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THE EFFECT OF ADOLESCENT BEHAVIOR ON UNWANTED PREGNANCY: LITERATURE REVIEW

Ach. Fahrizal Amien¹, Imas Elva Khoiriyah¹

¹Public Health Study Programme, Faculty of Public Health, Universitas Airlangga, Surabaya

Correspondence Address: Jalan Mutiara I No 2c Sampang Email: ach.fahrizal.amien-2019@fkm.unair.ac.id

Abstract

Background: One indicator of the country's progress can be seen from the maternal mortality rate in which adolescents are the group of contributors to this figure. Unwanted Pregnancy also cause of maternal death because of the many complications during pregnancy and childbirth. Not to mention the other postpartum impacts that must be borne by adolescents. Many factors influence unwanted pregnancy, one of which is the factor of adolescent behavior itself, of course, many factors influence adolescent behavior, which causes unwanted pregnancy. This study aims to see what aspects of adolescent behavior affect unwanted pregnancies. Method: This study was a literature study from several journals, theses, and other scientific articles about behaviors that affect unwanted pregnancy in adolescents with a period from 2016-2021. Results: From 13 international journals studied, 4 findings were obtained on the theme of adolescent behavior that has an influence on unwanted pregnancy, namely: Beliefs & Perceptions, Cognitive Determinants of Behavior, Attitudes, Motivation, and Risky Actions. Conclusion: Adolescent behavior factors for unwanted pregnancy include beliefs & perceptions about premarital sexual behavior and contraception.

Keywords: Unwanted Pregnancy, Adolescent, Well-being

INTRODUCTION

In 2019, 16% of the world's population of about 1.2 billion were teenagers aged 10-19 years. More than half of the adolescent population is Asian. Starting from the highest figure in South Asia at 347 million, then followed by East Asia and the Pacific at 307 million, East and South Africa at 129 million, West and Central Africa at 120 million, Latin America and the Caribbean at 107 million, the Middle East and North Africa 75 million, Eastern Europe and Central Asia 52 million and the last position is North America with 46 million (UNICEF, 2019).

This large number is a challenge in itself as adolescence is a transition period from childhood to adulthood that undergoes dramatic physical, sexual, psychological, and social



developmental changes, all occurring at the same time. In addition to opportunities for growth, this transition can certainly also pose risks to their health and well-being (WHO, 2021).

In Southeast Asia, There were an estimated 1.7 million deaths among adolescents in 2015 whose leading causes of death included self-harm (suicide), road injury, and maternal death (among women) (WHO, 2021). About 12 million girls aged 15–19 and at least 777,000 girls under 15 give birth each year in developing regions. The effect is that adolescent mothers (ages 10–19 years) face a higher risk of eclampsia, puerperal endometritis, and systemic infections than women aged 20 to 24 years, and babies of adolescent mothers have a higher risk of low birth weight, premature birth, and severe neonatal conditions (WHO, 2020).

Previous research mentioned that in general, adolescents experiencing an unwanted pregnancy have less knowledge, while the knowledge of sex associated with unintended pregnancy (Retni and Lihu, 2021). The other research mention that all informants were pregnant for the first time, most of the informants were housewives and had low education and low economic status (Sari *et al.*, 2019). Accordingly, results research shows that the pregnancy factor what is unwanted in adolescents is a lack of knowledge reproductive health, easy access to pornographic media, the influence of close friends in association and parenting style of parents who tend to apply permissively in different and permissive attitude in association (Ismarwati and Utami, 2017). The permissive attitude in an association that causes premarital sexual behavior in adolescents where the results of the scoping review mention showed that knowledge about reproductive health, or more specifically pre-marital sexual behavior, was related to pre-marital sexual behavior during the COVID-19 pandemic. In addition, attitudes, communication media, peers, and family were also related to adolescent pre-marital sexual behavior during the COVID-19 pandemic (Muthmainnah *et al.*, 2023).

The impact of unwanted pregnancy in adolescence certainly hinders the progress of a country where the indicator is seen from the maternal mortality rate which one of the contributors is from this group. Behavior is one of the most influential elements of a person's health status. There is a lot of research on the factors that cause teenagers to experience unwanted pregnancies. This study conducted a systematic review of the influence of adolescent behavior on unwanted pregnancies.

METHOD

This study used the literature review method. The source of research data comes from the literature obtained through search engines such as Google Scholar, Search Gate, Since Direct, etc. The search is conducted based on inclusion and exclusion criteria. The author



searched by writing down the keywords "Behavior", "Adolescent", and "Unwanted Pregnancy". The author took 1 journal relevant to adolescent behavior and unwanted pregnancy by taking all existing research methods. Journal Population is a journal with a period of 2016-2021.

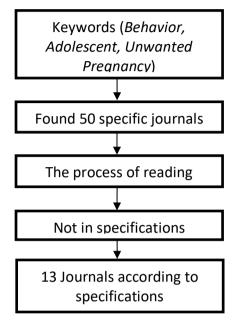


Figure 1. Search and diagram selection process

RESULT AND DISCUSSION

From 13 international journals studied, 4 findings were obtained on the theme of adolescent behavior that has an influence on unwanted pregnancy, namely: Beliefs & Perceptions, Cognitive Determinants of Behavior, Attitudes, Motivation, and Risky Actions.

Ta	Table 1. Review table of articles used in this study								
No	Writer	Title	Method	Result					
1	O.V. Panova MD, A.M. Kulikov MD, PhD, A. Berchtold PhD, J.C. Suris MD, MPH, PhD. (2016)	2	Cross-sectional	In the log-linear model, six factors appear to be directly related to pregnancy: lower maternal education, alcohol consumption, incomplete family structure, lower education Grades, higher frequency of sexual intercourse, and lower age during sexual intercourse.					
2	Sonja Caffe, Marina Plesons, Alma Virginia Camacho, Luisa Brumana, Shelly N. Abdool, Silvia Huaynoca, Katherine Mayall, Lindsay Menard-	Looking back and moving forward: can we accelerate progress on adolescent pregnancy in the Americas?	Technical consulting	Lack of knowledge about their sexual and reproductive rights and health, poor access to and inadequate use of contraception as a result of restrictive laws and policies, weak programs, social and cultural norms, limited education and income, sexual					

No	Writer	Title	Method	Result
	Freeman, Luis Andres de Francisco Serpa, Rodolfo Gomez Ponce de Leon and Venkatraman Chandra-Mouli (2017)			violence and harassment, and unequal gender relations.
3	Risa Rahmatin S, Budhi Laksono, Eunike Raffy Rustian. (2018)	Adolescent Sexual Behaviour At Risk of Unintended Pregnancy And HIV/AIDS	Mixed research method which is a combination of quantitative and qualitative research with sequential explanatory design.	There is a relationship between knowledge, attitudes, parental roles, peer influence, dating style, and information media. attitude as a factor that provides the highest risk of risky sexual behavior in adolescents.
4	Golfo Tzilos Wernette PhD, Erin E. Bonar PhD, Frederic C. Blow PhD, Maureen A. Walton MPH, PhD. (2018)	Psychosocial Correlates of Marijuana Use among Pregnant and Nonpregnant Adolescent Girls	Cross-sectional	Marijuana use among adolescent girls in this sample was associated with several risky behaviors as well as parental and peer influence.
5	Bunga Mutiara, Uki Retno Budihastuti, Eti Poncorini Pamungkasari. (2018)	Path Analysis on the Determinants of Unwanted Pregnancy Among Adolescents in Madiun, East Java	Case control study	Unwanted pregnancy is directly determined by negative sexual behavior. It is indirectly determined by negative peer roles, negative media exposure, negative attitudes, parental roles, better knowledge, and religiosity.
	Layu Donatus, Dohbit Julius Sama, Joyce Mahlako Tsoka-Gwegweni, Samuel Nambile Cumbe (2018)	Factors associated with adolescent school girl's pregnancy in Kumbo East Health District North West region Cameroon	Cross-sectional descriptive research designs and simple random sampling techniques were used	Adolescent age when first pregnant, low contraceptive use, socioeconomic status, and physical violence are factors that are strongly associated with teenage pregnancy. Among the reasons contributing to low contraceptive use are: sexual activity, lack of knowledge, fear of side effects, including infertility, condoms disappearing in utero, and power inequality with sexual partners.
7	Samuel Mathewos, Aleme Mekuria. (2018)	Teenage Pregnancy and Its Associated Factors among School Adolescents of Arba Minch Town, Southern Ethiopia	Cross-sectional study	The prevalence of teenage pregnancy in-school adolescents in Arba Minch City is 7.7%. Grade 11 students, 12th graders not knowing the right time to use emergency contraception, substance use, living with one biological parent, and poor parent-child interaction were found to be significant predictors of teen pregnancy.
8	Gabriela Ksinan Jiskrova, Alexander T. Vazsonyi. (2019)	Multi-contextual influences on adolescent pregnancy and sexually	Hierarchical Linear Modeling (HLM)	Individual beliefs of adolescents (negative beliefs about contraception and having sex) are



No	Writer	Title	Method	Result
		transmitted infections in the United States		the most prominent predictor of pregnancy.
9	Arip Ambulan Panjaitan (2019) reshegreate	Adolescent Behavior In Unwanted Pregnancy Prevention	Cross-sectional study	Most respondents lack good knowledge about unwanted prevention. Adolescent self-perception ability is the most influential variable on adolescent behavior in the prevention of unwanted pregnancy.
10	Yohannes Fikadu Geda. (2019)	Determinants of Teenage Pregnancy in Ethiopia: A Case–Control Study, 2019	Case control study	Knowledge of family planning and ovulation cycles, primary school education level, richest wealth categories, and contraceptive use are determinants of teenage pregnancy.
11	Saverio Bellizzi MSc, PhD, Francesca Palestra MPH, Giuseppe Pichierri MSc (2020)	Adolescent Women with Unintended Pregnancy in Low- and Middle-Income Countries: Reasons for Discontinuation of Contraception	Demographics and health, cross- sectional, surveys	The study highlights that about 80.0% of adolescent girls with unwanted pregnancies residing in 35 low and middle-income countries are not users or use traditional methods.
12	Dagnachew Belay, Abebaw Alem, Salle Zerihun, Gashaw Antehun, Zewuditu Nega, Balew Zeleke, Yinager Workineh, Addisu Melese, Getenet Dessie, Emiru Ayalew (2020)	Unintended pregnancy and associated factors among unmarried female students: A case of Bahir Dar University	A descriptive, cross-sectional study	The prevalence of unwanted pregnancies is high in unmarried female college students. Unwanted pregnancy is determined by the source of money, field of study, and age at the beginning of sexual intercourse.
13	Gyu Young Lee, Da Ye Lee. (2020)	The Sexual Risk Behaviors of Middle School Students According to School Nurse Placement Levels in Korea	The study examined data from the 14th Korean Adolescent Risk Behavior Survey in 2018.	The experience of drinking alcohol increases the likelihood of students engaging in risky sexual behaviors, also the experience of using drugs increases the risk. Personal factors (e.g., gender and academic achievement) were also found to influence adolescent sexual risk behavior.

Beliefs & Perceptions

An individual's beliefs and perceptions of something will foster a plan of action in that individual. Beliefs & perceptions are closely related to the Health Belief Model Theory. Adolescents with high levels of religiosity tend to have positive attitudes about premarital sexual behavior (Mutiara *et al.*, 2018). Individuals with high religiosity will try hard to avoid religious prohibitions or things that violate normal values, such as the prohibition of having sex outside marriage to reduce the risk of unwanted pregnancy. However, in contrast to

research on students of SMA Z Surakarta states there is no significant relationship between religiosity and free-sex behavior (Salsabiela, 2017).

For adolescents who engage in sexual behavior without contraception, there is a perception of side effects of contraceptive use such as infertility, condoms disappearing in utero, and power inequality with sexual partners (Donatus *et al.*, 2018). In line with research that states that individual beliefs of adolescents including negative beliefs about contraception and having sex are the most prominent predictors of pregnancy (Ksinan Jiskrova and Vazsonyi, 2019).

Following the conceptualization of the Health Belief Model theory that when there are vulnerabilities and dangers from premarital sex, adolescents will take action under what is believed, namely prevention of premarital sex behavior that can have an impact on unwanted pregnancy. While beliefs about the benefits of contraceptive use are low, it will be difficult to avoid unwanted pregnancy.

Cognitive Determinants of Behavior

Cognitivism related to cognition (knowing) is an activity to know something which includes acquiring, organizing, and using knowledge (Ekawati, 2019). Nearly 77 percent of respondents who began giving birth had no education. About 63 percent of those who started giving birth to children had primary education while 35.3 percent had secondary education (Etukudo and Usoro, 2020). The school status and academic scores of the adolescents were found to be associated with pregnancy (Panova *et al.*, 2016). Low academic scores can be implied as low cognitive abilities so they become obstacles to the delivery of information about sexual education. In line with the results of technical consultations, adolescent pregnancy stakeholders mentioned that one of the factors causing teenage pregnancy is a lack of knowledge about sexual and reproductive rights and health (Caffe *et al.*, 2017). In the college world, students in the field of Health Sciences are less likely to experience unwanted pregnancies compared to non-health sciences because Health Sciences have some knowledge about reproductive health rights from their classes and training (Belay *et al.*, 2020).

Research in Konawe Islands District shows a relationship between adolescent knowledge and sexual behavior (S, Laksono and Rustiana, 2018). In line with research in Madiun Regency which states there is a relationship between knowledge and unwanted pregnancy in adolescents and is statistically significant (Mutiara *et al.*, 2018).

In addition, the cause of unwanted pregnancy in adolescents is a lack of good knowledge about the prevention of KTD (Panjaitan, 2019). Likewise with knowledge about



family planning and ovulation cycles (Geda, 2019). Meanwhile, adolescents who have had sexual intercourse claim not to know the right time to use emergency contraception (Mathewos and Mekuria, 2018). First-time pregnant adolescents are among the reasons that contribute to low contraceptive use, one of which is not knowing its use (Donatus *et al.*, 2018).

Based on the concept of S-O-R (Stimulus-Organism-Response) theory, the message becomes something that must be conveyed to adolescents according to their needs so that it can cause a response in the form of preventive behavior of sexual behavior that has an impact on unwanted pregnancy.

Attitude

Attitude is part of closed behavior. Attitudes are a product of individual beliefs or beliefs about behavior that is the goal, and also how these beliefs are evaluated. Attitude is defined as a disposition to respond favorably or unfavorably to objects, people, institutions, or events. In Konawe Islands District, most adolescents have high attitudes toward adolescent sexual behavior not at risk in the category of unwanted pregnancy as many as 242 (90.0%) respondents where there is a relationship between attitudes and adolescent sexual behavior (S, Laksono and Rustiana, 2018). Line with research in Madiun states that there is a relationship between attitudes and unwanted pregnancy in adolescents, and statistically the results are significant (Mutiara *et al.*, 2018).

The concept of Planned Behavior Theory explains that attitudes influence intentions which then become behavior. So when adolescent attitudes towards unsafe sexual behavior or behaviors that cause pregnancy are not negative cold, it will cause negative intentions which are then followed by negative behavior, although accompanied by other factors.

Motivation

Motivation is an individual's drive to do something. One of the urges for adolescents to engage in sexual behavior is that adolescents who get money from their girlfriends are more likely to experience unwanted pregnancy compared to sources from their families (Belay et al., 2020). In the concept of Maslow's Hierarchical Theory states that the concept of basic human needs is physiological needs such as clothing, food, and shelter. Teenagers have sexual intercourse because of money to meet their physiological needs. Students tend to experience changes in lifestyle including how to dress which tends to choose branded products, and hanging out habits (Novitasani and Handoyo, 2014).

Unwanted pregnancies due to premarital sex behavior in adolescents can also be prevented with self-motivation. Previous research has shown that parents are highly involved in parenting with high motivation to avoid premarital sex (Khodijah *et al.*, 2019). From positive motivation directing adolescents to the intention to prevent premarital sex behavior. Self-efficacy contributes to the intention of premarital sex behavior where adolescents who have high self-efficacy have the ability to reduce premarital sexual behavior (Birrulwalidaini, Suyono and Tentama, 2019).

Risky Actions

The act is the result of all factors that influence adolescents to engage in unsafe sex behavior that gives rise to unwanted pregnancy. Behaviors that influence risky sexual behavior are The experience of drinking alcohol and the experience of using drugs increases the risk (Lee and Lee, 2020). In line with the research on adolescents in Russia, the consumption of strong alcoholic beverages is associated with a higher likelihood of being in the pregnant group (Panova *et al.*, 2016). In addition, the frequency of marijuana use was significantly associated with a greater likelihood of pregnancy (Tzilos Wernette *et al.*, 2018).

The act of adolescents having premarital sexual intercourse causing unwanted pregnancies is using traditional methods or not contraceptive users (Bellizzi, Palestra and Pichierri, 2020). Inadequate contraceptive use is also a result of restrictive laws and policies (Caffe *et al.*, 2017). In the concept of preventive behavior, what can reduce the problem of unwanted pregnancy with health promotion efforts about the dangers of risky sexual behavior and contraception and specific protection efforts is easy to access to get contraception.

CONCLUSION

Adolescent behavioral factors that influence unwanted pregnancy include beliefs & perceptions about the dangers of premarital sexual behavior and contraceptive use. From a cognitive point of view where a low level of knowledge is associated with pregnancy is undesirable. A negative attitude will encourage adolescents to engage in risky sexual behavior. The motivation of adolescents who are the reason for risky sexual behavior is the need to fulfill the lifestyle of adolescents. Risky actions that affect the incidence of unwanted pregnancy are the behavior of consuming alcohol and illegal drugs, and not using contraception. It is necessary to intervene that can change beliefs & perceptions, cognition, attitudes, motivations, and risky actions to reduce the incidence of unwanted pregnancy.

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BIBLIOGRAPHY

- Belay, D. *et al.* (2020) 'Unintended pregnancy and associated factors among unmarried female students: A case of Bahir Dar University', *Heliyon*, 6(6), p. e04309. doi: 10.1016/j.heliyon.2020.e04309.
- Bellizzi, S., Palestra, F. and Pichierri, G. (2020) 'Adolescent Women with Unintended Pregnancy in Low- and Middle-Income Countries: Reasons for Discontinuation of Contraception', *Journal of Pediatric and Adolescent Gynecology*, 33(2), pp. 144–148. doi: 10.1016/j.jpag.2019.11.004.
- Birrulwalidaini, B., Suyono, H. and Tentama, F. (2019) 'Dinamika psikologis efikasi diri terhadap intensi perilaku seks pranikah pada remaja', *Jurnal Psikologi Terapan dan Pendidikan*, 1(1), pp. 45–53. Available at: http://eprints.uad.ac.id/20137/1/Dinamika psikologis efikasi diri terhadap intensi perilaku seks pranikah pada remaja.pdf (Accessed: 8 May 2022).
- Caffe, S. *et al.* (2017) 'Looking back and moving forward: Can we accelerate progress on adolescent pregnancy in the Americas?', *Reproductive Health*, 14(1), pp. 1–8. doi: 10.1186/s12978-017-0345-y.
- Donatus, L. *et al.* (2018) 'Factors associated with adolescent school girl's pregnancy in kumbo east health district north west region Cameroon', *Pan African Medical Journal*, 31, pp. 1–11. doi: 10.11604/pamj.2018.31.138.16888.
- Ekawati, M. (2019) 'TEORI BELAJAR MENURUT ALIRAN PSIKOLOGI KOGNITIF SERTA IMPLIKASINYA DALAM PROSES BELAJAR DAN PEMBELAJARAN', *Seminar Nasional: Jambore Konseling 3*, 00(00), pp. XX–XX. doi: 10.1007/XXXXXX-XX-0000-00.
- Etukudo, I. W. and Usoro, N. A. (2020) 'Determinants of Adolescent Childbearing in Oghara Kingdom, Delta State, Nigeria', *Journal of Culture, Society and Development*, 55, pp. 21–28. doi: 10.7176/jcsd/55-03.
- Geda, Y. (2019) 'Determinants of teenage pregnancy in Ethiopia: A Case–control study, 2019', *Current Medical Issues*, 17(4), p. 112. doi: 10.4103/cmi.cmi_12_19.
- Ismarwati, I. and Utami, I. (2017) 'Faktor Faktor Yang Mempengaruhi Kejadian Kehamilan Tidak Diinginkan Pada Remaja', *JHeS (Journal of Health Studies)*, 1(2), pp. 168–174. doi: 10.31101/jhes.336.

- Khodijah, S. N. *et al.* (2019) 'Penelitian Perilaku Seksual Remaja SMPN 3 Arjasa: Hubungan antara Motivasi untuk Menghindari Hubungan Seks Pranikah', *Jurnal KSM Eka Prasetya Universitas Indonesia*, 1(7), pp. 1–13.
- Ksinan Jiskrova, G. and Vazsonyi, A. T. (2019) 'Multi-contextual influences on adolescent pregnancy and sexually transmitted infections in the United States', *Social Science and Medicine*, 224(January), pp. 28–36. doi: 10.1016/j.socscimed.2019.01.024.
- Lee, G. Y. and Lee, D. Y. (2020) 'The Sexual Risk Behaviors of Middle School Students According to School Nurse Placement Levels in Korea', *Asian Nursing Research*, 14(4), pp. 212–220. doi: 10.1016/J.ANR.2020.08.001.
- Mathewos, S. and Mekuria, A. (2018) 'Teenage Pregnancy and Its Associated Factors among School Adolescents of Arba Minch Town, Southern Ethiopia', *Ethiopian journal of health sciences*, 28(3), pp. 287–298. doi: 10.4314/ejhs.v28i3.6.
- Muthmainnah, M. *et al.* (2023) 'Determinants of adolescent sexual behaviour in indonesia during the COVID-19 pandemic: A scoping review.', *The Nigerian postgraduate medical journal*, 30(2), pp. 87–95. doi: 10.4103/npmj.npmj 65 23.
- Mutiara, B., Budihastuti, U. R. and Pamungkasari, E. P. (2018) 'Path Analysis on the Determinants of Unwanted Pregnancy Among Adolescents in Madiun, East Java', *Journal of Maternal and Child Health*, 03(03), pp. 216–224. doi: 10.26911/thejmch.2018.03.03.06.
- Panjaitan, A. A. (2019) 'Adolescent Behavior in Unwanted Pregnancy Prevention', International Journal of Research in Law, Economic and Social Sciences, 1(1), pp. 41–46. doi: 10.32501/injuriless.v1i1.59.
- Panova, O. V. *et al.* (2016) 'Factors Associated with Unwanted Pregnancy among Adolescents in Russia', *Journal of Pediatric and Adolescent Gynecology*, 29(5), pp. 501–505. doi: 10.1016/j.jpag.2016.04.004.
- Retni, A. and Lihu, F. (2021) 'Faktor Faktor yang Berhubungan dengan Terjadinya Kehamilan Tidak Diinginkan pada Remaja di Wilayah Kecamatan Bolangitang Barat', *Jurnal Ilmu Kesehatan*, 2(2), pp. 1–8.
- S, R. R., Laksono, B. and Rustiana, E. R. (2018) 'Adolescent Sexual Behaviour At Risk of Unintended Pregnancy And HIV/AIDS', *Public Health Perspective Journal*, 3(2), pp. 108–116.
- Salsabiela, R. (2017) *Hubungan Antara Religiusitas Dengan Perilaku Seks Bebas Pada Siswa Muhammadiyah 3 Surakarta*. Available at: http://eprints.ums.ac.id/id/eprint/51814 (Accessed: 8 May 2022).



- Sari, D., HANDAYANI, T. and YOLANDA, K. (2019) 'ANALISIS FAKTOR YANG BERHUBUNGAN DENGAN KEHAMILAN REMAJA DI KOTA BATAM TAHUN 2019', *Journal Of Midwifery*, 7(2), pp. 19–27. doi: 10.37676/jm.v7i2.891.
- Tzilos Wernette, G. *et al.* (2018) 'Psychosocial Correlates of Marijuana Use among Pregnant and Nonpregnant Adolescent Girls', *Journal of Pediatric and Adolescent Gynecology*, 31(5), pp. 490–493. doi: 10.1016/j.jpag.2018.04.006.
- UNICEF (2019) 'Adolescent demographics'. Available at: https://data.unicef.org/topic/adolescents/demographics/.
- WHO (2020) 'Adolescent pregnancy'. Available at: https://www.who.int/news-room/fact-sheets/detail/adolescent-pregnancy.
- WHO (2021) 'Adolescent health in the South-East Asia Region'. Available at: https://www.who.int/southeastasia/health-topics/adolescent-health.