


Analysis of the Implementation of the Smoking Prevention Program for Middle School Students in the Maluku Health Center Work Area Year 2024

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Article Info	ABSTRACT
<p>Keywords: behavior, smoking, students, school</p>	<p>Smoking behavior among adolescents is a significant public health issue worldwide. Maluku Health Center, as one of the health service centers in Maluku District, Pulau Pisau Regency, has implemented a smoking prevention program at the school level to reduce the prevalence of smoking behavior among students. However, the effectiveness of this program needs to be evaluated to ensure the impact and sustainability of the program in overcoming smoking behavior in students. This study aims to analyze the implementation of a smoking prevention program for middle school students in the Maluku Health Center working area in 2024. Methods: This research is a qualitative research with a case study type. Data collection through in-depth interviews, observations and documentation. Data analysis includes the process of organizing, analyzing, and interpreting non-numerical data into a conclusion information. Results: The smoking prevention program in secondary schools in the Maluku Health Center area has succeeded in increasing students' understanding of the dangers of smoking. Through counseling, training, and regular campaigns, many students have begun to understand the health risks posed by smoking. Student participation in educational activities is also quite high, with more than 500 students actively involved and more than 100 educational materials distributed. However, long-term behavioral change still requires ongoing support from schools, parents, and health workers. Strengthening educational methods and intensifying activities need to be done so that program results can be more optimal. Conclusion : The program increases student awareness, but sustainable behavioral changes require intensive mentoring and ongoing support from various parties.</p>
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INTRODUCTION

One of the developing behaviors is smoking, which teenagers consider as a sign of maturity. Smoking has now become a trend among students, starting from Junior High School (SMP) and Senior High School (SMA) students, even some Elementary School (SD) students who try smoking. Some students smoke every day at school during recess, some even look for hidden places, such as stalls around the school. Teenagers have become dependent so it is

difficult to control the desire to smoke ⁽²⁾.

According to WHO data, around 8 million people worldwide die each year from smoking, with 7 million of them being active smokers and 1.2 million others being passive smokers. Although dangerous, the global prevalence of smoking continues to increase. In 2019, it was recorded that 19.6% of the world's population were smokers. Based on the 2019 *Southeast Asia Tobacco Control Alliance (SEATCA) report in The Tobacco Control Atlas, ASEAN Region*, Indonesia is the country with the largest number of smokers in ASEAN, namely 66.19 million people. The epidemic of cigarette consumption among children and adolescents is increasingly worrying, especially as electronic cigarette advertisements are increasingly influencing the imagination of children and adolescents. Smoking not only has a bad impact on the person who smokes but also on those around them.

Based on Riskesdas data, the prevalence of smokers aged 10-18 years increased from 7.2% (2013), 8.8% (2016) to 9.1% (2023). Smokers aged 10-18 years reached 9.1% or an increase of 0.3% from 2016. The prevalence of smoking according to gender is that the prevalence of male gender is greater at around 62.9% than female at around 4.8%. Data from the 2019 *Global Youth Tobacco Survey (GYTS)* also showed an increase in the prevalence of smokers in school children aged 13-15 years from 18.3% in 2016 to 19.2% in 2019.

In 2024, there are several activities related to smoking prevention in children and adolescents in the region, although the allocation of funds and program focus are more diverted to the issue of stunting. One of the ongoing activities is the Youth Posyandu, with a budget allocation of 20,160,000 which aims to support adolescent health, including smoking prevention. In addition, screening for smoking behavior in schools received a budget allocation of 12,200,000, which allows for the identification of smoking behavior among students and adolescents. Another relevant activity is School Health Development for school-age children and adolescents, which includes health screening for junior high school/MTS and senior high school/MA levels, with a total budget of 25,200,000.

Various smoking prevention programs have been implemented in many regions, but research that evaluates the success of the program in depth is still very limited. *The Logical Framework* is an effective evaluation approach to understand the success of a program, because this theory allows the analysis of causal relationships between inputs, activities, outputs, outcomes and impacts of a program. According to *the International Federation of Red Crescent Societies (2012)*, *Logical Framework* can be used to assess the extent to which a program achieves results, both short and long term, through evaluation of products, activities and resources used ⁽⁶⁾

Research conducted by ⁽⁷⁾ on education on the dangers of smoking in adolescents showed significant results in increasing students' knowledge and attitudes regarding the dangers of smoking. This education program is focused on providing students with a deep understanding of the impact of smoking, not only on health, but also on other aspects such as appearance, financial condition, and social relationships. Research on the assistance of the Smoking Cessation Program for Students showed that there was an increase in knowledge after the smoking cessation assistance program was carried out on students' knowledge about the dangers of smoking.

The uniqueness of this study lies in the *Logical Framework- based approach* , which not only evaluates how the program is implemented, but also explores students' direct views and experiences regarding the successes and obstacles they encounter. Using the *Logical Framework* , this study analyzes the relationship between inputs (such as resources and materials used), activities (counseling, training, or campaigns), outputs (direct results in the form of knowledge or changes in students' attitudes), outcomes (changes in students' behavior in the medium term), and impacts (decreased smoking prevalence among high school students in the long term). The general objective of the research is to analyze implementation of smoking prevention programs for middle school students in the Maluku Health Center work area in 2024. With the following specific objectives : Analyze input based on resources used in the implementation of smoking prevention programs for middle school students in the Maluku Health Center work area in 2024. Analyze activities based on the type and implementation of smoking prevention program activities, such as counseling, training, and campaigns, in schools on secondary school students in the Maluku Health Center working area in 2024. Analyzing the output based on based on the results of the implementation of the smoking prevention program in secondary schools in the Maluku Health Center work area in 2024. Analyzing outcomes based on changes in student behavior and awareness of the dangers of smoking after participating in the program in secondary school students in the Maluku Health Center working area in 2024

RESEARCH METHODS

This research is a qualitative research with a case study type . Case study is one form of qualitative research based on events or situations of human understanding and behavior based on human opinion. Case studies as part of the research method provide a certain framework for the stages of the process, including determining the theme and subject of research, determining the location, determining accurate methods, determining relevant data collection techniques, analyzing the results of data obtained from research subjects, making conclusions and research reports. ⁽⁹⁾ .

This research was conducted at Middle Schools in the Maluku Health Center Working Area . This study uses an in-depth interview method (*Indepth Interview*). The researcher also conducted in-depth interviews with informants who were considered to have experience or deeper understanding of the main informants were parties directly involved in the implementation of the program and had experience or data related to the program consisting of health workers and students, the Pulau Pisau District Health Office while supporting informants were needed to validate data from the main informant with other sources consisting of the Principal or staff involved in supervising the implementation of the program at school and parents of students.

The data collected by researchers in this study, is in the form of data sources primary and secondary data. Primary data is a type of research data that is collected for the first time through personal experience or evidence. Usually, primary data is collected through several methods, such as observation, physical tests, questionnaires, surveys, and other types of personal interviews. ⁽⁹⁾ . While secondary data is data collected from previously existing data

such as books, reports that can help researchers to obtain relevant data. The data collection methods used in this study are observation, interviews and documentation. Qualitative data analysis where the results of interviews were conducted in depth which were recorded with the results of observations. This study will also obtain ethical approval from the University of Indonesia Maju Jakarta .

Table 2 Research informants

No	Type of Informant	Code	Name (initials)	Role
1	Key informant	IUP	Sisca Apriliyanti 30 years old	Health workers
2	Key informant	IUS1	Marvin 14 years old, 9th grade	Student
3	Key informant	IUS2	Surya Saputra 13 years old, 8th grade	Student
4	Key informant	IUS3	Sardi 15 years old, grade VII	Student
5	Key informant	IUS4	Mufid Fhirmansyah 16 years old, grade X	Student
6	Key informant	IUS5	Ahmad Fatir 15 years old, Grade X	Student
7	Key informant	IUS6	Rosid Ad 15 years old Class X	Student
8	Key informant	IUD	Yuliatin 42 years old	Public Health Department
9	Supporting informant	IPG1	Tuti Marfuah, S.Pd , 36 years old, SMPN 1 Atap Maluku	Teacher
10	Supporting informant	IPG2	Mika Etani 32 years old	Teacher
12	Supporting informant	IPG3	Sugeng Prayitno, 38 years old	Teacher
11	Supporting informant	IPO1	Sulistio 57 years old Surya's parents	Parent
12	Supporting informant	IPO2	Gunarto 42 years old Ahmad Fatir's parents	Parent
13	Supporting informant	IPO3	Marsuji 47 years old Mufid's parents	Parent
14	Supporting informant	IPO4	Suansi 47 years old Rosyid's parents	Parent

Table 2 shows the characteristics of informants, the study was conducted using the in-depth interview method (*Indepth Interview*). Interviews were conducted on 14 informants consisting of 8 main informants, namely health workers, students, and the Pulang Pisau District Health Office and 6 supporting informants, namely the principal or staff involved in supervising the implementation of the program at school and parents of students.

RESEARCH RESULT

Based on the results of interviews regarding the analysis of the implementation of smoking prevention programs for middle school students in the Maluku Health Center Work Area in 2024, the following results were obtained :

Input analysis based on resources used in implementing smoking prevention programs Results of interviews conducted with key informants, health workers, students and the Pulang Pisau District Health Office .

Interviews with health workers regarding human resources involved in smoking prevention programs yielded the following interview results.

".....In addition to health workers and facilitators, we also work with non-governmental organizations that have experience in smoking prevention. They provide educational materials and teaching aids

Health workers explained that smoking prevention programs involve various resources, including health workers, trained facilitators, and support from non-governmental organizations. Facilitators play a role in making the materials more interesting, while support from parents and the community is also considered important to create an environment that supports the program... ."(IUP)

Based on the interview results above, it shows that smoking prevention programs involve various resources, including health workers, trained facilitators, and support from non-governmental organizations. Facilitators play a role in making the material more interesting, while support from parents and the community is also considered important to create an environment that supports this program.

Interviews with health departments regarding resources provided by the Health Department to support smoking prevention programs in schools. The interview results were as follows:

".....The Health Department provides a variety of resources, including educational materials such as brochures, posters, and videos that can be used by schools. We also provide training for health workers to improve their skills in conveying information about the dangers of smoking..... ."(IUD)

Based on the interview results above, it shows that the Health Office provides various resources to support smoking prevention programs, including educational materials, training for health workers and teachers, and direct support through experts. In addition, props and funds for campaign activities are also provided, with a commitment to run the program sustainably and conduct annual evaluations.

The results of the interview regarding the need for additional funds or resources to increase the effectiveness of this program were obtained as follows.

"..... Of course, to increase the effectiveness of smoking prevention programs, additional funds and resources are needed. Currently, the allocation of funds is only sufficient for screening without follow-up and still participating in other programs. We need more funding for ongoing education, interactive teaching aids, facility

*improvements, and training for health workers so that the program is more optimal.....
..”(IUD)*

Based on the interview results above, it shows that smoking prevention programs require additional funds and resources to increase their effectiveness. Currently, funding is only sufficient for screening without follow-up. More allocation is needed for ongoing education, interactive teaching aids, facility improvements, and health worker training so that the program runs optimally.

From the interview above regarding input to the Health Office, it can be concluded that the Health Office has provided various resources for smoking prevention programs in schools, including educational materials, training, and annual funds. However, additional funds and resources are still needed to improve the effectiveness of the program, especially in ongoing education, interactive teaching aids, and improving facilities and facilitator training.

Results of interviews conducted with supporting informants, teachers and parents.

Interviews with parents regarding school support in the form of information or resources for parents related to the program resulted in the following interview results.

“.....Yes, the school sent a letter and brochure explaining about the program..”(IPO1)

“.....The school provides information through parent meetings and printed materials..”(IPO2)

“.....Yes, they provide educational materials that we can use at home..”(IPO3)

“.....Schools hold seminars for parents on smoking prevention..... .”(IPO4)

Based on the interview results above, it shows that the school provides adequate support in the form of information and resources related to the smoking prevention program. They feel that this support is very helpful in understanding the program and discussing it with children at home.

From the interview above regarding input to parents, it can be concluded that parents have a good understanding of smoking prevention programs in schools, including educational activities and health campaigns. They considered the educational materials easy to understand and relevant, the facilities were supportive, and the school provided sufficient information through letters, brochures, seminars, and parent meetings to raise collective awareness.

Analysis of activities based on the type and implementation of smoking prevention program activities, such as counseling, training, and campaigns, in schools.

Results of interviews conducted with key informants, health workers, students and the Pulang Pisau District Health Office .

Interviews with health workers regarding the types of activities that have been carried out in smoking prevention programs at school resulted in the following interview results.

“..... Screening and counseling”(IUP)

Based on the interview results above, it shows that activities in the smoking prevention program in schools include screening and counseling. This activity aims to increase students' awareness of the dangers of smoking and the importance of healthy living.

The results of the *interview* regarding this activity carried out at school were as follows:

“..... Not often, currently it is still carried out once a year”(IUP)

Based on the interview results above, it shows that smoking prevention activities in schools are currently not carried out often, only once a year. Routine activity scheduling is needed to increase the effectiveness of the program and student awareness.

The results of interviews regarding the level of student participation in each activity carried out in discussions and educational sessions were obtained as follows.

“..... Students tend to be active and enthusiastic, asking lots of questions and openly sharing their smoking experiences. Trying to smoke, students are honest when asked by health workers”(IUP)

Based on the interview results above, it shows that the level of student participation in smoking prevention activities is very good. They actively discuss, ask a lot of questions, and are open about their smoking experiences, showing honesty when interacting with health workers.

From the interview above regarding activities to health workers, it can be concluded that smoking prevention activities in schools include screening and counseling, but are only carried out once a year. Student participation is very good, they are active in discussions, ask a lot of questions, and are open about their smoking experiences. The frequency of activities needs to be increased so that the program is more effective in increasing student awareness of the dangers of smoking.

Interviews with the health service regarding the types of educational activities carried out by the Health Service in schools related to smoking prevention resulted in the following interview results.

“.....We carry out various types of educational activities in schools to prevent smoking among students. These activities are designed to be interesting and interactive”(IUD)

Based on the interview results above, it shows that various types of educational activities are carried out in schools for smoking prevention, including seminars, interactive workshops, media campaigns, and creativity competitions. These activities received positive responses from students, and the Health Office has plans to expand the reach and develop more interesting educational materials in the future.

The results of interviews regarding training or educational activities specifically funded by the program are as follows:

"..... Yes, we have several training and educational activities that are specifically funded by the smoking prevention program. This is part of our effort to raise awareness and knowledge about the dangers of smoking..... "(IUD)

Based on the interview results above, it shows that there are training and educational activities specifically funded by the smoking prevention program, including training for educators, health counseling, workshops for students, and awareness campaign programs. These activities are determined based on evaluation of needs and input from the community. Despite challenges in funding, the Health Office tries to prioritize activities that have a big impact.

From the interview above regarding activities to the health office, it can be concluded that the Health Office carries out various smoking prevention education activities in schools periodically, including seminars, workshops, campaigns, and creative competitions. They emphasize a variety of interactive methods to increase program effectiveness. Some activities are funded specifically, despite challenges in funding, with priority given to high-impact programs.

Results of interviews conducted with supporting informants, teachers and parents.

Interview results regarding activities carried out at school routinely or only occasionally obtained as follows

"..... We carry out these smoking prevention activities routinely, at least once every semester. However, for more interactive activities, such as seminars, we try to hold them more often, around two to three times a year. There are activities that are already planned and scheduled, but we also hold additional activities if there is a certain momentum, to increase student awareness "(IPG1)

"..... We hold this activity at least twice a year. In addition, there are also small activities carried out in class, such as discussions and counseling, which take place more often, usually once a month. We try to make it more frequent, but sometimes there are activities that are only carried out based on needs or when there is a certain event. So, although some are routine, there are also those that are occasional.. "(IPG2)

Based on the interview results above, it shows that smoking prevention activities are carried out with varying frequencies. Mrs. Mika mentioned routine activities at least once a semester, while Mrs. Tuti mentioned twice a year, with additional activities held more often in class. Although there are scheduled activities, some activities are also carried out based on needs or certain moments.

Interviews with parents regarding parental assessment of the delivery of material in activities where the instructor or program facilitator provided information resulted in the following interview results.

".....I feel the delivery of the material is very good. The instructors explain clearly and easily understood. Yes, they are very communicative and answer questions patiently..... "(IPO1)

".....The presentation of the material was very informative and interesting. I saw the children actively involved. Very good. The instructor used real examples that made the children understand the dangers of smoking better..... ."(IPO2)

".....The delivery of the material is quite good. The material is delivered in an interactive way. Yes, they provide relevant and age-appropriate information for the children..... ."(IPO3)

".....Very good. The instructors were able to deliver the material in an interesting and easy to understand way. The information provided was very complete, and they gave many practical tips for the children"(IPO4)

Based on the interview results above, it shows that parents gave a positive assessment of the delivery of material in smoking prevention activities. They felt that the counselor or program facilitator provided information well, used interesting methods, and was able to actively involve children. This shows that effective delivery of material contributes to children's understanding of the dangers of smoking.

From the interview above regarding *activities* for parents, it can be concluded that parents are involved in various smoking prevention program activities, such as seminars, workshops, and counseling and parents consider that the frequency of activities is adequate, the delivery of material is interesting, and they hope to be able to contribute more actively in supporting children to understand the dangers of smoking.

Output analysis based on based on the results of the implementation of smoking prevention programs in secondary schools

Results of interviews conducted with key informants, health workers, students and the Pulang Pisau District Health Office .

Interviews with the health service regarding the many educational materials that have been distributed by the Health Service to students in schools resulted in the following interview results .

".....Since the smoking prevention program was launched, we have distributed more than 100 educational materials to students in various schools"(IUD)

Based on the interview results above, it shows that more than 100 educational materials have been distributed to students in schools. The types of materials distributed include brochures, posters, pocket books, and educational videos. The students' response to these materials was very positive, and the Health Office plans to increase the number and variety of educational materials in the future to maintain relevance and attract students' interest.

The results of interviews regarding the many activities that have been carried out by the Health Service in the smoking prevention program are as follows:

"..... Since the program began, we have conducted more than 50 educational and prevention activities in various schools and communities."(IUD)

Based on the interview results above, it shows that more than 50 activities have been implemented in the smoking prevention program, including seminars, workshops, awareness campaigns, and sports activities. The Health Office is evaluating the effectiveness of the activities and plans to increase the number of activities in the future by involving more stakeholders.

The results of the interview regarding the results of the activities that have been carried out according to the amount of funds used are as follows

"..... In general, we feel that the results of the activities that have been carried out are proportional to the amount of funds used. We strive to maximize every available budget so that activities can have a significant impact"(IUD)

Based on the interview results above, it shows that the results of smoking prevention activities are generally in accordance with the amount of funds used. Cost-benefit evaluation shows a positive impact of the activity. Despite challenges in managing funds, the Health Office is committed to increasing the effectiveness of fund use and seeking additional funding sources in the future.

The results of the interview regarding reports or information about the use of funds in this program were obtained as follows:

"..... Yes, we routinely prepare reports on the use of funds for Health programs including smoking prevention. The report includes details on the allocation of funds, types of activities carried out, and results achieved..... ."(IUD)

Based on the interview results above, it shows that the Health Office routinely prepares reports on the use of funds in smoking prevention programs. The report includes details of the budget, expenditures, activity results, and recommendations for improvement. Despite challenges in data collection, the Health Office is committed to using this report as a tool for transparency and accountability in future program decision-making.

From the interview above regarding outputs to the health office, it can be concluded that the Health Office has distributed more than 100 educational materials and implemented more than 50 activities in the smoking prevention program. The use of funds is considered comparable to the results achieved, with regular reports prepared for transparency and accountability. The office is committed to increasing the effectiveness of the program in the future.

Results of interviews conducted with supporting informants, teachers and parents.

Interviews with parents regarding the direct results of the program that can be seen in your child, such as bringing home learning materials or telling about the program content, obtained the following interview results.

".....Yes, my son brought home brochures and learning materials. He also told me about the dangers of smoking and why it is important to stay away from it..... ."(IPO1)

".....My child has become more knowledgeable about health. He even started sharing information with his friends..... "(IPO2)

".....Of course, my child told me about the activities and discussions held during the program.. "(IPO3)

".....My child has become more critical of cigarette advertising. He often reminds me of the information he has learned and seems to care more about health..... "(IPO4)

Based on the interview results above, it shows that there are positive direct results from the smoking prevention program. Their children showed increased awareness of the dangers of smoking, brought home learning materials, and actively shared information with friends and family. This shows that the program has succeeded in providing a significant impact on children's understanding and attitudes towards smoking.

From the interview above regarding *the output* to parents, it can be concluded that the smoking prevention program has had a positive impact on children, as indicated by their increased awareness of the dangers of smoking. Children bring home learning materials, share information with friends and family, and show a more critical attitude towards smoking. This program is effective in forming positive understanding and behavior related to health.

Analysis of outcomes based on changes in student behavior and awareness of the dangers of smoking after participating in the program

Results of interviews conducted with key informants, health workers, students and the Pulang Pisau District Health Office .

The results of the interview regarding the influence of allocated funds on the success of the program were as follows:

"..... The allocated funds have a very significant impact on the success of the smoking prevention program. Without adequate financial support, we will not be able to carry out the various activities planned "(IUD)

Based on the interview results above, it shows that the allocated funds have a significant influence on the success of the smoking prevention program. The allocation of funds allows for the implementation of quality educational activities, which contribute to increasing students' knowledge and awareness. Despite the challenges in managing funds, the Health Office is committed to continuing to improve the use of funds in order to achieve better results in the future.

The results of the interview regarding recommendations regarding the allocation or use of funds so that this program can be more effective in the future are as follows.

"..... Yes, we have some recommendations that can help improve the effectiveness of smoking prevention programs in the future..... "(IUD)

Based on the results of the interviews above, it shows that several recommendations to improve the effectiveness of smoking prevention programs in the future, including increasing the budget, flexible use of funds, training for health workers, and ongoing monitoring and evaluation. And together with good collaboration between institutions, it will produce a more significant impact in preventing smoking among students.

From the interview above regarding *outcomes* to the health office, it can be concluded that the smoking prevention program has succeeded in improving students' knowledge, attitudes, and behavior and has contributed to reducing the tendency to smoke in the Maluku Health Center area. Funds play an important role in the effectiveness of the program, with recommendations for increasing the budget, flexibility in the use of funds, training of health workers, and ongoing monitoring for the sustainability of the program.

Results of interviews conducted with supporting informants, teachers and parents.

Interviews with teachers regarding changes in students' knowledge about the dangers of smoking after they participated in the program yielded the following interview results.

".....There is a change, children know more about cigarettes "(IPG1)

".....There is action from the school to not allow the canton to sell cigarettes and there is a change..... "(IPG2)

Based on the interview results above, it shows that after participating in the program, students' knowledge about the dangers of smoking increased. The school also took action by banning the sale of cigarettes, indicating a positive change in student awareness.

Interviews with parents regarding changes in their child's behavior, such as refusing invitations to smoke from friends, yielded the following interview results.

".....Yes, it is very obvious. My son told me that he refused when his friends offered him cigarettes, and he also asked me to stop smoking..... "(IPO1)

".....My son has become braver. He told me that he not only refuses to smoke, my son is also committed to quitting smoking..... "(IPO2)

".....Yes, my child seems to reject the invitation to smoke. He said that he remembers what was taught in the program and does not want to damage his health.. "(IPO3)

".....My child shows a change. He refuses cigarette offers from his friends and is never seen smoking again..... "(IPO4)

Based on the interview results above, it shows that there are positive changes in their children's behavior, especially in terms of refusing smoking invitations from friends. Children show courage to refuse and even try to educate their friends and family about the dangers of smoking. This shows the effectiveness of the program in forming healthier attitudes and behaviors.

Interviews with parents regarding expectations for the continuation of the program yielded the following interview results.

".....I hope this program will continue and cover more schools. In addition, I want there to be a session involving parents so that we can participate in this education..
."(IPO1)

".....I would like this program to be more interactive, perhaps with activities involving simulations or games that can attract more children's attention
."(IPO2)

".....I hope this program can be held periodically. In addition, adding material about the impact of cigarettes on the environment can also be an added value....." (IPO3)

".....I want there to be training for parents so that we can better understand how to support children in staying away from cigarettes and provide the right information....."
."(IPO4)

Based on the interview results above, it shows that there are positive expectations for the continuation of the smoking prevention program. They want the program to be expanded and more interactive, and to involve parents in the education process. Additional aspects such as the environmental impact of smoking and training for parents are also considered important to increase the effectiveness of the program.

From the interview above regarding *outcomes* to parents, it can be concluded that the smoking prevention program increases children's knowledge about the dangers of smoking, forms an anti-smoking attitude, and encourages them to refuse smoking invitations. The program also has a positive impact on families by increasing awareness and discussions about health. Parents hope that the program will continue, be more interactive, and involve them actively.

Discussion

Input analysis based on resources used in implementing smoking prevention programs

Based on the results of the study, it shows that the smoking prevention program in secondary schools in the Maluku Health Center work area involves various resources from health workers, students, teachers, parents, and the Health Office. This program is supported by health workers, facilitators, and sufficient annual funds for basic education and screening, although it is still limited to follow-up and procurement of interactive teaching aids. School facilities are considered adequate, but need to be improved with more comfortable rooms and adequate ventilation. Teachers and parents also support health campaigns and seminars, but additional funds and facilitator training are still needed to increase the effectiveness and sustainability of the program.

et al (2023) research shows that the success of the GEBRAK innovation in Klungkung Regency is highly dependent on cross-sector involvement, such as the health office, sub-district head, cadres, and the community. The main obstacle is the limited budget that hampers the procurement of information media and smoking survey activities. The media used is still limited to simple posters and leaflets. According to the *Health Belief Model (HBM)*

theory, effective information plays an important role in increasing awareness and encouraging behavioral change. Funding barriers can be overcome by involving the private sector through CSR (*Corporate Social Responsibility*), which has the potential to support the procurement of media and training to strengthen the effectiveness and sustainability of this program ⁽²³⁾

According to the Indonesian Ministry of Health (2019), the increase in the prevalence of Non-Communicable Diseases began to occur in the age group over 15 years, so it is important to determine the targets of the Community-Based Health program. Prevalence and risk factor data serve as important input in designing programs that focus on prevention and risk reduction through education and healthy behavior change. One of the targeted behaviors is quitting smoking, which can be associated with input in the form of smoking prevalence data, information about smoking habits in the adolescent environment, as well as support from health workers and educational materials specifically designed for this behavioral change (24)

According to the researcher's assumption, the resources used in the smoking prevention program in the Maluku Health Center area are quite basic, but not yet optimal. Increased manpower, budget allocation, and special facilities are needed so that educational and promotive activities are more effective in creating changes in student behavior towards the dangers of smoking.

Analysis of activities based on the type and implementation of smoking prevention program activities, such as counseling, training, and campaigns, in schools.

Based on the results of the study, it shows that smoking prevention program activities in secondary schools in the Maluku Health Center work area include screening, counseling, seminars, workshops, campaigns, creative competitions, and making educational materials such as posters. Active participation of students in discussions and creative activities contributes to increasing awareness of the dangers of smoking. Teachers routinely hold activities at least once per semester, with the support of health workers and interactive materials. The Health Office also holds seminars and workshops periodically with various methods. Parents are involved through seminars and workshops, although they expect a greater role. The frequency and variety of activities need to be increased for the program's continued effectiveness.

Research by Darmayanti NK et al (2023) shows that the lack of socialization of service flows and the unavailability of clear SOPs can hinder access to health services, especially in smoking prevention programs such as GEBRAK. This results in adolescents and the community not understanding the available service processes ⁽²³⁾. Research by Novitaria W et al (2017) that *Standard Operating Procedures (SOP) Management* supports that well-structured and socialized SOPs function as operational guidelines to ensure consistent and responsible service implementation. With proper socialization, the community can more easily access services, understand the roles of each party, and provide constructive suggestions for improving services ⁽²⁵⁾.

et al's (2020) research found that the success of this program lies in activities involving campaigns, education in schools, facilitator training, and consistent supervision of smoke-free

areas, which are effective in increasing awareness and motivating changes in smoking behavior ⁽²⁶⁾

According to the researcher's assumption, the smoking prevention program in schools in the Maluku Health Center area has been quite effective in increasing student and family awareness. However, the frequency of activities that are still limited requires improvement so that the impact of education, training, campaigns, and parental and community involvement is more optimal.

Output analysis based on based on the results of the implementation of smoking prevention programs in secondary schools

Based on the results of the study, it shows that the smoking prevention program in secondary schools in the Maluku Health Center working area showed positive results. A total of 500 students have participated in education using various media, such as brochures, posters, modules, and videos. The Health Office has distributed more than 100 educational materials and carried out more than 50 activities, with a high level of participation. Schools hold two to ten activities per year, while students show an increase in understanding and critical attitudes towards smoking. The program also has a positive impact on families, with students sharing information at home. Although the results are quite significant, the development of materials and the frequency of activities need to be increased for the sustainability of the program.

Oktavianti AU *et al* (2022) research that health education has a significant effect in increasing adolescent knowledge about the dangers of smoking. Male adolescents who smoke are influenced by the family environment, peers, and social environment dominated by active smokers. This environment is a significant risk factor in shaping adolescent smoking behavior. Therefore, this study highlights the importance of health education programs to increase adolescent awareness of the negative impacts of smoking and change their behavior towards a healthy life (27) .

et al (2023) research shows that adolescents who receive health education interventions are more likely to change their health behavior in a positive direction, including reducing or stopping smoking habits. Therefore, structured and ongoing health education is an effective strategy in changing adolescents' healthy behavior (28) .

According to the researcher's assumption, the direct results of the smoking prevention program in the Maluku Health Center work area showed high student participation and wide distribution of educational materials. However, an increase in the number of activities, evidence-based educational materials, and frequency of counseling is needed to strengthen the long-term impact.

Analysis of outcomes based on changes in student behavior and awareness of the dangers of smoking after participating in the program.

Based on the results of the study, it was shown that the smoking prevention program in schools in the Maluku Health Center area succeeded in increasing students' knowledge about the dangers of smoking and forming anti-smoking attitudes and awareness. Students showed a change in attitude to be more negative towards cigarettes, more active in spreading information, and choosing an environment that supports a healthy lifestyle. Some students

began to quit and intended to smoke, although behavioral changes were not evenly distributed across all grade levels. Parents and teachers noted discussions about the dangers of smoking in the family and school environment. However, follow-up in the form of intensive mentoring and ongoing support is still needed to strengthen long-term behavioral changes.

Tivany *et al* (2023) research shows that structured health education can increase adolescents' knowledge and awareness of the dangers of smoking, which leads to changes in behavior to not smoke. In the study, adolescents who received continuous education had a higher commitment to quitting smoking than those who did not receive health education. In addition, the active role of parents in providing moral support and monitoring children's behavior also plays an important role. This support can be strengthened by encouraging adolescents to fill their free time with positive activities and establish healthy social relationships ⁽²⁸⁾

According to the researcher's assumption, the smoking prevention program in schools in the Maluku Health Center area has increased knowledge and negative attitudes towards cigarettes. However, long-term behavioral changes still require intensive mentoring, increased budget, and ongoing monitoring to strengthen the impact of the program on students and their social environment.

CONCLUSION

The smoking prevention program in secondary schools in the Maluku Health Center working area is supported by various resources, including health workers, teachers, health services, and parental involvement. However, there are still limitations in facilitator personnel, budget, and supporting facilities that require further strengthening. The program implementation includes counseling, training, and campaigns that are carried out periodically. Although these activities have increased student understanding, the frequency is still limited, so there needs to be intensification and innovation in educational methods. Of the 522 students screened in 10 high schools, 208 students (39.85%) were identified as having smoked, either trying, smoking occasionally, or every day. More male students were caught smoking (181 students) than female students (27 students). The program results showed a high level of student participation, with more than 500 students actively involved and more than 100 educational materials distributed. The school has also conducted more than 150 educational activities, although their effectiveness can still be improved. SMAN 3 Maluku had the highest number of smokers (36 students), while MAN 2 Pulang Pisau recorded the lowest number (14 male students, no cases in females). The impact of the program shows an increase in students' awareness and changes in attitudes towards the dangers of smoking. Many students began to understand the risks of smoking and showed an intention to avoid the habit. However, long-term behavioral changes still require further guidance and support from schools, parents, and health workers to ensure the sustainability of the program. These data emphasize the need to strengthen smoking prevention programs, especially for male students, in order to reduce the number of adolescent smokers in this region.

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