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Contraception Methods Selection Behavior Among Female Contraception Users

Lasiah Susanti [a,1,*], **Wafik Anikoh** [b,2]
[a,b]Public Health Department, Abdurrab University Jl Riau Ujung No 73, Pekanbaru
[1]lasiah.susanti@univrab.ac.id; [2] wafik.anikoh.16@student.univrab.ac.id

**Correspondent Author:* lasiah.susanti@univrab.ac.id

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ABSTRACT

Background*: Family Planning aims to regulate childbirth and pregnancy interval by using various contraception methods. Eventhough there is many choice among contraception methods, intramuscular injection is still the most used method. This phenomena happened in Indonesia, nationally and locally in Pekanbaru. The behavior of female users in choosing contraception methods is based on their knowledge and attitude about contraception methods.*
Objective: *This study purpose is to describe female conctraception users behavior in the selection of contraception methods in Pekanbaru city.*
Methods: *Research conducted with descriptive observational study design. Sample size is 400, sample was taken by stratified random sampling technique at 12 primary health centers in the city of Pekanbaru.*
Results: *Results show majority respondents had improper contraception methods selection behavior . Majority respondent is in 30-39 years age group, with educational attainment high school, and most of them is housewives.*
Conclusions: *Majority female contraception users in Pekanbaru had improper contraception methods selection behavior*

1. Introduction

Indonesian Family Planning Program, known as Keluarga Berencana, were created to actualize healthy and prosperous family. It main purpose is to spacing and timing child birth, ensuring intended pregnancy, ensuring pregnancy at appropriate age, and planned pregnancy. Keluarga Berencana were held through promotion, protection, support, in accordance to human reproductive rights, to actualize family quality. This government program obtained by using contraception methods (1). Nationally, most used contraception method is 3-month hormonal injection (72.9%), even though it is a short term contraception method with lower effectivity than long term, still, same pattern happened year by year. Same phenomenon observed at Riau Province, with 64.64% users utilize 3-month hormonal injection method (2). Pekanbaru is a capital of Riau Province, as the biggest city, most family planning users is in Pekanbaru. Similar to

others, one of most used contraception method in Pekanbaru is 3-month hormonal injection (29. 63%) (3).

Three-month hormonal injection is more beneficial to use because its convenient, accesible, with less side effects (4). Long term contraception method such as Intra Uterine Devices (IUD), tubal ligation, were less favourable because the examination, application technique, and a major surgery it needed (5). Considerating benefits and inadequacy of each contraception methods when applied, based on users medical condition, perception and interpretation, is fundamental to determine contraception method applied. Several factors to considerate is users demographic characteristic, disesases risk, side effects profile, expenses, equipment availability, and patient preference (6). World Health Organization construct Medical Eligibility Criteria for contraceptive use (MEC) to facilitate family planning users determining safe and appropriate method. MEC consist of 4 category, using ranking system based on degree of restriction of particular method. Category 1 where there is no restriction for use (use any method), category 2 where the advantages of using the method generally outweigh the theoretical or proven risks (generally use the method), category 3 where the theoretical or proven risks usually outweigh the advantages of using the method (Use of method not usually recommended unless other more appropriate methods are not available or not acceptable), category 4 represents an unacceptable health risk if the contraceptive method is used (method not be used) (7).

Indonesia Health Ministry arranging instrumental tools to facilitate family planning users determining safe and appropriate method based on MEC, Alat Bantu Pengambilan Keputusan Ber-KB (ABPK). This tools contains guideline for health care professional to deliver contraception methods counseling, consist of information needed such as side effects, contraception method application, condition consideration for contraception method application, and eligibility critera. ABPK is color coded flipbook, green for new user, pink for user with sexual transmitted diseases protection need, blue for special needed user, and purple for old user (8).

Becker (1979) classify health behavior into 3 category, healthy lifestyle, illness behavior, the sick role behavior. Healthy lifestyle including how to maintain health and wellness. Illness behavior is about how a person responding to sickness, diseases, including individual perception, knowledge, and attitude toward sickness and diseases. The sick role behavior is about how people act in seek of the cure, including patient rights and obligations. Behavior occur actively and passively. Active behavior is an observed respond in form of tangible behavior, while passive behavior is an internal respond in form of intangible behavior such as knowledge and attitude (6)

Research about contraception method selection behavior mainly focus on selecting single method (9) (10) (11). Eventhough at the beginning of selection process, meanwhile, family

planning users must aware of all contraception method (6). Through counseling process, family planning users were expected to selecting appropriate contraception methods. The fact is, most used method is hormonal injection method despite users medical condition, benefits, inadequacy, diseases risk, side effect profile (1). This research aim to describe contraception method selection behavior, considerating family planning users suitability with MEC.

2. Method

Research were using descriptive observational study design. Sample size is 400, calculated using Slovin formula. Sample taken by stratified random sampling technique at 12 primary health centers that represent 12 districts of Pekanbaru. Subject were interviewed, guide by contraception method selection behavior questionnaire. Questionnaire contains demographic data, contraception selection method behavior with MEC taking into consideration. Questionnaire also passed through validity test using Pearson Correlation test (r>r table), and reliability test (α Cronbach >0.6). Collected data were appraised to obtained behavior description, frequency and distribution, by behavior categorization, and by districts. Behavior were assessed through subject reason for choosing contraception method, subject MEC, and appropriateness for both. Answer then scored and categorized into improper (<34%), moderate (35-66%), and proper behavior (>67%) (12).

3. Results and Discussion

Demographically, majority research subject (45%) were in age group 30-39 years old, mostly with educational attainment high school (51%), and occupation as housewives (80%). A research concluded age group, educational status (including husband educational status), number of living children, wealth status, significantly associated with knowledge, attitude and practice of family planning users (13). While education, occupation, and total income ,associated with knowledge regarding contraception, thus it associated to selection methods behavior (14).

3.1. Users Contraception Methods and Appropriateness

Similar to Kementerian Kesehatan Republik Indonesia (2020) data, majority respondent (37%) were using 3 month hormonal injection method, it also resembling Liwang et al (2018) research. Hormonal injection and pills were popular because it accessibility, safe for breastfeeding, not interfere sexual intercourse (15). The following data is presented in Figure 1 below:

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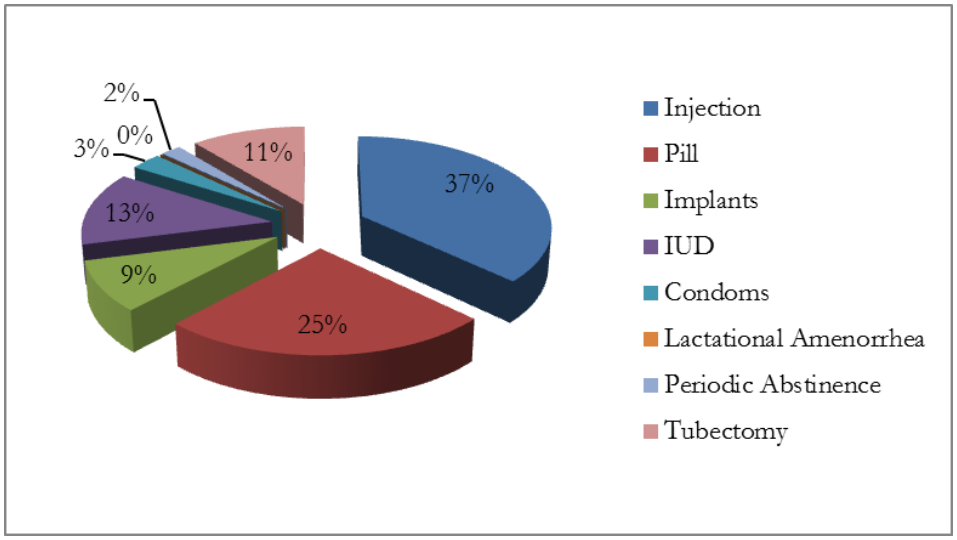

Figure 1. Contraception Methods Used.

Each subject were assesed with MEC to observed contraception method chosen by subject appropriate with their condition. The result, there is 63% subject using appropriate contraception methods, while there is still 37% subject using unappropriate contraception methods. The following data is presented in Figure 2 below:

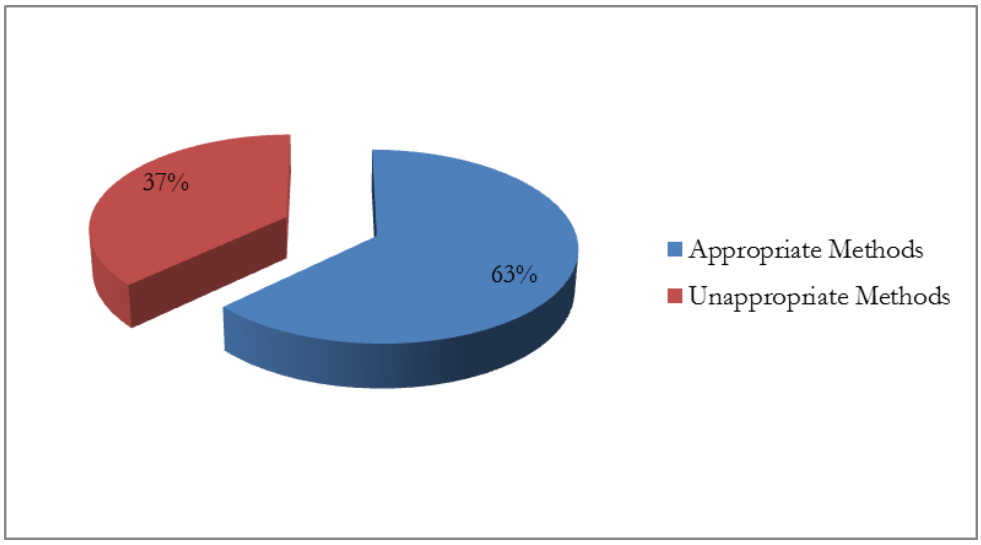

Figure 2. Contraception Methods Appropriateness with MEC

Family planning services include informed choice decision making for selecting contraception methods. Counseling were one form of "informed", counseling given by healthcare profesionnal for family planning users whom intend to use contraception. Counseling help family planning users to choose appropriate method, with consideration on medical eligibility and convenient (World Health Organization,2016). Convenient means , chosen method appropriate with contraception purpose (stopping pregnancy, medical condition), methods practice, side effects or

other discomfort from prior method. MEC is an instrument to help health profesional determine methods appropriate based on benefit and disadvantage for users. If benefit greater than disadvantage, users could use the methods (crietria 1 and 2), if disadvantage greater than benefit, users should choose other methods (criteria 3 and 4) (7)

3.2. Contraception Methods Selection Behavior

Data analysis showed majority subject had improper behavior (244 from 400 subjects, 61%), followed by moderate behavior (104 from 400 subjects, 26%), and proper behavior (52 from 400 subjects,13%). Behavior in this research observed by subject reason for choosing contraception method, subject MEC, and appropriateness for both. Behavior categorized into improper (<34%), moderate (35-66%), and proper behavior (>67%). The following data is presented in Figure 3 below:

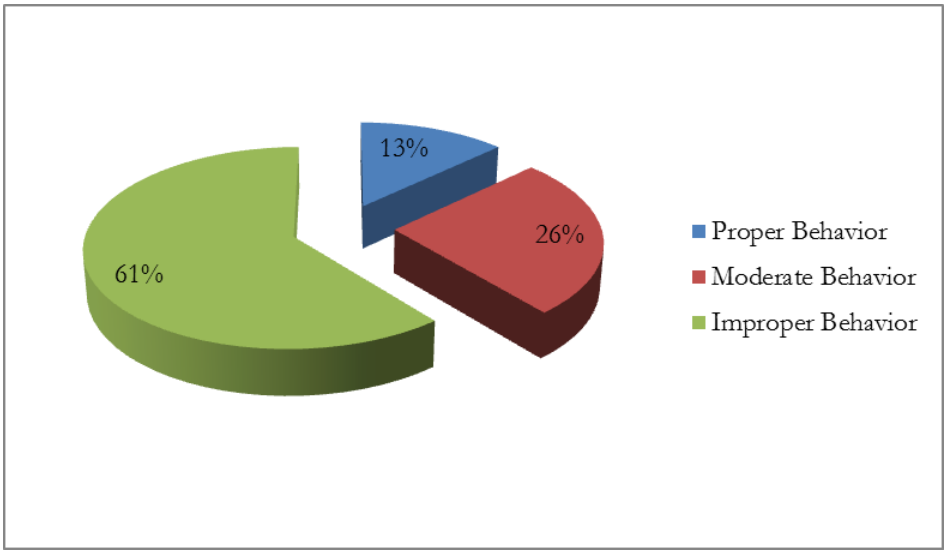

Figure 3. Contraception Method Selection Behavior

Data analysis showed majority subject had improper behavior (244 from 400 subjects, 61%), followed by moderate behavior (104 from 400 subjects, 26%), and proper behavior (52 from 400 subjects,13%). Behavior in this research observed by subject reason for choosing contraception method, subject MEC, and appropriateness for both. Behavior categorized into improper (<34%), moderate (35-66%), and proper behavior (>67%). Published research about behavior in family planning, contraception were assessed through willingness to use family planning/contraception methods, and categorized into favourable or positive and unfavourable or negative attitude. A study found that majority respondents (87.5%) in Udupi District, India, had favourable attitude toward contraception (16) . Another study also found similar result, majority respondent (71%) in All India Institute of Medical Science, Jodhpur, Rajastan had favourable attitude toward

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contraception (17). Another study found majority respondents (82.7%) in Mangaluru, Karnataka, India had positive attitude toward contraception (18).

Green and Kreuter describe several factors affecting health behavior: predisposing factors, enabling factors, and reinforcing factors. Predisposing factor is factors rendering person to behave, such as age, education attainment, knowledge, perception, motivation, etc. Enabling factors enable person to behave accordingly, this refer to supporting resources. Reinforcing factors include factors reinforcing or rewarding a person from a behavior, such as social supports, economic rewards, health care professional supports. A proper behavior conceived from positive predisposing, enabling, and reinforcing factors. Hence, adult age group, high education attainment, good knowledge, perception, and positive motivation, sufficient resources and positive social, economic supports, also health care professional supports will create a proper behavior (6). Based on Undang-undang Republik Indonesia Nomor 36 2009 about health, government oblige to ensure supply of human resources, facility, equipment, medicine, to deliver quality family planning service for society . Peraturan Presiden Republik Indonesia nomor 12 (2013) ,stated that family planning service were included on social insurance benefits. Thus, aside from technical problem, enabling and reinforcing factors were in positive state.

Demographically, majority research subject (45%) were in age group 30-39 years old, mostly with educational attainment high school (51%), and occupation as housewives (80%). A research concluded age group, educational status (including husband educational status), number of living children, wealth status, significantly associated with knowledge, attitude and practice of family planning users (13). While another research stated that education, occupation, and total income ,associated with knowledge regarding contraception (19).

Female age above 30 years old mostly using contraception to stop pregnancy, therefore longterm methods such as implant, IUD, tubectomy, should be main choices (20). Yet, hormonal injection and pills were main chosen methods. High school educational attainment is advanced enough, at this level a person should have sufficient prior knowledge to receive information about contraception methods. Accordingly, subject should have moderate or proper behavior. Fact is, majority subjects had improper behavior of contraception methods selection. Therefore, it is a probability ,contraception methods selection behavior were affected by other factors. Occupation as housewives, with flexible hours, allow subjects to access healthcare facillity more than working one (19). Therefore, subjects should have moderate or proper behavior instead improper.

Behavior formed through several stages awareness (a process where a person comprehend external and internal stimulus), interest (a process where a person interested to the stimuli), trial (a process where a person attempting new behavior) . Meanwhile, behavior changes through

several phase, precontemplation (a phase where there is no intention to change or unaware for the need to change) , contemplation (a phase where there is intention to form new behavior), preparation (a phase to prepare the new behavior), action (a phase where a person act the new behavior), maintenance (a phase where a person maintain the new behavior)

As a part of reproductive health care services, counseling were required for family planning users before choosing contraception method. Decision making process for contraception method must considerate factors such as, users characteristics, disesases risk, side effects profil, cost, methods availability, and user preferences. Determining appropriate methods for users should considerate users appropriateness using MEC, clinical examination, and user preferences. During counseling users should be informed about relative effectivity, application technique, mechanism, side effects, benefit and medical risk, symptomps and signs of fertility, and sexual transmitted disease protection (7) (21). Counseling helped users to choose appropriate method and use it correctly. Research found that informed choice affected family planning users continuity to use a contraception method (22).

Pekanbaru consist of 12 districts with population 983000. Tampan is most densely populated district, 20.67% (203000 from 983000) Pekanbaru population were in Tampan district, while Sail is most sparsely populated (2.07%, 20000 from 983000). Tenayan Raya district is the most widest area (27.09%) , with Pekanbaru kota as the narrowest (0.36%) (3)

Generally, subject in 12 districts in Pekanbaru had improper behavior. Nevertheless, each behavior category were analyse by districts. The following data is presented in the figure 4.

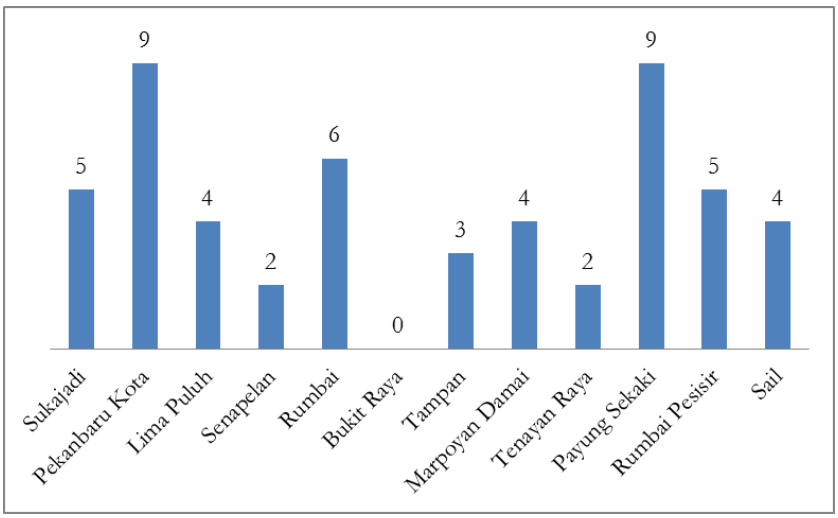

Figure 4. Proper Behavior of Contraception Selection Methods by Districts

Proper behavior were found highest in Pekanbaru Kota and Payung Sekaki districts (each district: 9 from 52 subjects,17.3%) and lowest in Bukit Raya district (0 subject). Pekanbaru Kota is narrowest district in Pekanbaru and one of most densely populated, with 26.951 population and

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population density 11.925/km^2. For family planning services there is 3 hospitals, 5 clinics, and 1 public primary health centre. Most family planning services done in public primary health centre. There, services were supported by 6 doctors, 10 nurses, 4 midwives. There is 3822 family planning users in Pekanbaru Kota, majority (48.56%) users were using 3 month hormonal injection method. Meanwhile, Payung Sekaki is widest district in Pekanbaru, with 91.226 population (more than 3 threefold than Pekanbaru Kota) and population density 2.111/ km^2 (1/5 from Pekanbaru Kota). For family planning services there is 3 maternity hospitals, 11 clinics, and 2 public primary health centre. Same as Pekanbaru Kora, most family planning services done in public primary health centre, supported by 9 doctors, 7 nurses, 8 midwives. There is 12.944 family planning users in Payung Sekaki, majority (40,57%) users were using 3 month homonal injection method. Eventhough Pekanbaru Kota is narrowest, and population density is more than fivefold than Payung Sekaki. It was supported by 3 hospitals and 5 clinics for family planning services, despite there is only 1 public primary health centre. Payung Sekaki, though it wide district area, it only had 1/5 population density than Pekanbaru Kota. Here, family planning services supported by 3 maternity hospitals and 11 clinics, also it had 2 public primary health centre. Both Pekanbaru Kota and Payung Sekaki had sufficient resources for family planning services, hence the highest proper behavior (23,24).

Bukit Raya district had 103.722 population, with population density 4.704/km^2. It had 2 public primary health centre, 21 clinics, and 1 hospital. Supported by 109 doctors, 298 nurses, 59 midwives. With 14.435 family planning users, and differ from other district, majority (31,20%) users were using hormonal pills method, followed by 3 month hormonal injection method . Pills were shortest term of hormonal method, it had lowest effectivity among other hornonal methods. Bukit Raya had adequate resources for family planning services, although majority users were choosing pills method despite of it lowest effectivity, this probably linked to no users with proper behavior (25).

The following is the data on moderate behavior in the method of choosing contraception by district as shown in Figure 5 below:

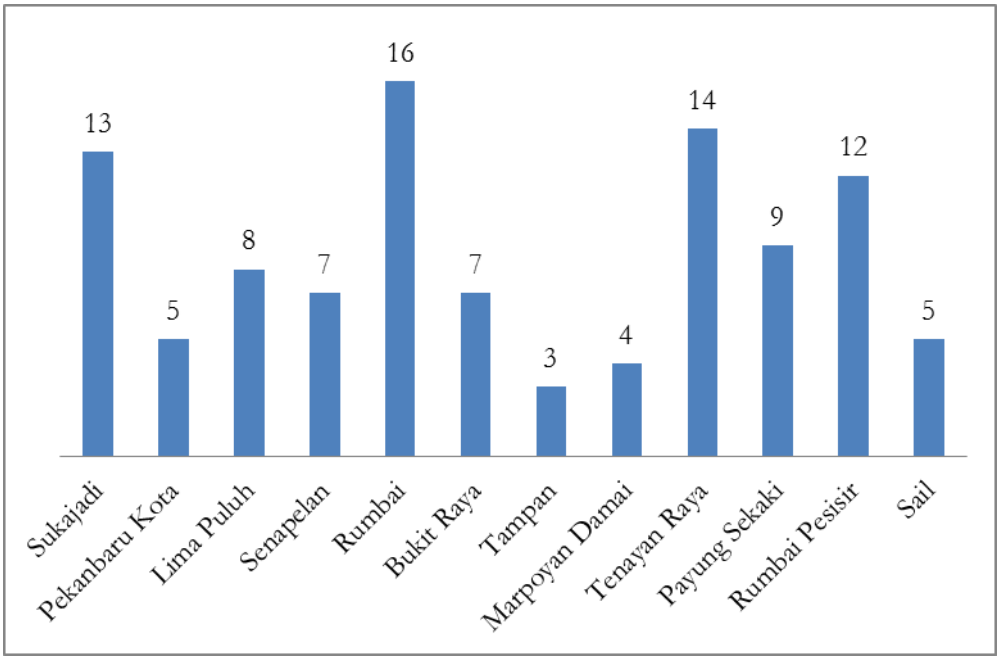

Figure 5. Moderate Behavior of Contraception Selection Methods by Districts

Moderate behavior were highest in Rumbai district (16 from 102 subjects, 15.68%) and lowest in Tampan district (3 from 102 subjects, 2.94%). Rumbai is second most sparsely populated district, with only 67.878 population, and population density 527/km^2. Rumbai had 4 clinics, 3 primary public health centre, supported by 20 doctors, 33 nurses, and 20 midwives. Rumbai registered 8.486 family planning users with most users (59,34%) is using 3 month hormonal injection method. As it had very sufficient resources with sparse population, there is high possibility it had better qualified family planning services, hence the highest moderate behavior (26). Here we present data related to the behavior of selection of improper contraception methods by district in figure 6 below:

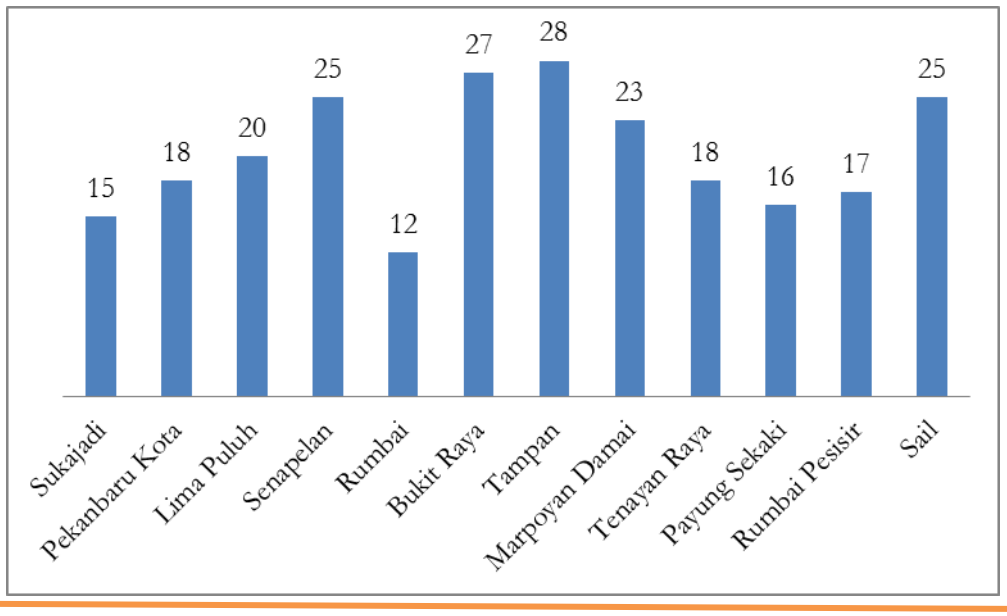

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Figure 6. Improper Behavior of Contraception Selection Methods by Districts

Improper behavior were highest in Tampan district (28 from 244 subjects, 11.47%) and lowest in Sukajadi district (15 from 244 subjects, 6.14%). Tampan is most populated district in Pekanbaru, with 329.796 popoulation but, population density is only 5.514/km^2 (Half from Pekanbaru Kota). Tampan had 7 hospitals, 31 clinics, and 2 primary public health care centre. Supported by 53 doctors, 49 nurses, and 64 midwives. Tampan registered 17.943 family planning users, similar to Bukit Raya, majority Tampan family planning users is using pill (36,45%), next is 3-month hormonal injection (35,41%) . As it taken daily, pill had higher chance of failure than longterm method nor other hormonal method. Based on it similarity situation to Bukit Raya, pills as mostly chosen contraception method, followed by 3-month hormonal injection, despite adequate resources. Hence Tampan had lowest family planning users with moderate behavior and highest improper behavior (27).

Sukajadi is most densely populated district in Pekanbaru, with 48.747 population and population density 12.965/ km^2. Sukajadi had 2 hospitals, 1 maternity hospital, 7 clinics, and 2 primary public health care centre. Sukajadi had highest number of health care professionals in Pekanbaru districts, with 197 doctors, 285 nurses, 78 midwives. Eventhough it dense population, Sukajadi registered only 6.283 family planning users (2/3 from Rumbai family planning users as Rumbai is second most sparsely populated district). Most family planning users (52.15%) is using 3-month hormonal injection method. In conclusion, Sukajadi had more resources than other districts in Pekanbaru, with lower registered family planning users. Similar to Rumbai, there is high possibility it had better qualified family planning services than other districts, even Rumbai (28).

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4. Conclusion

Similar to national situation, majority respondent were using 3-month hormonal injection method (37%) and pills (25%). Majority respondent (63%) respondent using appriopriate methods, eventhough 61% respondent had improper contraception selection method behavior. By districts, improper behavior were highest in Tampan, most populated district with one most highest family planning users number. Meanwhile, proper behavior were highest in Pekanbaru Kota and Payung Sekaki. Pekanbaru Kota were most densely populated district (2 times higher from Tampan), but with family planning users only one quarter from Tampan. Payung Sekaki were widest district but with very sparse population (one fifth from Pekanbaru kota). All districts were supported with sufficient resources for family planning services, each district had minimum one

primary public health centre, at least 4 clinics, and adequate number of doctors, nurses and midwives. This research only describe contraception selection methods behavior among female users, along with several demographic characteristics. Nevertheless, further research were needed to explore the results, to get a better view about contraception methods selection behavior among female contraception users.

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Conflicts of Interest

The authors declare there is no conflict of interest.

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