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# Unintended pregnancy and antenatal care behavior in Indonesia

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## ABSTRAK

***Latar Belakang:*** *Kehamilan yang tidak diinginkan terjadi pada 1 dari 4 orang wanita. KTD menimbulkan resiko yang besar bagi ibu dan anak, seperti malnutrisi, kesakitan, kekerasan dan penelantaran bahkan kematian. Selama hamil, seorang wanita diharapkan mampu berinisiatif dan mengubah perilakunya dengan melakukan perawatan kehamilan yang adekuat. Perawatan kehamilan merupakan bagian dari upaya kesehatan ibu dan anak yang sangat vital dalam deteksi dini, pemantauan kesejahteraan janin dan upaya meningkatkan kesehatan ibu dan bayi selama masa kehamilan, persalinan dan postpartum. Intensi ibu terhadap kehamilannya baik itu diinginkan maupun tidak berhubungan dengan perilaku ibu selama hamil. Kehamilan yang tidak diinginkan oleh ibu, dapat menghambat tercapainya perawatan kehamilan yang adekuat.*

***Tujuan:*** *Penelitian ini bertujuan untuk mengetahui adanya hubungan antara kehamilan tidak diinginkan dengan perilaku perawatan kehamilan yang merupakan komposit dari kunjungan pertama antenatal, frekuensi pemeriksaan antenatal dan konsumsi zat besi.*

***Metode:*** *Metode yang digunakan adalah desain potong lintang dengan menggunakan data SDKI 2017. Analisis dilakukan dengan chi square dan regresi logistik model faktor risiko.*

***Hasil:*** *Ibu dengan kehamilan yang tidak diinginkan memiliki peluang yang lebih besar untuk melakukan perilaku perawatan kehamilan yang tidak baik (OR = 2,338: 95% CI 1,707- 3,203). Pengaruh kehamilan yang tidak diinginkan terhadap perilaku perawatan kehamilan bervariasi menurut usia ibu (OR- 1,267: 95% CI 1,034-1,553), paritas (OR= 0,579: 95% CI 0,430-0,780) dan tempat tinggal (OR= 1,490: 95% CI 1,226- 1,811).*

***Kesimpulan:*** *Terdapat hubungan antara kehamilan tidak diinginkan dengan perilaku perawatan kehamilan. Ibu dengan kehamilan tidak diinginkan mempunyai peluang untuk melakukan perilaku perawatan kehamilan yang tidak baik 2.338 kali dibandingkan ibu yang kehamilannya diinginkan. Pengaruh KTD terhadap perilaku perawatan kehamilan tergantung atau berbeda menurut kelompok umur ibu berisiko, paritas dan tempat tinggal*

**KATA KUNCI***: kehamilan tidak diinginkan; perilaku perawatan kehamilan; pemeriksaan antenatal; kehamilan perilaku*

## ABSTRACT

***Background:*** *One in four mothers experience unwanted pregnancy. It causes great risks for mothers and children, such as malnutrition, neglected, violence and even death. During pregnancy, a woman is expected to take the initiative and change her behavior by taking adequate care. Antenatal care is a part of maternal and child health services that are vital in early detection and monitoring of fetal well-being as an efforts to improve the health of mothers and babies during pregnancy, childbirth and postpartum. The mother's intention towards her pregnancy, whether desired or not, is related to the mother's behavior during pregnancy. Unintended pregnancy can obstruct the achievement of adequate antenatal*

*care..*
***Objectives:*** *This study aims to determine the relationship between unintended pregnancy and antenatal care behavior*
***Methods:*** *This study used a cross-sectional design with the secondary data from 2017 Indonesian Demographic Health Survey. The dependent variable in this study was antenatal care behavior which is a composite of the first antenatal visit, frequency of antenatal visit and iron consumption. There were 14.223 women of childbearing age 15-49 years which eligible for this study's criteria. The collected data was analyzed with chi square and logistic regression models of risk factors test*
***Results:*** *Mothers with unintended pregnancies have a bigger opportunity to do unhealthy antenatal care behavior (OR = 2.338: 95% CI 1.707- 3.203) compared to intended pregnancies. The effect of unintended pregnancy on antenatal care behavior varies according to maternal age (OR- 1.267: 95% CI 1.034-1.553), parity (OR= 0.579: 95% CI 0.430-0.780) and residency (OR= 1.490: 95% CI 1.226- 1.811).*
***Conclusions:*** *There is a relationship between unintended pregnancy and antenatal care behavior. Mothers with unintended pregnancies is 2.338 times more likely to have unhealthy antenatal behavior care. We also found that this effect differs according to the maternal age, parity and residency.*

**KEYWORD***: unintended pregnancy; antenatal care behavior; antenatal care; pregnancy; behavior*

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## INTRODUCTION

Ensure a healthy life and promote health at all ages is one of the SDGs. These includes achieving universal access to sexual and reproductive health services, globally reducing maternal mortality and ending the AIDS epidemic by 2030. Reproductive health problems are the highest cause of morbidity and mortality for women in developing countries. Poverty and unintended pregnancies become a burden for a woman, which results in increased risk of unsafe abortion, maternal mortality and morbidity, STIs and other problems (1). Family planning promotes human rights by ensuring the right of fertile age couples to freely decide when and how many children they want. Family planning supports the right of young women to have a higher education until they are physically, psychologically and economically ready to giving birth and child bearing. It also supports the right to get appropriate information of contraceptive methods that can help people achieve their reproductive preferences (2).

Unintended pregnancy is a pregnancy that is either unwanted, such as the pregnancy occurred when no children or no more children were desired. If the pregnancy is still desired at another time, then the pregnancy is referred mistimed. If it's not wanted at all, then the pregnancy is called unwanted pregnancy. Unintended pregnancy might happen to a married women who has already have sufficient number of children, does not want to have children in anytime or because of family planning failure (3).

WHO study in 36 countries found that two-thirds of sexually active women who wanted to limit the number of children are not using contraception due to side effects, health problems and underestimating the possibility of conception. There was one unintended pregnancy in 4

pregnancies. 74 million women had unintended pregnancy that lead to 25 million unsafe abortions and 47 thousand maternal deaths annually (4). The 2017 Indonesia Demographic Health Survey showed that there were 7% of unwanted pregnancies and 8% of mistimed pregnancies in Indonesia. The proportion of unintended pregnancy stays constant as 7% and has not changed since 2002 (5).

During pregnancy, women needs to change their health behavior. They are expected to be initiative in maintaining health behavior before, during and after pregnancy (6). The mother's intention towards her pregnancy, whether desired or not, was found to be related to health behavior during pregnancy (7). Research have also shown that mothers with unintended pregnancy have higher body mass index and are more likely to be exposed to cigarettes and not consume folic acid (8).

Regular antenatal visit during pregnancy is important for maternal and infant health. In Indonesia, minimum antenatal visit recommendation are 4 times during pregnancy (9). Unintended pregnancy affects to late or low antenatal visits (10). Other study also found that women with unintended pregnancy may experience delays in antenatal visit which is important for early detection and monitoring of maternal and fetal health (11). Mothers with unintended pregnancy are also vulnerable to physical and sexual violence. They have lower mental and physical health status scores and tend to experience psychological disorders such as prenatal and postpartum depression. They're also less aware of vigilance against pregnancy complications (10).

Study shows a lower proportion of first antenatal visit before 8 weeks of gestation found on unintended pregnancy (12). There were 1.79 times odds in women with unintended pregnancy to not have a prenatal care visit (13). The number of antenatal care visits during pregnancy are also lower than planned pregnancies. It's also got worsen with bad behavior such as low consumption of supplements, vaccinations and nutritional intake (10).

Poor pregnancy preparation in women with unintended pregnancy put them in a higher risk of pregnancy complications such as hypertension and anemia. Mothers with unintended pregnancy need a particular care because it can indirectly affect pregnancy outcome due to bad maternal behavior such as smoking, poor weight gain during pregnancy and inadequate vitamin consumption (14).

Mother's hesitation and lack of support for her pregnancy make them to not aware for carrying out healthy behaviors. This problem is an alert in public health because adequate antenatal care is important to determine mother and baby's health status in the future. This study aims to discover the relationship between unintended pregnancy and antenatal care behavior in Indonesia.

## MATERIALS AND METHODS

This research is a cross-sectional study using the 2017 Indonesian Demographic and Health Survey (IDHS) data. This most recent IDHS is a joint survey program of Indonesian Central Statistic Agency with the National Populatian and Family Planning Agency, and the Ministry of Health with the support of ICF International. This survey was done from July 24 to September 30, 2017.

The outcome variable in this study was antenatal care behavior which is a composite of the first antenatal visit, frequency of antenatal visit and iron consumption. The first antenatal visit defined as the initial visit of pregnant women to a health facility. It is considered as on schedule if the first visit has been done on the first trimester of pregnancy; and late if it is done after the first trimester. Frequency of antenatal visits clasified as adequate if it has been done for minimum 4

times during pregnancy and inadequate if less than 4. Iron consumption defined as the number of days when iron tablets taken during pregnancy. Antenatal care behavior was assessed by adding up the values of each composite. The sum of all composites is categorized based on the median value. If it is greater than the median then categorized as healthy behavior. If it is less than the median, it is categorized as unhealthy.

The independent variable was unintended pregnancy. The covariate variables are maternal age, education, parity, birth interval, economy status and residence.

IDHS sample covers 1,970 census blocks covering the area of urban and rural in Indonesia. It used stratified two-stage sampling and managed to interviewed 49.627 women. On this research, the population was women of childbearing age (15-49 years). The sample was women of childbearing age 15-49 years who had given birth to a live baby during 2012-2017. The eligible sampel who met the inclusion criteria for this study was 14.223.

The analysis of this study was carried out with complex sample analysis to consider the design effect and weighting. It was done to generalize study result to population. The analysis result shown in frequency distribution and further continued with chi square statistical test and multivariate analysis using logistic regression test.

The IDHS has been obtained an ethical clearance from the ICF International Review Board and complied the US Department of Health and Human Services on "Protection of Human Subjects". The author has already received approval to use this 2017 IDHS data. This study also has been obtained an ethical clearance from The Research and Community Engagement Ethical Committee Faculty of Public Health Universitas Indonesia with the registration number of Ket-448/UN2.F10.D11/PPM.00.02/2020.

## RESULTS AND DISCUSSION

### RESULTS

There were 15.6% of respondents have unhealthy antenatal care behavior as shown on **Table 1** 16% respondents stated that their pregnancy was unintended. 23.1% of respondents experienced pregnancy at a high risk maternal age. 66.1% have were multipara. A total of 38.9% of respondents had birth interval of less than 2 years. According to education level, the percentage of respondents is almost the same in both higher and lower education.

**Table 1. Characteristic of Respondents (Weighted)**

| Variabels | n | % |
|---|---|---|
| *Dependent Variabels* | | |
| Antenatal Care Behavior | | |
| Healthy | 12001 | 84.4 |
| Unhealthy | 2222 | 15.6 |
| First Antenatal Visit* | | |
| On schedule | 13216 | 92.9 |
| Late | 1007 | 7.1 |
| Frequency of Antenatal Visits* | | |
| Adequate | 11485 | 80.8 |
| Inadequate | 2738 | 19.2 |
| Iron Consumption* | | |
| ≥ 90 days | 6549 | 46.0 |
| < 90 days | 7674 | 54.0 |
| *Independent Variabel* | | |
| Unintended Pregnancy | | |
| Intended | 11944 | 84.0 |
| Unintended | 2279 | 16.0 |
| *Covariat Variabels* | | |
| Maternal Age | | |
| Lower risk | 10932 | 76.9 |
| Higher risk | 3291 | 23.1 |
| Parity | | |
| Primipara | 4820 | 33.9 |
| Multipara | 9403 | 66.1 |
| Birth Interval | | |
| ≥ 2 years | 8693 | 61.1 |
| < 2 years | 5530 | 38.9 |
| Education | | |
| Higher | 6460 | 45.4 |
| Lower | 7763 | 54.6 |
| Economy Status | | |
| Higher | 8739 | 61.4 |
| Lower | 5484 | 38.6 |
| Residency | | |
| Urban | 7004 | 49.2 |
| Rural | 7219 | 50.8 |

*Composite of Antenatal Care Behavior

**Table 2. Bivariate Analysis of Independent and Covariate Variables on Antenatal Care Behavior (Weighted)**

| | Antenatal Care Behavior | | | | *p value* | OR (95% CI) |
|---|---|---|---|---|---|---|
| | Healthy | | Unhealthy | | | |
| | n | % | n | % | | |
| Unintended Pregnancy | | | | | | |
| Intended | 10260 | 85.9 | 1684 | 14.1 | 0,0001 | 1.88 (1.65- 2.13) |
| Unintended | 1740 | 76.4 | 537 | 23.6 | | |
| Maternal Age | | | | | | |
| Lower risk | 9419 | 86.2 | 1512 | 13.8 | 0.0001 | 1.71 (1.52- 1.92) |
| Higher risk | 2581 | 78.4 | 709 | 21.6 | | |
| Parity | | | | | | |
| Primipara | 4174 | 86.6 | 646 | 13.4 | 0.0001 | 1.30 (1.15- 1.46) |
| Multipara | 7826 | 83.2 | 1575 | 16.8 | | |
| Birth Interval | | | | | | |
| ≥ 2 years | 7299 | 84.0 | 1393 | 16.0 | 0.155 | 0.92 (0.82- 1,03) |
| < 2 years | 4701 | 85.0 | 828 | 15.0 | | |
| Education | | | | | | |
| Higher | 5765 | 89.2 | 694 | 10.8 | 0.0001 | 2.03 (1.80- 2.29) |
| Lower | 6235 | 80.3 | 1527 | 19.7 | | |
| Economy Status | | | | | | |
| Higher | 7798 | 89.2 | 940 | 10.8 | 0.0001 | 2.52 (2.25- 2.83) |
| Lower | 4202 | 76.6 | 1281 | 23.4 | | |
| Residency | | | | | | |
| Urban | 6186 | 88.3 | 817 | 11.7 | 0.0001 | 1.82 (1.59- 2.09) |
| Rural | 5814 | 80.5 | 1404 | 19.5 | | |

38.6% of respondents have low economic status. Meanwhile, the percentage of respondents is almost the same both in urban and rural areas.

**Table 2** shows that mothers with unintended pregnancy has a higher chance to have unhealthy antenatal care behavior (OR = 1.88: 95% CI 1.65-2.13). Moreover, several covariate variables also show a statistically significant relationship with antenatal care behavior. Women with higher risk of maternal age, multipara, more than 2 years birth interval, lower education, lower economy status and who lives in rural area are more likely to have an unhealthy antenatal care behavior.

On the first step of multivariate analysis, we did a complete modelling asa seen on **Table 3**. Then we did the confounding test. It was carried out by removing the covariate variables one by one starting from the one with the largest p value. Then, we compared the OR of the main independent variable before and after the confounding variable is removed. If it's greater than 10%, then the variable is declared as a confounder and must remain in the model. The OR value used as a comparison is the OR value of unintended pregnancy in the **Table 3** (OR= 1.795).

**Table 3. Complete Modelling Multivariate Analysis of Unintended Pregnancy and Antenatal Care Behavior**

| Variabel | *p value* | OR | 95% CI | |
|---|---|---|---|---|
| | | | *Lower* | *Upper* |
| Unintended Pregnancy | 0.0001 | 1.795 | 1.594 | 2.022 |
| Maternal Age | 0.0001 | 1.509 | 1.360 | 1.674 |
| Parity | 0.0001 | 1.816 | 1.485 | 2.220 |
| Birth Interval | 0.0001 | 1.682 | 1.396 | 2.028 |
| Economy Status | 0.0001 | 1.993 | 1.795 | 2.214 |
| Residency | 0.0001 | 1.357 | 1.224 | 1.504 |
| Education | 0.0001 | 1.435 | 1.289 | 1.597 |

**Table 4** shows that there is no confounder in the relationship of unintended pregnancy and antenatal care behavior that is statically proven. But in public health, an outcome may be influenced by multifactors. Therefore we carried out an interaction test to determine how far the effect of unintended pregnancy is modified by interactions with other variables. Interaction

**Table 4. Complete Modelling in Multivariate Analysis of Unintended Pregnancy and Antenatal Care Behavior**

| Stage | OR of Unintended Pregnancy | | | | Finding |
|---|---|---|---|---|---|
| | OR | 95% CI | | OR Change (%) | |
| | | Lower | Upper | | |
| Complete Modelling | 1.795 | 1.594 | 2.022 | - | - |
| Model 1 (Birth of interval removed) | 1.879 | 1.671 | 2.113 | 4.67 | Not a confounder |
| Model 2 (Parity removed) | 1.941 | 1.732 | 2.174 | 8.13 | Not a confounder |
| Model 3 (Residency removed) | 1.892 | 1.689 | 2.118 | 5.40 | Not a confounder |
| Model 4 (Education removed) | 1.867 | 1.668 | 2.090 | 4.01 | Not a confounder |
| Model 5 (Maternal age removed) | 1.962 | 1.754 | 2.194 | 9.30 | Not a confounder |
| Model 6 (Economy status removed) | 1.882 | 1.686 | 2.100 | 4.84 | Not a confounder |

**Table 5. Interaction Test Result in Multivariate Analysis of Unintended Pregnancy and Antenatal Care Behavior**

| Variabel | *p value* | OR | 95% CI | |
|---|---|---|---|---|
| | | | *Lower* | *Upper* |
| Unintended pregnancy | 0.0001 | 4.550 | 3.242 | 6.386 |
| Maternal age | 0.0001 | 1.593 | 1.414 | 1.793 |
| Parity | 0.0001 | 2.006 | 1.632 | 2.464 |
| Birth interval | 0.0001 | 1.706 | 1.415 | 2.056 |
| Economy status | 0.0001 | 1.983 | 1.785 | 2.202 |
| Residency | 0.0001 | 1.447 | 1.287 | 1.626 |
| Education | 0.0001 | 1.432 | 1.286 | 1.594 |
| Unintended Pregnancy by Maternal Age | 0.047 | 0.785 | 0.618 | 0.997 |
| Unintended Pregnancy by Parity | 0.0001 | 0.447 | 0.323 | 0.618 |
| Unintended Pregnancy by Residency | 0.015 | 0.754 | 0.601 | 0.946 |

**Table 6. Finale Modelling in Multivariate Analysis of Unintended Pregnancy and Antenatal Care Behavior**

| Variabel | *p value* | OR | 95% CI | |
|---|---|---|---|---|
| | | | *Lower* | *Upper* |
| Unintended Pregnancy | 0.0001 | 2.338 | 1.707 | 3.203 |
| Unintended Pregnancy by Maternal Age | 0.023 | 1.267 | 1.034 | 1.553 |
| Unintended Pregnancy by Parity | 0.0001 | 0.579 | 0.430 | 0.780 |
| Unintended Pregnancy by Residency | 0.0001 | 1.490 | 1.226 | 1.811 |

test results on **Table 5** shows that there are variables that interact with each other. It is found that unintended pregnancy has an interaction between maternal age, parity and residency. In other words, the effect of unintended pregnancy on antenatal care behavior relies or differs by maternal age, parity and residency.

**Table 6** shows the final modelling in multivariate analysis. It explains that mothers with unintended pregnancy have a higher chance to behave an unhealthy antenatal care (OR = 2.338 : 95% CI 1.707- 3.203) compared to mothers whose pregnancies are intended. This study also shows that unintended pregnancy interacts with maternal age, parity and residency. Mothers with higher risk maternal age and unintended pregnancy have 1.267 times the chance to have unhealthy antenatal care behavior. Mothers with multiparity and unintended pregnancy have 0.579 times the chance to behave unhealthy antenatal care. Furthermore, mothers who live in rural areas and experience unintended pregnancy have a 1.490 times higher risk of having unhealthy antenatal care behaviors.

## DISCUSSION

There are 16% of respondents in this study stated that their pregnancy was unintended. The Indonesian government has actually fulfilled the reproductive rights of every woman through

family planning. The final report of the 2017 IDHS shows that 53% of women in Indonesia want to limit births, yet only 64% of married women aged 15-49 years used contraception. There were also 11% unmet need on the report. It shows that the risk of unintended pregnancy in Indonesia is still big because there are still large amount of childbearing age woman who aren't protected by contraception. It may also be caused by the lack of contraceptive methods knowledge. Pills and injections are the most widely known contraceptive method. Furthermore, only 22% of women understand about their fertile period.

This study shows that unintended pregnancy affected antenatal care behavior. Theory of reasoned action and theory of planned behavior by Ajzen and Fishbein stated that concept of intention is the basis of a behavior. Intention is the degree to which a person is prepared or engaged in a particular behavior. The mother's intention towards her pregnancy was found to be related to their behavior during pregnancy. This results are in line with other study that showed unintended preganancy affects the antenatal care. There were an increased odds of inadequate antenatal care and delay in initiating prenatal care in mothers with unintended pregnancy. This happens not only in developing countries, but also in developed countries (15).

Healthy behavior changes of a pregnant woman can be explained psychologically. The maternal- fetal bond lead the changes in maternal behavior (6). Adapting to motherhood is the initial step to accept the pregnancy. Many women are surprised to find themselves pregnant. As the woman accepts their condition, they will also begin to take on the real growth of the fetus. A woman may not like being pregnant, but may love the child to be born (16). Stress, attitudes and intentions toward pregnancy are associated with an increased risk of inadequate antenatal care behavior (17). An Indonesian study on psychosocial well-being in women with unintended pregnancy, showed that they were three times more likely to have low psychosocial well-being after being controlled by sociodemographic factors (18). Women with unintended pregnancy also have lower physical and mental health status, as well as lower antenatal care behaviors such as vitamin consumption, nutritional intake and vaccinations (10).

This study also found that there was an interaction between unintended pregnancy and maternal age, parity and residency on antenatal care behavior. Mothers with a higher risk age and unintended pregnancy have a 1.267 times chance of having unhealthy antenatal care behavior. Modifying effects of unintended pregnancy with maternal age on increasing the odds of maternal behavior during pregnancy were also found in a research in the United States. Mothers whose age more than 20 years old with unintended pregnancy are more at risk for having an unhealthy behavior during pregnancy by smoking, caffeine and not consuming folic acid and iron (19). Other studies also mention that the interaction of unintended pregnancy and maternal age may be explained because unintended pregnancy are more commonly found in teenager pregnancies or in mothers older than 35 years (14).

Mothers who are less than 20 years old and more than 35 years old have a higher risk of complications during pregnancy, childbirth and the puerperium. Young mothers may not be ready physically and psychologically to experience pregnancy. On the other hand, women at the age of more than 35 years experience degeneration on their reproductive organs thus makes them need to maintain a healthy antenatal care behavior to optimize the pregnancy outcome.

This study also showed that multiparous mother with unintended pregnancy had 0.579 times chance to carry out unhealthy antenatal care behavior. This study are in line with a

previous research in 5 countries which found that birth order or parity had a stronger effect to antenatal behavior. It was reccomended to consider the interaction of unintended pregnancy and parity when assessing the outcome of unintended pregnancy (6). Study in Rwanda also showed a significant relationship. In the interaction model, high parity in unintended pregnancy was a predictor of delay in antenatal visits. Mothers with unintended pregnancy and has more than 4 child were more likely to delay the first antenatal visit (7). This interaction make them at greater risk of experiencing early parenting stress. These findings support the importance of emotional management in pregnant women, especially in mothers with multiparity (20).

We found that economy status was not a confounders in this study. This is different with other study in Indonesia which found that unintended pregnancy with low economic status had a greater effect to not carry out a standard antenatal care compared (13). In this study, residency also interacts with unintended pregnancy. Unintended pregnancy mothers who live in rural areas was 1.490 times higher risk of having unhealthy antenatal care behaviors. It is contrast with a study in Vietnam which showed that the percentage of adequate antenatal care behaviors is higher in urban areas. Better maternity care in urban areas has been found in many studies in low-income countries. Access and health care facility in urban areas differ in many aspects which may contribute to the utilization of antenatal care (21). A cross-sectional study in Ethiopia also found that place of residence and distance to health facilities were related to antenatal care utilization. Unintended pregnancy is more common in rural areas where access to maternal health services is more difficult (22).

Health development in Indonesia is uneven. Rural communities have lower access to health services due to limited health facilities, low health knowledge, low incomes and inadequate health insurance ownership (23). Family planning and reproductive health need to be adjusted with society characteristics. These can be done by strengthening support of local governments; enhancing the competence of family planning scout. Family planning and reproductive health services networks, such as midwives, medical doctors and professional organizations had to be strengtented. It also need a strong advocacy good communication, and education in realizing a comprehensive family planning services (24).

The unwillingness to get pregnant contributes a burden on the mothers with unintended pregnancy. It takes a longer time for them to realize their pregnancy and to get medical help. This finding shows the importance of support for couples to plan the pregnancy well. This can be done by ensuring access to family planning and antenatal care.

## CONCLUSION AND RECOMMENDATION

There is a relationship between unintended pregnancy and antenatal care behavior. Mothers with unintended pregnancies is 2.338 times more likely to have unhealthy antenatal behavior care. We also found that this effect differs according to the maternal age, parity and residency.

The assessment of pregnancy intention in a survey studies was asked retrospectively by asking the mother how she felt about her pregnancy, whereas the mother's emotions may change over time. Therefore, a more specific tools can be used, such as the PRAMS (Pregnancy Risk Assessment Monitoring System) so that they can describe the mother's pregnancy intentions more clearly. This study used limited variables from secondary data. Future research is expected to use other variables and research methods in order to obtain more in-depth results.

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