

HEALTHY, INTEGRATED AND INNOVATIVE ADOLESCENT REPRODUCTIVE SERVICES

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ABSTRACT

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Keywords: Mental Healthy; Integrated; Innovative; Adolescent; Reproductive Services.

Background: Adolescence is a critical period for improving mental health because more than half of mental health problems begin in adolescence and some persist into adulthood. Method: This community service activity is carried out in several stages, including: preparation, implementation which includes: Health check-up services for adolescents, Education and discussion on adolescent reproductive health in an effort to increase adolescent understanding in maintaining their reproductive health, Socialization and discussion on adolescent mental health, namely early recognition of adolescent anxiety and management of mental health disorders in adolescents. as well as evaluation and assessment of activity results. Result: After carrying out this community service activity, it was shown that the health status of adolescents was normal and the level of understanding of adolescents regarding reproductive health was mostly good, namely 72%, and almost half of adolescents had good mental health. Conclusion: Based on the results of the community service activities held at Al Amanah Plus Middle School in Dander District, Bojonegoro Regency, it can be concluded that the integrated and innovative healthy youth services implemented have successfully improved adolescents' understanding of reproductive health comprehensively. This effort is crucial in implementing Holistic Midwifery Care to improve adolescent understanding and ultimately prevent child marriage.

1. INTRODUCTION

Adolescence is a transition period from childhood to adulthood and is characterized by changes in cognitive, physical, hormonal and mental aspects that may affect their lives¹. Adolescence is a period of high risk for the emergence of various social problems and not least the emergence of problems related to reproductive health ²

Adolescent reproductive health is a state of physical, psychological, and social health related to the function and processes

of the reproductive system in adolescents. Adolescent reproductive health is an important factor that must be addressed to create a healthy society. The National Population and Family Planning Agency (BKKBN) defines adolescents as individuals aged 10-24 who are not yet married.

In Indonesia, several efforts have been made to increase adolescent interest in attending health services, whether for education or health services, but attendance at youth health posts (Posyandu) and other

services is very low. In fact, since 2003, adolescent health services have existed, better known as Youth Care Health Services (PKPR). Furthermore, the National Population and Family Planning Agency (BKKBN) has also established a program to prevent risky behavior for adolescents through an organization called the Student Information and Counseling Center (PIK R/M). This group trains adolescents to act as peer educators. However, utilization of adolescent reproductive health services tends to be low.

A common problem in Bojonegoro is that the majority of teenagers (75-85%) have insufficient fiber intake, increasing the risk of overweight and obesity. This is influenced by a lack of nutritional knowledge, the influence of gadgets, and unhealthy eating habits. Furthermore, the teenagers' lifestyle, which prefers sitting and lying down with minimal physical activity, can affect the body's metabolism. This lifestyle only uses a small amount of energy, so the body tends to store energy as fat ³

In addition to obesity cases that describe the health status of adolescents in Bojonegoro Regency, the prevalence of anemia based on data from the Bojonegoro Regency Health Office, it is known that the prevalence of anemia in adolescent girls aged 15-18 years is 1% (469 cases) in 2021. As for adolescent boys, there were 67 cases in 2021, from these data it can also be seen that the

prevalence of anemia in adolescent girls is ± 10 greater than in adolescent boys. ⁴

In addition to physical and reproductive health, adolescent mental health issues have recently become a serious concern due to the increasing prevalence of mental disorders in adolescents, and the high vulnerability of today's youth to mental disorders. A survey of 205 adolescents aged 15-18 showed that 59.5% experienced psychological problems such as feeling under pressure and feeling unable to contribute to meaningful activities. ⁵

The increase in cases related to adolescent reproduction is due to a lack of understanding of reproductive aspects related to self-care. Therefore, information, education, counseling, and clinical services are needed to prevent and protect against sexual and other risky behaviors. Providing information requires the availability of promotional media for reproductive health services for adolescents, as one of the most important commitments to the sustainable development goals ⁶

Information, counseling, and clinical services need to be improved to address adolescent reproductive health issues. Therefore, integrated and innovative services are needed to improve adolescent reproductive health, not only through promotional activities but also through preventive services to improve adolescent health ⁷

2. METHODE

to improve the overall health status of adolescents, comprehensive, innovative, and engaging adolescent health services are needed, enabling adolescents to voluntarily undergo several health checks as part of routine screening efforts.

In addition to routine health checks, mental health monitoring should be integrated through outreach and discussions, considering the various challenges and specific needs they face. One of the most effective methods is through the integration of both promotive and preventive efforts into a single activity: healthy, integrated, and innovative adolescent health services. This community service activity is implemented in several stages, including:

1. Planning stage: Coordination of the implementation of activities with the partner, namely Sumbertlaseh village, regarding activity plans and technical aspects of implementing activities so that they can be carried out well and in an organized manner.
2. Coordination meetings and activity socialization
3. Implementation of community service activities, including:
 - a. Health screening services for adolescents, including anthropometric tests, vital signs, and supporting laboratory tests,

such as hemoglobin and blood sugar levels.

- b. Education and discussion on adolescent reproductive health to improve adolescent understanding of maintaining their reproductive health, including: reproductive health education, concepts and management of menstruation, personal hygiene, promiscuity and drug use, and resolution of general adolescent health problems.
- c. Socialization and discussion on adolescent mental health, including early recognition of adolescent anxiety and management of mental health disorders in adolescents.
4. Evaluation In this evaluation stage, regular monitoring is conducted to measure the success and sustainability of the implementation of this community service program. The evaluation stages include: (1) Monitoring and evaluation during preparation for program implementation and socialization related to necessary requirements. (2) Monitoring and evaluation during the implementation of activities, starting from socialization, coordination,

education, and activities that have been implemented to determine whether they have had a significant impact on adolescents and whether they can be implemented again on an ongoing basis to help improve the understanding of adolescents at Al Amanah Plus Middle School in Dander District, Bojonegoro Regency

3. RESULTS AND DISCUSSION

This community service activity aims to increase adolescents' understanding of reproductive health and to ensure their physical and mental health. Anthropometric assessments, including blood pressure, weight, upper arm circumference, and waist circumference, were initially conducted. Other supporting examinations included blood pressure and blood glucose levels. Furthermore, a post-test was conducted prior to the activity to identify adolescents' understanding of their reproductive and mental health.

The results of adolescent health checks include:

Table 1. Results of adolescent health checks at Al Amanah Plus Middle School in Dander District, Bojonegoro Regency in 2025

No	Examination	Indicator	f	%
1	Height	< 145 cm	2	8.3
		> 145 cm	22	91.67

2	Weight	<40 Kg	8	33.33
		>40 Kg	16	66.67
3	Lila	<23.5	0	0
		>23.5	24	100
4	Blood pressure	Low	4	16.67
		Normal	15	62.5
		High	5	20.83
5	Abdominal Circumference	>75 cm	2	8.33
		<75 cm	22	91.67
6	Random Blood Glucose (GDA)	Low	2	8
		Normal	12	48
		High	11	44

Based on the data in table 1, the results of the anthropometric examination of adolescents at SMP plus Al Amanah are mostly within normal limits where almost all of their height is > 145 cm (91.67%), more than half of them have a weight > 40 kg (66.67%), while the upper arm circumference measurements are not all experiencing KEK, namely Lila > 23.5, more than half of them have normal BP (62.6%) and almost all of them have an ideal abdominal circumference, namely > 75 cm (91.67%). Meanwhile, almost half of the random blood glucose (GDA) examinations have normal GDA levels (48%) and some have high GDA



Figure 1 Health check activities for adolescents (health services)

Physical and anthropometric examinations conducted on adolescents aim to determine their nutritional status and general health. Nutritional status can be determined through measurements of height, height, and body mass index (BMI). Adolescent nutritional status is also influenced by many factors, including a lack of parental information in preparing food with attention to nutritional value for their children. In addition, students also come from various ethnicities and residences (demographics) which can affect the unbalanced ratio of body weight and height. As well as socio-economic status which also greatly influences the fulfillment of a balanced diet for nutritional value and nutrition. A person's obesity or thinness can also be influenced by genetics that are inherited from parents, which often have a significant influence on a person's body shape⁸

Upper arm circumference can reflect nutrient availability in muscle

and subcutaneous fat. Energy can be stored as reserves in the form of adipose tissue located in the subcutaneous fat. Therefore, upper arm circumference can be used as an indicator of past nutritional intake⁹

Insufficient energy intake causes the body to convert fat reserves into energy. If fat reserves are continuously used for energy until they are depleted, the body will convert protein reserves in the liver and muscles into energy. Continuous use of protein reserves can lead to muscle depletion, leading to chronic energy deficiency (CED)⁹

Table 2 Mental health status of adolescents at Al Amanah Plus Middle School in Dander District, Bojonegoro Regency

No	Mental health status	f	%
1	Anxiety	11	44
2	Not Anxiety	14	66
	total	25	100

Based on Table 2, a questionnaire measuring adolescent anxiety status revealed that more than half (66%) did not experience anxiety, but 44% did.

Mental health is defined as emotional distress. This is a situation where a person is unable to cope with the pressures they experience, resulting in deviant behavior, such as aggression, passivity, or withdrawal. Stress can

come from work, family, friends, and schoolwork¹⁰

Adolescent mental health needs attention because several studies have found mental health problems in Indonesia. The 2022 Indonesia National Adolescent Mental Health Survey (I-NAMHS) study found that one in three adolescents (34.9%) in Indonesia had a mental health problem in the past 12 months, and one in twenty adolescents (5.5%) had a mental disorder in the past 12 months¹¹

Mental health screening is a brief, culturally sensitive process designed to identify groups of children and adolescents who may be at risk of mental health disorders, requiring immediate attention, intervention or referral for diagnostic assessment¹²

Factors that contribute to high levels of anxiety in adolescents include the use of social media, the duration and activity of using social media, social comparison, low self-esteem, poor body image, parental support and offline group or peers¹³

Table 3 Results of measuring adolescents' understanding of reproductive health at Al Amanah Plus Middle School in Dander District, Bojonegoro Regency

No	Level of understanding	Pre		Post	
		f	%	f	%
1	Good	6	24	18	72
2	Enough	11	44	4	16
3	Not enough	8	32	3	12
	total	25	100	25	100

Based on table 3, the measurement of adolescents' understanding of reproductive health obtained data, namely that in the measurement before education (pre) almost half, namely 11 adolescents (44%) had sufficient understanding of reproductive health, while after education and measurement, the level of adolescents' understanding increased, namely that most adolescents had a good understanding, namely 18 adolescents (72%)



Figure 2 Adolescent reproductive health education activities.



Figure 3 Healthy, Integrated and Innovative Youth Reproductive Service Activities

Health education can be delivered through various methods, such as counseling. Counseling is believed to increase adolescents' knowledge and change their behavior, leading to independent health improvements. Health counseling is a method used to increase a person's knowledge and skills through practical learning techniques or instruction, with the goal of changing or influencing human behavior, individually, in groups, or as a community, to enable them to become more independent in achieving healthy living goals ¹⁴

Reproductive health education is crucial for adolescents to understand. A lack of understanding about sexual behavior is detrimental to adolescents and their families, as adolescents experience significant cognitive, emotional, social, and sexual development during this period. This development occurs between the ages of 12 and 20. This lack of understanding

can be caused by a lack of information from reliable sources ¹⁵

4. CONCLUSION

Conclusion: Based on the results of the implementation of community service activities that took place at SMP plus Al Amanah, Sumbertlaseh Village, Dander District, Bojonegoro Regency, it can be concluded that Healthy, Integrated and Innovative Adolescent Reproductive Services in an effort to improve adolescent health status and adolescent understanding of reproductive health and mental health have been carried out successfully increasing adolescent understanding of reproductive health comprehensively. This effort is very important in the implementation of Holistic Midwifery Care to improve adolescent understanding and ultimately be able to prevent common problems in adolescents and improve the quality of life and achievements of adolescents.

Recommendation: This Healthy, Integrated, and Innovative Adolescent Reproductive Services program can be implemented sustainably to equip adolescents to improve their health. Furthermore, other schools and educational institutions should implement similar activities with a larger number of participants and increase cross-program and cross-sector involvement to ensure the program's sustainability.

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