spina bifida, heart and extremity abnormalities. The difficulty of detecting abnormalities is due to the fact that all organs are not fully developed in the first trimester. Ultrasound examination in the third trimester can detect abnormalities in the form of hydrocephalus, pyloric stenosis, renal agenesis, and osteogenesis imperfecta (Sahlan, 2016).

Pregnancy examination using ultrasound is done at least once or twice to find out the condition of the baby (Safitri et al, 2019). Mothers who have poor knowledge and negative attitudes do not necessarily want to have their pregnancy checked using ultrasound. Knowledge is the result of knowing, which occurs after people sense certain objects. The majority of knowledge is acquired through the eyes and ears. Knowledge is a guide in shaping one's actions (Notoadmodjo, 2014). Knowledge basically consists of a number of facts and theories that allow a person to be able to solve the problems he faces. Knowledge is a guide in shaping one's actions (Alexander, 2016). Based on the results of interviews with 10 pregnant women who visited the Silau Laut Health Center, it was found that as many as 4 mothers had never had an ultrasound examination because they did not know about the benefits and because they considered their pregnancies to be normal, 2 mothers said that ultrasound examinations were only commonly used. to see gender, 2 mothers did not know that ultrasound examination was useful for knowing the first period of the last menstrual period (HPHT). Meanwhile, 2 more people said they had done an ultrasound because the midwife asked.

2. Method

This research is a descriptive correlation research, which is a research that is directed to explain the relationship between two independent variables and the dependent variable with a cross sectional approach. The population in this study were all pregnant women who had their pregnancy checked at the Silau Laut Health Center from January 2021 to July 2021 as many as 275 people. The sampling technique used the accidental sampling technique, which is sampling done by chance, that is, anyone who coincidentally meets the researcher can be used as a sample (Sugiyono, 2015), so the sample size will be determined based on the number of pregnancy visits at the Silau Laut Health Center in in July 2021 in a period of 2 weeks as many as 34 people.

Univariate data analysis was carried out to obtain an overview of the frequency distribution of respondents including age, education and occupation variables as well as descriptions of the independent variables (Knowledge and Attitudes) and the dependent variable (Pregnancy). Bivariate analysis was carried out using the chi-square test statistic then the results were narrated.

3. Results and Discussion

3.1 Analysis And Results

TABLE 1
UNIVARIATE ANALYSIS KNOWLEDGE OF PREGNANT WOMEN ABOUT THE BENEFITS OF ULTRASOUND AT THE SILAU LAUT HEALTH CENTER, SILAU LAUT DISTRICT IN 2021

No	Knowledge of Pregnant Women about the Benefits of Ultrasound	Frekuensi (f)	%
1	Not enough	9	26,5
2	Enough	15	44,1
3	Well	10	29,4
	Total	34	100

Based on the results of the study, it was found that the majority of pregnant women's knowledge about the benefits of ultrasound was quite good. This is supported by the answers to the questionnaire that there are still many mothers who do not know that the first ultrasound should be done at 6 weeks of gestation. This is to find out whether the mother is indeed pregnant or not and whether the pregnancy is inside or outside the womb. Then many respondents do not know that ultrasound in the third trimester is useful for detecting abnormalities or defects in the baby and considers ultrasound will disturb the baby and will be dangerous to the baby's health and many mothers do not know that with ultrasound examination the mother can find out the estimated delivery.

TABLE 2
ANALISIS UNIVARIAT ATTITUDES OF PREGNANT WOMEN ABOUT THE BENEFITS OF ULTRASOUND AT THE SILAU LAUT HEALTH CENTER, SILAU LAUT DISTRICT IN 2021

No	Attitudes of Pregnant Women about the Benefits of Ultrasound	Frekuensi (f)	%
1	Negatif	11	32,4
2	Positif	23	67,6
	Total	34	100

Based on the results of the study, it was found that the attitudes of pregnant women about the benefits of ultrasound were mostly positive. This is supported by the answers of respondents who stated that they strongly agreed that mothers had their pregnancy checked using ultrasound to determine the condition and health of the fetus in the mother's womb and respondents stated that they strongly disagreed that mothers had their pregnancy checked using ultrasound because they were forced by the midwife.

TABLE 3
ANALISIS UNIVARIAT MOTHER'S PREGNANCY AT THE SILAU LAUT HEALTH CENTER IN SILAU LAUT DISTRICT IN 2021

No	Pregnancy	Frekuensi (f)	%
1	Trimester I	8	23,5
2	Trimester II	17	50,0
3	Trimester III	9	26,5
	Jumlah	34	100

Based on the results of the study, it was found that the majority of the mother's gestational age was in the second trimester. In the second trimester of pregnancy, the mother should have her pregnancy checked twice to see and know the health of the fetus. This is in line with Triana's research (2021) which states that pregnant women should have their pregnancy checked before 14 weeks of pregnancy once and 14-28 weeks of gestation once. This aims to detect problems that can be handled before endangering their lives, preventing problems, for example. : neonatal tetanus, anemia, harmful traditional habits, Encouraging healthy behavior (nutrition, hygiene, exercise, rest, sex, etc.) and special precautions regarding gestational hypertension by detecting symptoms of preeclampsia, monitoring blood pressure, evaluating edema, and proteinuria.

TABLE 4
ANALISIS BIVARIATE THE RELATIONSHIP OF KNOWLEDGE OF PREGNANT WOMEN ABOUT THE BENEFITS OF ULTRASOUND ON PREGNANCY AT THE SILAU LAUT HEALTH CENTER, SILAU LAUT DISTRICT IN 2021

No	Mother's Knowledge of the Benefits of Ultrasound	Pregnancy						Total	R ²	Nilai P	
		Trimester I		Trimester II		Trimester III					
		f	%	f	%	f	%				
1	Not enough	6	66,7	3	17,6	0	0	9	100,0	0,615	0,0001
2	Enough	2	13,3	13	86,7	0	0	15	100,0		
3	Well	0	0	1	10,0	9	90,0	10	100,0		
	Total	8	23,5	17	50,0	9	26,5	34	100		

Based on the results of the study, it was found that the mother's knowledge about the benefits of ultrasound was in the sufficient category and the majority of the mother's gestational age was in the second trimester. Then based on the results of the chi-square test, a p-value of $0.0001 < =0.05$ was obtained, then H_0 was rejected, meaning that there was a relationship between knowledge of pregnant women about the benefits of ultrasound on their pregnancy at the Silau Laut Health Center, Silau Laut District in 2021, with a fairly strong relationship strength of 0.615. According to the researcher's assumption that the better the mother's knowledge about the use of ultrasound, the better the behavior of the mother to check her pregnancy at the Silau Laut Health Center and vice versa, mothers who are less knowledgeable will lead to wrong assumptions about the use of ultrasound, namely most mothers think that ultrasound is only used to see baby gender.

TABLE 4
ANALISIS BIVARIAT THE RELATIONSHIP OF PREGNANT WOMEN'S ATTITUDES ABOUT THE BENEFITS OF ULTRASOUND ON PREGNANCY AT THE SILAU LAUT HEALTH CENTER, SILAU LAUT DISTRICT IN 2021

No	Mother's Attitude about the Benefits of Ultrasound	Pregnancy						Total		R ²	Nilai P
		Trimester I		Trimester II		Trimester III		F	%		
		f	%	f	%	f	%				
1	Negatif	7	63,6	4	36,4	0	0	11	100,0	0,615	0,0001
2	Positif	1	4,3	13	56,5	9	39,1	23	100,0		
Total		8	23,5	17	50,0	9	26,5	34	100		

Based on the results of the study, it was found that the attitude of pregnant women about the benefits of ultrasound was in the positive category and the majority of the mother's gestational age was in the second trimester. Then based on the results of the chi-square test, the p-value is $0.0001 < =0.05$, then H_0 is rejected, meaning that there is a relationship between the attitudes of pregnant women about the benefits of ultrasound on their pregnancy at the Silau Laut Health Center, Silau Laut District in 2021 with a strong relationship strength of 0.839. According to the researcher's assumption that the more positive the mother's attitude about the use of ultrasound, the better the mother's willingness to check her pregnancy so that the assumption that checking her pregnancy using ultrasound is not important because she thinks that pregnancy is not problematic

3 Conclusion

That of 34 respondents there are 15 respondents (44.1%) with sufficient knowledge, 23 respondents (67.6%) have a positive attitude, maternal knowledge about the benefits of ultrasound is in sufficient category and the majority of maternal gestational age is in the second trimester as many as 13 respondents (86, 7%). with a p-value of $0.0001 < =0.05$, the attitude of pregnant women about the benefits of ultrasound in the positive category and the gestational age of the majority of the mothers in the second trimester of 13 people (56.5%) with a p-value of $0.0001 < =0,05$.

References

- American Institute of Ultrasound in Medicine. 2013, AIUM Practice Parameter for the Performance of Obstetric Ultrasound Examinations. AIUM, Laurel, MD.
- Akbar, A.R, 2017. Hubungan Tingkat Pengetahuan Ibu Hamil tentang Ultrasonografi dalam Pemeriksaan Kehamilan dengan Pemanfaatan Ultrasonografi di Puskesmas Padang Bulan Medan. Skripsi. Universitas Sumatera Utara. Sumatera Utara:
- Alexander dan Febrianti, 2016. Hubungan Pengetahuan dan Sikap Ibu Hamil dengan Kesiapan Pemeriksaan HIV dan AIDS. Jurnal Kebidanan. Volume 6. Nomor 2. ISSN : 2252-8121
- D'Addario, V. 2015, Donald School Basic Textbook of Ultrasound in Obstetrics and Gynecology. The Health Sciences Publishers, New Delhi.
- Dietz, H. P. 2016, Pelvic Floor Ultrasound. Professor of Obstetrics and Gynaecology, Australia.
- Kurjak, A., Arenas, J. B. 2013, Donald School Textbook of Transvaginal Sonography, 2nd edn, Jaypee Brothers Medical Publishers (P) (Ltd), New Delhi.
- Ludmila, Ifsilanti Alwan, 2018. Asuhan Kebidanan Continuity Of Care Pada Ny M Masa Hamil Sampai Dengan Keluarga Berencana Di Bpm Muryati Sst.Keb Sukorejo Ponorogo. Tugas Akhir (D3), Universitas Muhammadiyah Ponorogo.
- Notoatmodjo, S. 2014. Ilmu Perilaku Kesehatan. Jakarta: Rineka Cipta.
- Notoatmodjo. 2010. Metodologi Penelitian Kesehatan. Jakarta : PT. Rineka Cipta

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- Nursalam, 2013. Metodologi Penelitian Ilmu Keperawatan: Pendekatan Praktis. Edisi 3. Jakarta. Salemba Medika.
- Profil Puskesmas Silau Laut, 2021. Data Kunjungan Pemeriksaan Kehamilan
- Safitri, O, Utari, N dan Muli, E.Y, 2019. Hubungan Tingkat Frekuensi Ibu USG terhadap Keputusan Teknik Persalinan. *Jurnal Wellness and Healthy Magazine*. Volume 1. Nomor 2. ISSN : 2656-0062
- Salhan, S. 2016, Textbook of Obstetrics. 2nd edn. The Health Science Publishers, New Delhi.
- Sitanggang, Berliana dan Nasution, Siti Saidah S. 2012. Faktor-Faktor Status Kesehatan pada Ibu Hamil. *Jurnal Keperawatan Klinis* Vol 4 No. 1
- Sugiyono. 2014. Metode Penelitian Pendidikan Pendekatan Kuantitatif, Kualitatif, dan R&D. Bandung: Alfabeta.
- Sukartiningsih, M.C.E, 2014. Hubungan Pengetahuan Ibu Hamil tentang Tanda Bahaya Kehamilan dengan Keteraturan Melaksanakan Antenatal Care di Puskesmas Pembantu Dauh Puri Denpasar Tahun 2014. *Jurnal Kebidanan*. Volume 1. Nomor 1. ISSN : 2406-8179
- Waryana, 2010. Gizi Reproduksi. Yogyakarta: Pustaka Rihana
- Wawan.A, and M.Dewi. 2011. Teori Dan Pengukuran Pengetahuan Sikap Dan Perilaku Manusia. Yogyakarta : Nuha Medika
- Wilhjelm, J. E., Illum, A., Kristensson, M. et al. 2016, Medical Diagnostic Ultrasound-Physical Principles and Imaging. Diunduh dari <http://bme.elektro.dtu.dk/jw/webbook/Ultrasound/main.pdf>
- World Health Organization. 2017, Diagnostic Imaging, WHO, Geneva