

# Patih Keren (Health Training Program Reproduction Of Children With Disabilities) To Improving Children's Reproductive Health At Slb Surakarta

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## ABSTRACT

The increase in incidents of sexual violence against children with disabilities, which occurs from year to year, is caused by their disabilities and limited intelligence, making them more vulnerable to sexual abuse and violence. According to data from the Ministry of Women's Empowerment and Child Protection (KPPPA) in 2021, there was an increase in the rate of violence and sexual harassment against children with disabilities by 48% compared to the previous year. Previous research has also identified various reproductive health problems faced by children with disabilities, including anxiety, sexual abuse, pregnancy in teenage girls, and diseases resulting from promiscuous sexual behavior. Limited access to special schools, a lack of available educators, as well as a lack of educational facilities, infrastructure and media, means that not all children with disabilities receive appropriate education. Therefore, it is important for children with disabilities in special schools, special middle schools and special high schools to understand well the aspects of their reproductive health. Accurate and precise information about reproductive health is very important for children with disabilities. The aim of this community service activity is to improve the knowledge, attitudes and behavior of children with disabilities through reproductive health education training, making learning media about reproductive health, and making reproductive health books specifically for children with disabilities. Outputs include increasing knowledge, attitudes and behavior of children with disabilities related to reproductive health, simple but effective reproductive health learning media, reproductive health books with ISBN numbers, publication of scientific articles, as well as community service activities and video documentation of these activities.

## KEYWORDS

Disable;  
Reproduction Health;  
Perilaku



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## 1. Introduction

Reproductive health is a vital aspect in the life of every individual, including children with disabilities. However, in reality, children who attend Special Schools (SLB) often face a number of serious challenges related to reproductive health. These obstacles cover various aspects, from menstrual preparation to menstrual care and maintaining adequate genital health. To overcome this problem, a program called "PATIH KEREN (Reproductive Health Training Program for Disabled Children)" was introduced at the Surakarta City SLB.

Reproductive health has been researched by previous researchers which has become a reference in this community service. Barriers and facilitators to South Asian immigrant youth's access to sexual and reproductive health services in Canada: A qualitative study researched by Meherali Meherali [1]. Evaluating the effectiveness of the use of health communication interventions on the sexual and reproductive health of Rohingya women living in Cox's Bazar refugee camps was researched by Zakaria [2]. The effect of obesity on reproductive health before and during pregnancy was studied by Shimpuku [3].

Factors influencing sexual and reproductive health service utilization among women with disabilities – a mixed-method cross-sectional study from Ilam district, Nepal was researched by Shiwakoti [4]. Artificial intelligence as an educational medium to improve adolescent reproductive health: A research and development study researched by Handayani [5]. Agency and role modeling: do they matter for the sexual and reproductive health of adolescent girls? researched by Ogunbiyi [6].

The development of sexual and reproductive health policies in Korea was studied by [7]. The effect of obesity on reproductive health before and during pregnancy was studied by Konwiser [8]. Mother-daughter communication about sexual and reproductive health (SRH) matters and associated factors among Sinhala adolescent girls aged 14–19 years, in Sri Lanka was studied by Mataraarachchi [9].

The impact of maternal intake of the artificial sweetener Acesulfame-K on metabolic and reproductive health outcomes in male and female rat offspring was studied by Bridge-Comer [10]. Do family values and reproductive health knowledge influence reproductive health improvement behavior in married women? A cross-sectional survey was researched by Yun [11]. Prevalence and factors associated with sexual and reproductive health literacy among adolescents living with HIV in Uganda: a cross-sectional study researched by Mugabi [12].

Emergency Preparedness and Response: Highlights from the Division of Reproductive Health, 2011–2021 researched by Perez [13]. Sexuality, Intimacy, and Reproductive Health after Spinal Cord Injury was researched by Zizzo [14]. Distance training to strengthen capacities in sexual and reproductive health and rights research: a systematic review researched by Perrotta [15].

The Use of Kohonen Neural Networks to Compare Stated and Actual Knowledge regarding Reproductive Health and the Impact of Selected Lifestyle Components on Reproductive Health was investigated by Warpechowski [16]. Factors associated with young adults' engagement with a web-based sickle cell reproductive health intervention were investigated by Oguntoye [17]. A series of applications of *in silico* models to pesticides with reproductive health impacts: Performance assessment and prioritization of mechanistic studies was investigated by Kolesnyk [18].

Understanding the sexual and reproductive health needs of immigrant adolescents in Canada: A scoping review researched by Louie-Poon [19]. Letter to the Editor: Doctor's Dilemma and Reproductive Health Medical Training Post Reversal of *Roe v. Wade* was researched by Hirani [20]. The research protocol for an individual randomized control trial of India's first role-playing-based mobile game for reproductive health for adolescent girls was researched by Saha [21].

Fertility and Reproductive Health among Female Doctors was studied by Armijo [22]. The influence of eHealth literacy, reproductive health knowledge, and self-esteem on health promotion behavior in early adult women: a cross-sectional survey studied by Shin [23]. Meeting the reproductive health needs of female sex workers in Côte d'Ivoire: protecting the human right to dignified health research by Elmi [24].

Community pharmacists' views on providing reproductive health services to women receiving opioid substitution treatment: A qualitative study using TDF and COM-B researched by Alhusein [25]. Knowledge about reproductive health rights and related factors among undergraduate students of Wolkite University, Wolkite, southern Ethiopia was researched by Mohammed [26]. The effect of interventions based on the 5A self-management model on improving behavior related to women's reproductive health after legal abortion was studied by Mirian [27].

The Importance of Zishen Yutai Pill Therapy on Women's Reproductive Health: A Review researched by Maharajan [28]. Promoting Adolescent Sexual and Reproductive Health in North America Using Free Mobile Apps: Environmental Scanning research by Benoit [29]. Factors influencing students' attitudes towards reproductive health in northern Iran: Designing educational programs researched by Bakhtiari [30].

To understand the reproductive health problems faced by disabled children attending special schools, an initial survey was conducted. The results of this survey show that the majority of these children have low levels of reproductive health. The results of the assessment using the Reproductive Health Assessment Questionnaire (RHAQ) showed that 45% of respondents had low knowledge, 48% showed less supportive attitudes, and 67% showed inappropriate behavior regarding reproductive health. These figures are far below the standards set by the World Health Organization (WHO), which encourages children with disabilities to have knowledge, attitudes and behavior equivalent to children who do not have disabilities.

Several factors can be identified as causes of the low score on the RHAQ, including lack of education, lack of accompanying teachers, inadequate health facilities, and the minimal role of health

service institutions and educational institutions in supporting the reproductive health of children with disabilities. Physical obstacles and communication difficulties are also significant obstacles.

Based on the survey results and understanding of this problem, stakeholders, such as educators, parents and Foundation managers, feel the need for regular health education and reproductive health care that can be accessed through health workers. However, unfortunately, this effort is rarely carried out.

Of the various obstacles identified, limited resources such as lack of child companions, limited educational media, and reproductive health learning methods are the main factors that influence the level of knowledge, attitudes and poor behavior of disabled children regarding reproductive health. Therefore, information sources, information facilities and information media are needed that can be adapted to the limitations of disabled children to increase their interest and understanding in the context of reproductive health.

Overall, although children with disabilities face physical limitations and may have different levels of independence, they still have the same right to receive reproductive health care that suits their needs. This article will discuss more about the PATHH KEREN Program and various steps that can be taken to do so.

## 2. Method

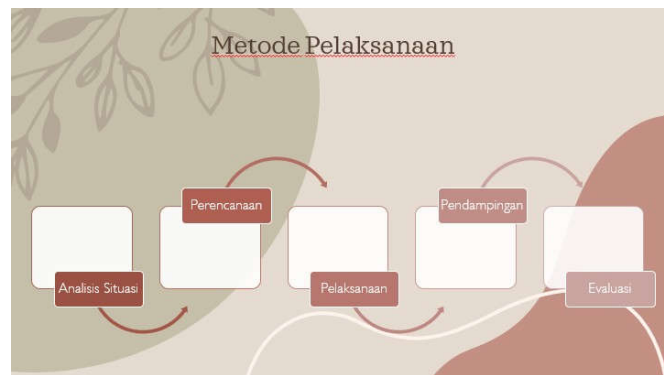


Fig. 1.Implementation

### 2.1. Situation Analysis

A situation analysis was carried out during the learning process at partner special schools in July 2023. To carry out this situation analysis, children who had intellectual disabilities were identified. The results of this analysis show that there are 18 students at SLB YSSD Surakarta City and 21 students at SLB Prayuwana Surakarta City who meet these criteria. Apart from that, the service team also conducted interviews with school principals and related teachers to find out the activities and themes usually carried out by these two partner SLBs. In the interview, SLB partners revealed that they had never carried out activities with a focus on the theme of reproductive health, and more often focused on artistic development.

### 2.2. Planing

The activity implementation plan and methods to be implemented by the service team are prepared collaboratively with each partner involved. Apart from that, the service team also coordinates with all teams involved in this project to divide tasks, as well as prepare the required media and infrastructure. The coordination process is carried out in various ways, both face-to-face and through online communication.

### 2.3. Implementation

This community service activity aims to improve the understanding, attitudes and behavior of disabled children related to reproductive health. Initially, the plan to carry out this activity was scheduled

for the first week of September, but had to be postponed until the fourth week because there was an ISI Art Festival event which involved students in their art performances.

Implementation of the Community Service Program (PkM) at SLB YSSD Surakarta City will take place on Monday, 11 September 2023, at 09.00, while at SLB Prayuwana Surakarta City it will be held on Monday, 18 September 2023, also at 09.00 WIB. The activity began with an opening ceremony, followed by remarks from the Principal of SLB Prayuwana Surakarta City, introductions and remarks from the Head of the service team, and ended with a closing session. Before the delivery of the material begins, the service team gives questionnaires to children with disabilities to evaluate their knowledge, attitudes and behavior before and after receiving material about reproductive health. After that, the material was delivered by three presenters on topics covering the anatomy and physiology of the reproductive system, the concept of growth and development of children with disabilities, physical and psychological changes in children with disabilities, and puberty. Each presenter has 30 minutes to present the material, and between material sessions, an "ice breaking" session is held to liven up the atmosphere. After the activity was completed, the service team again gave questionnaires to disabled children to evaluate their understanding of reproductive health.



**Fig. 2.**Implementation

## 2.4. Mentoring

Mentoring is carried out after the training is complete and involves members of the service team. Mentoring includes several aspects, namely:

- Delivery of reproductive health material adapted to the modules that have been prepared is carried out through lectures and discussions.
- Delivery of reproductive health material using prepared animated videos.
- Increasing the literacy of children with disabilities by using comics.

## 2.5. Evaluation

The evaluation stage includes monitoring and assessment, as well as preparing reports regarding the results that have been achieved. The community service team carries out monitoring and assessment by conducting visits to partner schools, as well as interviews with related parties such as school principals and teachers involved in the reproductive health training that has been implemented. This process aims to identify the strengths and weaknesses of the program implementation that has been implemented so that further action can be planned. This evaluation includes:

- Evaluation of teachers' abilities and skills in delivering reproductive health material to children with disabilities.
- Evaluation of the knowledge, attitudes and behavior of children with disabilities regarding reproductive health.
- Evaluate possible follow-up actions and cooperation that can be carried out by related parties to maintain the sustainability of this program.

## 3. Result and analysis

### 3.1 Result

**Table 1.** Distribution of Student Characteristic

Respondent Characteristics	Frequency	Presentation (%)
Age		
12 – 15 y.o	23	59
15 – 18 y.o	12	30,8
18 – 21 y.o	4	10,2
Gender		
Female	7	17,9
Male	32	82,1
Education		
Elementary	29	74,4
Junior high school	8	20,5
Senior high school	2	5,1
Getting of information		
Yes	0	0
Not	39	100%

Based on the respondents' age data, the majority of them ranged in age from 12 to 15 years, which reached 59% of the total respondents. As many as 30.8% of respondents were in the 15 to 18 year age group, while only 10.2% were between 18 and 21 years old. When looking at the gender of the respondents, men dominate with a percentage reaching 82.1%, while women only make up around 17.9% of all respondents. In terms of education, the majority of respondents had completed basic education (SD), reaching 74.4%. As many as 20.5% of respondents had a junior high school education level, and only 5.1% had reached a high school education level.

Interestingly, in terms of obtaining information, not a single respondent stated that they had received relevant information, so the percentage of respondents who received information was 0%. This reflects

that all respondents (100%) revealed that they did not have access to or knowledge of relevant information. From the analysis of this data, it can be concluded that the majority of respondents are males aged around 12 to 15 years, have various levels of education, but do not have access to or knowledge of relevant information. These findings provide important indications for designing programs or interventions that are more appropriate to the characteristics of these respondents, particularly in the context of the reproductive health and educational support they need.

**Table 2.** Frequency distribution of levels of knowledge, attitudes and behavior regarding reproductive health before and after training

Variable	Pre		Post	
	Frequency	%	Frequency	%
<b>Knowledge</b>				
Good	9	23,1	28	71,8
Enough	12	30,8	11	28,2
Not enough	18	56,2	0	0
<b>Attitude</b>				
Good	7	17,9	38	97,4
Not good	32	82,1	1	2,6
<b>Behavior</b>				
Good	14	35,9	38	97,4
Not good	25	64,1	1	2,6
Amount	39	100%	39	100%

The results of data analysis show that there are substantial changes in respondents' knowledge, attitudes and behavior before and after carrying out a particular intervention or program. The following is an analysis for each observed variable:

### 3.1.1. Knowledge

Before implementing the intervention, the majority of respondents had limited knowledge classified as inadequate, with a percentage reaching 56.2%, while only 23.1% had fairly good knowledge. However, after the intervention was implemented, there was a significant increase in the level of knowledge of the respondents. Approximately 71.8% of respondents demonstrated a good level of knowledge after the intervention was implemented, and no one maintained a poor level of knowledge.

### 3.1.2. Attitude

Before the intervention, the majority of respondents showed a less supportive attitude, with a percentage of 82.1%, while only 17.9% had a good attitude. However, after the intervention was carried out, there was a drastic change in the attitudes of the respondents. Around 97.4% of respondents showed a positive attitude after the intervention was implemented, and only 2.6% still maintained their attitude which is not good.

### 3.1.3. Behavior

Before implementing the intervention, the majority of respondents showed poor behavior, with a percentage of 64.1%, while only 35.9% had good behavior. After the intervention was implemented, as well as increasing knowledge and attitudes, there was a significant change in the behavior of the respondents. About 97.4% of the respondents showed good behavior after the intervention was implemented, and only 2.6% still maintained poor behavior.

#### 4. Conclusion

Based on the results of the community service activities that have been carried out, it can be concluded that the entire series of activities ran smoothly, even though there were delays 2 weeks in implementation due to other activities simultaneously at both partner schools. All students and teachers from both partner schools attended this activity with an attendance rate of 100%, and they actively participated during the activity.

The characteristics of the students involved in this activity are that the majority are aged between 12 to 15 years old (59%), male (82.1%), and had elementary school education (74.4%). Interestingly, all students involved in this activity stated that they had never received information related to reproductive health before.

Before receiving reproductive health training, most students had limited knowledge (56.2%), poor attitudes (82.1%), and inadequate behavior (64.1%). However, after receiving reproductive health training, significant positive changes occurred. The majority of students acquired good knowledge (around 71.8%), showed positive attitudes (around 97.4%), and displayed good behavior (around 97.4%).

These results indicate that community service activities have been successful in improving students' knowledge, attitudes and behavior related to reproductive health. This is an achievement which is positive in supporting students' understanding of this important aspect of their lives. Improving disabled children's understanding of reproductive health involves more than just teachers and student companion. The importance of the role of parents as a support system in increasing students' awareness of body changes during puberty must also be considered. Therefore, a sustainable community service program is needed that involves the role of parents in this educational process.

Apart from that, based on the results of observations during the implementation of activities, we realized that some students faced certain obstacles, such as limited intellectual level and short concentration (5-10 minutes). Therefore, it is necessary to involve sign language teachers as a method to increase the achievement of the material expected in reproductive health education for students with these differences. Thus, a more holistic and integrated approach can be used to increase their understanding and skills in dealing with reproductive health issues, with active support from teachers, companions and parents.

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#### Author Contribution

The activity plan in order to implement the solutions offered that there are five series of activities, namely coordination, logo design, socialization of covid, marketing, and marketing education.

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#### Conflict of Interest

The authors declare no conflict of interest.

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