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The Influence of Parenting Styles on Adolescent Self-Harm Behavior: A Case-Control Study in SMPN 1 Plaosan, Magetan

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ABSTRACT Individuals are required to be able to adapt to the many changes that occur during adolescence, so support from the family is needed to deal with these changes. Normal development in this period of turmoil with rapid physical, cognitive and emotional transformations is influenced by parental interest and emotional involvement as well as parenting styles that determine the overall climate and communication in the family. Parents apply different parenting styles, ranging from authoritarian, democratic and permissive parenting. The purpose of this study was to determine the relationship between parenting patterns in adolescents and self-harm behavior in adolescents. This study was an analytic study with a case control design. The sample was 42 students of SMPN 1 Plaosan and their parents using a total population technique for the case group and a simple random sampling technique for control group. The independent variable was parenting style, the dependent variable was self-harm behavior in adolescents. The instrument in this study used a questionnaire. To analyze the correlation used chi square test was used with α 0.05. The research results showed that most parents provided an authoritarian parenting style in the case group and some parents provided a democratic parenting style in the control group. The chi square test results obtained $p = 0.00$ ($p < 0.05$). The conclusion in this study is that there is a correlation between parenting patterns and self-harm behavior in adolescents. It is recommended that parents provide democratic parenting patterns for their children.

INDEX TERMS adolescen., parenting, parents, self-harm,

I. INTRODUCTION

Someone experiences many conflicts during adolescence due to changes in their physical type, behavioral habits, and social position. Adolescence is often referred to as a phase marking the transition from childhood to adolescence. People must be able to adapt to various changes that arise during adolescence, which can place more tension or stress on adolescents [1]. Because pressure and stress are routine experiences for adolescents, it is often the case that they cannot adjust to the changes in their lives. Stress and pressure that adolescents cannot overcome can lead to negative feelings, including self-harm [1].

According to WHO estimates (2018), 20% of 179.13 million people worldwide between the ages of 20 and 60 engage in self-harming behaviors, such as biting, scratching, or hitting themselves to relieve pain. The most common age group to die worldwide is between 18 and 25, when suicide and self-harm most often occur. Of the 1,018 Indonesians who completed a survey in Indonesia, YouGov Omnibus reported

that 36.9% of Indonesians admitted to deliberately harming themselves [2].

Data from the School-Age Children and Adolescents Health Program (AUSREM) of the Magetan Regency Health Office in 2023 shows that the rate of self-harm behavior in adolescents is dominated by junior high school-aged adolescents. Self-harm data on students in Magetan Regency up to October 26, 2023, shows that out of 30,759 elementary school students examined, 26 were found to engage in self-harm, while out of 17,143 junior high school students examined, 707 were found to engage in self-harm, and out of 7,247 senior high school students examined, 39 were found to engage in self-harm.

Self-harming behaviors include biting oneself, scratching, burning, punching walls, hitting the head, and pulling hair. They can also involve harming oneself with blunt or sharp objects. Using a cutter or other sharp tools to scratch or injure one's body is the most common self-harming behavior [3]. Research findings by Saridewi [4] indicate that emotion-focused coping, emotional regulation, loneliness, low self-

esteem, mental disorders, authoritarian parenting, family problems, and issues in romantic and friendship relationships are elements that lead to self-harming behavior [4] Young people report difficulties with their parents and families as reasons for self-harming. The impact of self-harming behavior includes physical injury, emotional stress, worsening mental health, feelings of guilt, and communication disturbances[4].

Based on the results of a study conducted by researchers at SMPN 1 Plaosan, it was found that there were two female adolescent participants who engaged in self-harm, aged between 13-15 years. The first subject, a 13-year-old girl in the 7th grade, self-harmed by cutting her wrists due to stress from being frequently bullied by her friends. The second subject, a 14-year-old girl in the 8th grade, cut her wrists because she felt her parents were too demanding. Efforts that can be made to address self-harm behavior in adolescents include self-acceptance, learning psychology, talking to a trusted person (family/friend), seeking help from a psychologist/expert, getting closer to God Almighty, and receiving social support[4].

The general objective of this research is to determine the relationship between parenting styles and self-harm behavior in adolescents. The specific objectives are to identify parenting styles in adolescents, identify self-harm behaviors in adolescents, analyze the influence of parenting styles on self-harm behavior in adolescents. The results of this research are expected to provide valuable information to enrich the knowledge in the field of healthcare services for school-aged children and adolescents, specifically regarding the relationship between parenting styles and self-harm behavior in adolescents.

II. METHODS

This research uses an observational analytic method with a case-control study design. The study was conducted at SMPN 1 Plaosan, starting from February to April 2024. The population in this study consists of 757 students at SMPN 1 Plaosan and their parents, including 250 students from the 7th grade, 254 students from the 8th grade, and 253 students from the 9th grade.

The research sample was determined based on inclusion and exclusion criteria. The sample size for the case study is the total population, which includes all students at SMPN 1 Plaosan who engage in self-harm, totaling 21 children and their parents. Meanwhile, the control group consists of 21 students who do not engage in self-harm and their parents, with a 1:1 ratio according to Paul Vaucher. The sampling method uses a simple random sampling technique. The independent variable in this study is parenting style, while the dependent variable is self-harm behavior in adolescents.

The data collection technique uses the PSQ questionnaire, filled out by the parents of the students, to determine the type of parenting style applied to their children. Data analysis uses descriptive and analytic statistical methods, namely correlation analysis with the chi-square statistical test. The

conclusion is that if the $p\text{-value} \leq 0.05$, there is a relationship between parenting style and self-harm behavior in adolescents, and if the $p\text{-value} > 0.05$, there is no relationship between parenting style and self-harm behavior in adolescents. The odds ratio is also used to determine the level of risk.

III. RESULTS

This research was conducted in the working area of Puskesmas Plaosan, which includes 2 sub-districts and 6 villages: Plaosan Sub-District, Sarangan Sub-District, Bulugunung Village, Ngancar Village, Dadi Village, Plumpung Village, Puntukdoro Village, and Pacalan Village. Puskesmas Plaosan has 8 adolescent posyandu (integrated healthcare centers) spread across all the villages/sub-districts. Adolescent posyandu activities are routinely carried out every month with the assistance of 40 active adolescent posyandu cadres.

The adolescent posyandus in the working area of Puskesmas Plaosan are held in village offices and sub-district halls, with schedules adjusted to the activities of the adolescents. Since most adolescents attend school on weekdays, posyandu activities are usually held in the afternoon and during holidays or red-letter days other than Sundays. One of the posyandus, located in Puntukdoro Village, is held on the 5th of every month because the posyandu is situated in an Islamic boarding school.

The research location is at SMPN 1 Plaosan, a junior high school located in the working area of Puskesmas Plaosan, at Jalan Raya Sarangan RT 04 RW 01, Plaosan Sub-District, Plaosan District, Magetan Regency. SMPN 1 Plaosan consists of grades 7, 8, and 9. Each grade has classes A to H. The number of students in grade 7 includes 125 male students and 125 female students, grade 8 has 130 male students and 124 female students, and grade 9 has 132 male students and 121 female students. The teaching staff at SMPN 1 Plaosan consists of 32 teachers and 12 educational staff members.

A. CHARACTERISTICS OF RESPONDENTS

1). Characteristics of Students

The gender and age of the students in this study can be seen in TABLE 1 as follows:

TABLE 1
Characteristics of Student by Gender and Age

Characteristics	Case		Control	
	F	%	F	%
Gender				
Male	1	4,7%	1	4,7%
Female	20	95,3%	20	95,3%
Age				
Early (10-14 th)	10	47,6%	10	47,6%
Middle (15-17 th)	11	52,4%	11	52,4%
Total	21	100%	21	100%

TABLE 1 indicates that the majority (95.3%) of the students in both the case and control groups are female.

Based on age criteria, most of the students are in mid-adolescence (52.4%).

2). Characteristics of Parents

The age, education, and occupation of the parents in this study can be seen in [TABLE 2](#) as follows:

TABLE 2
Frequency Distribution of Parent Characteristics by Age, Education, and Occupation

Characteristics	Case		Control	
Age	F	%	F	%
Dewasa awal	21	100%	21	100%
Pra lansia	0	0%	0	0%
Lansia	0	0%	0	0%
Total	21	100%	21	100%
Education				
Elementary	0	0%	0	0%
Secondary	19	90,5%	18	85,7%
Higher	2	9,5%	3	14,3%
Total	21	100%	21	100%
Occupation				
ASN/ TNI/ POLRI	1	4,7%	1	4,7%
Employee	1	4,7%	7	33,3%
Entrepreneur	19	90,6%	13	62%
Total	21	100%	21	100%

[TABLE 2](#) shows that all (100%) of the parents in both the case and control groups fall into the adult age category. Based on education criteria, the majority have a secondary education (90.5%) in the case group and 85.7% in the control group. Regarding employment, most of the parents in this study are fathers, with 90.6% being self-employed in the case group and 62% in the control group.

B. PARENTING STYLE

The parenting styles of the parents for the respondents in the case group and the control group in this study are shown in [Table 3](#) as follows:

TABLE 3
Frequency Distribution of Parenting Style

Description	Case		Control	
Self Harm	F	%	F	%
Yes	21	100%	0	0%
No	0	0%	21	100%
Total	21	100%	21	100%
Parenting Style				
Otoriter Style	19	90,5%	1	4,7%
Demokratic Style	1	4,7%	18	85,7%
Permissive Style	1	4,7%	2	9,6%
Total	21	100%	21	100%

[TABLE 3](#) shows that all (100%) of the students in the case group engage in self-harm, with the majority (90.5%) experiencing authoritarian parenting. And all (100%) of the students in the control group do not engage in self-harm, with the majority (85.7%) experiencing democratic parenting.

C. RELATIONSHIP BETWEEN PARENTING STYLES AND SELF-HARM BEHAVIOR IN ADOLESCENTS

1). Cross-tabulation of Parenting Styles and Self-Harm Behavior in Adolescents

The cross-tabulation of parenting styles and self-harm behavior in adolescents in this study can be seen in [TABLE 4](#) below:

TABLE 4
Cross-Tabulation of Parenting Styles with Self-Harm Behavior

Group	Style						Total	
	Otoriter		Permissive		Demokratic		Jml	
	n	%	n	%	n	%		
Self harm	18	85,71	2	18	2	85,71	21	100
Not Self-harm	1	4,76	2	1	2	4,76	21	100
Total	19	90	4	19	4	90	42	100

[TABLE 4](#) shows that among parents who adopt an authoritarian parenting style, the majority of their children engage in self-harm. On the other hand, among parents who adopt a democratic parenting style, the majority of their children do not engage in self-harm. Additionally, children with permissive parenting styles do not show a tendency toward self-harm. This is evidenced by the fact that out of 4 respondents with permissive parenting styles, 2 children engage in self-harm while 2 children do not.

2). The results of the statistical test using the Chi-Square Test

Based on the results of the chi-square test, it can be determined that there is a significant relationship between parenting styles and self-harm behavior. This finding is evidenced by a coefficient of significance (sig) of 0.000, which is less than 0.05.

Furthermore, based on the calculation of the odds ratio (OR), it is found that authoritarian parenting style and permissive parenting style are risk factors for self-harm behavior. This is supported by an OR of 324 for authoritarian parenting style and an OR of 18 for permissive parenting style. An OR greater than 1 indicates that the factor under study is indeed a risk factor.

IV.DISCUSSION

This chapter presents a discussion of the research findings on the relationship between parental parenting styles and self-harm behavior in adolescents at SMPN 1 Plaosan.

A. CHARACTERISTICS OF GENDER AND AGE IN ADOLESCENTS

The characteristics of adolescents based on gender are categorized into two groups: males and females. In this study, the majority of students are female. There are more female respondents in the case group because females experience

higher psychological pressure compared to males. This is supported by previous research conducted by Luts et al. in 2022, which stated that females experience higher psychological pressure than males [4]. This finding is also consistent with the study by Widya Syafitri in 2022, which explains that gender influences behavior due to hormonal factors, where females tend to behave based on emotions while males act based on rational considerations [5]

In this study, respondents are in the early adolescence phase (47.6%) and mid-adolescence phase (52.4%). During early adolescence, there is usually an increased need for privacy. Adolescents will start seeking ways to become independent from their families. It's not uncommon for adolescents to set boundaries or react strongly if parents seem too controlling or interfere with personal matters. In the mid-adolescence phase, adolescents' thinking patterns are based on logic, but they are also often driven by feelings or emotions. They have developed the ability to think abstractly and consider the bigger picture. However, in certain situations, they may still struggle to apply this. They tend to prefer spending more time with friends. It's not uncommon for them to have disagreements or arguments with parents due to unstable emotions and sensitive nature [6]

Based on the preliminary study conducted by the researcher, mid-adolescent respondents who engage in self-harm do so because they feel their parents demand too much from them and also due to being bullied by their peers. According to data from the School-Aged Children and Adolescent Health (AUSREM) program of the Health Office of Magetan District in 2023, the incidence of self-harm behavior among adolescents in Magetan is predominantly among middle school-aged adolescents. Out of 17,143 middle school-aged participants examined, 707 students were found to engage in self-harm. This indicates that adolescents in both early and mid-adolescence are at risk of engaging in self-harm behaviors.

B. CHARACTERISTICS OF PARENTS' AGE, EDUCATION LEVEL, AND EMPLOYMENT STATUS

In this study, the age of parents is predominantly in the early adulthood stage, with a secondary education level, and most of them are self-employed (e.g., traders, drivers, couriers, farmers). In early adulthood, various dynamic changes occur in different aspects, leading to psychological vulnerability that can impact future life or life after early adulthood. According to a study by Herlim in 2019, early adulthood is characterized by difficulties in identifying feelings, limited imagination, and externally oriented views that can affect social and interpersonal life (reference 30). In a previous study by Kemala N.Hi et al. in 2021, it was found that the level of parental education is not correlated with the tendency of parents to choose positive or negative parenting styles for their children [7]

Parents who are busy with work or their careers, especially mothers, often have reduced attention towards their families, including their children, and some may even

neglect their children's well-being. This is consistent with a study conducted by Rumanian S in 2020 [8].

According to Ridha's research in 2021, parents who are busy with their careers tend to have less attention towards their families, and many end up neglecting their children's conditions. This situation affects the developmental issues of children. The parenting styles vary among different parents. Parents with different job backgrounds have varying levels of busyness, which directly influences their parenting styles. The role of parents in a child's development is crucial. However, busy parents often have limited time to spend with their children. Therefore, parents must choose appropriate parenting styles to ensure their children develop good personalities and characters [9].

Adolescent self-harm significantly altered family dynamics, with reactions of anxiety and stress or withdrawal and disengagement common. These understandable reactions to confronting issues may be perceived by adolescents with a hypersensitive temperament or negative attentional bias as rejection or criticism, which may in turn perpetuate adolescent self-harm as a way to reduce negative affect. It is possible that acknowledging the impact on the wider family, with a family-system approach to treatment may help to identify ways in which family members can assist, while continuing to care for themselves and maintaining appropriate boundaries, and can support siblings. Finally, adolescent self-harm was found to negatively impact on social and community engagement and functioning for families [14].

C. SELF-HARM BEHAVIOR IN ADOLESCENTS

Self-harm behavior in adolescents can take various forms, such as cutting or burning the skin, hitting walls, banging the head, biting oneself, or pulling out hair using sharp or blunt objects. The most common form of self-harm behavior is cutting or slashing the skin using a cutter or other sharp objects [3]. In this study, it is limited to intentional and conscious self-cutting of the wrist by students.

In this study, there are 21 students who engage in self-harm in the case group, including 1 male student and 20 female students. Among them, 10 are in early adolescence and 11 in mid-adolescence, with 18 under authoritarian parenting, 1 under democratic parenting, and 2 under permissive parenting. In the control group, there are 21 students who do not engage in self-harm, including 1 male student and 20 female students. Among them, 10 are in early adolescence and 11 in mid-adolescence, with 1 under authoritarian parenting, 18 under democratic parenting, and 2 under permissive parenting.

In this study, one of the respondents who received a democratic parenting style still engaged in self-harm behavior. This respondent engaged in self-harm due to being bullied by their peers. On the other hand, one of the respondents who received an authoritarian parenting style did not engage in self-harm. This occurred because, besides parental parenting styles, there are other factors that

contribute to adolescents engaging in self-harm behavior. This is consistent with the findings of Saridewi, where factors contributing to adolescents engaging in self-harm include emotion-focused coping, emotional maturity, loneliness, low self-esteem, mental disorders, authoritarian parenting styles, family issues, and problems in romantic and friendship relationships [4].

D. PARENTING STYLE

Parenting style refers to the pattern of interaction between parents and children, including how parents behave, their attitudes, and behaviors when interacting with their children. This includes how rules are applied, teaching values/norms, providing attention and affection, and demonstrating good attitudes and behaviors to serve as examples for their children. Parenting styles involve the interaction between parents and children in the context of child-rearing [10]

In this study, there are 21 students who engage in self-harm in the case group. Among them, 18 are under an authoritarian parenting style, 1 under a democratic parenting style, and 2 under a permissive parenting style. In the control group, there are 21 students who do not engage in self-harm. Among them, 1 is under an authoritarian parenting style, 18 under a democratic parenting style, and 2 under a permissive parenting style.

E. THE RELATIONSHIP BETWEEN PARENTING STYLES AND ADOLESCENT SELF-HARM BEHAVIOR

The findings of this study indicate that adolescents under authoritarian parenting styles tend to experience self-harm. Out of 19 adolescents under authoritarian parenting, 18 engage in self-harm while 1 does not. Conversely, adolescents under democratic parenting styles tend to not engage in self-harm. Out of 19 respondents under democratic parenting, only 1 engages in self-harm while 18 do not. Adolescents under permissive parenting styles do not show a significant tendency towards self-harm; out of 4 respondents under permissive parenting, 2 engage in self-harm while 2 do not. Based on the chi-square test results, it is evident that there is a significant relationship between parenting styles and self-harm, as indicated by a significance coefficient (sig) of $0.000 < 0.05$.

These findings are in line with previous research by Saridewi in 2022, which states that parenting styles play an essential role in shaping a child's character. Overly harsh upbringing can lead to the development of harsh character traits in children. Children under authoritarian parenting who experience physical violence may be triggered to engage in self-harming behaviors[4]

Another study by Bagus Rukmana also mentions that lack of attention, affection, and social support from parents, along with past painful experiences such as violence or parental divorce, can lead to adolescents engaging in self-harming behaviors[11]. This is also mentioned in research by Boresova, stating that the quality of the respondent's relationship with their parents and their perception of parenting styles and self-harming behaviors often

coincide[12]. Afriyanti's study in 2020 states that ineffective communication between adolescents and their parents is one factor contributing to self-harming behaviors[13].

Research by Widya in 2022 also confirms the relationship between parental parenting styles and adolescent self-injury behavior in RT 009 RW 005 in the Utan Kayu South Urban Village, Mataraman District, East Jakarta. Children who perceive their parents' parenting styles as warm, caring, loving, and providing adequate support will feel accepted, valued, and cared for by their parents. This feeling is likely to help individuals better cope with stressful situations that can trigger self-harming behaviors in an adaptive manner. This is consistent with qualitative research by Bai and Repetti in 2015, which found that children are better able to respond to stressors adaptively when their parents' parenting styles are characterized by warmth. Therefore, maladaptive responses such as self-harming behaviors can be avoided.

This study has several limitations. Firstly, due to time and resource limitations our study employed convenience sampling to collect data from a significant sample size. However, this may limit the generalisability of the results and may not accurately reflect the entire population of parents of a self-harming adolescent. While this study provides some evidence of a relationship between parenting and self-harm in adolescents, future studies could aim to recruit community samples to further explore this relationship. The various shortcomings in this study include the failure to identify factors other than parenting styles, as it uses questionnaires with closed-ended questions, thus limiting the depth of information gathered.

V. CONCLUSION

Based on the research findings and discussions, the following conclusions can be drawn is parenting styles in the case group are dominated by authoritarian parenting, while parenting styles in the control group are dominated by democratic parenting. Adolescents or students in the case group all engage in self-harm, while adolescents or students in the control group do not engage in self-harm. There is a significant relationship between parental parenting styles and adolescent self-harm behavior.

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