

SOCIO ENVIRONMENTAL FACTORS ASSOCIATED WITH THE SELECTION OF CONTRACEPTIVES IN GADING PUBLIC HEALTH CENTER TAMBAKSARI SURABAYA

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Abstract: Long-term contraception methods have entered into government programs to effectively postpone pregnancy, space births and terminate fertility. However, Women of fertile ages(15-49 years old) in Indonesia were still likely to choose short-term contraceptives, especially injectable contraceptive. This research analyzed the social environmental factors relating the selection of contraceptives in Gading Public Health Center Tambaksari Surabaya. This research used analytical methods with case control study. The sampling technique used simple random sampling to procure cases and controls, and got 42 of each. The variables were socio environmental factors. Data were analyzed using multivariate logistic regression with a level of significance value $\alpha = 0,05$. The results showed five significant variables were the role of the spouse ($p=0,002$), the role of family ($p=0,001$), the role of health care workers ($p=0,011$), the role of community leaders ($p=0,0018$), and the role of print media ($p=0,015$). Social environmental factors included the role of spouse, health care workers, community leaders and print media associated with the selection of contraceptives in Gading Public Health Center Tambaksari Surabaya. The provision of support and complete information about all types of contraception are important so that the women of fertile ages can choose contraception that suits their needs.

Keywords : family planning, Long-Term Contraception Methods

Introduction

Indonesia is the fourth most populous country in the world. The ever increasing population will cause population problems (Manuaba, et al., 2010). The population of Indonesia in 2014 was 252 million consisting of 125.715 men and 125.450 women. From 2010-2014 there was a population growth rate of about 1.40% per year (Central Bureau of Statistics, 2014). High growth rates affect the welfare and quality of life of the population (National Population and Family Planning Agency, 2012).

According to the National Population and Family Planning Agency (2011), there are two types of contraception based on the duration of effectiveness, namely Long-Term Contraceptive Methods (L-TCM) and Non Long-Term Contraceptive Methods (Non L-TCM). The Government's current program policies are more geared to the use of Long-Term Contraception methods (IUD, Implant, hysterectomy and vasectomy). The Government has advocated the L-TCM with the consideration that Non L-TCM is less economical and less efficient than L-TCM. (National Population and Family Planning Agency, 2012).

L-TCM are more effective in terms of budget, provision of contraceptive tools, failure rate, side effects and complication (National Population and Family Planning Agency, 2012). Winner B, et al. (2012) said using L-TCM is not only saves costs but also allows for fewer visitations to get contraception again. L-TCM also has the advantage of quick return of fertility.

L-TCM has higher levels of effectiveness, but every year the use of non L-TCM in Indonesia increases especially injectable contraceptives. The decline in the number of L-TCM users caused the contraceptive

usage trend in Indonesia to generally still focus on injectable contraceptives (National Population and Family Planning Agency, 2013). In 2013 as many as 48,41% Women of fertile age (14-49 years) in Indonesia used injectable contraceptives, which rose to 53,53% in 2014. Conversely the number of L-TCM users decreased from 16,2% to 11,86 in 2014 (National Population and Family Planning Agency, 2014).

East Java Province is the most populous province in Indonesia (Central Bureau of Statistics, 2010). In 2013 56,17% Women fertile age (14-49 years) in East Java chose injectable contraceptives, a rate which increased to 60,79% in 2014. On other hand, users L-TCM at a rate of 13,22% in 2013 to 10,59% in 2014 (National Population and Family Planning Agency, 2014).

New contraceptive users at the City of Surabaya chose injectable contraceptives at a rate of 47,83%, as compared to 27,64% who chose L-TCM (National Population and Family Planning Agency, 2014). Tambaksari is a subdistrict with the number of new injectable contraceptive users in Surabaya City every year. The records of the activities of family planning services, in 2014 report that out of three public Health Centers in Tambaksari, Gading public Health Center has a highest number of injectable contraceptive users

The use of contraception can be influenced by social environment factors such as role of husband, family, community leaders, health workers and mass media (Asih & Oesman, 2009). Social environment factors maybe the reason that L-TCM users in Indonesia is still low. Religious figures are public figures who are usually respected and role model in the community. The fact that there are many religious figures who do not advocate about contraceptives, so that population growth being high (Lambelanova & Ramadhan, 2016). In addition, the role of men in the female reproductive (15-49 years of age) decision-making is an important factor in fertility control, both in developed countries and developing countries (Kabagenyi, et al., 2014).

Methods

This study constitutes observational and analytical research with the aim to analyze the factors that are associated with the selection of contraception. This research uses a case-control study approach. Large sample research with 84 respondents, is divided into two parts: 42 in a cases of fertile-age women (15-49 years) who use injectable contraceptives and 42 respondents in a control of fertile-age women (15-49 years) who use L-TCM. The sampling technique use simple random sampling.

This research was conducted in the area of Gading Public Health Center Subdistrict Tambaksari Surabaya in April-December 2015. Source of the research data obtained through primary and secondary data. The primary data collection instrument use a questionnaire to find out the characteristics and the social environmental factors of respondents. Secondary data was obtained from the evaluation of implementation of family planning programs of The National Population and Family Planning Agency in 2012-2014 and records from three Public Health Centers are located in the Subdistrict Tambaksari in 2014. The dependent variable is the selection of contraception, i.e., L-TCM and injectable contraceptive and independent variables are social environmental factors such as the role of spouse, family, community leaders, health workers and mass media. The data collected are then analyzed using a logistic regression test were.

Results

Characteristics of respondents

The characteristics of the intended respondents are age, education, occupation and parity.

Table 1 Frequency distribution of respondents based on age education, job status and parity in Gading Health Center, Surabaya Indonesia 2015

Variable	L-TCM		Injection	
	N	%	N	%
1.Age (years old)				
< 30	11	30,6	25	69,4
≥ 30	31	64,8	17	35,4
2.Education				
Low (Elementary school, Middle School)	18	38,3	29	61,7
High (High School, College)	24	64,9	13	35,1
3.Job Status				
Yes	20	40,8	29	59,2
No	22	62,9	13	37,1
4.Parity				
< 3 children	22	37,3	37	61,7
≥ 3 children	20	80,0	5	20,0
Total	42	50,0	42	50,0

Percentage of respondents in the highest age group age less than 30 years of being in the group of injectable contraceptive users i.e 69,4% compared with a group of L-TCM users i.e 30,6%, this means the majority of respondents in the time reproductively. A majority of respondents who are highly educated are L-TCM users (64,9%), compared to the 35,1% who use injectable contraceptives. Of respondents who are jobless, 62,9% are L-TCM users, compared to 7,1% who use injectable contraceptives. Respondents who have three or more children had the highest percentage of L-TCM use, at 80%, as compared to 20% who were injectable contraceptive users (Table 1).

The socio-environmental factors examined in this research are the role of spouses, the role of family, the role of workers, the role of community leaders and the role of mass media (electronic media and print media)

Role of spouse

The variable role of the spouse shows that most husbands of injectable contraceptive users play a role in the selection of contraception i.e. 63,9% compared to L-CTM users. A Logistic regression test showed levels of significance of the role of the spouse at 0,002 ($\alpha=0,05$) which means the role of the spouse was associated with the selection of contraceptives in Gading Public Health Center .Tambaksari Surabaya (Table 2).

Role of family

Most family of injectable contraceptive users have no role in the selection of contraception, compared to the families of L-TCM users i.e. 74,4%. A logistic regression test showed levels of significance of the role of family at 0,001 ($\alpha=0,05$) which means the role of family was associated the selection of contraceptives in Gading Public Health Center .Tambaksari Surabaya (Table 2).

Role of health workers

Most health workers play a role in the selection of contraception of L-TCM users i.e. 59,1% as compared to injectable contraceptive users. A logistic regression test showed levels of significance of the role of health workers at 0,011 ($\alpha=0,05$) which means the role of health workers was associated with the selection of contraceptives in Gading Public Health Center .Tambaksari Surabaya (Table 2).

Role of community leaders

Most community leaders have no role in the selection of contraception by injectable contraception users, compared to the group of L-TCM users, i.e. 51,4%. A logistic regression test showed levels of significance of the role of community leaders at 0,018 ($\alpha=0,05$) which means the role of community leaders was associated with the selection of contraceptives in Gading Public Health Center .Tambaksari Surabaya (Table 2).

Role of electronic media

Most electronic media has no role in the selection of contraception by injectable contraception users, as compared to the group of L-TCM users, i.e. 54,5%. A logistic regression test shows the level of significance of the role of the electronic media at 0,836. The significance of value greater than $\alpha=0,05$ means the role of electronic media is not associated with the selection of contraceptives in Gading Public Health Center.Tambaksari Surabaya (Table 2).

Role of print media

Most print media has no role in the selection of contraception by injectable contraception users, as compared to the group of L-TCM users, i.e 54,5%.A logistic regression test showed levels of significance of the print media at 0,018 ($\alpha=0,05$), which means the role of print media was associated with the selection the of contraceptives in Gading Public Health Center .Tambaksari Surabaya (Table 2).

Tabel 2: Social environment factors associated with the selection to of contraceptive in Gading Public Health Center Tambaksari Surabaya, 2015

Social environment factors	L-CTM		Injection		Total		P	OR
	N	%	N	%	N	%		
Role of spouse								
Yes	13	36,1	23	63,9	36	100,0	0,002	0,005
No	29	60,4	19	39,6	48	100,0		
Role of family								
Yes	29	74,4	10	25,6	44	100,0	0.005	12,685
No	24	64,9	13	35,1	37	100,0		
Role of health workers								
Yes	39	59,1	27	40,9	51	100,0	0,011	13,678
No	3	16,7	15	83,3	33	100,0		
Social environment factors associated with the selection to of contraceptive in Gading Public Health Center Tambaksari Surabaya, 2015								
Social environment factors	L-TCM		Injection		Total		P	OR
	N	%	N	%	N	%		

environment factors							P	OR
	N	%	N	%	N	%		
Role of community leaders								
Yes	24	51,1	23	48,9	35	100,0	0,018	7,678
No	18	48,6	19	51,4	49	100,0		
Role of electronic media								
Yes	22	55,0	18	45,0	40	100,0	0,836	0,875
No	20	45,5	24	54,5	44	100,0		
Role of print media								
Yes	39	59,1	27	40,9	66	100,0	0,016	5,858
No	3	16,7	15	83,3	18	100,0		
Total	42	50,0	42	50,0	84	100,0		

The next step is to calculate the change in Odds Ratio on each of the variables after the variable of electronic media is issued. The result is that there no variables that have a change OR.> 10%. The results of the multivariate analysis show that there are five variables (role of spouse, role of family, role of workers, role of community leaders and role of print media) associated significantly with the selection of contraception. Of these variables, the dominant variable is the role of community leaders.

Table 3 The dominant variable associated with the selection of contraception

Variable	B	P	OR	95% CI
Role of spouse	-5,132	0,002	0,006	0,005-0,144
Role of family	2,522	0,001	12,449	3,257-47,585
Role of health workers	2,625	0,011	13,802	1,843-103,367
Role of community leaders	3,580	0,018	35,867	1,868-688,743
Role of print media	1,730	0,015	5,642	1,407-22,626

The role of the spouse has the p value 0,002, which means the respondent spouse who does not support the selection of contraceptives are 0,006 times more likely not to select L-TCM. The role of the family has the p value 0,001, which means when the respondent spouse does not support the selection of contraceptives, the wife is 12,449 times more likely not to select L-TCM. The role of health workers has a value which means 0,011 respondents who do not get information and services from health workers have a 13,082 times greater risk that they will not select L-TCM.

The role of community leaders has a p value of 0,018, which means community leaders who do not support the selection of contraceptive risk are 35,867 times more likely not to select L-TCM. The role of print media has a value which means 0,011 respondents who do not get information from print media have a risk 5,642 times greater of not selecting L-TCM.

Discussion

Environmental factors associated with the selection of contraceptives are :

1. Role of spouse

The results showed there is relationship between the role of spouse and the selection of contraceptives. The role of the partner in the group of respondents who use injectable contraceptives was greater than that of the group of respondents who use L-TCM. The respondents' spouse in this research is the husband. One of the roles of the husband in the family is a motivator. The role of motivator is a form of husband support required in the implementation of the family planning programme. In Indonesia, husband's decisions have an important effect on their wives. If the husband does not allow or support contraceptive use, many wives will not dare to use contraceptives (Harymawan, 2007).

Hartanto (2010) said that contraception is not used by a couple without cooperation and mutual trust. Ideally the husband and wife will together choose the best contraceptive methods, cooperate in discharging, pay the costs of the contraceptives and pay attention to the directions for use. Mboane & Bhatta (2015) said that the inability of women to discuss the issue of contraception with their husbands is associated with the low rate of use of L-TCM in women aged 15-49 years in developing countries, so the role and influence of husbands needs to be taken into account when developing services and family planning programs to increase the use of L-TCM in developing countries.

Research shows that respondents who have a spouse who does not play a role in and support the selection of contraception have a 0,006 times greater risk of not selecting L-TCM. There are still many cases of husbands forbidding their wives to use L-TCM such as Intrauterine Devices (IUDs) because they reduce the enjoyment of sexual intercourse (Wiknojosastro, 2005). Husbands are often the decision makers in developing countries, and so the lack of use of L-TCM can be caused by husbands wanting more children. Even women who have higher education degrees and who are well informed are less likely to be using contraception (Mboane & Bhatta, 2015).

2. The role of family

A high level of family support correlates to a high rate of participation of fertile couples in family planning. Through the support of the family as one form of social support, women of fertile age are more inclined to participate in programs of family planning (Astuti, et al., 2000). The results show there is an association between the role of family and the selection of contraception, where the majority of the group of respondents who were L-TCM users have family who played a role in their choosing a method of contraception, as compared to the group of respondents who are injectable contraceptive users. Puspitasari and Burunniyah (2014) concluded that the greater the family support for contraceptives, the greater the number of fertile age women who used contraceptives. Conversely, less family support also correlated to less contraceptive use.

Family is one of the supporting elements in a person's behavior (Notoatmodjo, 2010). The individual who has the support of their family will have a personal sense of control and positive feelings, and that individual will be motivated and take advice from their family (Wahyuni, et al., 2013).

3. The role of the health worker

Health workers have a role in providing health education and advocacy for individuals who have less access to medical services, including contraceptive services. Health workers who counsel women of fertile age may influence these women's decisions: once informed about family planning options, these women can choose the contraceptives that suit their needs (Rural Health Information Hub, 2008). Respondents who do not get support from health workers are at a 13,802 times greater risk that they will not select L-TCM, as compared with respondents who got support from health workers. The lack of support of health workers led to an increase in the number of women of fertile age who did not select L-TCM (Lemani, et al., 2017).

4. The role of community leader

For respondents who are injectable contraceptive users, most community leaders such as field officers, cadres, teachers, religious figures, midwives, private practitioners and village chiefs do not play a role in determining the type of contraceptives they choose to adopt, as compared with respondents who are L-TCM users. The research shows the role of community leaders is associated with the selection of contraceptives in Gading Public Health Center, Tambaksari Surabaya. Respondents who do not get support from community leader are at a 35,867 times greater risk of not selecting L-TCM.

Plano and Olton (1982) argue that the participation of community leaders, namely a set of behavior expected from a person who occupies a particular position within a social group. The participation of committed community has always been played predominantly by community leaders. Community leaders are a factor that can reinforce the occurrence of particular behaviors. According to Yuliana (2013), the role of informal leaders or community leaders is very important, especially to influence behavior, to provide behavioral models and to motivate the participation of all citizens in support of the success of programs, including the selection of a method of contraception. In Indonesia, the community leaders determined whether the family planning program that the Government campaigned in the 1970's was successful or not.

5. The role of the mass media

According to Nurudin (2007), the more senses that are used to receive a message, the more internalized it will be and the more knowledge it will spread. Mass media is used to facilitate the dispersal of information regarding the family planning program. Mass media is divided into electronic media and print media. Mass media play a role as a tool in the process of giving information or counselling by health workers.

This study asked whether respondents had ever received information about contraceptives from electronic media (TV and radio) and print media (leaflets, posters, newspapers /magazines). The research shows that the role of electronic media is not associated with the selection of contraceptives in Gading Public Health Center, Tambaksari Surabaya. That role of electronic media is not associated with the selection of contraceptive may be due to the lack of promotion in the form of advertisements on television and radio about family planning and types of contraceptives, resulting in the community not getting information about these topics from electronic media.

Respondents were also asked about print media at the time of the research interviews. The research shows that the role of print media is associated with the selection of contraceptives in Gading Public Health Center, Tambaksari Surabaya. Respondents who do not get information from health worker are at risk 5,642 times greater that they will not select L-TCM. Print media in this research, namely leaflets, posters, newspapers and magazines, are simple print props that are easily understood and easily found in the community. Most knowledge is obtained by humans through the sense of sight, as much as 75% (Nurudin, 2007). Mass media such as newspapers can affect users' perception of contraceptives (Bajoga, et al., 2013).

The research shows most respondents who were injectable contraceptive users were more exposed to information about contraceptives through print media rather than electronic media, resulting in print media being more influential than electronic media. According to Straubhaar, J., La Rose, R. and Davenport, R (2011), mass media can affect the knowledge, attitudes, emotions or behaviors of any individual or someone who is exposed to the mass media continuously, which is called the effect of mass media.

Conclusion

The socio-environmental factors associated with contraceptive selection in Gading Public Health Center Tambaksari Surabaya are the role of the spouse, the role of family, the role of health workers, the role of community leaders and the role of print media. The role of community leaders is the most dominant variable associated with contraceptive selection.

Suggestions

Suggestions that can be done include motivating couples who already have two living children to use L-TCM; providing complete information to contraception users; and enhancing the cooperation of community leaders at the field level (the family planning field officer, cadres, teachers, religious leaders, midwives who private practice, and youth organization).

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