

MENTORING REPRODUCTIVE HEALTH LITERACY AMONG INDIGENOUS ADOLESCENTS IN INDONESIA

*Pendampingan Literasi Kesehatan Reproduksi di Kalangan Remaja Pribumi di
Indonesia*

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ABSTRAK

Pemerataan kesehatan tidak hanya pada masyarakat umum, tetapi pada masyarakat adat karena mereka seringkali menghadapi tantangan unik yang berkaitan dengan akses terhadap layanan kesehatan, sehingga diperlukan adanya pendampingan. Penelitian ini bertujuan untuk mengembangkan model bantuan literasi kesehatan reproduksi bagi remaja di Kesepuhan Sinar Resmi, Cisolok. Model ini dirancang untuk meningkatkan pengetahuan, sikap dan keterampilan remaja dalam menjaga kesehatan reproduksinya melalui pendekatan berbasis budaya dan partisipatif. Metode penelitian menggunakan pendekatan kualitatif dengan metode Grounded Theory yang memungkinkan teori muncul dari data lapangan. Peserta terdiri atas tokoh adat, anggota adat, remaja, orang tua, perwakilan desa dan tenaga kesehatan, yang dipilih menggunakan purposive sampling. Teknik pengumpulan data meliputi observasi peserta, wawancara mendalam, dan studi dokumentasi. Hasil penelitian menunjukkan bahwa pengetahuan remaja mengenai kesehatan reproduksi masih terbatas dan terdapat hambatan budaya dalam berkomunikasi tentang kesehatan reproduksi. Model pendampingan yang dikembangkan berdasarkan teori pembelajaran partisipatif dan kontekstual, serta integrasi nilai-nilai tradisional dan kearifan lokal, diharapkan dapat meningkatkan literasi kesehatan reproduksi remaja dan memperkuat peran keluarga dan masyarakat adat dalam mendukung kesehatan reproduksi remaja secara berkelanjutan. Model ini mencakup tahapan pendahuluan, hubungan, aplikasi, refleksi, dan perluas, yang disesuaikan dengan prinsip-prinsip model keyakinan kesehatan. Temuan menunjukkan bahwa penerapan model ini dapat meningkatkan pengetahuan, sikap dan keterampilan remaja secara signifikan dalam menjaga kesehatan reproduksinya, serta memperkuat peran keluarga dan masyarakat adat.

Kata Kunci: ICARE, literasi kesehatan reproduksi, pendampingan

ABSTRACT

Health equity is carried out in the general public and Indigenous peoples because they often face unique challenges related to access to health services. This research aimed to develop a reproductive health literacy assistance model for adolescents in the Kesepuhan Sinar Resmi, Cisolok. This model is designed to improve adolescents' knowledge, attitudes, and skills in maintaining their reproductive health through a culture-based and participatory approach. The research method used a qualitative approach with the Grounded Theory method, which allows theories to emerge from field data. Participants consisted of traditional leaders, traditional members, teenagers, parents, village representatives, and health workers, who were selected using purposive sampling. Data collection techniques include participant observation, in-depth interviews, and documentation studies. The research results showed that adolescent knowledge regarding reproductive health is still limited, and there were cultural barriers to communicating about reproductive health. The mentoring model

developed based on participatory and contextual learning theory and the integration of traditional values and local wisdom is expected to increase adolescent reproductive health literacy and strengthen the role of families and traditional communities in sustainably supporting adolescent reproductive health. This model includes the stages Introduction, Connect, Application, Reflect, and Extend, which are adapted to the Health Belief Model (HBM) principles. The findings show that applying this model can significantly increase adolescents' knowledge, attitudes, and skills in maintaining their reproductive health and strengthen the role of families and traditional communities.

Keywords: ICARE, mentoring, reproductive health literacy

INTRODUCTION

Sustainable development is a global community agreement stated in the Sustainable Development Goals (SDGs) 2030. One of the goals is sustainable development at the rural level, which includes healthy villages free from poverty, access to education, living in peace in a healthy environment, and village culture appropriate. Meanwhile, urban development is listed in goal 11, namely promoting and preserving world cultural heritage and world natural heritage.[1] Human resource development cannot be separated from holistic human development which must be carried out continuously. One of the elements that support this development is education. Education plays an important role in improving the quality of life for individuals, expanding economic opportunities, and building a more just and inclusive society. In the context of sustainable development, education also functions as a tool to empower individuals to actively contribute to achieving broader development goals. Good education improves knowledge and skills, forming character and values supporting social, economic, and environmental sustainability.

Education for Sustainable Development (ESD) is an educational approach that aims to integrate sustainability principles into the learning process. ESD provides the knowledge, skills, values, and attitudes needed to build a sustainable future. Through ESD, individuals are invited to understand the relationship between human activities and their environmental impact and develop innovative solutions to sustainability challenges. In this way, ESD helps create world citizens who are responsible and aware of the importance of maintaining a balance between development and environmental preservation. Implementing ESD at all education levels can strengthen education's role in achieving Sustainable Development Goals (SDGs), especially in creating a more inclusive, just and sustainable society.

According to UNESCO (2017), ESD is closely related to the SDGs because it functions as the main tool for achieving these goals. SDGs cover various aspects of sustainability including poverty eradication, gender equality, good health, and environmental protection. ESD supports achieving these goals by integrating sustainability principles into formal and informal education systems. Through ESD, individuals are empowered to understand global issues, develop critical skills, and apply innovative solutions. ESD also emphasizes the importance of active and collaborative participation in society to create a more sustainable future[2]

Global sustainable development in the Sustainable Development Goals (SDGs) places the role of women and girls in the 5th goal, namely "Achieve gender equality and empower all women and girls," which includes women's full and effective participation and equal opportunities for leadership at all levels decision making in political, economic and public life. Gender equality will strengthen countries' ability to develop, reduce poverty, and govern effectively. Promoting gender equality is a key part of the development strategy, including eliminating all forms of violence against women in public and private spaces, human trafficking, sexual exploitation, and various other types of exploitation. Apart from that, eliminating dangerous practices such as

child marriage, early and forced marriage, and female circumcision. Well-maintained social values such as trust, social networks, and social norms benefit interactions between members of society.[3]

According to Suharto (2005), mentoring is a strategy that determines the success of community empowerment programs. Mentoring is a strategy commonly used by governments and non-profit institutions to improve the quality and qualities of human resources so that they can identify themselves as part of the problems they are experiencing and try to find alternative solutions to the problems they face[4]. Assistance regarding reproductive health can be provided through health literacy assistance. Health literacy is the degree of a person's ability to have the right to obtain, understand and process basic health information and services needed to make appropriate health decisions. So, health literacy has an important role in the health sector, so achieving health literacy is a shared responsibility at the individual and collective level [5].

In indigenous communities such as the Kesepuhan Sinar Resmi indigenous community, health assistance efforts require an approach that is sensitive to local culture and traditions. Indigenous communities often have limited access to modern health services and relevant health information. This is caused by geographic, social and economic factors that hinder the equitable distribution of health information. In addition, traditional norms and practices that are deeply rooted in indigenous communities require different approaches in conveying health information to be accepted and implemented effectively. Therefore, a health literacy assistance model specifically designed for adolescent reproductive empowerment in indigenous communities is urgently needed to address this gap.

Gabriel et al.'s research (2020) on indigenous communities in the Philippines shows that gender restrictions in decision making create greater levels of harm. However, women in the traditional village of Kaguya who are tasked with protecting and supervising the implementation of Podong have succeeded in preserving the environment through collaboration with the local government. These findings show that women's empowerment can contribute significantly to community sustainability[6]. In addition, research by Merina et al. (2023) in Yoboy Village, Papua, shows that indigenous women are able to develop the ability to process raw materials into food products based on home industries. Creativity and high self-confidence determine the success of economic empowerment programs, so that they are able to provide additional income for their households[7].

This mentoring model is based on an approach that integrates the elements of introduction, connection, application, reflection and expansion of evaluation. At the introductory stage, adolescents are introduced to essential reproductive health concepts adapted to their cultural context. The linking stage ensures the information is integrated with local knowledge and practices. Practical application of this knowledge is carried out through training and demonstrations relevant to teenagers' daily lives. Reflection helps teens understand the positive impact of changing their behavior on their own health. Finally, the expansion or evaluation stage involves assessing the program's success and adjusting strategies to increase its effectiveness. With this approach, the health literacy assistance model can empower indigenous youth to sustain their reproductive health while respecting and utilizing existing local wisdom.

This research will examine the construction of a model of health literacy assistance for the reproductive empowerment of indigenous adolescents (a study on indigenous communities in Kesepuhan Sinar Resmi, Cisolok) so that this model will be useful for the indigenous community as a role model in handling reproductive health. This research aimed to develop a reproductive health literacy assistance model for adolescents in the Kesepuhan Sinar Resmi, Cisolok.

METHODS

This research used a qualitative approach with the Grounded Theory method developed by Glasser and Strauss (1967). This approach begins by collecting genuine field data without pre-conceptions about certain theories[8].

This research was conducted at the Kasepuhan Sinar Resmi Cisolok, Sukabumi Regency in June-October 2024. Participants in this study consisted of nine people, including one traditional leader, two traditional members, two teenagers, two parents from conventional communities, one village representative, and one health worker. The selection of participants used a purposive sampling technique, which was selected based on certain traits or characteristics relevant to the research. According to Sugiyono (2012), purposive sampling is a technique for determining data source samples with certain considerations[9] This study has obtained ethical approval issued by the Research Ethics Committee of the Poltekkes Kemenkes Bandung No: 20/KEPK/EC/X/2024

The data collection techniques include approaches to traditional elders and leaders, participant observation, in-depth interviews, and documentation studies. Participatory observation is carried out by directly observing the phenomena that occur in indigenous peoples and participating in adolescents' daily activities, including traditional rituals. Interviews were conducted with key informants such as traditional leaders, indigenous members, adolescents, parents, village representatives and health workers to obtain deeper information about adolescent reproductive health literacy.

Reproductive health literacy assistance for indigenous adolescents is carried out through four stages of activities including planning, organizing, implementing and evaluating. Planning includes activities to identify program needs, prepare goals, prepare program designs, prepare mentoring materials, identify facilitators and resource persons, and determine the media used in mentoring. Organizing includes organizing assistance activities from planning to evaluation. At this stage, the researcher also revealed the partnerships carried out by the customary in mentoring activities and the involvement of stakeholders in implementing these activities. Actuating includes activities or mentoring activities, involvement of indigenous youth, family involvement, technology use, and extension methods. Controlling includes evaluating mentoring programs, determining forms of supervision, and assisting sustainable programs[10].

RESULT

Figure 1 shows a reproductive health literacy assistance model for adolescents in the Indigenous Peoples of Kasepuhan Sinar Resmi Cisolok. This mentoring model results from a literature review, preliminary study, and in-depth observation of field conditions regarding adolescent reproductive health conditions and mentoring program activities carried out by indigenous peoples to assist the health literacy assistance process in dealing with adolescent reproductive health.

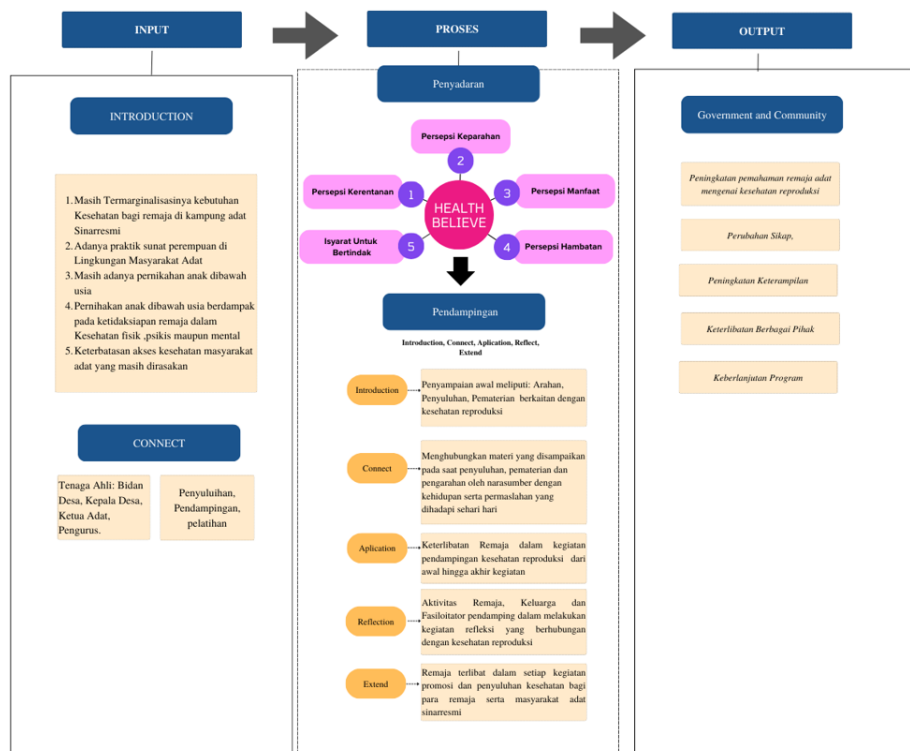


Figure 1. Reproductive Health Literacy Assistance Model

Planning Stage

Based on the results of field findings, it is explained in the indicators of health literacy assistance for adolescents that the customary division is carried out into 4 stages, including planning, organizing, implementing, and supervising. The planning stage in community assistance consists of several activities, namely identifying program needs, developing the objectives of the mentoring program by customs, preparing the design of the health literacy assistance program, compiling health literacy materials, determining facilitators/resource persons from customs, determining the media used by the customary and facilities/tools for the assistance process by the customs. Some of these activities are illustrated through interview activities conducted with traditional leaders (P1), communities (parents) (P2), and indigenous youth (P3). Based on the results of the interview, it was found that the reproductive health literacy assistance program for Sinar Resmi indigenous youth was made based on the process of identifying needs carried out by traditional stakeholders, namely abah and other administrators by means of deliberation involving the community, parents, adolescents and parties from health and urban villages.

The objectives of the reproductive health literacy assistance program for indigenous adolescents of Sinar Resmi Cisolok were prepared by involving various parties including indigenous peoples, indigenous peoples, adolescents, village parties, and representatives from the health sector. The purpose of the mentoring program is to provide information and socialize about reproductive health to the community, especially adolescents. So that Indigenous people stay healthy and care about their health.

Furthermore, the preparation of this material is based on the need for content for adolescents with assistance. The selected materials are reproductive health, reproductive cycle in women, healthy lifestyle, and education about marriage policies. The material is determined based on the needs that have been identified by the

indigenous authorities as well as input from the health and village authorities related to the scope of reproductive health materials for adolescents.

The determination of facilitators and resource persons for the reproductive health literacy assistance program for Sinar Resmi Cisolok indigenous youth was carried out based on the competence of the resource person's expertise conveyed by the village health department assisted by the indigenous party. Meanwhile, the facilitator is determined from the customary side. This is because the facilitator must be a person who knows the community and its character and is known by the community so that they want to participate in the mentoring activities. The facilitator or resource person selected for the adolescent reproductive health literacy assistance program has adequate knowledge and skills in the field of reproductive health as well as the ability to communicate effectively with adolescents. This indicates that the organizers pay attention to and use the results of the need identification as the basis for determining the facilitators and resource persons on duty. In addition, the selection carried out by the customs has also paid attention to the villagers' learning assumptions by emphasizing the community's learning experience through discussion activities in mentoring that are always carried out at every meeting.

The media use and media selection are determined according to the needs of adolescents. The media in this reproductive health literacy assistance program uses video materials and reading modules. This is so that teenagers can easily understand the material presented. Interesting teaching materials make teenagers happy to read again in their respective homes.

Organizing Stage

This stage includes partnership development activities carried out by customary and stakeholder involvement in implementing the program. Some of these activities are illustrated through interviews conducted by researchers at the traditional head (P1), the village (P2) and the village midwife (P3). The Sinar Resmi Indigenous Youth Reproductive Health Literacy Assistance Partnership is a collaboration between various parties that aims to improve the understanding and skills of indigenous adolescents in maintaining reproductive health. The partnership established in the reproductive health literacy assistance program for indigenous youth in Sinar Resmi Cisolok involves policy makers and representatives from health workers. The partnership is carried out from the planning stage to the evaluation stage. The form of partnership carried out by the customary in this activity is a form of informal partnership. The involvement of stakeholders in the reproductive health literacy assistance program for Sinar Resmi indigenous youth is very important to ensure the success and sustainability of the program. The customary party involves stakeholders from the village and village midwives.

Actuating Stage

The implementation of reproductive health literacy assistance activities for adolescents in Sinar Traditional Villages is officially divided into several activities or activities, including the implementation of mentoring programs, the involvement of indigenous adolescents, the involvement of families/parents, the use of technology, and the counseling methods used.

Reproductive health literacy assistance activities for indigenous adolescents in Sinar Resmi were carried out for 3 months. Weekly assistance is carried out with Indigenous youth traditional representatives and village midwives. The presentation of the material was carried out by midwives regarding reproductive health, healthy lifestyles, and sexually transmitted diseases. Furthermore, group discussions led by traditional representatives were also assisted by students. The discussions were related to the problems faced by the community, as well as complaints and questions

about reproductive health. The involvement of indigenous youth in the health literacy assistance program is very high. Indigenous youth are actively involved in planning, implementing, and evaluating program activities. Indigenous youth are the target of the health literacy assistance program. The role of indigenous youth is very large in the success of this program. In addition, the involvement of parents in the health literacy assistance program is very high. This can be seen from parents' support and motivation to support their children. Technology in health literacy assistance programs is used in the presentation of materials and the use of WhatsApp groups to communicate and disseminate health content information.

Controlling Stage

This stage consists of program evaluation, forms of supervision and assistance for sustainable programs. Resource persons carry out program evaluation activities by looking at and measuring changes in participants' understanding, discussing the advantages and disadvantages of the activities carried out and reflections that discuss all mentoring activities. Measuring ability is carried out through writing and oral communication by the resource persons before and after the mentoring activities. During the implementation of the mentoring, the resource persons held a quiz so that they could remember and understand the material presented together.

Supervising this program is carried out by the traditional head to ensure that the mentoring activities are carried out properly. This form of supervision is carried out in direct and indirect ways. Direct supervision is carried out by observing the implementation of mentoring activities, while indirect supervision is by communicating reports via *WhatsApp* between resource persons and organizers.

Factors Affecting the Success of the Adolescent Reproductive Health Literacy Assistance Program

The factors that affect the program's success are divided into two, namely internal and external factors. External factors consist of the role of health workers, the role of local governments, the role of parents, and the role of peers. Internal factors include age, education level, occupation, habits, health conditions. The understanding of reproductive health is better understood by people aged 14-25 years. They gained this understanding from the education they got at the local school. In addition, the use of internet access also affects this. Teenagers are easier and more capable of using gadgets to access the internet, so the information obtained can be wider than people aged 26-55 years and >55 years.

In communities with elementary education, very few people get information about understanding reproductive health. In addition, the community still upholds the myths that exist in society and does not pay much attention to modern knowledge. In contrast to people whose education level is junior high school they have begun to understand knowledge about reproductive health even though it is still only in general. In people whose high school education level already understands reproductive health in more detail, so that the higher the level of education, the better the understanding of reproductive health

The interviews show that the work (both farmers and artisans) of the Sinar Resmi indigenous people does not affect the understanding of reproductive health. They are not very aware of reproductive health. The knowledge they have is still limited to general and general understanding. In addition, they also still entrust the handling of pregnancy and birth to traditional health workers in the Sinar Resmi Traditional Village.

From the interview results, it was found that the people of the Sinar Resmi Traditional Village have received good health facilities and access to health services. In addition, the health condition of individuals in the Sinar Resmi Traditional Village community was informed that the respondents had experienced health problems, both

general and related to the reproductive organs. The people of Sinar Resmi Traditional Village are also used to consuming healthy and nutritious food from the produce in their village. In addition, walking anywhere has become a habit of the Sinar Resmi people as long as the destination is still in the Sinar Resmi Traditional Village area. However, for reproductive health, there is still a closed gap among residents to discuss reproductive health so topics related to reproductive health are rarely discussed among the residents of the traditional village. From the individual health conditions of the people of the Sinar Resmi Traditional Village, information was obtained that the respondents had experienced health problems, both general and related to the reproductive organs.

A Hypothetical Model Constructed from A Reproductive Health Literacy Assistance Program for Adolescents

The study begins by studying and understanding the concept of reproductive health education, the impact of reproductive health knowledge on adolescent well-being, the role and duties of families and traditional communities in supporting adolescent reproductive health, the concept of a culture-based approach in health education, the concept of community education, as well as the concept of participatory and contextual learning. Next, a literature review was carried out on the results of previous research related to reproductive health education in indigenous communities, the role of family and community as supporters in health education, as well as the use of participatory and culture-based learning in various research settings. This theoretical basis is a strong foundation for developing an effective mentoring model that is appropriate to the cultural context of the Kesepuhan Sinar Resmi.

The reproductive health literacy assistance model for adolescents in the Kesepuhan Sinar Resmi Indigenous Community, Cisolok, is based on the urgent need to increase reproductive health literacy among adolescents in the local cultural context. This rationalization is supported by government regulations and laws that underline the importance of reproductive health as an integral part of public health. One of them is Law Number 36 of 2009 concerning Health, which states that everyone has the right to receive correct and responsible information and education regarding reproductive health. This shows the government's commitment to ensuring adequate access to reproductive health information for all citizens, including adolescents in indigenous communities[11].

In addition, Government Regulation Number 61 of 2014 concerning Reproductive Health stipulates that the government is responsible for providing reproductive health education and services that are appropriate to local needs and conditions. This means that the reproductive health education model must be adapted to the cultural and social context of the local community. In this case, the model developed for the Kesepuhan Sinar Resmi takes a culture-based and participatory approach, ensuring that the program is not only informationally effective, but also accepted and supported by the local community[12].

Furthermore, Minister of Health Regulation Number 25 of 2014 concerning Children's Health Efforts includes provisions regarding the need for comprehensive health education for adolescents, including reproductive health education[13]. By paying attention to these regulations, the mentoring model aims to meet national standards in providing reproductive health information and support to adolescents. This approach ensures that the program meets local needs and is aligned with national policies to improve the reproductive health and well-being of adolescents in Indonesia.

The results of a preliminary study conducted by researchers with the Kesepuhan Sinar Resmi, Cisolok indigenous community show that teenagers' knowledge regarding reproductive health is still very limited. Most respondents (75%) did not know in detail about important aspects of reproductive health such as anatomy, function and the importance of maintaining reproductive health. Only a small percentage (25%) have

correct and complete basic knowledge. Almost all respondents (90%) stated that they felt embarrassed, uncomfortable, or did not know how to discuss this topic either with their parents or peers, which indicates that there are cultural barriers in communication about reproductive health.

In addition, the majority of respondents (85%) felt that the information they obtained from school or the mass media was inadequate and not contextual to their culture. The majority (80%) of them stated that they were ready and interested in participating in a reproductive health education program adapted to local traditional and cultural values. However, a small percentage (20%) are skeptical or unsure about the program's benefits because they worry that it is not based on local cultural values.

From the dimension of community attitudes, the preliminary study results show that the Kesepuhan Sinar Resmi indigenous community is basically aware of the importance of reproductive health education for their teenagers. All respondents (100%) realized that good reproductive health education would help teenagers make more responsible decisions regarding their reproductive health. Almost all respondents (95%) also realized the importance of the active involvement of families and indigenous communities in supporting reproductive health education. However, although they know the importance of reproductive health education, most (70%) of them stated that they did not know how to initiate or implement educational programs that were following their traditional and cultural values.

In this regard, researchers are considering developing a mentoring model that can involve families and indigenous communities actively educating teenagers about reproductive health using a culturally based participatory and contextual learning model. The results of a preliminary study related to people's knowledge and attitudes regarding the rationale and practical and theoretical reasons for developing a participatory learning-based mentoring model shows that all respondents (100%) agreed on the need to develop a participatory and contextual learning-based mentoring model. Then, almost all respondents (98%) stated that so far many families have not provided adequate reproductive health education to their teenagers due to lack of knowledge, inability and unpreparedness. Almost all of them (96%) also stated that there are still many teenagers who do not receive adequate reproductive health information due to limited resources and support from their families. Thus, it is hoped that this model can provide holistic and appropriate solutions to the local cultural context to increase reproductive health literacy among Kesepuhan Sinar Resmi teenagers.

Several assumptions form the basis for creating a model of reproductive health literacy assistance for adolescents carried out by elders in the Kesepuhan Sinar Resmi indigenous community, Cisolok. The main assumption is that adolescents in these communities have limited knowledge about reproductive health, which can have a negative impact on their well-being and development. In addition, families and indigenous communities have an important role in providing reproductive health education, but often they do not have sufficient knowledge, attitudes and skills to do this effectively. This limitation is exacerbated by the existence of cultural norms that make the topic of reproductive health taboo to discuss openly.

Therefore, families and communities need to be empowered optimally by strengthening their abilities through implementing educational models that can encourage them to be fully involved and participate actively in learning (educational) activities from the planning process, and implementation to evaluation. It is hoped that an approach based on local customs and culture can overcome these obstacles by using participatory learning methods involving all community members. Through the implementation of participatory learning, it is hoped that families and traditional communities will be more open and independent in educating teenagers about

reproductive health, so that teenagers can make better and more responsible decisions regarding their reproductive health.

Thus, this mentoring model based on local wisdom and active participation not only increases reproductive health literacy among adolescents, but also strengthens the role of families and traditional communities in supporting the development and welfare of the younger generation. Hopefully, program implementation using a participatory and contextual approach will create a supportive environment for teenagers to learn and discuss reproductive health openly and effectively.

The assumption of a model of reproductive health literacy assistance for adolescents in the indigenous people of Kasepuhan Sinar Resmi, Cisolok, refers to a study that shows the need for a holistic and participatory approach. This model is linked to the ICARE mentoring model, which consists of five stages: Introduction, Connect, Application, Reflect, and Extend. Each stage in ICARE is designed to provide an in-depth understanding and active involvement of adolescents, families, and indigenous communities in reproductive health education.

DISCUSSION

The reproductive health literacy assistance model for indigenous adolescents in reproductive empowerment is to increase reproductive health literacy among adolescents of the indigenous people of Kasepuhan Sinar Resmi, Cisolok. This model aims to empower adolescents with the knowledge, attitudes, and skills necessary to make healthy and responsible decisions regarding their reproductive health. In addition, the model also aims to involve families and indigenous peoples in the educational process, thus creating a supportive environment for adolescents to learn and discuss reproductive health in a way that respects local cultural values. Thus, it is hoped that this model can improve the reproductive welfare of adolescents and strengthen the role of families and communities in sustainably supporting adolescent reproductive health.

Planning for Reproductive Health Literacy Assistance for Indigenous Adolescents of Sinar Resmi

The stages of planning a reproductive health literacy assistance program for Sinar Resmi indigenous youth include identifying program needs, preparing goals, preparing program designs, compiling mentoring materials, determining facilitators and resource persons, and determining the media used in mentoring. This activity has been carried out by the Sinar Resmi tradition in carrying out the mentoring program. The organizers identify needs, namely customary administrators by means of deliberation or FGD involving indigenous peoples, parents, adolescents, village governments and parties from health or village midwives. First, this identification activity aims to collect information that will be used as the basis for the preparation and design of assistance programs that indigenous parties will carry out. This is in line with Suarez in Khumalo, (1999) who revealed that the main purpose of assessing needs in the community education process is the assessment of learning needs intended for implementing community education programs[14].

Second, the preparation of this goal is to socialize about reproductive health to the community, especially adolescents. This aligns with the statement that mentoring is a process of activities to assist individuals or community groups in determining the success of the program being run. To build an effective health guidance program for the community, it is important to consider the various aspects highlighted in some literature. In the context of public health services, mentorship programs have significantly improved health and well-being outcomes [15].

Third, the preparation of program designs. The stages of identification carry out the preparation of this program, determining the program topic, mentoring mechanism, and

a series of evaluations. Fourth, the preparation of program materials. The selected material is tailored to adolescents' specific needs, including aspects of reproductive health, the reproductive cycle in women, healthy lifestyles, and education about marriage policies. According to research published by Zanobini et al. (2024), educational materials that are prepared based on the community's specific needs can increase the participation and effectiveness of health literacy programs[16]. Research by Suquet et al. (2023) in Global Health Promotion also supports this approach by highlighting that community involvement in preparing health education materials increases the relevance and sustainability of programs[17]. Fifth, the selected facilitators and resource persons must have adequate knowledge and skills in the field of reproductive health as well as the ability to communicate effectively with adolescents. Sixth, the determination of the media. The media used during mentoring are videos and modules. The use of media in mentoring greatly affects the success of mentoring programs.

Organizing Reproductive Health Literacy Assistance for Indigenous Adolescents Sinar Resmi

The partnership established in the reproductive health literacy assistance program for indigenous youth in Sinar Resmi Cisolok involves policy makers and representatives from health workers. Partnerships established in reproductive health assistance programs for the community are crucial to ensure the success and sustainability of the program. One of the main forms of partnership is collaboration with local governments. The government can provide support in the form of supportive policies, funding, and other resources needed to run this program. With support from the government, the mentoring program can be more easily accessible to the wider community and gain stronger legitimacy. Partnerships with non-governmental organizations (NGOs) are also an important program component. NGOs often have experience and expertise in the field of reproductive health and community-based approaches.

The involvement of various stakeholders in health literacy assistance is the key to creating an effective and sustainable program. Based on the results of field findings, health literacy assistance carried out in Sinar Resmi traditional villages involves government and health elements in implementing the mentoring program. Government elements are a policy setter for health literacy assistance programs[18]. Governments can develop and implement policies that support access to accurate and reliable health information.

Implementation (Actuating) of Reproductive Health Literacy Assistance for Sinar Official Indigenous Adolescents

Based on the findings, it can be identified that mentoring activities are implemented for approximately 3 months. Assistance is carried out every week with indigenous youth. The content discussed in the mentoring is related to reproductive health, healthy lifestyle and menstrual health. In addition, mentoring is implemented sustainably and collaboratively. In line with this statement, mentoring is a collaborative process in which individuals or groups with certain knowledge and skills provide guidance, support, and assistance to other individuals or groups in need[19].

The involvement of adolescents in mentoring activities apart from being participants, is also involved in program planning, as trainers after receiving mentoring, implementers of activities, and evaluators for the programs implemented. This involvement is a form of participatory youth in carrying out their functions as participants. This is supported by Siswantara et al. (2019), who found that adolescents who are involved in planning health programs are more likely to feel motivated and have a sense of ownership of the program. This not only increases the effectiveness of

the program but also encourages youth to take an active role in maintaining their health and community[20].

This assistance also involves families and parents. Parents have a central role in influencing adolescents' attitudes, behaviors, and decisions. Parental support, such as giving permission and motivation to participate in mentoring activities, is very important because adolescents often rely on parental guidance and consent to make decisions regarding their health and education. Reproductive health programs that actively involve parents tend to be more successful in increasing knowledge and positive behavior change in adolescents than programs that do not involve parents[21]. This is because parents can reinforce the messages conveyed in the program and provide a supportive home environment for applying the information obtained. Additionally, open communication between parents and children about reproductive health can help reduce the stigma and stigma that often prevents adolescents from seeking the information and help they need. Thus, the role of parents not only provides permission and motivation but also creates an environment that supports and facilitates the application of the knowledge gained in the daily life of adolescents.

Technology plays a very important role in implementing health assistance programs, especially in terms of providing tools for displaying materials, online reading modules, and access to information through the Internet. The use of technology in education not only improves students' knowledge and skills but also promotes social inclusion and integration. Technology helps reduce information access gaps and facilitates independent and collaborative learning [22]. This is important in the context of health assistance where adolescents can learn independently through online modules and then apply that knowledge in daily life. Thus, technology is not only a tool but also a key driver in the transformation of health education.

The counseling method in the health literacy assistance program in the Sinar Resmi Traditional Village through five stages, namely the introduction of material, connecting the material with problems, application, reflection, and expansion of information, is a comprehensive and effective approach. The introduction stage of the material aims to provide an overview and build a knowledge base for participants. A study by Wang and Zhou (2023) shows that this method increases learning motivation because participants can see a direct connection between the material being taught and the problems they experience daily [23].

The application stage allows participants to practice the knowledge they have learned in real-life situations, reinforcing the understanding and skills adolescents possess. Practical application is key in health mentoring because it helps to internalize knowledge through hands-on experience[24]. Next is the reflection stage, which allows participants to evaluate experiences, identify successes and challenges, and plan improvement steps. The final stage, expanding information, involves disseminating the knowledge gained to the wider community and amplifying the program's impact. This five-stage approach ensures that participants not only receive information but can also apply it and disseminate it in their communities & create a positive, sustainable effect on health literacy in Kampung Adat Sinar Resmi.

In addition, the resource persons also discussed the advantages and disadvantages of the activities that have been carried out. These discussions involve feedback sessions where participants can share experiences about what went well and what didn't. This kind of reflection and discussion is important to identify areas that need improvement and adjust the program to be more effective. This comprehensive reflection discusses all mentoring activities, allows all parties to evaluate the overall process, and establishes a specific follow-up plan.

Factors Affecting the Success of Reproductive Health Literacy Assistance for Adolescents

Health workers involved in adolescent reproductive health assistance who are midwives from the Cisolok District Health Center have a role as information and education providers. This information is provided in an easy-to-understand manner so youth can make informed decisions. The role of health workers in the Sinar Resmi Traditional Village is one of the things that influences the success of the reproductive health literacy assistance program. The positive influence of health workers in assisting adolescent reproductive health literacy in the Sinar Resmi Traditional Village is also in line with research conducted by Abdul Hakim & Kadarullan (2016), which shows a significant relationship between the role of health workers and the level of reproductive health knowledge. The study also explained that the sources of information adolescents use are not only the mass media, parents, peers but also health workers[25].

The local government also has a role in the adolescent reproductive health literacy assistance program in the Sinar Resmi Traditional Village, namely providing health infrastructure and policy support. The local government is trying to provide health services and facilities through health centers in Cisolok District and send midwives to provide counseling. Through the health center, the government offers adolescent reproductive health services in the form of counseling, health checks, and treatment that can be accessed by adolescents in the Sinar Resmi Traditional Village at any time. With this service, adolescents can learn how to maintain their reproductive health, prevent unwanted pregnancies, and avoid sexually transmitted diseases. Through the Cisolok Sub-district, the local government is trying to open a communication channel with Abah, who is an important figure in the official Sinar Traditional Village. The village government plays a role in providing adolescent reproductive health education to the community and the government inserts sexual education into the school learning curriculum in biology subjects and special activities in the form of health counseling. Research shows that adequate health facilities are important in improving access to and use of reproductive health services in rural communities [26].

Regulations governing reproductive health services are also part of important policy support. Local governments must ensure that reproductive health services available in the community, including in Sinar Resmi customary villages, meet quality standards and are accessible to all adolescents without discrimination. This includes the provision of adolescent-friendly and culturally sensitive services, as well as training for health workers to address adolescent reproductive health issues with professionalism and empathy. Local governments must provide adequate budgets and competent human resources to support the implementation of this program. Additionally, policies supporting capacity building for healthcare workers through training and continuing education are essential to ensure they have the necessary skills and knowledge to deliver effective services[27].

Community leaders play a role in maintaining customary values and mediators between customs and health programs. Reproductive health education is seen as a taboo if it is discussed openly from the point of view of Islam as a religion embraced by the people of the official Sinar Traditional Village. This is an obstacle to the literacy of adolescent reproductive health. However, Abah's role is as a mediator in overcoming these obstacles by providing explanations that align with local cultural values and the religious values adhered to.

Chandra-Mouli, Lane, and Wong (2015), in the journal "Global Health Action" emphasize the importance of adapting reproductive health programs to meet the target population's specific needs and cultural context. These findings reinforce the approach used in this model, namely the integration of traditional values and local wisdom in

reproductive health education[28]. In addition, research by Rosen, Murray, and Moreland shows that social and community support plays an important role in the success of reproductive health programs. They found that the involvement of community leaders and local leaders can increase the effectiveness of the program by building trust and active participation from youth[29].

Parents play an important role as a source of emotional and educational support for adolescents. In addition, parents also play a role in the implementation of the program, namely actively involved in reproductive health assistance program activities such as educational sessions and community meetings, can strengthen the message conveyed and provide additional support at home. Studies in Family Relations show that parental involvement in reproductive health education programs increases program effectiveness and helps adolescents apply the knowledge they have gained[30].

The existence of peers among adolescents also plays an important role because it can provide comfort in telling stories or consulting with friends who are considered to have more knowledge than them. In addition, the existence of these peers also provides psychological and emotional support that is needed during adolescence. This can be seen from the statement that these peers make other friends more confident and no longer embarrassed to talk about matters related to reproductive health.

In addition to external factors, internal factors affect the success of reproductive health literacy assistance. The 13-25 age group is more aware of reproductive health because they have more access to information available on the internet. Internet use significantly affects the understanding of reproductive health among adolescents. In addition, the curriculum at school also allows them to gain knowledge about reproductive health in more detail, while the age group of 26-55 years and >55 years has a limited understanding of reproductive health because they are busy with work, family, and other responsibilities, which can limit the time to seek information about reproductive health. In addition, there is also a cultural influence through the values instilled in the indigenous people of Kampung Sinar Resmi. It is customary to use traditional medicine and consider reproductive health to be taboo to talk about. This hinders them from seeking the information or help they need[31].

Health facilities also affect the success of the program. The people of Kampung Adat Sinar have officially received good health facilities and have proper access to health services. The presence of ambulances provided by traditional villages and coordination with the Health Center to borrow transportation from the next village shows that there are proactive efforts in overcoming transportation challenges. The quality of road infrastructure that connects villages with health centers also affects the accessibility of health services[32]. A good road will facilitate and accelerate the patient's journey to health facilities.

The higher the level of education, the better the understanding of reproductive health. Because there are more and more opportunities to get formal education about reproductive health. The curriculum compiled at the middle and high school levels is usually more comprehensive and covers important topics such as sexually transmitted diseases, contraception, and menstrual health[33]. Education in schools plays an important role in improving understanding of reproductive health. According to studies, adolescents who receive formal sexual education in school tend to have a better knowledge of these topics[34]. Family habits can also affect the success of the program. The Sinar Resmi Indigenous People have consumed nutritious food from their crops and are used to doing activities such as walking. However, while healthy living habits can improve general health, reproductive health education is still important. Adequate education about reproductive health helps individuals make better decisions about their health, prevent unwanted pregnancies, and reduce the risk of sexually transmitted infections, while for reproductive health there is still a closed gap

among residents to discuss reproductive health so that topics related to reproductive health are rarely discussed among the residents of the traditional village because of the secrecy in the discussing reproductive health is a cultural and social norm in the Sinar Resmi Traditional Village.

From the individual health conditions of the people of the Sinar Resmi Traditional Village, information was obtained that the community had experienced health problems, both general and related to the reproductive organs. These reproductive health disorders are caused by a lack of literacy about reproductive health, which makes them more vulnerable to reproductive health diseases. In one study, it was explained that low health literacy has been associated with poorer management of chronic diseases such as diabetes, hypertension, and heart disease. Individuals with good health literacy are more likely to understand medication instructions and adhere to their treatment plans better[35]. Efforts to improve health literacy can greatly improve the community's health and quality of life in general[36].

Furthermore, research by Kirby et al. (2011) published in the "Journal of Adolescent Health" showed that reproductive health programs based on participatory and contextual learning were more successful in changing adolescent behavior compared to traditional approaches [37]. This research supports Paulo Freire's participatory learning theory and John Dewey's contextual learning theory in the developed model. In addition, a study by Chandra-Mouli et al. (2015) in the journal "Global Health Action" underscores the importance of adapting reproductive health programs to meet the target population's specific needs and cultural context. This reinforces the approach used in this model, which is the integration of traditional values and local wisdom in reproductive health education, which increases the acceptability of the program and its effectiveness in the long run[28].

Construction of a Reproductive Health Literacy Assistance Model for Adolescents

Reproductive health literacy assistance is important to improve adolescents' knowledge, attitudes and skills regarding their reproductive health. In the context of indigenous peoples, such as Kesepuhan Sinar Resmi, this approach must consider local cultural values to be effective and acceptable to the community. The Reproductive Health Literacy Assistance Model was developed using ICARE. The ICARE model is a systematic and participatory learning method consisting of five stages: Introduction, Connect, Application, Reflect, Extend. This approach is effective in a variety of educational contexts, including health education. The Introduction and Connect stages help participants understand and relate new information to the knowledge they already have, while the Application, Reflection and Extension stages ensure that this knowledge is applied in daily life and continues to be strengthened through reflection and follow-up activities. A study by Chandra-Mouli et al. (2015) shows that participatory learning approaches can improve student engagement and understanding in reproductive health programs[28].

To succeed in the reproductive health literacy assistance program in indigenous peoples, it is important to ensure that the approach used aligns with local cultural values and norms. A culturally sensitive approach can increase community acceptance and participation in the program. This study emphasizes the involvement of traditional leaders and communities in each stage of the program. A study by Airhihenbuwa et al. (2016) emphasizes the importance of a culture-based approach in public health programs to ensure the relevance and sustainability of interventions[38]. the reproductive health literacy assistance model for adolescents in Kesepuhan Sinar Resmi, Cisolok, is based not only on government regulations and educational theories but also enriched with findings from the latest research. A study by Blum et al. (2012) published in the journal "The Lancet" highlights the importance of community-based

reproductive health education in improving adolescents' knowledge and attitudes towards reproductive health. This study shows that an approach that actively engages the community can improve the effectiveness of reproductive health programs, especially among adolescents. These findings align with the principles of the mentoring model developed at Kesepuhan Sinar Resmi, where the involvement of indigenous leaders and the use of culture-based education methods are key to the program's success [39].

In addition, the research of DiClemente et al. (2019) emphasizes that approaches that integrate health behavior theory, such as HBM, with participatory learning methods can improve the effectiveness of reproductive health intervention programs. The study highlights that a deeper understanding of risk and benefit perceptions can motivate adolescents to adopt better health behaviors[40].

Overall, the research results in the last decade confirm that the ICARE model integrated with HBM is a practical and comprehensive approach to reproductive health education in indigenous peoples. This model improves adolescents' knowledge, attitudes, and skills and strengthens the role of families and communities in supporting reproductive health education, creating positive and sustainable behavior change.

This research focuses on studying how the process of transforming reproductive health knowledge in the indigenous people of Kasepuhan Sinar Resmi can improve adolescents' knowledge, attitudes, and skills. Indigenous peoples have cultural values and systems that govern individual actions in their social lives, which is reflected in their efforts to maintain reproductive health. The ICARE (Introduction, Connect, Application, Reflect, Expand) Mentoring Model integrated with the Health Confidence Model (HBM) offers a holistic and contextual approach to educating adolescents about reproductive health. This approach includes fostering awareness of the risks and benefits (perception of vulnerability, severity, benefits, and barriers) faced by adolescents and encouraging their active engagement through relevant and interactive learning experiences.

The preliminary study results show that the ICARE model integrated with HBM can significantly improve adolescents' knowledge, attitudes, and skills in maintaining their reproductive health. Adolescents who engage in this program demonstrate an increased understanding of the risks and benefits of reproductive health and the ability to apply this knowledge in their daily decisions and actions. The program also strengthens the role of families and indigenous peoples in supporting reproductive health education, creating a supportive environment for adolescents to learn and share knowledge. By considering local cultural values and using participatory and contextual learning approaches, the ICARE-HBM model can encourage positive and sustainable adolescent behavior change. This program increases reproductive health literacy and builds adolescents' confidence, self-esteem and self-efficacy in maintaining their reproductive health. With support from families, indigenous peoples, and health workers, this model can be an example of an effective and sustainable reproductive health education program.

The construction of a model of reproductive health literacy assistance for indigenous adolescents will be analyzed using the Health Belief Model (HBM) which will explain the stages of the reproductive health education process/activity in shaping healthy behaviors applied, as well as the relationship between perceived risks, benefits, obstacles and signals to act with the expected results. These measures include perceived vulnerability, severity, benefits and barriers, and cues to act.

At the vulnerability perception stage, adolescents are invited to understand the risks they face related to reproductive health, including the risk of sexually transmitted diseases and teenage pregnancy. This stage ensures that adolescents have a strong awareness of their vulnerability to reproductive health issues. According to the Health

Belief Model (HBM) theory, perceived vulnerability is a key factor affecting whether individuals will take precautions against health problems. This theory has been reinforced by recent research by Glanz et al. (2015), which found that when individuals understand their personal risk level for a particular disease, they are more likely to take the necessary preventive measures. In the context of the Kasepuhan Sinar Official Indigenous youth, increasing their perception of vulnerability can help motivate them to be more concerned and take precautions related to their reproductive health[41].

Perceived Risk Theory by Brewer et al. (2017) also supports this approach, showing that individuals who have a high-risk perception tend to be more proactive in seeking information and taking action to reduce risk. Brewer and his colleagues emphasized that successful interventions in improving risk perception should be based on the delivery of clear and relevant information and experiences that enable individuals to understand risk. In the reproductive health literacy assistance program, this can be done through real-life experience stories from individuals who have faced reproductive health problems and through simulations and interactive activities that show the consequences of unsafe behavior[42].

The perceived severity stage leads adolescents to understand the serious consequences of poorly addressed reproductive health problems. The information presented includes the physical, emotional, social and financial impacts of poor reproductive health conditions, so that adolescents can realize how important it is to maintain their reproductive health. The Health Belief Model (HBM) theory also includes the perceived severity as one of the main factors influencing an individual's decision-making regarding their health. According to this theory, the perceived severity is related to the extent to which a person believes that certain health conditions can significantly negatively impact their life. Research by Champion and Skinner (2017) supports this, showing that the perception of high severity associated with a particular disease can increase an individual's motivation to take preventive measures[41].

The study by Prochaska and Velicer (2018) within the Stages of Change Theory framework also emphasizes that perceived severity plays an important role in moving individuals from the pre-contemplation stage to contemplation and finally to action. When adolescents realize how serious the consequences of untreated reproductive health problems are, they are more likely to consider behavior changes. These include changes such as using contraception more frequently, undergoing regular health checkups, and adopting safe sexual practices. Providing concrete, easy-to-understand information about physical consequences such as sexually transmitted diseases or unwanted pregnancy, as well as emotional impacts such as stress and anxiety, can help improve the perception of severity among adolescents. At the benefit perception stage, adolescents are provided with information about the various benefits of preventive measures and proper reproductive health care. Through a participatory and experience-based approach, young people can see how these actions can provide real protection and benefits to their health[43].

The barrier perception stage focuses on identifying and reducing the barriers that adolescents may face in implementing preventive reproductive health measures. By engaging families and communities, and providing the necessary support and resources, the program aims to overcome existing barriers. The Health Belief Model (HBM) theory includes perceived barriers as one of the main factors influencing whether a person will take the necessary health measures. According to HBM, individuals are less likely to act if they feel that the barriers to action are too great. These barriers can be physical, psychological, social, or financial. Research by Janz and Becker (2019) suggests that perceived high barriers can reduce the likelihood of individuals taking preventive health measures, even if they are aware of the risks and benefits[44].

Recent research by Champion et al. (2015) also supports the importance of addressing barriers in health intervention programs. They found that when individuals were given adequate support and barriers were identified and addressed, their likelihood of taking preventive health measures increased significantly[41]. In the context of Indigenous youth, according to the Authorized Teachers, the obstacles they may face may include a lack of access to health services, social stigma related to reproductive health, lack of support from families, and financial inadequacy. Therefore, the program addresses these barriers by engaging families and communities, providing culturally sensitive education, and offering necessary resources such as affordable and accessible healthcare. Finally, cues to action include factors that trigger teens to take action, such as health campaigns, personal experiences, and advice from people they trust. The program uses a variety of cues to encourage adolescents to apply the knowledge they have gained to maintain their reproductive health. The Health Belief Model (HBM) theory includes cues that act as important components that can trigger behavior change. These cues can be internal, such as physical symptoms alerting individuals to health risks, or external, such as health campaigns and information from trusted sources. Research by Orji et al. (2018) emphasizes that effective action cues can increase awareness and motivate individuals to take preventive measures[45].

In the context of the Kasepuhan Sinar Resmi Official Indigenous Youth, the action signal can include various activities and interventions designed to increase the motivation of adolescents to maintain their reproductive health. Health campaigns that are relevant and sensitive to local culture can be carried out through social media, posters in public places, and community events involving indigenous and local leaders. Research by Noar et al. (2020) shows that well-designed health campaigns tailored to the target audience can significantly improve health knowledge and behavior. Personal experiences and success stories from individuals who have successfully overcome reproductive health issues can inspire other teens[46].

ICARE Analysis

The ICARE model offers a holistic and contextual framework for reproductive health education in indigenous peoples, improving health literacy and strengthening the social and cultural support essential for the program's long-term success.

1) Introduction: connecting basic knowledge with cultural context

At this stage, adolescents are introduced to the basic concepts of reproductive health, including anatomy, physiology, and the importance of maintaining reproductive health. This approach focuses on knowledge transfer and relates that information to relevant local cultural values. By involving traditional leaders and community leaders, information is conveyed in a way that is easy for young people to understand and receive. According to the social learning theory by Bandura (2018), the use of role and observation models is very important to help adolescents understand and internalize new knowledge[47].

2) Connect: connecting knowledge with everyday life.

The *connect* stage focuses on connecting the knowledge that has been gained with the real experiences and situations faced by adolescents. This approach uses storytelling methods and intergenerational interactions, where knowledge and experiences related to reproductive health are shared orally. This is in line with the theory of social constructivism by Vygotsky (2017), which emphasizes that learning occurs through social interaction and shared experiences. In this way, adolescents can see reproductive health knowledge's relevance and practical benefits in their daily lives[48].

3) Application: Application of knowledge in real practice

At this stage, adolescents are involved in practical activities such as simulations, demonstrations of contraceptive use, and health campaigns in the community. This approach ensures that adolescents not only theoretically understand the concept of reproductive health but can also apply it in real-life situations. According to the experiential learning theory by Kolb (2015), effective learning occurs when students are involved in a cycle of concrete experience, reflection, conceptualization, and experimentation. The Application stage helps strengthen the knowledge and skills of adolescents through hands-on expertise [49].

4) Reflect: reflection to deepen understanding and experience

The reflection stage allows youth and families to reflect on the experiences and knowledge they have gained. Through group discussions, personal journals, and feedback sessions, youth can identify areas that need improvement and develop strategies to address their challenges. The theory of critical reflection by Mezirow (2018) emphasizes the importance of reflection in the transformative learning process. By reflecting on their experiences, adolescents can deepen their understanding and make the necessary adjustments to achieve reproductive health goals[50].

5) Extend: expanding learning and sustainability in the final stage.

Extend focuses on follow-up activities that ensure learning sustainability and application of knowledge in everyday life. Adolescents are involved in community projects, developing educational materials, and organizing educational events involving the entire community. This approach ensures that the knowledge and skills gained survive and evolve over time. According to the learning community theory by Lave and Wenger (2019), effective learning occurs in the context of community and social interaction. By building a support network between adolescents, families, indigenous leaders, and health workers, the Extend phase ensures that the program runs sustainably and is relevant to the needs of the community[51]

The implications of this study show that the reproductive health literacy assistance program for Sinar Resmi indigenous adolescents has great potential to increase adolescent knowledge and awareness about reproductive health. The program provides relevant and comprehensive information and incorporates a participatory approach that actively engages adolescents in every stage of mentoring activities. This is important to ensure that the material presented is following the needs and characteristics of cultural customs, as well as to encourage the independence and involvement of adolescents in maintaining reproductive health. The findings also underscore the importance of program sustainability and support from various stakeholders, including parents, health workers, and indigenous communities, to achieve optimal and sustainable outcomes in improving health literacy among indigenous youth.

CONCLUSION

The construction model compiled by the researchers is the result of observations of the indigenous people of Kesepuhan Sinar Resmi, who maintain traditional values as their ancestral heritage. Each stage in the ICARE Model aligns with the principles underlying the construction of this model and ensures that the approach used not only increases knowledge but also shapes healthy and responsible reproductive health behaviors. Provide basic information about reproductive health that is relevant and contextual, engaging indigenous leaders and health workers to ensure that the information is acceptable to adolescents. Linking reproductive health knowledge and adolescent daily life, using group discussions and storytelling methods to increase

understanding and participation and involve adolescents in indigenous activities. At the reflection stage, it provides opportunities for adolescents to evaluate their learning experiences, provide feedback for program improvement and develop follow-up activities that ensure the continuity of learning and the application of knowledge in adolescents' daily lives, involving families and communities to support positive behavior change.

Policymakers are expected to strengthen support for reproductive health literacy assistance programs by providing policies integrating reproductive health education into educational curricula and community programs. This policy should include adequate allocation of funds, training for facilitators and educators, and ongoing monitoring and evaluation mechanisms to ensure program effectiveness. Policy support is essential to create an environment conducive to implementing wide-impact and sustainable programs.

Health practitioners, educators, and community mobilizers can use these findings to develop and implement more effective mentoring programs. The program, which is designed based on the findings of this research, is expected to be more in line with the needs of adolescents and Indigenous people and be able to provide accurate and relevant information about reproductive health. Users of the research results are also expected to conduct periodic evaluations to continue improving the program's quality.

Researchers are further advised to continue the study by focusing on more innovative methods and approaches in assisting reproductive health literacy. Further research can explore the impact of digital technology and social media in supporting mentoring programs, as well as examine the effectiveness of programs in the long term. In addition, further research can be conducted to identify the factors that influence the program's success in various other cultural and social contexts.

REFERENCES

- [1] United Nations, *THE 2030 AGENDA FOR SUSTAINABLE DEVELOPMENT*. United Nations, 2022. doi: 10.1007/978-3-031-07461-5_1.
- [2] S. and C. O. United Nations Educational, *Education for Sustainable Development Goals: learning objectives*. Paris, 2017. doi: 10.54675/cgba9153.
- [3] S. Gunawan and R. Rahmawati, "Hubungan Usia, Jenis Kelamin dan Hipertensi dengan Kejadian Diabetes Mellitus Tipe 2 di Puskesmas Tugu Kecamatan Cimanggis Kota Depok Tahun 2019," *ARKESMAS (Arsip Kesehat. Masyarakat)*, vol. 6, no. 1, pp. 15–22, 2021, doi: 10.22236/arkesmas.v6i1.5829.
- [4] E. Suharto, *Membangun masyarakat, memberdayakan rakyat: kajian strategis pembangunan kesejahteraan sosial dan pekerjaan sosial*. Bandung: Refika Aditama, 2005.
- [5] Nazmi, R. G, R. R, and Emytri, "Faktor-faktor yang Memengaruhi Literasi Kesehatan di Fasilitas Pelayanan Kesehatan: Systematic Review," *Pros. Semin. Nas. Penelit. dan PKM Kesehat.*, 2015.
- [6] A. G. Gabriel, M. De Vera, and M. A. Marc, "Roles of indigenous women in forest conservation: A comparative analysis of two indigenous communities in the Philippines," *Cogent Soc. Sci.*, vol. 6, no. 1, 2020, doi: 10.1080/23311886.2020.1720564.
- [7] B. Merina, A. Sholahuddin, and P. Sukowati, "The Empowerment of Indigenous Papuan Women Through Home-Based Industries: A Case Study in Papua, Indonesia," *Acad. J. Interdiscip. Stud.*, vol. 12, no. 5, pp. 38–48, 2023, doi: 10.36941/ajis-2023-0124.
- [8] A. Glaser, B., & Strauss, *The Discovery of Grounded Theory: Strategies for Qualitative Research*. Mill Valley: Sociology Press., 1967.
- [9] Sugiyono, *Metode Penelitian Kualitatif*. Bandung: Alfabeta, 2012.
- [10] World Health Organization (WHO), "WHO recommendations on adolescent sexual and

- reproductive health and rights," 2018.
<https://www.who.int/publications/i/item/9789241514606>
- [11] Presiden Republik Indonesia, "Undang Undang Republik Indonesia No 36 Tahun 2009 Tentang Kesehatan." Jakarta, 2009. [Online]. Available: <https://sireka.pom.go.id/requirement/UU-36-2009-Kesehatan.pdf>
- [12] Presiden Republik Indonesia, "Peraturan Pemerintah Nomor 61 Tahun 2014 tentang Kesehatan Reproduksi." Jakarta, 2014. [Online]. Available: <https://gizikia.kemkes.go.id/assets/file/pedoman/PP No. 61 Th 2014 ttg Kesehatan Reproduksi.pdf>
- [13] Menteri Kesehatan Republik Indonesia, "Peraturan Menteri Kesehatan Nomor 25 Tahun 2014 tentang Upaya Kesehatan Anak," *Kementerian Kesehatan RI*. 2014.
- [14] L. Khumalo, *Education and Training Needs Analysis*. Juta & Company Ltd, 1999.
- [15] L. Shaw, J. MacIsaac, and J. A. Singleton-Jackson, "The Efficacy of an Online Cognitive Assessment Tool for Enhancing and Improving Student Academic Outcomes," *Online Learn.*, vol. 23, no. 2, pp. 124–144, 2019, doi: 10.24059/olj.v23i2.1490.
- [16] P. Zanobini, M. Del Riccio, C. Lorini, and G. Bonaccorsi, "Empowering Sustainable Healthcare: The Role of Health Literacy," *Sustain.*, vol. 16, no. 10, pp. 1–12, 2024, doi: 10.3390/su16103964.
- [17] J. Noguera-Suquet, G. Reig-Garcia, and M. del C. Malagón-Aguilera, "El sentido de coherencia y las habilidades para la vida como factores protectores en personas con prediabetes," *Glob. Heal. Promot.*, vol. 30, no. 2, pp. 61–70, 2023, doi: 10.1177/17579759221117786.
- [18] Suharyani and W. Tamba, "Penerapan Model Participatory Rural Appraisal (PRA) Dalam Mewujudkan Program 'Membangun Desa' Dan 'Desa Membangun,'" *J. Transform.*, vol. 6, no. 2, pp. 116–132, 2020, [Online]. Available: <https://e-journal.undikma.ac.id/index.php/transformasi/article/view/3316/2270#>
- [19] S. Andari, "Peran Pekerja Sosial Dalam Pendampingan Sosial," *Sosio Inf. Kaji. Permasalahan Sos. dan Usaha Kesejaht. Sos.*, vol. 6, no. 2, pp. 92–113, 2020.
- [20] P. Siswantara, O. Soedirham, and M. Muthmainnah, "Remaja Sebagai Penggerak Utama dalam Implementasi Program Kesehatan Remaja," *J. Manaj. Kesehat. Indones.*, vol. 7, no. 1, pp. 55–66, 2019, doi: 10.14710/jmki.7.1.2019.55-66.
- [21] UNFPA and Save the Children, "Adolescent Sexual and Toolkit for Reproductive Health Humanitarian Settings: A Companion to the Inter-Agency Field Manual on Reproductive Health in Humanitarian Settings," *UNFPA Save Child.*, pp. 5–99, 2009.
- [22] S. Timotheou *et al.*, *Impacts of digital technologies on education and factors influencing schools' digital capacity and transformation: A literature review*, vol. 28, no. 6. Springer US, 2023. doi: 10.1007/s10639-022-11431-8.
- [23] W. Zhou, Z. Wang, F. Han, and L. Hong, "Chinese digestive surgery interns' learning quality and English reading proficiency during COVID-19 pandemic: Comparison between face-to-face versus WeChat teaching and learning," *Heliyon*, vol. 9, no. 2, p. e13434, 2023, doi: 10.1016/j.heliyon.2023.e13434.
- [24] R. Gómez-Cotilla, M. de los Ángeles López-De-Uralde-Selva, and L. Valero-Aguayo, "Efficacy of Early Intervention Programmes: Systematic Review and Meta-analysis," *Psicol. Educ.*, vol. 30, no. 1, pp. 1–10, 2024, doi: 10.5093/psed2024a1.
- [25] A. H. N and O. Kadarullah, "Pengaruh Informasi Media Massa Terhadap Pengetahuan Kesehatan Reproduksi Pada Siswa Sma Influence Of Massa Media Information On Reproductive Health Knowledge At Student School," *Psycho Idea*, vol. 14, no. 1, pp. 31–40, 2016, [Online]. Available: <https://jurnalnasional.ump.ac.id/index.php/PSYCHOIDEA/article/view/1574>
- [26] O. Udenigwe, F. E. Okonofua, L. F. C. Ntoimo, and S. Yaya, "Seeking maternal health care in rural Nigeria: through the lens of negofeminism," *Reprod. Health*, vol. 20, no. 1, pp. 1–12, 2023, doi: 10.1186/s12978-023-01647-3.

- [27] Kristiana Mendrofa, Alexius Poto Obe, and Wilman Berkat Jaya Hulu, "Penerapan Katekese Audio Visual Dalam Pengembangan Iman Umat Di Stasi St. Bonifasius Ombolata," *Pros. Semin. Nas. Pendidik. Dan Agama*, vol. 4, no. 1, pp. 358–364, 2023, doi: 10.55606/semnaspa.v4i1.378.
- [28] V. Chandra-Mouli, C. Lane, and S. Wong, "What does not work in adolescent sexual and reproductive health: A review of evidence on interventions commonly accepted as best practices," *Glob. Heal. Sci. Pract.*, vol. 3, no. 3, pp. 333–340, 2015, doi: 10.9745/GHSP-D-15-00126.
- [29] S. M. J. Rosen, N. Murray, "Sexuality Education in Schools: The International Experience and Implications for Nigeria.," Abuja, 12, 2004.
- [30] O. D. Somefun and C. Odimegwu, "The protective role of family structure for adolescent development in sub-Saharan Africa," *PLoS One*, vol. 13, no. 10, pp. 1–15, 2018, doi: 10.1371/journal.pone.0206197.
- [31] A. Nepal, S. K. Dangol, S. Karki, and N. Shrestha, "Factors that determine women's autonomy to make decisions about sexual and reproductive health and rights in Nepal: A cross-sectional study," *PLOS Glob. Public Heal.*, vol. 3, no. 1, pp. 1–15, 2023, doi: 10.1371/journal.pgph.0000832.
- [32] M. Mulyana, R. Harisyah Alam, and N. Alia, "Menerima Modernitas, Mempertahankan Tradisi Studi Layanan Pendidikan di Masyarakat Adat Kampung Urug, Kabupaten Bogor," *EDUKASI J. Penelit. Pendidik. Agama dan Keagamaan*, vol. 21, no. 3, pp. 315–330, 2023.
- [33] J. M. Kyilleh, P. T. N. Tabong, and B. B. Konlaan, "Adolescents' reproductive health knowledge, choices and factors affecting reproductive health choices: A qualitative study in the West Gonja District in Northern region, Ghana," *BMC Int. Health Hum. Rights*, vol. 18, no. 1, pp. 1–12, 2018, doi: 10.1186/s12914-018-0147-5.
- [34] C. Flinn, C. Koretsidou, and F. Nearchou, "Accessing Sexual Health Information Online: Content, Reasons and Practical Barriers in Emerging Adults," *youth*, vol. 3, no. 1, pp. 107–124, 2023, doi: 10.3390/youth3010007.
- [35] N. Suratman, L. Armijn, and A. Nur, "The level of compliance of type II diabetes mellitus patients in controlling blood sugar," *J. Ilm. Kesehat. Sandi Husada*, vol. 12, no. 2, pp. 481–487, 2023, doi: 10.35816/jiskh.v12i2.1126.
- [36] W. Mohammad and N. R. Maulidiyah, "Pengaruh Akses Internet Terhadap Aspek Kualitas Kehidupan Masyarakat Indonesia," *TriwikramaJurnal Multidisiplin Ilmu Sos.*, vol. 01, no. 02, pp. 30–45, 2023.
- [37] D. B. Kirby, B. A. Laris, and L. A. Roller, "Sex and HIV education programs: their impact on sexual behaviors of young people throughout the world," *J Adolesc Heal.*, vol. 40, no. 3, pp. 206–217, 2007.
- [38] C. O. Airhihenbuwa, J. . Iwelunmor, C. J. Ezepue, N. J. Williams, and G. Jean-Louis, "I sleep, because we sleep: a synthesis on the role of culture in sleep behavior research," *Sleep Med.*, vol. 18, no. February, pp. 67–73, 2016, doi: <https://doi.org/10.1016/j.sleep.2015.07.020>.
- [39] R. W. Blum, F. I. Bastos, C. W. Kabiruc, and L. C., "Adolescent health in the 21st century," *Lancet*, vol. 379, no. 9826, pp. 1567–1568, 2012.
- [40] R. J. DiClemente, L. F. Salazar, and R. A. Crosby, *Health Behavior Theory for Public Health*. Burlington: Jones & Bartlett Learning, 2013. [Online]. Available: http://samples.jbpub.com/9780763797539/97539_FMXX_Final.pdf
- [41] C. S. Skinner, J. Tiro, and V. L. Champion, "The Health Belief Model," in *Health Behavior: Theory, Research, and Practice*, Glanz, B. Jossey-Bass, 2015, p. 21. [Online]. Available: https://www.researchgate.net/publication/332446988_Skinner_CS_The_Health_Belief_Model/link/5cb603e04585156cd79d8f67/download?_tp=eyJjb250ZXh0Ijp7ImZpcnN0UGFnZSI6InB1YmxyY2F0aW9uIiwicGFnZSI6InB1YmxyY2F0aW9uIn9 (Accessed on

- May 12, 2022)
- [42] N. D. Brewer, N. T., Chapman, G. B., Gibbons, F. X., Gerrard, M., McCaul, K. D., & Weinstein, "Meta-analysis of the relationship between risk perception and health behavior: The example of vaccination," *Heal. Psychol.*, vol. 26, no. 2, pp. 136–145, 2007, doi: <https://doi.org/10.1037/0278-6133.26.2.136>.
 - [43] J. Prochaska and W. F. Velicer, "The Transtheoretical Model of Health Behavior Change," *Am. J. Heal. Promot.*, vol. 12, no. 1, pp. 38–48, 1997, [Online]. Available: [10.4278/0890-1171-12.1.38](https://doi.org/10.4278/0890-1171-12.1.38)
 - [44] M. H. B. N K Janz, "The Health Belief Model: a decade later," *Health Educ. Q.*, vol. 11, no. 1, pp. 1–47, 1984, doi: [10.1177/109019818401100101](https://doi.org/10.1177/109019818401100101).
 - [45] R. Orji, J. Vassileva, and R. Mandryk, "Towards an Effective Health Interventions Design: An Extension of the Health Belief Model," *Online J. Public Health Inform.*, vol. 4, no. 3, 2012, doi: [10.5210/ojphi.v4i3.4321](https://doi.org/10.5210/ojphi.v4i3.4321).
 - [46] S. M. Noar, M. Chabot, and R. S. Zimmerman, "Applying health behavior theory to multiple behavior change: Considerations and approaches," *Prev. Med. (Baltim.)*, vol. 46, no. 3, pp. 275–280, 2008.
 - [47] A. Bandura, "Social Cognitive Theory: An Agentic Perspective," *Annu. Rev. Psychol.*, vol. 52, pp. 1–26, 2001.
 - [48] L. S. Vygotsky and M. Cole, *Mind in Society: Development of Higher Psychological Processes*. Harvard University Press, 2016.
 - [49] D. . Kolb, *Experiential learning: Experience as the source of learning and development*, 2nd ed. Pearson FT Press, 2015.
 - [50] J. Mezirow, "Transformative Learning Theory," in *The handbook of transformative learning: Theory, research, and practice*, Taylor & P.Jossey-Bass., 2018.
 - [51] E. Lave, J., & Wenger, *Situated learning: Legitimate peripheral participation*. Cambridge University Press., 2019.