

RESEARCH ARTICLE

Relationship between Knowledge Level and Family Rules with Adolescent Risk Behavior

Nissa Kusariana,¹ Nikie Astorina Yunita Dewanti,² Nurhasmadiar Nandini³

¹Department of Epidemiology and Tropical Disease, Faculty of Public Health, Universitas Diponegoro, Semarang, Indonesia, ²Department of Environmental Health, Faculty of Public Health, Universitas Diponegoro, Semarang, Indonesia, ³Department of Administration and Health Policy, Faculty of Public Health, Universitas Diponegoro, Semarang, Indonesia

Abstract

Health risk behavior emerges due to risk factors within adolescents, family factors, and external factors outside the family. Poor knowledge about risk behavior and parental control may cause adolescents to develop risky behaviors that affect their health. This study aimed to identify the relationship between family factors and knowledge of adolescent risk behavior. It is a cross-sectional study conducted on 271 adolescents aged 17–25 years in Central Java from April to November 2021, taken by random sampling. Data analysis was performed using the chi-square test with a meaning level of 95%. Results show no relationship between knowledge level and adolescent risk behavior ($p=0.665$), and there was a relationship between family rules and adolescent risk behavior ($p=0.001$). Family rules significantly prevent adolescent risk behavior; hence, parents must apply family rules to limit teenage behavior, especially in opposite-sex relationships, to avoid sexual risk behavior.

Keywords: Adolescent, family rules, health risk behavior, knowledge

Introduction

Risk behavior is a behavior causing deaths or misbehaviors among adolescents, such as smoking, harassment, alcohol, and drug consumption, an acute diet that potentially causes death, a free destructive lifestyle, and sexual behavior causing pregnancy and fatalities.^{1,2}

Adolescents enter the transition period from childhood to adulthood. According to the World Health Organization (WHO), adolescents' ages range from 12 to 24 years, while the National Population and Family Planning Board confirm their age is around 10 to 24 years, and they must be unmarried.³

Adolescent lifestyle might produce higher-risk behavior than the adult lifestyle in the community. Adolescents started smoking in Indonesia when ≤ 13 years old, and most are males. Smoking habit is also influenced by parent or guardian smoking behavior. Thus, a family has a strong influence on adolescent smoking behavior.^{4–6}

Alcohol consumption behavior is another adolescent risk behavior. The high prevalence of alcohol consumption among male adolescents aged 15–24 (15.6%) is higher than the national data from the 2007 Basic Health Research (5.5%). In addition, reproductive health is one

of the health concerns in adolescence. Research conducted in Central Java, East Java, and Bali showed that most adolescents had inadequate reproductive development knowledge (77.3%).⁷

Health-related risk behavior may be continued to adulthood. One who performs risky behavior in adolescence has a higher chance of stopping schooling, practicing criminal acts, getting addicted to alcoholic drinks, and getting unemployed once they grow up. Besides, adolescent risk behavior may reduce the quality of adolescents and their families at the moment and in the near future. Adolescents with risk behavior may experience physical and psychological problems and even death. Failure to maintain adolescent health and social conditions should be avoided through adolescent interventions.^{6,8}

Health risk behavior happens due to intrapersonal risk factors, family factors, and external factors outside of the family.^{9,10} Poor knowledge about risk behavior and parental control may cause adolescents to develop risky behavior that impacts their health. According to this background issue, this study aimed to analyze the relationship between knowledge and family rules with adolescent risk behavior. Formulating protective strategies for adolescents to develop and grow to be excellent, healthy, and

Received: 11 October 2022; Revised: 24 July 2023; Accepted: 8 August 2023; Published: 26 August 2023

Correspondence: Nissa Kusariana, S.K.M., M.Si. Department of Epidemiology and Tropical Disease, Faculty of Public Health, Universitas Diponegoro. Jln. Prof. Jacub Rais, Semarang 50275, Central Java, Indonesia. E-mail: nissakusariana@gmail.com

highly qualified generations is essential.

Methods

This study used a cross-sectional quantitative design. Its population is all adolescents aged 17–25 years in Central Java. It used purposive sampling to collect 271 samples.^{10,11}

Data were collected through online questionnaires on Google Forms involving two independent variables: knowledge and family rules, and a dependent variable, adolescent risk behavior. Bivariate data analysis was done with a chi-square correlation test to identify correlations between family rules and knowledge level with adolescent risk behavior.

Questionnaires were distributed online from April to November 2021. The Health Research Ethics Committee approved the study in the Faculty of Public Health, Universitas Diponegoro, number 363/EA/KEPK-FKM/2021.

Results

Table 1 shows that the majority of the respondents were female (86%), aged 18 years (72.7%), and pursuing college (93.4%).

Results on the family rule variable (Table 2) explained that most respondents had string family rules (77.1%). Some of the respondents mentioned they did not have rules about hanging out with the opposite sex (82.3%), parental companion for whenever they go out (93.7%), responsibility to introduce friends to their

Table 1 Frequency Distribution of Respondent Characteristics

Characteristics	n=271 (%)
Age (years)	
16	2 (0.7)
17	32 (11.8)
18	197 (72.7)
19	37 (13.7)
20	3 (1.1)
Gender	
Male	38 (14.0)
Female	233 (86.0)
Education level	
Junior high school	0 (0)
Senior high school	18 (6.6)
College	253 (93.4)

Table 2 Frequency Distribution of Family Rules

Variables	n=271 (%)
Not allowed to hang out with opposite sexes	
No	223 (82.3)
Yes	48 (17.7)
Having night hours	
No	89 (32.8)
Yes	182 (67.2)
Not allowed to stay overnight outside the home	
No	42 (15.5)
Yes	229 (84.5)
Accompanied by parents	
No	254 (93.7)
Yes	17 (6.3)
Dressing codes	
No	115 (42.4)
Yes	156 (57.6)
Not allowed to smoke	
No	24 (8.9)
Yes	247 (91.1)
Not allowed to go to bars/clubs	
No	16 (5.9)
Yes	255 (94.1)
Need to introduce friends to parents	
No	193 (71.2)
Yes	78 (28.8)
Not allowed to be in a romantic relationship	
No	168 (62.0)
Yes	103 (38.0)
Not allowed to consume alcoholic drinks and drugs	
No	1 (0.4)
Yes	270 (99.6)

parents (71.2%), and opposite-sex relationships (62.8%). Some strict family rules include not staying overnight outside the home (84.5%), not smoking (91.1%), not going to clubs or bars (94.1%), and not consuming alcoholic drinks and drugs (99.6%).

Table 3 shows that most respondents had high knowledge (72.7%) and strict family rules (77.1%). Most of them mentioned they did not perform any risk behaviors (93%).

The correlation test results in Table 4 showed a relationship between family rules and adolescent risk behavior ($p=0.001$). Meanwhile, knowledge

Table 3 Categories for Knowledge, Family Rules, and Risk Behavior

Variables	n=271 (%)
Knowledge	
Low	74 (27.3)
High	197 (72.7)
Family rules	
Not strict	62 (22.9)
Strict	209 (77.1)
Risk behavior	
Not risky	252 (93.0)
Risky	19 (7.0)

was unrelated to adolescent risk behavior (p=0.665).

Discussion

This study showed no relationship between knowledge and adolescent risk behavior. Knowledge is the basis for the presence of one’s action. However, adolescent risk behavior is not only formed and affected by adolescent knowledge and other factors such as socioeconomic status, social support, lifestyle, parenting, and peers. This study confirms the previous research that found a relationship between knowledge and adolescent behavior among female students in Junior High School 1 of Kuto Baro, Aceh Besar.¹²

Actions can be maintained if one knows reasons beyond their efforts.^{12,13} Poor knowledge about risk behavior may happen because more information about adolescent risk behavior may be needed. As a result, adolescents tend to seek information themselves on social media. However, they sometimes need to get proper and choppy information and thus tend to develop

misbehaviors. Such poor knowledge may cause misperceptions and force adolescents to try risky behaviors.^{12,14,15} Adolescents may have inadequate knowledge about risk behavior because they communicate poorly with their parents.¹⁶

Adolescent risk behavior is influenced by some factors, such as biological, psychological, and social factors, in other words, biopsychological factors. A biopsychological approach provides a simple notion that social and environmental factors may have physical and psychological effects on creating risky behavior.¹⁷

This model explains that the perception of risk and peer characteristics mediates these four factors. Biological maturation also influences adolescent risk behavior. Its effects include puberty, hormonal impact, and genetic predisposition. Besides, its psychological effects on risk-taking have self-esteem, sensation seeking, and cognitive and affective ability.¹⁷

A family has the most essential function in adolescent behavior making. It is necessary to create family rules and set specific parenting for decision-making to solve adolescent behavioral problems.¹² If a family cannot run their function well, it may cause "Role Confusion" among its members, including those still young. As a result, adolescents may develop misbehavior and hazardous behavior.⁵

This study showed some respondents had strict family rules about smoking, alcohol, and drug consumption. One of the influencing factors on smoking habit is parenting style. Permissive parenting may lead adolescents to posit smoking behavior. Besides, parents who apply strict rules and supervise their adolescent children tend to prevent them from smoking behavior.⁴ Risk factor for the consumption of narcotics, psychotropics, and addictive substances and alcohol comes

Table 4 Correlation Results between Variables

Variables	Risk Behavior Category						p*
	Not Risky		Risky		Total		
	n=252	%	n=19	%	n=271	%	
Knowledge							0.665
Poor	68	91.9	6	8.1	74	100	
High	184	93.4	13	6.6	197	100	
Family rules							0.001
Not strict	52	83.9	10	16.1	62	100	
Strict	200	95.7	9	4.3	209	100	

Note: *p<0.05 significant

from family and is influenced by parenting style. Parenting style and the parent-child relationship are the main factors that cause the consumption of narcotics, psychotropics, and addictive substances among adolescents in their early years. Families who do not apply string rules and control tend to increase the risk of misbehavior among their adolescent members.^{18,19}

Some previous studies show a relationship between parents' role, especially in creating rules, with pre-marital sexual behaviors such as having a sex-opposite relationship in adolescence. If families frequently pay attention to their adolescent members, they will develop good pre-marital sexual behaviors.²⁰ Parents are the ones who give a chance for children to interact with the community. Besides, parenting style also influences the development of risky behavior, such as high-risk sexual behavior among adolescents.¹⁶ Therefore, parental monitoring and family rule-making are required to reduce sexual risk behaviors among adolescents.

Family rules that teach children about life principles and morals are needed. Thus, children, especially adolescents, must obey the rules to form positive behaviors. Unsettled family rules might anticipate any misbehaviors among adolescent members. Besides, parents' control, such as good communication, family rules, and harmonious relationships with adolescent children, will positively impact their behavior.^{21,22} These aspects of parental control are essential if social control and parental control are less viable in family-adolescent relationships. Such weakening situations occur due to low-income family protection.²³

The family rule is one product of parenting styles. Parenting styles have control dimensions such as restrictiveness and strictness.^{1,17} Restriction is a preventive action against something a child is interested in, while strictness is strict and assertive parental behavior to make children obey their rules.

Adolescents with beliefs and moral values will be more obedient to rules, and thus they tend not to take any risky behavior. The social control theory explains parental monitoring may reduce adolescent risk behavior. Parents should be present as child controllers when their children transition from childhood to adulthood, where they develop unstable emotional and psychological states. Beliefs invested by children and parents (family) may improve the child's

behavior in obeying rules or norms applied in the family.^{4,21}

Adolescent misbehaviors happen because of intrapersonal and contextual factors. The intrapersonal factors are developed from self-identity crises when adolescents are still searching for their self-identity and cannot control themselves. Meanwhile, the contextual factors causing adolescent misbehavior are family that contributes to forming their members' self-identify and behavior. Improper parenting styles in the family, such as spoiling children, refusing child existence, and giving less religious education, may cause adolescent misbehaviors.²⁴ Positive behavior reinforcement among children depends on parents, especially their emotional attachment and behavior towards them.²⁵

Conclusions

This study concludes that knowledge level has no relationship with adolescent risk behavior, but family rules do. Family rules are essential for preventing adolescent risk behavior; hence, parents must set rules to restrict adolescent behavior, especially towards opposite-sex relationships or friendships, to avoid sexual risk behaviors.

Conflict of Interest

The authors declare there is no conflict of interest.

Acknowledgment

We express our gratitude to the participants in this study.

References

1. Hitchcock JE, Schubert PE, Thomas SA. Community health nursing: caring in action. Boston: Cengage Learning; 2002.
2. Hasbi M. Analisis model peer education metode adolescent friendly terhadap peningkatan pengetahuan dan sikap remaja tentang perilaku seksual berisiko. JKT. 2019;1(1):29–37.
3. Yenni Erliza. Remaja ideal generasi perubahan (problematika, perkembangan dan potensi) [Internet]. Mataram: BKKBN Nusa Tenggara Barat; 2021 [cited 2022 March 10]. Available from: <https://ntb>.

- bkkbn.go.id/?p=2127.
4. Rahmawati Y, Raudatussalamah R. Perilaku merokok pada pelajar: peran orang tua dalam pengasuhan. *Psikobuletin*. 2020;1(1):20–28.
 5. Suharyanta D, Widiyaningsih D, Sugiono S. Peran orang tua, tenaga kesehatan, dan teman sebaya terhadap pencegahan perilaku merokok remaja. *JMK*. 2018;4(1):8–13.
 6. Indraswari R, Shaluhayah Z. Analisis karakteristik remaja terhadap perilaku-perilaku berisiko kesehatan. *Higeia*. 2022;6(2):144–51.
 7. Kusumawardani N, Rachmalina S, Wiryawan Y, Anwar A, Handayani K, Mubasyiroh R, et al. Perilaku berisiko kesehatan pada pelajar SMP dan SMA di Indonesia [Internet]. Jakarta: Badan Litbangkes Kementerian Kesehatan RI; 2015 [cited 2022 May 5]. Available from: <https://extranet.who.int/ncdsmicrodata/index.php/catalog/489/download/3800>.
 8. Fadhila FCN, Febriani Z. Peran parent attachment dan peer attachment terhadap perilaku berisiko remaja serta tinjauannya dalam Islam. In: Nurhayati E, Bagaskara S, editors. *Prosiding Konferensi Nasional Psikologi Kesehatan IV*; 2021 October 30–31; Jakarta, Indonesia. Jakarta Pusat: Penerbit Universitas YARSI; 2022 [cited 2022 May 10]. p. 42–52. Available from: <https://www.yarsi.ac.id/wp-content/uploads/2022/08/11.-Prosiding-Konferensi-Psikologi-Kesehatan-IV-30-31-Oktober-2021.pdf#page=51>.
 9. Andayani SA, Maghfiroh NF, Anggraini NR. Hubungan self efficacy dan self esteem dengan perilaku berisiko remaja. *JKP*. 2021;9(2):23–38.
 10. Larasati WA, Dwilda FS, Febriyana N. Parental bonding dengan perilaku seksual pada remaja berpacaran di SMKS Persatuan 1 Tulangan Sidoarjo. *J Ilkes*. 2022;13(1):31–9.
 11. Sarita U, Fithria, Hidayati H. Hubungan fungsi afektif keluarga dengan perilaku bullying pada remaja. *JIM Keperawatan*. 2021;5(2):88–94.
 12. Anwar C, Rosdiana E, Dhirah UH, Marniati M. Hubungan pengetahuan dan peran keluarga dengan perilaku remaja putri dalam menjaga kesehatan reproduksi di SMP Negeri 1 Kuta Baro Aceh Besar. *J Healthc Technol Med*. 2020;6(1):393–403.
 13. Mahmudah M, Yaunin Y, Lestari Y. Faktor-faktor yang berhubungan dengan perilaku seksual remaja di Kota Padang. *J Kesehat Andalas*. 2016;5(2):448–55.
 14. Hidayangsih PS. Perilaku berisiko dan permasalahan kesehatan reproduksi pada remaja. *J Kesehat Reprod*. 2014;5(2):89–101.
 15. Lestary H, Sugiharti. Perilaku berisiko remaja di Indonesia menurut Survey Kesehatan Reproduksi Remaja Indonesia (SKRRI) tahun 2007. *J Kesehat Reprod*. 2011;1(3):136–44.
 16. Gustina E. Komunikasi orangtua-remaja dan pendidikan orangtua dengan perilaku seksual berisiko pada remaja. *UJPH*. 2017;6(2):131–6.
 17. Rakhmawati D. Pencegahan perilaku berisiko pada remaja. *Pros Semnas FK FIP UPGRIS* [Internet]. 2016;2016:15–22 [cited 2022 June 10]. Available from: http://prosiding.upgris.ac.id/index.php/bk_2017/bk_17/paper/viewFile/1470/1364.
 18. Mariani NN, Murtadho SF. Hubungan antara peran orang tua, pengaruh teman sebaya, dan sikap terhadap perilaku seksual pranikah pada siswa-siswi SMA Negeri 1 Jombang Kabupaten Cirebon tahun 2017. *Care*. 2018;6(2):116–30.
 19. Anggraini Y. Hubungan fungsi afektif keluarga dengan perilaku kenakalan remaja di SMK Cendana Padang Panjang. *Menara Ilmu*. 2017;11(76):155–65.
 20. Aunola K, Stattin H, Nurmi JE. Parenting styles and adolescents' achievement strategies. *J Adolesc*. 2000;23(2):205–22.
 21. Wahdini M, Indraswari N, Susanti AI, Sujatmiko B. Faktor-faktor yang berhubungan dengan perilaku berisiko pada remaja. *JKM*. 2021;7(2):177–84.
 22. Kurniadi O. Pengaruh komunikasi keluarga terhadap prestasi belajar anak. *Mediator*. 2001;2(2):267–90.
 23. Nurhayati. Hubungan kekuatan keluarga terhadap perilaku seksual berisiko pada remaja di wilayah Desa Tridaya Sakti Kecamatan Tambun Selatan Kabupaten Bekasi. *JKK*. 2013;1(2):122–9.
 24. Kao TSA, Carter WA. Family influences on adolescent sexual activity and alcohol use. *Open Fam Stud J*. 2013;5:10–8.
 25. Mulya AP, Lukman M, Yani DI. Peran orang tua dan peran teman sebaya pada perilaku seksual remaja. *FHJ*. 2021;8(2):122–9.