

THE EFFECT OF USING SMS ON COMPLIANCE WITH REPEAT VISITS OF 1-MONTH INJECTABLE CONTRACEPTIVE ACCEPTORS

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ABSTRAK

Latar belakang: Kepatuhan kunjungan ulang akseptor kontrasepsi suntik merupakan salah satu kunci utama keberhasilan alat kontrasepsi tersebut. Dampak ketidakpatuhan akseptor kontrasepsi suntik memungkinkan akseptor mengalami kehamilan. Hal ini dikarenakan hormon yang terkandung dalam kontrasepsi suntik tidak dapat bekerja dengan maksimal. Mengingat pentingnya kepatuhan akseptor KB untuk melakukan kunjungan ulang, maka diperlukan sistem kesehatan yang menunjang untuk meningkatkan kepatuhannya. Layanan Short Message Service (SMS) dapat digunakan untuk memaksimalkan efisiensi, efektifitas, dan ekuitas pelayanan kesehatan melalui peningkatan komunikasi.

Tujuan: Diketuinya pengaruh penggunaan SMS terhadap kepatuhan kunjungan ulang akseptor kontrasepsi suntik 1 bulan.

Metode: Jenis penelitian ini merupakan penelitian kuantitatif dengan desain Quasi Eksperiment dan rancangan penelitian yang digunakan adalah Nonequivalent control group design. Sampel diambil secara non random dengan metode Total Sampling yang berjumlah 189 responden. Analisis data menggunakan uji Mcnemar dan Korelasi Koefisien Kontingensi.

Hasil: Ada perbedaan kepatuhan kunjungan ulang akseptor kontrasepsi suntik 1 bulan sebelum dan sesudah mendapatkan SMS, dari 83 responden yang sebelumnya tidak patuh, setelah mendapat SMS sebanyak 33 (39,8%) menjadi patuh dan 50 (60,2%) tetap tidak patuh melakukan kunjungan ulang. Uji hipotesis bermakna secara statistik dengan p value 0,000.

Kesimpulan: Ada korelasi antara SMS dan kepatuhan kunjungan ulang akseptor kontrasepsi suntik 1 bulan. Nilai korelasi sebesar 0.490 menunjukkan korelasi positif dengan kekuatan korelasi sedang

Saran: Dapat digunakan sebagai salah satu sumber informasi untuk mengupayakan pengembangan dan peningkatan pelayanan KB sehingga seluruh akseptor patuh untuk melakukan kunjungan ulang sesuai jadwal.

Kata Kunci : Akseptor KB, Kepatuhan Kunjungan, SMS

ABSTRACT

Background: Compliance with repeat visits to injectable contraceptive acceptors is one of the main keys to the success of these contraceptives. The impact of non-compliance of injectable contraceptive acceptors allows the acceptor to experience pregnancy. It is caused by the hormones contained in injectable contraceptives doesn't work optimally. Regarding the importance of compliance of family planning acceptors with repeat visits, a supportive health system is needed to improve compliance. Short Message Service (SMS) can maximize health services' efficiency, effectiveness, and equity through enhanced communication.

The study aimed to study the effect of using SMS on compliance with repeat visits of 1-month injectable contraceptive acceptors.

Methods: This type of research was Quasi-Experimental, and the research design used was the Nonequivalent control group design. Samples were taken non-randomly with the Total Sampling method as many as 189 respondents. Data analysis used Mcnemar test and Contingency Coefficient Correlation.

Results: There was a difference in the compliance of 1 month injectable contraceptive acceptors with repeat visits before and after SMS; from 83 respondents who previously were noncompliant, 33 (39.8%) became compliant, and 50 (60.2%) were still non-compliant with repeat visits after receiving SMS. The hypothesis test was statistically significant with P-value 0.000.

Conclusion: There was a correlation between SMS and compliance with repeat visits of 1 month injectable contraceptive acceptors. The correlation value of 0.490 indicated a positive correlation with moderate correlation power.

Suggestion: The study is expected to be a source of the development and improvement of family planning services so that all acceptors comply with repeat visits on schedule.

Keywords: KB acceptor, SMS, Visit Compliance

INTRODUCTION

Family planning is one of the efforts to control the quantity of population growth to improve the quality of life for humans and the Indonesians by realizing a balanced, valuable and competitive population growth. The realization of balanced population growth is one of the national development priorities in The National Medium-Term Plan (RPJMN). (BKKBN, 2020b) Based on the results of the Government Performance and Accountability Survey (SKAP) show that the Total Fertility Rate (TFR) was expected to fall to 2.28 per Woman of Childbearing Age (WUS) in 2019; however, on the contrary, it indicated an increase to 2.45. Correspondingly, modern contraception in 2019 fell to 54.97% from 2018, 57% of the total existing Couples of Childbearing Age (PUS). The dropout rate is the same as the Indonesian Demographic and Health Survey (IDHS) in 2017 at 29%, which increased by 4% from 2018. The achievement of unmet needs had not changed at 12.1% (Mardiya, 2020).

Indonesia is currently experiencing a non-natural disaster, Covid-19; thus, maternal and child health services are one of the services affected, both in terms of access and quality. One of the women's health services that have been disrupted due to the pandemic is reproductive health (Ministry of Health, 2020). The National Population and Family Planning Board (BKKBN) data stated there were 22.5 million contraceptive services from January-July 2020. The most significant decline in services occurred in April 2020 by 5.7% compared to services in February 2020 or the last month before the pandemic in early March 2020. The decline in this service is expected to increase the number of births in Indonesia by around 500,000 babies next year (BKKBN, 2020b).

Injectable hormonal contraceptive in Indonesia is increasingly applied because of its effective work. Its use is practical, and the price is relatively low and safe. Injectable contraceptive has a minimal health risk; it does not affect the husband-wife relationship. The advantages or benefits of Injectable contraceptive includes not requiring internal examination, the client not needing to keep some medicines for a long time, and family support, especially the husband, which can motivate injectable acceptors.

The impact of noncompliance of injectable contraceptive acceptor will possibly make the acceptor experience pregnancy. It is because the hormones contained in injectable contraceptives cannot work optimally. Thus, injectable contraceptive acceptors can have undesired pregnancies. Research conducted by (Muslima, L., 2019) shows that the use of health services determines the compliance of family planning acceptors. Information can be communicated safely and adequately with technology (Yani, 2018).

Because of the importance of family planning acceptors' compliance with repeat visits, a supportive health system is needed to improve it. Short message service (SMS) can maximize healthcare services' efficiency, effectiveness, and equity through enhanced communication. In addition, SMS can unite and provide information about maternal compliance. (Sutrisno, T.A., 2015) has succeeded in developing an information system model using SMS technology to increase the compliance of family planning acceptors.

Based on the background above, the writer is interested in conducting a research entitled "Utilization of Short Message Service (SMS) on Compliance to Repeat Visits of 1-Month Injectable Contraceptive Acceptors at Mitra Ananda Palembang Maternity Home in 2020.

RESEARCH METHODS

This type of research was a quantitative study with Quasi-Experimental, and the research design used was the Nonequivalent control group design. The population in this study were all 1-month injectable contraceptive acceptors in September 2020 at Mitra Ananda Maternity Home, as many as 198 people. The sampling technique in this study was the total sampling method (Pratikya, 2014).

The research instrument used primary and secondary data (Nursalam, 2014). Primary data was taken by observing repeat visits, while secondary data was obtained from the family planning register book of Mitra Ananda Maternity Home. Respondents selected as samples were then sent an SMS for a reminder about the schedule for repeat visits for family planning, 5 days before the scheduled visit.

Quantitative analysis was conducted with univariate analysis to see the distribution of each variable. Bivariate analysis used the McNemar test to

see differences in compliance with repeat visits by 1-month injectable contraceptive acceptors before and after the intervention. Identifying differences in compliance of 1-month injectable contraceptive acceptor visits in the intervention group and the control group, the Contingency Coefficient Correlation test was used (Dahlan, 2015).

RESEARCH RESULT

Distribution of compliance frequency of 1-month injectable contraceptive acceptors

The distribution of acceptor compliance was categorized into compliant and non-compliant. The study results were obtained from 198 respondents; 115 people (58.1%) complied with repeat visits; 83 people (41.9%) did not comply with repeat visits. The distribution of compliance with repeat visits of 1-month injectable contraceptive acceptors is shown in table 1.

Table 1
Distribution frequency of compliance of 1-month injectable contraceptive acceptors (n.198).

Compliance of acceptors	TOTAL	
	N	Percentage (%)
Compliant	115	58,1
Non-compliant	83	41,9

Source: Primary Data

Differences in the compliance of 1-month injectable contraceptive acceptors before and after receiving SMS

Differences in compliance with 1-month injectable contraceptive acceptor with repeat visits before and after receiving SMS, based on the results of the bivariate analysis with the full McNemar test, are presented in Table 2

Table 2
Differences in compliance with 1-month injectable contraceptive acceptor visit before and after receiving SMS

The compliance of 1-month injectable contraceptive acceptors	The compliance of 1-month injectable contraceptive acceptors before and after receiving SMS				Total		P Value
	Compliant		Non-compliant				
	n	%	n	%	n	%	
Compliant	08	93,9	7	6,1	115	100	0,000
Non-compliant	33	39,8	50	60,2	83	100	

Table 2. shows that of the 115 compliant respondents after receiving SMS, 108 (93.9%) respondents who remained compliant made repeat visits, and 7 (6.1%) respondents became non-compliant with repeat visits. Meanwhile, 83 respondents were non-compliant after receiving SMS: 33 (39.8%) became compliant in making repeat visits, and 50 (60.2%) still were not compliant with repeat visits. McNemar test obtained $p = 0.000$; it can be concluded that there is a difference in

compliance of 1-month injectable contraceptive acceptor visits before and after receiving SMS.

Correlation of SMS on compliance of 1-month injectable contraceptive acceptors

The correlation of SMS on compliance to repeat visits of 1-month injection contraceptive acceptors based on the bivariate analysis results with the complete contingency coefficient correlation test is presented in table 3.

Table 3

SMS Reminder	The compliance of 1-month injectable contraceptive acceptors				Total		P Value	Correlation Value
	Compliant		Non-compliant					
	n	%	n	%	n	%		
Delivered	95	96,9	3	3,1	98	100	0,000	0,000
Undelivered	46	46	54	54	100	100		

Table 3. shows that after respondents received SMS, 96.9% of respondents were

compliant, and 3.1% of respondents were non-compliant to repeat visits. The p -value = 0.000

indicated a statistically significant correlation between SMS and compliance with repeat visits by injectable contraceptive acceptors. The correlation value of 0.490 indicated a positive correlation with moderate correlation strength.

DISCUSSION

Compliance of 1-Month Injectable Contraceptive Acceptors

1-month injectable contraceptive is one of the most effective contraceptives for preventing pregnancy, if used regularly (Sulistyawati, 2011). 1-month injections, often called combination injections, contain the hormones estrogen and progesterone injected every 28 days (Hartanto, 2003). Hormones prevent the ovaries from releasing egg cells, thickening cervical mucus, and thickening the uterine wall, making it unsuitable for implantation (Manuaba, 2013).

The results of the study showed that 115 (58.1%) 1-Month Injectable Contraceptive Acceptors respondents were compliant with repeat visits before receiving SMS (pretest), and 83 (41.9%) respondents were non-compliant. Compliance is an action related to a person's behavior (Notoatmodjo, 2007). Compliance with repeat visits is one of the important factors in achieving the effectiveness of contraceptives. 1-month injectable contraceptive acceptors who comply with repeat visits will come every 28 days to health facilities. Non-complaint 1-month injection contraceptive acceptors will lower the effectiveness and increase the risk of pregnancy (Varney, 2007).

At the post-test measurement, there was an increase in the compliance of repeat visits from 83 non-compliant respondents, 33 (38.9%) of them turned into compliant, and 50 (60.2%) respondents remained non-compliant. The number of 1-month injectable contraceptive acceptors who did not comply with repeat visits in the study was many: 57 (28.8%) respondents. It happens because the respondent would only make a repeat visit after getting menstruation even though it had passed the assigned schedule. In addition, some respondents also complained about side effects such as nausea and dizziness. (Arum, D.N.S., 2011), states that the side effects of 1-month injectable contraceptives are irregular bleeding, breast pain, acne, nausea, dizziness and weight gain.

Compliance in committing 1-month injectable contraceptive with repeat visits is influenced by several factors, including the midwife's role, the husband, the acceptor's perception and the utilization of health services (Muslima, L., 2019). During the Covid-19 pandemic, one aspect of women's health that was disrupted was reproductive health. Women's access to contraceptive services is disrupted because women are worried about going to health facilities, limited personnel services and health facilities and mobilization restrictions due to preventing the transmission of Covid-19 (Ministry of Health, 2020).

Correlation of SMS to Compliance of 1-month Injectable Contraceptive Acceptor

SMS service is a form of technology that can convey health-related information (Un, 2012). The results showed that 98 respondents who received SMS: 95 (96.9%) were compliant, and 3 (3.1%) were non-compliant respondents with repeat visits. The p -value = 0.000 indicated a statistically significant correlation between SMS and compliance with repeat visits by injectable contraceptive acceptors.

Short Message Service (SMS) is a text messaging service used by several digital cellular systems to send and receive short letter and number messages (less than 160 characters). Short messages can be saved and forwarded to be reread in the future (Laudon, 2007). Much literature states that Short Message Service (Short Message Service – SMS) can help improve health status, including patient compliance with taking medication (Herlina, S., Sanjaya, G. Y., & Emilia, 2013). SMS support is expected to simplify, speed up, and save costs in delivering information in the form of motivation or medication schedules to patients (William, L. and Sevani, 2013).

This study is in line with (Sutrisno, T.A., Ningsih, 2014), which states that SMS technology can increase the compliance of injectable family planning acceptors with repeat visits on schedule. Furthermore (Gurol-Urganci et al., 2013e) states that SMS can improve compliance to attendance on schedule to obtain health care in hospital compared to those who do not receive SMS. (Kannisto, KA, Koivunen, MH, Valimaki, 2014), also mentioned that SMS can increase treatment compliance and positively impact a more positive attitude towards treatment.

Based on the research results, theory, and related research, researchers assume that SMS positively impacts the compliance of 1-month injectable contraceptive acceptor with repeat visits. It can be seen from the increasing number of respondents who previously were non-compliant become compliant with repeat visits.

CONCLUSION

There is a difference in compliance with visits of 1-month injectable contraceptive acceptors after receiving SMS at Mitra Ananda Maternity Home, Palembang City.

SUGGESTION

The study is expected to be a source of the development and improvement of family planning services so that all acceptors comply with repeat visits on schedule.

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