

THE DYNAMICS OF DECISION-MAKING ON RISK BEHAVIOR (UNWANTED PREGNANCY) IN ADOLESCENTS

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ABSTRACT

Unwanted pregnancies that occur outside of marriage in adolescents are problematic because they have wider after-effects academically, financially, and socially. The occurrence of unwanted pregnancy outside of marriage is certainly based on a psychological condition such as decision making at the first time an adolescent engages in risky sexual behavior. This study aims to explore cognitive considerations such as what factors are considered for risky sexual acts and also the cognitive process of risky behavior. The participants in this study were three people consisting of one male and two female who were taken by purposive sampling technique. This study used a qualitative research design with a phenomenological approach, while the data collection techniques used interviews and observations. The results of this study indicate that the factors that cause risky behavior (unwanted pregnancy) are 1) the experience of watching pornographic videos, 2) an environment that is accustomed to promiscuity, and 3) trust and comfort when interacting with partners. While systematic decision-making through several stages does not occur, because the risk behavior of individuals is more dominated by emotional states, memories of previous experiences, and the people around them, so that decision-making is more heuristic.

Keywords: Unwanted Pregnancy, Decision Making, Risk Behavior, Adolescent

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INTRODUCTION

Adolescents are identical with risky decision making which causes them to be close to maladaptive behavior. Wolff [28] explained that during adolescence, individuals tend to engage in risky behaviors such as drinking alcohol, consuming illegal drugs, having unsafe sex, engaging in destructive and delinquent behavior, or driving illegally/racing wildly. He further explained that these behaviors have further consequences such as the appearance of injuries, detention by the police, unwanted pregnancies, or death. Mastre, Anna Licora, et al [15] revealed that the risky behavior displayed by adolescents can also be influenced by growth and biological maturity which causes excess hormone production, so that it can affect behavior.

Steinberg [24] explains that in adolescence the neurobiological system of the brain called the socio-emotional system increases in early adolescence to middle adolescence, this then causes adolescents to be more interested in something that causes sensations, while the cognitive-control system, which is related to with the ability to control impulses, make plans, and execute

functions are not fully formed at the time of adolescence. This ability will increase linearly with development. This causes adolescent decision-making to be hasty and tends to be wrong in the rules. However, this neurobiological model is contradicted by Chassin et al. [5] who stated that the neurobiological model ignores the uniqueness and individual differences in risk behavior.

Krupa & Sorenson [12] state that impulsive decision-making that occurs in adolescence is caused by slow and inhibited development of brain regions because decision-making involves views related to vision and goals, alternative ways, and external reviews. Meanwhile, Blakemore & Robbins [3] stated that risky and impulsive behavior during adolescence is part of the development on the brain including cognitive control, response selection, top-down control and prefrontal cortex (PFC) function. It was further explained that the problem of decision making is caused in addition to the slow development of impulse control, decisions are based on preferences, or the availability of immediate rewards. Wolff [28] explains that competent decision-making involves an individual's ability to recognize when a decision is important, and what events deserve attention. Furthermore, once something has been decided, it should also need to be analyzed.

Reyna & Farley [20] explain that the ability to make decisions during adolescence is considered important, because it is considered a potential factor in risky behavior. It is further explained by Baron [1] which states that decision making is a basis for how individuals have ideal reasons, make judgments, and executive functions. Meanwhile, Miller & Byner [16] stated that the optimal decision was obtained from rational and mathematical calculations. Several things that underlie risky sexual behavior in adolescents include incomplete formal education (high school dropout), no job (jobless), welfare dependence/not yet independent [4].

Krupa & Sorenson [12] explain that the decision-making process passes through 8 stages, including: 1) defining the problem, identifying the root of the problem, limiting assumptions, and problem boundaries. The goal is to be able to describe and make clear the real problem, 2) design a plan of steps/methods by listing all possible solutions, 3) set goals, 4) identify possibilities that will occur, 5) define into certain criteria, 6) choose ways /tools in decision making, 7) evaluate alternatives or possibilities based on criteria, and 8) validate solutions to problem statements. Meanwhile, Rahim [19] states that in the decision-making process, there are 7 stages including: 1) finding and explaining the problem, specific description, easy to understand, and concise; 2) create potential solutions - brainstorming, to an expert, or using intuition-; 3) collect data; 4) evaluate options; 5) choose an option; 6) take action, which is better: wait or move quickly; and 7) evaluate the impact that will be caused. From the explanation above, it is known that in decision making, several stages are needed before a decision is made, starting with identification of problems or situations, identification of possibilities and consequences, how to make decisions and evaluation.

Meanwhile, Gigerenzer & Gaissmaier [7] state that in addition to systematic decision making, the term heuristic is also known in decision making which refers to mental shortcuts used by individuals in making decisions. Heuristics are strategies that ignore information to make decisions that are faster, more efficient, and more accurate than complex decision-making methods. Heuristics themselves are heavily influenced by the current emotional state, which determines the choices and decisions made [6]. According to Newkirk [14] even though heuristics are useful as shortcuts in everyday decision-making, this will make someone make hasty decisions, and can even make wrong decisions on more complex issues.

Risky sexual behavior carried out by adolescents has become a public health focus in several countries over the last few decades, this is because data regarding pregnancy in adolescents due

to sexual activity at self-age has increased [4]. While in Indonesia itself based on Badan Pusat Statistik [2] data it is found that 48 out of 1000 pregnancies occur in this age group 15-19 years and the number of pregnancies [21] in this age group is estimated to continue to increase by around 500 pregnancies each year. Additional data obtained indicate that about 1% of boys and 4% of girls in Indonesia have had sexual intercourse before the age of 13 years, some before the age of 10 years, further around 4% of children aged 13 and 14 years reported to have had sexual intercourse. Where the percentage increases with age, while by the time they are 17 years old, one third of the young population will have had sex at least once [25]. Further data shows that as many as 56% of teenagers in Indonesia have had sex outside of marriage [23]. This phenomenon is not only faced by Indonesia, World Health Organization (WHO) data [27] states that around 12 million adolescent girls aged 15-19 years and 777,000 adolescents under 15 years give birth every year in developing countries.

Cases of unwanted pregnancies that occur outside of marriage are often judged as cases of immorality, while Khisbiyah [10] states that the most prominent socio-economic consequences of adolescence pregnancy problems are interrupted or delayed school or college, increased financial dependence on parents or other family members, difficulty getting a job that matches expectations, and difficulty meeting economic needs independently.

The theory related to the Integrated Behavior Model explains that behavior is actually influenced by several integrated factors, its relation to sexual behavior outside of marriage is influenced by behavioral intentions, attitudes and subjective norms owned by each individual, knowledge, environment and peers, as well as related factors such as control and self-confidence [13]. On the other hand, there are several factors that then cause young women to experience pregnancy outside of marriage [18]. These factors include: a) religious and faith factors, it is explained that the lack of inculcation of religious values can have an impact on promiscuity, and it is easier to have marital relations outside of marriage so that it can be at risk of pregnancy; b) environmental factors such as the lack of special attention from parents in providing good and correct sex education for teenagers. Next are friends, neighbors, and the media, in this case wrong association and inappropriate delivery and misuse of electronic media; c) minimal knowledge and coupled with excessive curiosity; d) changing times, teenagers are faced with the condition of value systems that are increasingly being eroded by systems that are more contrary to moral and religious values; e) adolescent physical changes, changes in hormone levels in adolescents can indirectly increase libido or sexual drive that requires channeling through sexual activity.

RESEARCH METHOD

Research Design

In this study using a descriptive qualitative approach, where the researcher is tasked with collecting data from individuals who experience the phenomenon and developing a combined description of the essence of the experience for all individuals involved. This description consists of “what” they experienced and “how” they wanted it and also one of the important figures who operationalize empirical phenomenological research in psychology [17]. Furthermore, He delved into the experience of truly feeling understood and asked high school and college students to recall situations or situations in which they felt understood by someone, such as someone's mother, father, boyfriend, or girlfriend.

Giorgi [8] describes two descriptive levels of the empirical phenomenological approach: Level I, original data consisting of naive descriptions obtained through open-ended questions and

dialogues. At Level II, the researcher describes the structure of the experience based on reflective analysis and interpretation of research participants' accounts or stories. In Giorgi's terms, by adopting a strictly descriptive approach, we can let phenomena speak for themselves, and when we do, we find that whatever appears indicates something that was (formerly) invisible, because it was hidden.

The steps involved in the study as outlined by von Eckartsberg [26] are as follows:

1. Formulation of problems and questions that describe the focus of the investigation, formulating questions in such a way that other people can understand.
2. Data collection, starting with a descriptive narrative, the researcher asks participants to engage in dialogue, agree to be interviewed or combine the two.
3. Data analysis, explanation and interpretation. Once collected, the data is read and examined to reveal its structure, configuration of meaning, coherence, and the circumstances of its occurrence and grouping. The emphasis is on the configuration of meaning that involves both the structure of meaning and how meaning is made.

Participants

The number of participants in this study consisted of 3 people with the following criteria:

1. Male or female
2. Having sex outside of marriage as a teenager
3. Spouse or experiencing pregnancy out of wedlock

Analysis Techniques

After successfully collecting data, the next task is to analyze the statements of the informants. The final step in the research process is the intuitive integration of textural and structural descriptions into a unified statement of the essence of the experience of a phenomenon as a whole [9]. What is meant by textural description is a description of what the informant experienced, while structural description is how the experience was experienced by the informant by looking at the social context, situation, and conditions when the phenomenon occurred [17].

In general, there are 4 steps in this data analysis, namely data organization, horizontalization, cluster of meaning, and essence description. The organization of the data begins when the principal investigator places the transcribed interviews in front of him and studies the material through phenomena analysis methods and procedures. The procedure includes collecting data and statements relevant to the topic and questions. From horizontal statements, these units of meaning or registered meaning are grouped into general categories or themes, removing overlapping and repetitive statements. Grouped themes and meanings are used to develop a textural description of the experience. From the description of textures, structural descriptions and the integration of textures and structures into the meaning and essence of phenomena are constructed [17].

FINDINGS AND DISCUSSION

This study obtained a description of the data related to how the participants as teenagers chose risky behavior (sex outside of marriage) that resulted in pregnancy. The results of the interviews describe the factors that are considered and how the decision-making process occurs. Participants consisted of 1 man with a partner who had a pregnancy outside of marriage and 2 women who had sex outside of marriage and caused a pregnancy.

1. Factors Causing Risky Behaviors

Participant H (male, 30 years old) revealed that the first time he carried out risky sexual behavior outside of marriage was the emergence of curiosity after watching pornographic videos, besides that this was also felt by his partner at that time.

“...Initially out of curiosity, why, we used to like each other, were interested in the BF (blue film), the first time I saw it was when I was in 3rd grade in junior high school, that was during the VCD era... we were both curious... happened... one month, two months we enjoy...”

Meanwhile, QV (Female, 32 years old) revealed that the reason she did risky behavior for the first time was due to her previous experience which seemed safe and also this behavior is something that has often happened and she encountered in a social environment.

“...It happened in his place. I was the one who ask hehehe... because my friends also used to do this Why him? because he is righteous (good), I feel safe and secure. I became careless because once I did, I didn't use a condom and didn't get pregnant, then after that we did it again, and again we're not using a condom.”

The third participant SP (Female, 38 years old) admitted that the first consideration she had sex outside of marriage was the feeling of trust and security.

“...Back then I had thoughts that one day I will be with him... I think we will get married because actually we have been doing it (having sex) regularly...”

Additional data also revealed that two of the participants did not know the extent to which knowledge and sexual behavior could lead to pregnancy

"...I just found out when I was in the 2nd grade of SMK at the Ramadhan cottage, the technical teacher gave me... but when I did (sexual intercourse) I never thought about using a condom..." (H, male, 30 years old)

"I understand (the risk of having sex), but the concept of the fertile period is what I don't know..." (QV, female, 32 years old).

2. The Dynamics of Decision Making on Risky Behavior

Other results show that related to the dynamics and decision-making process of risky behavior, namely sex outside of marriage that causes pregnancy, it was found that exposure to data from participant H (male, 30 years old)

“... the first time I did it, at my house when there was no one, at first I used to often chat about it, “do you want to understand?” while mentioning the vital organs. Once she visited my home, we're curious for the first time, (after that) yes, she felt guilty.. for both of us. After that, we enjoy it, run for 3-4 months... and finally it's (pregnant)...”.

QV (Female, 32 years) explained:

“...The problem is that he treated me so well so I feel secure...”

Meanwhile, SP (Female, 38 years old) explained:

"... I just (already) just believed it, one day I'll be with him... I think we will marry..."

In the three participants, it was found that the reasons that caused participants to engage in risky behavior were: 1) the experience of watching pornographic videos, 2) the environment that was accustomed to promiscuity, and 3) trust and comfort when interacting with partners. This strengthens the opinion expressed by Kusumaryani [13] which states that sexual behavior outside of marriage can be influenced by behavioral intentions, the environment and peers, as well as related to subjective norms, where this can be obtained from the family and social environment, as well as control and self-confidence.

While this is also reinforced that the factors that cause a person to engage in sexual behavior outside of marriage include the misuse of electronic media which causes teenagers to have thoughts related to sexual behavior, excessive curiosity while lacking knowledge of sexuality, lifestyle and also relationships [18].

If this decision-making scheme is analyzed with the systematic decision-making approach proposed by Krupa & Sorenson [12] with 8 stages of thinking and Rahim [19] regarding decision making with 7 stages, apparently this cannot be proven considering that in the decision-making process, several stages are needed before a decision is made, namely the first stage begins with identifying the problem or the situation being faced, then identify the possibilities and consequences that might occur, several ways to make decisions, and then carry out an evaluation.

The results of interviews with participants showed some evidence related to decision making based on feelings (emotions) such as curiosity, pleasant feelings after doing the first time, a sense of trust and a sense of security to a partner. This can be explained by the theory of Klaczynski [11] which states that there is an intuitive decision-making system, meaning that individuals in making decisions tend to be fast, automatic, *effortless*, sometimes based on emotional state, and also based on personal memory/experience.

This can be explained more broadly by the heuristic decision-making theory which is a decision-making strategy by ignoring information to make decisions that are faster, more efficient, and more accurate than complex decision-making methods [7]. More according to Cherry [6], heuristic occurs much influenced by emotional states and the possibility of taking risks and trying new things when in a happy state, and if faced with confusing situations, heuristics can occur. As happened to H (Male, 30 years) who felt enjoyed in the next one to two months. Furthermore, Cherry [6] adds that if individuals have difficulty understanding the problem or the problem is too complex, in cases of abstract heuristic problems take the role of connecting to examples of real events that have been experienced. As expressed by QV (Female, 32 years):

"Why am I being careless... because once I didn't use a condom and didn't get pregnant, then after that we did it again, because I haven't bought a condom, so I didn't use a condom, it turns out I'm pregnant..."

Information from SP (female, 38 years old) was added which stated that she had had sex outside of marriage with her partner regularly and had never been pregnant.

According to Newkirk [14] even though heuristics are useful as shortcuts in everyday decision-making, this will make someone make hasty decisions, and can even make wrong decisions on more complex issues. Emotional attachment can also cause a strong bias in the preparation of conclusions that affect decision making. This happened to the three respondents because risky behavior in the form of sex outside of marriage resulted in unwanted pregnancies with several further consequences.

If you look at his educational background, at that time H was studying at a private vocational school he was a student who was classified as having no academic problems, according to his narrative before being declared graduated from vocational school he had received scholarship offers from 2 universities, while QV was a student at the top university in the city. In line with SP which also has a history of being an outstanding student since high school. According to Klaczynski [11] states that decision making using a heuristic system has a weak or negative relationship with (cognitive) ability, especially if the response is generated without being aware of the reality or situation at hand. Further explained by Shah & Oppenheimer [22] which states that in decision making using a heuristic system reduces the ability and work of systematic decision making in several ways because heuristics allow individuals to retrieve information in memory, reducing or eliminating information that is more complicated in providing judgments or decisions.

CONCLUSION

During adolescence, development occurs in all aspects of life, both cognitively, emotionally, and behaviorally. Even though it is explained in theory that during adolescence cognitive abilities, the brain's neurobiological system called the socio-emotional system increases in early adolescence to middle adolescence, this then causes adolescents to be more interested in things that cause sensations, while the cognitive-control system, which is related to the ability to control impulses, make plans, and the function of execution is not yet fully formed at the time of adolescence. Furthermore, adolescent development is more emotionally dependent on group conformity, is identical with instability, and changes from dependence to independence. In risky behavior, in this case sexual behavior outside of marriage that leads to pregnancy, in fact it will be more emotionally dominated.

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REFERENCES

- [1] Baron, J. Thinking and deciding (2nd ed.). New York: Cambridge University Press. 1994
- [2] Badan Pusat Statistik Republik Indonesia, 2012.
- [3] Blakemore, Sara-Jayne and Trevor W Robbins, 2012. Decision-making in the Adolescent Brain. *Nature Neuroscience* Vol.15, No.9. <https://doi:10.1038/nn.3177>.
- [4] Capeda, Alice & Avelardo Valdez, 2003. Risk Behaviors Among Young Mexican American Gang-Associated Females: Sexual Relations, Partying, Substance Use, and Crime. *Journal of Adolescent Research*, Vol.18 No.1, January 2003 90-106. <https://doi:10.1177/0743558402238278>.
- [5] Chassin, L., Hussong, A., Barrera, M., Molina, BSG, Trim, R., & Ritter, J. Adolescent substance use. In RM Lerner & L. Steinberg (Eds.), *Handbook of Adolescent Psychology*, 2nd ed. (pp. 665-696). Hoboken, NJ: John Wiley and Sons, Inc. 2004.
- [6] Cherry, Kendra. The Affect Heuristic and Decision Making. [The Affect Heuristic and Decision Making \(verywellmind.com\)](https://www.verywellmind.com). 2020 (accessed 10 September 2021).

- [7] Gigerenzer, Gerd & Wolfgang Gaissmaier, 2011. Heuristic Decision Making. *Annual Review of Psychology*, Vol. 62:451-482. <https://doi:10.1146/annurev-psych-120709-145346>.
- [8] Giorgi, A. The phenomenological psychology of learning and the verbal learning tradition. In A. Giorgi (Ed.), *Phenomenology and psychological research* (pp. 23–85). Pittsburgh: Duquesne University Press. 1985.
- [9] Husserl, E. (1960). *Cartesian meditations: An introduction to phenomenology* (D. Cairns., Trans.). The Hague: Martinus Nijhoff.
- [10] Khisbiyah, Y., 1994. Konsekuensi Psikologis dan Sosial-Ekonomi Kehamilan Tak Dikehendaki pada Remaja. *Population*, 5(2). 74-78. (9) (PDF) [Konsekuensi psikologis dan sosial-ekonomi kehamilan tak dikehendaki pada remaja \(researchgate.net\)](https://www.researchgate.net/publication/255621095)
- [11] Klaczynski, Paul A. 2001. Analytic and Heuristic Processing Influences on Adolescent Reasoning and Decision-Making. *Child Development*, May/June 2001, Vol. 72, No. 3 Pages 844-861. <https://doi:10.1111/1467-8624.00319>.
- [12] Krupa, Joseph & Ken Bryce Sorenson. *Guidebook to Decision-Making Methods*. <https://www.researchgate.net/publication/255621095>, 2015 (accessed 8 September 202)
- [13] Kusumaryani, M. Brief notes: Prioritize adolescent reproductive health to enjoy the demographic bonus. *Demography Institute FEB UI*, 1–6. Retrieved from <http://ldfebui.org/wp-content/uploads/2017/08/BN-06-2017.pdf>, 2017 (accessed 8 September 2021)
- [14] Newkirk, Alice. *The Interactions of Heuristics and Biases in the Making of Decisions*. *Expose Magazine (harvard.edu)*, 2014.
- [15] Mestre, Anna Liocra, et al. 2017. Depression & Aggressive Behavior in Adolescents Offenders and Non-Offenders. Vol. 29 (n2) 197-203. <https://doi.org/10.7334/psicothema2016.276>.
- [16] Miller, DC, & Byrnes, JP. 2001. Adolescents' decision making in social situations: A self-regulation perspective. *Applied Development Psychology*, 22, 237-256. [https://doi:10.1016/S0193-3973\(01\)00082-X](https://doi:10.1016/S0193-3973(01)00082-X).
- [17] Moustakas, C. *Phenomenological Research Methods*. Thousand Oaks, CA: Sage. 1994.
- [18] *Psychology: Hello, Mental Health!.* [Kondisi Psikologis Ibu Hamil di Luar Nikah - Initentangpsikologi.com](https://www.kondisipsikologi.com), 2019 (accessed 9 September 2021)
- [19] Rahim, Riz. 2019. *Decision Making Process: 7 Step Guide with Examples*. *Upskill Nation* [Decision Making Process: 7 Step Guide with Examples - Upskill Nation](https://www.upskillnation.com), 2019 (accessed 1 September 2021).
- [20] Reyna, VF & Farley, F. 2006. Risk and rationality in adolescent decision making: Implications for theory, practice, and public policy. *Psychological Science in the Public Interest*, 7(1), 1-44. <https://doi:10.1111/j.1529-1006.2006.00026.x>
- [21] SeRiau [Angka Kehamilan Remaja di Indonesia Meningkat 500 Kehamilan Setiap Tahun, Ini Penyebabnya \(seriau.com\)](https://www.seriau.com), 2018 (accessed 10 September 2021).
- [22] Shah, AK, & Oppenheimer, DM. 2008. Heuristics made easy: An effort-reduction framework. *Psychological Bulletin*, 134(2), 207-222. <https://doi:10.1037/0033-2909.134.2.207>.
- [23] *Statistik Hubungan Seks Luar Nikah di Indonesia*, IDOCPUB 2019.

- [24] Steinberg, L. 2008. A social neuroscience perspective on adolescent risk-taking. *Developmental Review*, 28, 78-106. <https://doi:10.1016/j.dr.2007.08.002>
- [25] Suwarni, Linda & Selviana. 2015. Inisiasi Seks Pranikah Remaja dan Faktor yang Mempengaruhi. *KEMAS* 10 (2) (2015) 169-177 (<http://journal.unnes.ac.id/nju/index.php/kemas>).
- [26] Von Eckartsberg, R. *Lifeworld experience: Existential phenomenological research approaches in psychology*. Washington, DC: Centre for Advanced Research in Phenomenology & University Press of America. 1986.
- [27] World Health Organization, *Adolescent Pregnancy* 2020
- [28] Wolff, Jennifer M. *Adolescent Decision Making and Risk Behavior: A Neurobiological Approach*. University of Nebraska – Lincoln. 2012.