

# The Influence of Husband Support to the Event of Unmet Need in the Fertilizer Age in the Work Area of the Bangkelekila Community Health Center of North Toraja Regency

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# Abstract

This study aims to determine the effect of husband support on contraceptive use based on age, education, parity, and culture. This research was conducted with a cross-sectional design, involving 267 couples of childbearing age by means of the Cluster Random Sampling. Data collection using a questionnaire. Bivariate analysis using Chi-Square test. The results of this study indicate that 66 people (24.7%) of the total respondents included in the unmet need. The results of data analysis showed that there was an influence between husband's support and the unmet need in fertile age couples with a value of p = 0.000 (<0.05). Age, shows that based on healthy reproduction there is an influence of husband support on the occurrence of unmet need with a value of p = 0.002 (<0.05) and unhealthy reproduction there is an influence of husband support on the occurrence of unmet need with a value of p = 0.001(<0.05). Education, shows that based on higher education there is an influence of husband support on the unmet need event with a value of p = 0,000 (<0.05) and based on low education there is an influence of husband support on the unmet need event with a value of p = 0.004 (<0.05). Parity, shows that based on safe parity there is an influence of husband support for the unmet need event with a value of p = 0.002(<0.05) and insecure parity there is the effect of husband support for the unmet need event with a value of p = 0.001 (<0.05). Culture shows that based on supportive culture there is an influence of husband support on unmet need with a value of p = 0.002 (<0.05) and a culture that does not support the influence of husband support on the occurrence of unmet need with a value of p = 0.001 (<0.05).

Keywords: Unmet Need; Husband Support; Community Health Center

# Introduction

Unmet need according to the BKKBN (National Population and Family Planning Agency) is a need for couples of childbearing age for family planning but these needs are not met. Unmet need is the

proportion of married women who are reported to have all desired and unwanted children but do not use contraception, even though they are not protected from the risk of pregnancy. Low use of contraception is a public health challenge that requires an immediate and effective solution. In 2010, 146 million (130-166 million) women in the world aged 15-49 who were married had unmet needs for family planning. In Indonesia, the number of unmet needs reaches 11 percent which, if converted to the number of fertile age couples which reaches 36 million, then around 4 million couples need but not yet served (SKDI, 2017).

Husband support is needed to maintain the stability of respondents in the use of contraception. Husband's support can influence the wife's behavior. If the husband does not allow or support, then the wife will tend to follow and only a few wives dare to keep installing contraception. Research by Dutta (2018) shows that Participants whose husbands do not approve of contraceptive use significantly influence the unmet need. The study of Sinai et al (2019) shows normative, social, and financial factors, such as the need for husband's permission to access services, the insistence of service providers on the approval of influential spouses with unmet needs. Uddin et al (2019) show that the reason for not using the contraceptive method is the fear of an uncooperative husband's attitude (7.58%).

Research by Satriyandari (2018), Dewi et al (2018), Sarlis (2018), and Wahab (2014) showed that there was a significant influence between husband's support and unmet need. Wulifan et al (2017) research shows that pregnant women whose partners do not approve of contraception (OR = 1.51) and women who want fewer children compared to their partners (OR = 1,907) are significantly more likely to experience unmet need for family planning.

The number of unmet needs in South Sulawesi Province is higher than the national number of unmet needs (11%), which is 13.95%. The highest Unmet need figure in South Sulawesi is in Enrekang Regency, amounting to 23.34 percent. Followed by North Toraja 18.76 percent, and Tana Toraja 18.45 percent. North Toraja is the regency that experiences the second-highest level of unmet need for family planning, with a total of 20,815 out of 31,383 total EFAs. The sub-district in North Toraja that experienced the highest percentage of unmet need for family planning was Bangkelekila' sub-district, which was 35.47% or as many as 338 of the 953 Fertile Age Couple (National Population and Family Planning Agency, 2018).In North Toraja or Toraja districts in general there is an assumption that many children have a lot of fortune and patrilineal culture makes men the head of the family who have the responsibility to make decisions. This makes the husband's perception of contraception and his views and knowledge of the family planning program used as a basis for decisions in the family to use certain FP/KB methods or methods.

The value of children for the Toraja Sa'dan is very important. Having many children is still the main view for most *Sa'dan* residents. The government's Family Planning Program (KB) which directs two children is better not for Toraja Sa'dan. The term KB for the Toraja Sa'dan was changed to "extended family", to indicate the large number of children they have. The concept of childbirth from every mother that researchers meet, assumes that labor is a natural thing to happen, no need to be confused in preparing everything to deal with the process. A strong enough factor is the belief in God, that He gave strength to give birth because children are a blessing from God. The mother is confident that she can bring the child into the world with her strength and God's help (Ministry of Health Republic of Indonesia Health Research and Development Agency, 2012).Based on the description above, we can see that the Unmet need for family planning is strongly influenced by the husband's support factor. This needs to get joint attention so that the family planning program can be implemented well. The purpose of this study was to determine the effect of the husband's support for the unmet need incident in the area of Bangkelekila' Health Center in the North Toraja Regency.

#### Methods

#### Research Design

This research was conducted in the working area of Bangkelekila' Health Center in the North Toraja Regency. This type of research is observational analytic with a cross-sectional study approach.

#### Population and Sample

The population in this study were couples of childbearing age in the working area of Bangkelekila Health Center 'Bangkelekila District' in North Toraja Regency as many as 953. The sample in this study involved 267 couples of childbearing age who were selected by means of random sampling.Data collection using a questionnaire. For respondents with higher education fill in their own questionnaire and respondents with less education by interview using a questionnaire.

## Data Analysis

The data obtained were analyzed using SPSS for Windows 25 computer applications where univariate analysis is displayed with a frequency distribution table while bivariate analysis uses the chi-square test to determine the effect of the dependent variable with the independent variable.

# Results

# Table 1. Distribution of Respondents by Characteristics in the Work Areas of the Bangkelekila Health Center 'Bangkelekila District' North Toraja Regency 2020

bangkelekna District North Toraja Regency 2020						
<b>Respondent Characteristics</b>	n	%				
Age						
Healthy reproduction	134	50.2				
Unhealthy reproduction	133	49.8				
Husband Education						
Never attended school	2	0.7				
Elementary school	89	33.3				
Junior School	54	20.2				
High school	101	37.8				
D3	1	0.4				
D4/S1 (Bachelor)	20	7.5				
Wife Education						
Never attended school	5	1.9				
Elementary school	88	33.0				
Junior School	64	24.0				
High school	79	29.6				
D3	7	2.6				
D4/S1 (Bachelor)	24	9.0				
Culture						
Support	96	36.0				
Does not support	171	64.0				
Parity						
Safe parity	98	36.7				
Unsafe parity	169	63.3				
Total	267	100.0				

Frequency distribution in Table 1. Shows that respondents who are of healthy reproductive age (50.2%) are more than respondents who are of unhealthy reproductive age (49.8%). Based on the husband's education, most had the highest education level (37.8%) while the lowest was D3 (0.4%), based on the wife's education, the most respondents who had elementary education (33.0%) while the least respondents had never attended school (1.9%). Based on parity, respondents who had unsafe parity (63.3%) were more than those who had safe parity (36.7%). Based on cultural variables, more respondents who did not get cultural support (64.0%) compared to those who received cultural support (36.0).

Table 2. Effects of husband's support on the incidence of unmet need in fertile age couples in the area of
Bangkelekila Health Center 'North Toraja Regency in 2020

		Unme	t need				
Husband Support	No Yes		n %		P-value		
	n	%	n	%			
Support	67	97.1	2	2.9	69	100.0	
Does not support	134	67.7	64	32.3	198	100.0	0.000
Total	201	75.3	66	24.7	267	100.0	

Source: Primary data, 2020

The bivariate analysis in Table 2. shows that there is an influence of husband support for the unmet need in couples of childbearing age in the area of Bangkelekila Health Center in North Toraja Regency with a value of p = 0,000 (p < 0.05).

Table 3. Effects of husband's support on the incidence of unmet need in couples of childbearing age by age in
the work area of Bangkelekila Health Center 'North Toraja Regency in 2020

			unmet nee	ed Case		Р	
Age	Husband Support	Did not	Did not happen Happen		pened		
		n	%	n	%		
XX 1.1	Support	35	94.6	2	5.4		
Healthy Reproduction	Does not support	64	66.0	33	34.0	0.002	
	Total	99	73.9	35	26.1	_	
TT-1 When	Support	32	100.0	0	0		
Unhealthy Reproduction	Does not support	70	69.3	31	30.7	0.001	
	Total	102	76.7	31	23.3	-	

# Source: Primary data, 2020

in table 3. Bivariate analysis of age variables shows that based on healthy reproduction, more respondents did not get husband support for unmet need (34.0%) compared to respondents who received husband support (5.4%) while reproduction was unhealthy, more respondents who did not get husband support for unmet need events (30.7%) compared to respondents who received husband support (0%)

The Influence of Husband Support to the Event of Unmet Need in the Fertilizer Age in the Work Area of the Bangkelekila Community Health Center of North Toraja Regency 552 with the results of the analysis showed that based on healthy reproduction there was an influence of husband support for unmet need events with p = 0.002 ( p < 0.05 as well as unhealthy reproduction with a value of p = 0.001 (p < 0.05.

Table 4. Effects of husband support on the incidence of unmet need in fertile age couples based on education
in the work area of Bangkelekila Health Center 'North Toraja Regency in 2020

			Unmet N	eed Case	e	
Education	cation Husband Support		not pen	Hap	pened	P
		n	%	n	%	-
	Support	35	97.2	1	2.8	
High	Does not support	46	62.2	28	37.8	0.000
	Total	81	73.6	29	26.4	-
	Support	32	97.0	1	3.0	
Low	Does not support	88	71.0	36	29.0	0.004
	Total	120	76.4	37	23.6	-

Source: Primary data, 2020

In table 4. Bivariate analysis of educational variables shows that based on higher education, more respondents did not get support from husbands for the unmet need (37.8%) compared to respondents who received support from husbands (2.8%) while education was low, more respondents who did not get husband support for the unmet need (29.0%) compared to respondents who received husband support (3.0%) with the results of the analysis showed that based on higher education there was an influence of husband support for the unmet need event with a value p = 0,000 (p < 0.05 as well as low education with p = 0.004 (p < 0.05.

 

 Table 5. Effect of husband's support with the incidence of unmet need in fertile age couples based on parity in the work area of Bangkelekila' Health Center North Toraja Regency in 2020

			Unmet Ne	ed Case		
Parity	Husband Support	Did not	happen	Happened		P
		n	%	n	%	_
	Support	23	100.0	0	0.0	
Safe	Does not support	48	64.0	27	36.0	0.00
	Total	71	72.4	27	27.6	_
	Support	44	95.7	2	4.3	
Unsafe	Does not support	86	69.9	37	30.1	0.00
	Total	39	23.1	130	76.9	-

The Influence of Husband Support to the Event of Unmet Need in the Fertilizer Age in the Work Area of the Bangkelekila Community Health Center of North Toraja Regency In table 5. the analysis of bivariate parity variables shows that based on safe parity, more respondents did not get support for facts that were not met (36.0%) compared to respondents who received husband support (0%) through unsafe parity, more there were many respondents who did not get husband's support for matches that were not fulfilled (30.1%) compared to respondents who received husband's support (4.3%) with the results of an analysis linking safe parity = 0.002 (p <0.05 easily with unsafe parity with a value of p = 0.001 (p <0.05.

Culture	Husband Support	Did no	t happen	На	ppened	P
		n	%	n	%	_
	Support	29	96.7	1	3.3	
Support	Does not support	42	63.6	24	36.4	0.002
	Total	71	74.0	25	26.0	_
	Support	38	97.4	1	2.6	
Does not support	Does not support	92	69.7	40	30.3	0.001
	Total	130	76.0	41	24.0	_

Table 6. Effects of husband support on the incidence of unmet need in fertile age couples based on
culture in the work area of Bangkelekila' Health Center North Toraja Regency in 2020

Source: Primary data, 2020

In table 6. Bivariate analysis of cultural variables shows that based on supportive culture, more respondents did not get support from husbands towards the unmet need (36.4%) compared to respondents who received support from husbands (03.3%) while cultures that supported not support, more respondents did not get husband support for unmet need (30.3%) compared to respondents who received husband support (2.6%) with the results of the analysis showing that based on safe parity there was an influence of husband support for unmet events need with a value of p = 0.002 (p < 0.05 as well as with unsafe parity with a value of p = 0.001 (p < 0.05.

## Discussion

The results of this study indicate that there is an influence of husband support for the incidence of unmet need in couples of childbearing age in the area of Bangkelekila Health Center 'North Toraja Regency. There were more unmet need for respondents who did not get the husband's support than those who received husband support. This is because the decision to use contraception is strongly influenced by the husband's consent. Other things found by researchers in the field that cause fertile couples do not have family planning are the husband's uncooperative attitude, lack of interest, desire for children of a certain sex, wanting to have more children within 2 years, not wanting to have children but do not want to have family planning, are forbidden by the husband and are afraid of the side effects of the contraception used.

The results of this study are in line with research conducted by Azzahra (2018), Satriyandari (2018), Sarlis (2018), Dewi et al (2018), Nanlohy (2018) and Wahab (2014) which show that there is an influence between unmet need with husband's support. Research Uddin et al (2019) shows one of the reasons for not using the contraceptive method is the attitude of the husband who is not cooperative. In addition, research by El Masry et al (2018) shows that one of the risk factors that influence unmet needs is a husband who does not approve the family planning program. Research Rafidah et al (2012) shows that mothers who have the support of their husbands are more obedient to their schedule for family planning. The lack of instrumental and emotional support by the husband influences WUS (women of childbearing age) in conducting repeat visits to conduct family planning.

Based on age, the results of the analysis in this study indicate that there is an influence of husband support for the incidence of unmet need in fertile age couples in the category of healthy reproductive age and unhealthy reproductive age, but Unmeet need tends to occur more frequently in the unhealthy reproductive age group. this is because age can affect a person's behavior. The more advanced a person is, the more responsible, more orderly, more moral, more devoted than young age (Notoatmodjo, 2010). Similarly, in the use of contraceptives, at unhealthy reproductive age (<20 years) respondents are still classified as very young so they do not have the awareness and responsibility to use contraceptives. In addition, age has a significant influence because it can affect the needs of the desired contraception.

The results of this study are in line with research by Sunarsih et al (2015) which shows that there is an influence of age on the use of contraceptive devices. The use of contraception is lower in WUS aged 20-29 years compared to WUS aged 30-35 years. Asif et al (2019) research shows that the possibility of unmet need for family planning in Pakistan continues to decrease with increasing age and education.

Based on education, the results of this study indicate that there is an influence between husband's support for the unmet need incident both in the higher education category and in the lower education category. however, the incidence of unmet needs in the lower education category is greater than the incidence of unmet needs in the higher education category. This is because respondents with higher education have more knowledge, awareness and understanding of the importance of using family planning as well as the negative impacts that will result from not using family planning, compared to respondents with less education.

Education influences one's thinking patterns on habits, with high education one can more easily accept new ideas or problems such as acceptance, limitation on the number of children, and desires for certain sexes. Education can also increase a woman's awareness of the benefits that can be enjoyed if she has a small number of children. Higher educated women tend to limit the number of births compared to uneducated or poorly educated (Tirtarahardja, 2005).

The results of this study are in line with the research of Nzokirishaka (2018) showing that women who have primary education are more at risk than women who have secondary education. The study of Nazir et al (2015) shows that education, income, employment, knowledge about contraception, communication with partners about family planning, media accessibility, gender preferences are identified as contributing factors for unmet need events. Other factors that contribute to the unmet need for family planning are parity, education level, economy, and lack of visits by family planning/health workers (Ayuningtyas, 2015).

Based on parity, the results of this study indicate that there is an influence of husband's support for both unmet need events in the category of safe and unsafe parity, but unmet need events tend to occur more in the unsafe parity category (<2 or> 3). The influence between parity and unmet need on fertile age couples in this study is due to the community's perception of the number of children who say many children have lots of luck. Having many children is still the main view for most residents in Bangkelekila' sub-district.

The government's Family Planning Program (KB) which directs two children is better not for Toraja Sa'dan. The term KB for the Toraja Sa'dan was changed to "extended family", to indicate the large number of children they have. Even a respected person in Toraja told me that two were not two people, but two pairs (four people) to show the child he had and their view that the child was a gift. In addition, the desire of a married couple to have children of a certain sex also affects the unmet need, where if they do not have a particular sex child, even though the number of children is more than 2 people, they still do not want to have family planning.

The results of this study are in line with the study of Wulifan et al (2017) which shows that women who have more than three children have a greater risk of unmet need. Likewise with the results of the study of Usman et al. (2013), found that the number of children affected by the unmet need incident.

Based on Culture, the results of the analysis in this study indicate that there is an influence of husband support for the event of unmet need, both in supportive and non-supportive cultural groups, but unmet need events tend to occur more in non-supportive cultural groups. This is due to the existence of the surrounding community culture about the 'solo signs', signs of tuka' and the construction of tongkonan so that they crave to have many children because they believe that will help ease in carrying out the culture if the children are successful. There are also researchers who have found that there are mothers who claim that labor is natural as a woman and something natural happens.

In the North Toraja community, culture greatly influences the mindset of the community regarding labor and the use of contraceptives. The concept of childbirth from every mother whom researchers met, both those who gave birth in health care facilities and those who gave birth themselves at home, assumed that labor was a matter of course. Something natural happens, no need to be confused in preparing everything to deal with the process. In the culture of the Toraja people, having children in large numbers is still the dream of most of the people of the Toraja Sa'dan community. Especially if their children can attend school as high as possible and get good jobs and have a large income, it is considered to ease the work of parents in their responsibilities to extended families, such as in solo signs' party ceremonies and family *tongkonan* (traditional ancestral house) construction. The solo sign ceremony 'is the highest respect for offspring who live in showing their affection towards their deceased parents (ancestors) (Ministry of Health, 2012).

Another factor that is strong enough is the belief in God, that He gives strength to give birth because children are a blessing from God. The mother is confident that she can bring the child into the world with her strength and God's help (Ministry of Health Republic of Indonesia Health Research and Development Agency, 2012). Religious beliefs and teachings, which view children as a provision from God and a large family culture that believes that many children have lots of sustenance are still believed by the community so people are reluctant to use contraceptives (Wijhati, 2011).

The results of this study are in line with research conducted by Assalis H. (2015) which shows that there are socio-cultural influences with the selection of contraceptive methods. This is also in line with the theory put forward by Handayani (2010) that socio-cultural conditions and environmental conditions influence the use of contraceptives.

#### Conclusion

Based on the results of this study, it can be concluded that there is a significant influence of husband support for unmet events based on age, parity, and culture infertile couples in the area of Bangkelekila Health Center in North Toraja Regency. Thus, it is expected that the husbands will provide support to the mother psychologically and materially by showing care and attention to the wife to use family planning.

### References

- Azzahra, M. (2018). Determinan Unmet Need KB pada Wanita Pasangan Usia Subur di Wilayah Kerja Puskesmas Gang Sehat Kota Pontianak. *Jurnal Cerebellum*, 4(1).
- Dewi, F. (2018). Pengaruh Beberapa Faktor dengan Kejadian Unmet Need Keluarga Berencana di Kelurahan Bulu Lor Kecamatan Semarang Utara Kota Semarang Triwulan I Tahun 2018. Doctoral dissertation, Diponegoro University.
- Dutta, G., Konjengbam, S., Sangma, C.M. and Singh, B. (2018) Unmet Needs of Contraception in an Urban Area of Manipur: A Cross-Sectional Study. *Journal of Dental and Medical Sciences*, 17(6):59-64.
- El-Masry, R., Essam, N., & Ghoneim, M. (2018). Unmet Need for Family Planning Among Women in Rural Egypt. *Intrenational Journal of Community Medicine and Public Health*, 5(4), 1252.
- Handayani, F. (2017). Faktor-Faktor yang berpengaruh Dengan Kejadian Unmet Need KB di Desa Tr.Bangun Kabupaten Kampar. Journal Doppler Universitas Pahlawan Tuanku Tambusai, 1(2), 70-74.
- Ministry of Health Republic of Indonesia Health Research and Development Agency. (2012). Buku Seri Etnografi Ibu dan Anak 2012: Etnik Toraja Sa'dan Malimbong Kecamatan Sa'dan Kabupaten Toraja Utara Provinsi Sulawesi Selatan. Jakarta: Kementerian Kesehatan.
- Mulyanti, L. (2013). Hubungan Dukungan Suami Pada Ibu Hamil Dengan Kunjungan ANC Di Rumah Bersalin Bhakti IBI Jl. Sendangguwo Baru V No 44c Kota Semarang. *Jurnal Kebidanan*, 2(1).
- Nanlohy, S. (2017). Determinan Kejadian Unmet Need Keluarga Berencana di Kecamatan Panakkung Kota Makassar . Thesis, Universitas Hasanuddin.
- National Population and Family Planning Agency. (2018). Pencapaian Peserta KB Aktif Permix Kontrasepsi Provinsi Sulawesi Selatan 2018. Makassar: BKKBN.
- Nazir, S. E. (2015). Determinants of Unmet Need for Family Planning In a Developing Country: An Observational Cross Sectional Study. *National Journal of Community Medicine*, 6(1).
- Notoadmodjo, S. (2010). Ilmu Perilaku Kesehatan. Jakarta: Rineka Cipta.
- Rafidah, I. &Wibowo A. (2012). Pengaruh dukungan suami terhadap kepatuhan akseptor melakukan KB suntik. *Jurnal Biometrika dan Kependudukan, 1*(1).
- Sarlis, N. (2018). Faktor yang Berhubungan dengan Unmet Need Pada Ibu Non Akseptor Tahun 2018. Jurnal Endurance, 4(2), 272-281.
- Satriyandari, Y. (2018). Gambaran Dukungan Suami Pada Pasangan Usia Subur Dengan Kejadian Unmetneed Di Kelurahan Panembahan Yogyakarta Tahun 2016. *Jurnal Ilmiah Bidan*, 3(1).
- Sinai, I., Omoluabi, E., Jimoh, A., & Jurczynska, K. (2019). Unmet need for family planning and barriers to contraceptive use in Kaduna, Nigeria: culture, myths and perceptions. *Culture, Health & Sexuality*, 1-16.
- SKDI. (2017). Survei Demografi dan Kesehatan Indonesia (SDKI) 2017. Available from: <u>https://e-koren.bkkbn.go.id/wp-content/uploads/2018/10/Laporan-SDKI-2017-WUS.pdf</u>
- Sunarsih, S., Sari, N. E., & Damayanti, R. (2015). Faktor-faktor yang Berhubungan dengan Penggunaan Alat Kontrasepsi pada Wanita Usia Subur (WUS) di Kelurahan Campang Raya Bandar Lampung Tahun 2014. Jurnal Kebidanan Malahayati, 1(3).

- Uddin, A. N. M. M., & Jewel, M. H. (2019). Unmet Need of Family Planning Among Married Women of Reproductive Age in Rural Areas of Manikganj District. Anwer Khan Modern Medical *College Journal*, *10*(1), 23-27.
- Usman, L. (2013.). Faktor yang Berpengaruh dengan Kejadian Unmet Need KB pada Pasangan Usia Subur di Kota Gorontalo. Jurnal Masyarakat Epidemiologi Indonesia, 1(3).
- Wahab, R. (2014). Hubungan antara Faktor Pengetahuan Istri dan Dukungan Suami terhadap Kejadian Unmet Need KB pada Pasangan Usia Subur di Kelurahan Siantan Tengah Kecamatan Pontianak Utara Tahun 2014. Doctoral dissertation, Tanjungpura University.
- Wijhati, E. (2011). Pengaruh Faktor Budaya terhadap Pemilihan IUD pada Pasangan Usia Subur Puskesmas Sewon II Kabupaten Bantul DIY Tahun 2011. Thesis, STIKES 'Aisyiyah Yogvakarta.
- Wulifan, J. K., Jahn, A., Hien, H., Ilboudo, P. C., Meda, N., Robyn, P. J., & De Allegri, M. (2017). Determinants of unmet need for family planning in rural Burkina Faso: a multilevel logistic regression analysis. BMC pregnancy and childbirth, 17(1), 426.

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