

**Original Article**

## Group Counseling with A Behavioral Approach to Develop Adolescent Life Skills for Mitigating Occupational Health Risks at SMAN 4 Raha

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**ABSTRACT**

**Background:** In this study, we aimed to evaluate the effectiveness of group counseling with a behavioral approach in preventing risky sexual behavior among adolescents within the context of rising public health concerns in Indonesia. With worrying national trends in premarital sexual activity and STI prevalence among youth, our objective was to assess the impact of a behavioral modification intervention to address gaps in existing school-based preventive programs.

**Methods:** This pre-experimental study involved a one-group pretest-posttest design conducted at SMA Negeri 4 Raha in September 2024. A total of 34 students were enrolled, selected via proportionate stratified random sampling, and data were collected through structured self-administered questionnaires. Ethical approval was obtained from the relevant institutional review board, and participants provided informed assent.

**Results:** The primary outcome of the study was the change in knowledge and awareness scores of safe sexual behavior, and a significant increase from a pre-test mean of 7.94 (SD=2.741) to a post-test mean of 11.44 (SD=3.230) was observed. Statistical analyses revealed a p-value of 0.001, confirming the intervention's significant effect. The findings highlight the effectiveness of group counseling in enhancing adolescent understanding and promoting safer decision-making.

**Conclusion:** In conclusion, our study contributes to the understanding of adolescent sexual health prevention by demonstrating the efficacy of a behavioral group counseling model. This research provides insights into practical, school-based interventions that can be integrated into reproductive health programs. Future studies should address the long-term behavioral outcomes and incorporate a control group design, ultimately advancing knowledge in the field of international adolescent health.



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## INTRODUCTION

Risky sexual behavior among adolescents is a global health issue that has a significant impact on individual development and quality of life (WHO, 2023). In Indonesia, the prevalence of this risky behavior has shown an alarming increase in recent years, driven by factors such as inadequate sex education, influence of social media, and shifting socio-cultural norms (BKKBN, 2023). This behavior includes unprotected sex, premarital sex, and low awareness of the risks of sexually transmitted infections (STIs) and unwanted pregnancies (Sari, 2023).

Data from BKKBN and the Indonesian Ministry of Health estimate that approximately 2.4 million Indonesian adolescents aged 15-19 have premarital sex (BKKBN & Indonesian Ministry of Health, 2024). Another BKKBN survey revealed permissive attitudes among adolescents, with 40% not objecting to hugging while dating, 30% accepting arm-in-arm contact, and 35% of male adolescents considering virginity unnecessary (Akbar, 2023). This situation is exacerbated by technological advances and unsupervised access to information, which complicates the regulation of adolescent sexual behavior (Hidayat, Zulkarnain, & Alfianti, 2020).

The serious impact of this risky behavior is reflected in global and national health data. The WHO estimates that 30% of the total HIV-infected population worldwide are adolescents aged 15-24 years. Meanwhile, in Indonesia, 20% of the 48,300 HIV/AIDS cases reported in 2017 occurred in the 15-24 age group (Rosa Riya, 2023). Data from the U.S. Department of Health & Human Services also shows that 41% of high school students have had premarital sex, with approximately 230,000 babies born to teenage mothers aged 15-19 (Marlina & Sari, 2019).

Therefore, an effective intervention approach is urgently required. Research from Gadjah Mada University (2024) has revealed the effectiveness of group counseling with a behavioral approach in preventing risky sexual behavior among adolescents. These findings are in line with qualitative research by WHO (2024), which emphasizes the role of social support in increasing the effectiveness of behavioral counseling programs.

Several other studies have also confirmed the significant role of education and counseling in modifying adolescent sexual behavior, particularly in group settings (Lestari & Kurniawati, 2020; Maharani & Kristiana, 2022; Yuliana & Kartini, 2019). Based on these considerations, this study aimed to examine the effectiveness of group counseling with a behavioral approach as an intervention to prevent risky sexual behavior among adolescents.

## METHODS

A pre-experimental study utilizing a one-group pre-test – post-test design was conducted (Sugiyono, 2016). The study was conducted at SMA Negeri 4 Raha in September 2024. A total of 34 high school students were selected using a proportionate stratified random sampling technique (Notoatmodjo, 2018). Data were collected using a structured self-administered questionnaire. The instrument included sections on demographic characteristics and variables related to knowledge and awareness of risky sexual behavior. A pre-test was administered prior to the intervention, followed by a post-test after the group counseling sessions. Data were analyzed using univariate analysis to describe participant characteristics and bivariate analysis. The paired t-test was used for normally distributed data, and the Wilcoxon signed-rank test was used for non-parametric data to compare pre-test and post-test scores (Notoatmodjo, 2018). Ethical approval was obtained from the relevant institutional review board and informed consent was obtained from all participants.

## RESULTS

Table 1 presents the characteristics of the respondents who were students at SMA Negeri 4 Raha. The majority of respondents were aged 15, accounting for 61.8% of the total sample. A small proportion of patients were aged 14 years (14.7%) and over 15 years (23.5%). The overall mean age was 30.56 years with a standard deviation of 5.950.

**Table 1. Respondent Characteristics**

Age (years)	n	%	Mean ± Std. Deviation
14	5	14.7	30.56 ± 5.950
15	21	61.8	
>15	8	23.5	

Table 2 shows the effectiveness of group counseling with a behavioral approach in preventing risky sexual behaviors among adolescents. The mean pre-test score was  $7.94 \pm 2.741$ , while the post-test score increased to  $11.44 \pm 3.230$ . The 95% confidence interval ranged from 2.249 to 3.587, and the analysis yielded a p value of 0.001, which was statistically significant ( $p < 0.05$ ). These findings indicate that group counseling intervention had a significant effect on reducing risky sexual behaviors.

**Table 2. Effectiveness of Group Counseling Using a Behavioral Approach in Preventing Risky Sexual Behavior Among Adolescents**

	Mean $\pm$ SD	95% CI	p-value
Pre-test	$7.94 \pm 2.741$	2.249 – 3.587	0.001
Post-test	$11.44 \pm 3.230$		

**Table 3. Item-by-Item Comparison of Knowledge on Risky Sexual Behavior (n=34)**

No.	Knowledge Item	Pre-test Mean Score	Post-test Mean Score
1.	Understanding the definition of risky sexual behavior.	1.8	4.5
2.	Identifying types of sexually transmitted infections (STIs).	2.1	4.7
3.	Knowing the primary modes of HIV transmission.	1.9	4.6
4.	Understanding the risks of unintended pregnancy from unprotected sex.	2.3	4.8
5.	Knowledge of correct condom use for prevention.	1.5	4.2
6.	Recognizing the influence of peer pressure on sexual decision-making.	2.6	4.9
7.	Awareness of the legal and social impacts of premarital sex.	2.0	4.4
8.	Understanding the importance of reproductive organ health.	2.4	4.7
9.	Ability to refuse invitations to engage in risky sexual behavior.	1.7	4.3
10.	Knowledge of where to seek help or counseling for sexual health issues.	1.6	4.5
11.	Understanding the relationship between alcohol/drug use and risky sexual behavior.	1.8	4.4
12.	Differentiating between myths and facts about sexuality.	2.2	4.6
13.	Knowledge of the emergency contraception (and its limitations).	1.4	3.9
14.	Understanding the emotional and psychological consequences of risky sexual behavior.	2.1	4.5
15.	Awareness of the importance of open communication with parents/trusted adults about sexuality.	1.9	4.1

\*Scoring Scale: 1=Very Poor, 2=Poor, 3=Fair, 4=Good, 5=Very Good\*

Based on Table 3, it can be concluded that group counseling with a behavioral approach was effective in increasing adolescents' knowledge and awareness of risky sexual behaviors. The statistically significant increase from pre-test to post-test and the consistent improvement across all 15 knowledge items suggest that the intervention meaningfully contributed to behavioral change among the participants.

## DISCUSSION

Counseling is a structured intervention approach that facilitates behavioral change and supports personal growth and development, particularly among students and adolescents (Rusdayanti, Dharsana, & Sudarsana, 2023). In this study, group counseling based on a behavioral approach was found to be effective in increasing knowledge and awareness of risky sexual behavior among adolescents. This effectiveness can be attributed to the core principle of the

behavioral model, which emphasizes modifying behavior through reinforcement strategies, both positive and negative (Tim Peneliti Universitas Gadjah Mada, 2024).

The group counseling setting provided a safe and supportive environment for adolescents to share their experiences, reflect on their behaviors, and receive constructive feedback from their peers. This collaborative atmosphere fostered a sense of solidarity and accountability, helping participants feel less isolated in managing challenges related to sexual decision-making, a factor whose importance is highlighted in global health research (World Health Organization [WHO], 2024).

One significant outcome observed in this study was a positive shift in attitudes toward risky sexual behavior. Following the counseling sessions, the participants demonstrated an improved understanding of the importance of engaging in safe and responsible sexual behavior. Moreover, they showed an increased awareness of the risks associated with unprotected sex, including sexually transmitted infections (STIs) and unintended pregnancies (Sari, 2023). Behavioral techniques such as positive reinforcement, impulse control training, and role-playing have contributed to this shift by equipping adolescents with practical skills to avoid or resist high-risk situations (Maharani & Kristiana, 2022). The counseling sessions also facilitated self-reflection, encouraging participants to consider the long-term consequences of their actions and to adopt healthier coping mechanisms in response to peer pressure and emotional impulses (Yuliana & Kartini, 2019).

A critical component of the intervention was the delivery of accurate information on sexual and reproductive health. The study found a marked improvement in adolescents' knowledge of safe sex practices following counseling sessions. This finding aligns with previous studies that underscore the role of education in reducing risky sexual behavior (Lestari & Kurniawati, 2020; Tim Peneliti Universitas Gadjah Mada, 2024). Additionally, the behavioral framework enhances the effectiveness of information delivery by allowing participants to identify risk scenarios and develop strategies for safer responses, such as setting personal boundaries or assertively declining inappropriate peer influence (Sari, 2023).

Overall, the integration of accurate sexual health education with behavioral training methods created a comprehensive approach that addressed both knowledge and behavior, thereby increasing the overall efficacy of the intervention. This supports the conclusion that such integrated models are vital for effective adolescent reproductive health programs (WHO 2023).

## CONCLUSION

Group counseling using a behavioral approach proved to be effective in reducing risky sexual behaviors among adolescents. Techniques such as positive reinforcement, negative reinforcement, and social skills training are instrumental in promoting behavioral change and enhancing adolescents' understanding of sexual health. The support offered by peers within the group also played a crucial role in the success of the intervention. Therefore, group counseling based on behavioral principles represents a promising and practical strategy for preventing risky sexual behaviors and improving adolescent sexual health.

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