

## **Relationship Between Re-visit Compliance and Menstrual Cycle Among Three-Month Injectable Contraception Acceptors at Independent Practice of a Midwife, Jember City**

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### **ABSTRACT**

**Introduction:** Compliance is related to a change in behavior from behavior that does not obey the rules to behavior that obeys the rules such as revisiting three-month injections on schedule so that it can affect changes in the acceptor's menstrual cycle.

**Method:** Cross-sectional research approach. The population and samples in this study were mothers who made a three-month injection re-visit at Independent Practice of a Midwife as many as 60 samples using the chi-square test.

**Result:** The results showed that most of the respondents were compliant with the three-month injection revisit as much as 60.00%. Most of them were 58.33% with irregular menstrual cycles. The statistical test results with the chi-square test obtained a p-value of  $0.000 < \alpha (0.05)$ , so  $H_0$  was rejected and  $H_1$  was accepted, which means that there is a relationship between re-visit compliance and menstrual cycles in three-month injectable family planning acceptors at independent practice of a midwife, Jember City.

**Conclusion:** This study showed that compliance with re-visits of three-month injectable family planning acceptors was able to increase the regular menstrual cycle and non-compliance with re-visits of three-month injectable family planning acceptors was able to increase the irregular menstrual cycle. It is expected for three-month injectable family planning acceptors to control the re-visit schedule regularly.

**Keywords:** *Revisit Adherence; Menstrual Cycle; Three-month Injectable; Contraception*

## **Introduction**

Compliance relates to a change in behavior from non-compliant to compliant behaviour such as scheduled three-month re-injection visits that can affect changes in the receptor's menstrual cycle. Menstrual cycle is the time that starts from the first day of menstruation to the day of the next menstruation. Normal menstrual cycles range from 21 to 35 days. However, menstruation cycles are often irregular and tend to vary.

Data from the Family Health Section, the number of fertile age couples in Jember district in 2020 recorded as 418.181 people. Of the total number of PUSs, coverage of new contraception participants as 70.911 or (17%) and active contraception participants reached 347.270 people (83%). Coverage of contraception in 2019 has increased to 17% from the previous year. Active contraception participants coverage in 2020 has decreased by 83%. By 2020, the percentage of active contraception N attendees has met the Renstra target of  $\geq 70\%$ .

One type of contraception is hormonal contraception, which is increasingly used because of its effective work, its practical use, its relatively inexpensive price, safe, simple, effective and can be used in post-partum. In the meantime, three-month injection contraceptives have the best effectiveness since the injections are done regularly and accurately according to the schedule.

The accuracy of the timetable for re-injection is acceptor compliance. Inappropriate re-injection can reduce the effectiveness of the contraceptive, if injected seven days earlier it will cause bleeding, and if late injection will lead to the failure of the injector. Therefore, failure to inject the method of contraception is caused by the delay of the acceptor in re-injection. There are many factors that can influence the accuracy of the injection time, namely the attitude, behavior and knowledge of the acceptor about the CB.

Amenorrhea is a menstrual disorder caused by the suppression of LH by progesterone in the DMPA component, which can cause the endometrium to become more atrophic and more shallow with an inactive gland. Persistent amenorrhea causes changes in the menstrual cycle that cause some women to stop using injectable contraceptives, but many women receive amenorrheic conditions even though amenorrhea caused by the administration of progesterone is unknown to be dangerous. In

addition to changes in the menstrual cycle in women, the use of injectable contraceptives, especially three-month injections, can lead to weight gain.

An attempt is made by the midwife before the candidate acceptor chooses a contraceptive device in the form of a 3-month injection. The midwives must provide a preliminary health education about the side effects that occurred on the use of the three-month contraception device so that the prospective acceptor can clearly know and can choose such contraceptives according to their wishes and can endure the effects of the chosen contraception.

### Method

This research design is observational analytic using a cross-sectional approach, namely research by taking measurements at the same time at the same time. The population in this study were 153 mothers who took three-month family planning injections at independent practice of a midwife. The sample in this study were 60 mothers who took three-month family planning injections at independent practice of a midwife. In this study, the sample size was determined using the Slovin formula. In this study, the sampling technique used was probability sampling technique with simple random sampling and used a questionnaire as a data collection tool. Data analysis used the Chi Square test.

### Results

#### Univariate Analysis

Table 1. Distribution of Frequency and Percentage of Respondents Based on Age in independent practice of a midwife Jember Regency in 2023

Age	Frequency	Percentage
<20	2	3,33%
20-30	27	45,00%
31-40	21	35,00%
>41	10	16,67%
Total	60	100,00%

Source: Primary Data 2023

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According to table 1, almost half of the respondents who took three-month re-injection visits were aged 20-30 years old 27 or 45.00%, followed by 31-40 years old 21 or 35.00%, the remaining age >41 was 10 or 16.67% and age <20 was 2 or 3.33%.

Table 2. Distribution of Frequency and Percentage of Respondents Based on Education in independent practice of a midwife Jember Regency in 2023

<b>Education</b>	<b>Frequency</b>	<b>Percentage</b>
Elementary School	21	35,00%
Junior High School	11	18,33%
Senior High School	22	36,67%
Indergraduate	6	10,00%
<b>Total</b>	<b>60</b>	<b>100,00%</b>

Source: Primary Data 2023

According to table 2. almost half of the respondents who did a three-month injection re-visit of education respondents were high school 22 people or 36.67%, followed by SD education 21 people or 35.00%. The rest of high school education 11 people or 18.33% and college 6 people or 10.00%.

**Table 3.** Distribution of Frequency and Percentage of Respondents Based on Employment in independent practice of a midwife Jember Regency in 2023

<b>Vacancy</b>	<b>Frequency</b>	<b>Percentage</b>
Work	21	35,00%
Not Working	39	65,00%
Total	60	100,00%

Source: Primary Data 2023

Based on table 3, the majority of respondents who did a three-month re-injection visit the job of the respondents was not working 39 people or 65.00%. The rest of the work was 21 people or 35.00%.

### **Bivariat Analysis**

**Table 4.** Distribution of Frequency and Percentage of Respondents Based on Compliance of Repeat Visit of the Acceptor of the Three-Month Injection at independent practice of a midwife Jember Regency in 2023

<b>Compliance Visit</b>	<b>Frequency</b>	<b>Percentage</b>
compliant	36	60,00%
Not compliant	24	40,00%
Total	60	100,00%

Source: Primary Data 2023

Based on table 4, the majority of respondents who performed three-month re-injection visits obeyed 36 re-visits or 60.00% and disobeyed 24 or 40,00%.

**Table 5.** Distribution of Frequency and Percentage of Respondents Based on Haid Cycle on Acceptors of Three-Month CB Injection at independent practice of a midwife Jember Regency in 2023

<b>Menstrual Cycle</b>	<b>Frequency</b>	<b>Percentage</b>
Regular	25	41,67%
Irregular	35	58,33%
Total	60	100,00%

Source: Primary Data 2023

Based on table 4.5, the majority of respondents who had three-month re-injection visits had irregular periods of 35 or 58.33% and 25 or 41.67% with regular periods.

**Table 6.** Cross Table of Compliance Relationship of Repeated Visits with Haid Cycle on Acceptors of Three-Month CBC Injections at Independent Practice of a Midwife Jember Regency in 2023

Re-visit Adherence of 3-Month Injectable Family Planning Acceptors	Menstrual Cycle		p-value
	Regular	Irregular	
Compliant	23 (63,88%)	13 (56,52%)	0,000
Not Compliant	2 (8,33%)	22 (91,66%)	
Total : 60	25 (41,66%)	35 (58,33%)	100,0 %

Source: Primary Data 2023

Based on the cross table 4.6 showed that CB acceptors with compliance with three-month re-injection visits were obedient and had a regular menstrual cycle of 23 (63.88%), while CB injectors who did not comply with three months in carrying out re-visits and had an irregular menstrual period of 22 (91.66%). Analysis test results with statistical tests using Chi-Square test obtained p-value  $0,000 < \alpha (0,05)$  which means  $H_0$  rejected, so there is a significant relationship between re-visits with the period cycle of the three-month CB injection acceptor in independent practice of a midwife Jember Regency in 2023.

### Discussion

The results of the study are consistent (Widya, 2019), that the majority of contraception acceptors obey in carrying out re-visits of 41 people (67.2%) while not obeying in carry out re visits of 20 people (32.8%).

Obedience is a term used to describe obedience or adherence to a determined purpose. It is said to be obedient in conducting a three-month re-injection, that is, when the receiver arrives on time according to the scheduled schedule and not more than seven days. Obedience is driven by the motivation to receive a reward or avoid a certain punishment as a result of such obedience. When obedience is directed at a specific command, it is called obediction (Saragih & Yosephine, 2016).

This is because the acceptor has followed the advice given by the maid based on the scheduled visits so that the acceptor does the re-visits according to the schedule. Nevertheless, there is still a small fraction of acceptors who do not obey the re-visit. Some of the most likely factors of non-compliance are age as the results of research still

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exist who are less than 20 years of age that are included in late adolescence, because at this time usually tend to reject. The level of education, respondents with a low education of 35.00%. The education of a person will affect his knowledge and behavior. The lack of knowledge then will be difficult in accepting behavioral change. The job also affects the mother's behavior in carrying out three-month re-injection visits, the acceptor who works as much as 35.00%, the acceptor who works has a tight workload time so often ignoring the three month re- injection schedules already given by the maid. Thus, the three-month injection receptor needs to have the commitment and motivation to adhere to the re-visit schedule as suggested by the virgin.

Most menstrual cycles are irregular as 58.33%, the rest of the period cycle is regular as 41.67%. The results of this study are consistent with the research carried out by (Antika, 2019) on the relationship of the use of CB injections with the menstruation cycle on CB injection receptors in the Puskesmas Ponjong I Mountains Working Region of the Year 2019. Results from 71 respondents with abnormal menstrual cycles (polymenorrhea, oligomorrhea and amenorrhea) 3 month injection acceptors 44 (100%) respondents.

The menstrual cycle is the time that starts from the first day of appearance to the next first day. Normal menstrual cycles vary from 21 to 35 days, but they are often irregular and tend to vary. The period is said to be normal when obtained cycles not less than 21 days, but not more than 35 days, the duration of the period 3-7 days, with the amount of blood during the period lasting no more than 80 ml, with a frequency of replacement of the envelope 2-6 times / day (Harzif et al, 2018).

Regular use of injectable contraceptives causes changes in the menstrual cycle. Menstrual patterns depend on the length of injection contraceptive use. The longer the injection is used for three months, the longer the incidence of menstruation is shortened even to become non-menstrual. The long period changes are due to the gestagen component contained in the three-month injections, causing irregularities in the menstrual cycle of the EC receptor. It's because menstrual periods are closely related to female hormones.

In the above study, as in the cross table 6, most acceptants who obeyed the three-month re-injection visits had a regular menstrual cycle of 23 respondents or

63.88%, while almost all respondents who did not obey the three month re-Injection Visit had an irregular period of 22 respondents, or 91.66%. Based on the results of the study showed that the analytical test results with the Chi-Square test obtained a p-value of  $0,000 < \alpha (0,05)$ . So it could be concluded that respondents who obeyed the three-month injection visits had regular periods. Conversely, if the disobedient respondent performed a three-month injection visit had irregular periods. The results of this study are consistent with the previous study by (Widya, 2019), concerning the compliance of re-injection with menstrual cycle disorders.

Obedience is a term used to describe obedience or adherence to a determined purpose. It is said to be obedient in conducting a three-month re-injection visit, that is, when the receiver arrives on time in accordance with the timetable prescribed or suggested by the virgin. Injection contraception is the most popular method, either every 1 month or every 3 months. Although the type of contraceptive is most popular because of its effectiveness, longer or more routine administration of injectable contraceptives every three months will affect progesterone in the body causing side effects. One of the side effects of injection contraception is menstrual disorders. A number of factors can increase the likelihood of irregular menstrual cycles, mostly related to hormone production. Two hormones that affect menstruation are estrogen and progesterone. A contraceptive user is said to have menstrual disorders if there are changes in menstrual cycles, patterns, and duration. One of the side effects of a three-month injection contraceptive is a disruption of the menstrual cycle. The menstrual cycle will return to normal if the use of CB injections is stopped. Menstrual cycle is the period from the first day of menstruation to the coming of the next period, while the length of the menstrual cycles is the interval between the date of the beginning of the previous menstruation and the start of the following menstruation. In addition, researchers have heard many complaints from acceptors that during the use of three-month injections, acceptors often suffer from different menstrual disorders than usual and sometimes have irregular periods. The incidence of menstrual cycle disorders in the three-month injection is amenorrhea. Amenorrhagic menstrual disorders are caused because progesterone in the three-month CB injection component suppresses LH so that

the endometrium becomes more shallow and atropic with inactive glands. The menstrual cycle will return to normal if the use of CB injections is stopped.

### **Conclusion**

Based on the results and discussions of the relationship of compliance of re-visit compliance with the cycle of haid on the three-month injection receptor at the independent practice of a midwife Jember Regency, it can be concluded that the observance of the re-injection compliance on the receptor of the three month injector mostly obeyed doing re-sightseeing, Haid cycle on the injection receptor three months mostly menstrual cycle unregulated, the rest is regular. 5.1.3 There is a relationship between re-visit compliance with the menstrual cycle of the three-month injection receptor at the independent practice of a midwife Jember Regency in 2023, so it can be concluded that if a three month re-vizit of the injection receptor is able to improve the period cycle regularly and the non-compliance with a re-injection of the 3 month injector receptor can increase the period period irregularly.

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