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Identifying the Reproductive Health Needs of Young Women: The GLOW (Girls Learning about Women's Health) Program Perspective

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Abstract **Background:** According to the World Health Organization (WHO), young women in low and middle income countries experience significant knowledge gaps about reproductive health. In Indonesia, studies have shown that young women are unable to access adequate comprehensive reproductive health education. The GLOW program was established to address this challenge by providing accurate reproductive health education to young women. However, little is known about the specific needs and experiences of young women in relation to the program. This study aims to identify and explore young women's reproductive health needs through the GLOW Program. **Materials and methods:** Data were collected through semi-structured interviews with 50 young women aged 14-18 years who participated in the GLOW program perspective. **Results:** On average, 50% of young women very rarely get information about reproductive health; on average, 50% of young women are not comfortable when discussing it in class, because there are friends with different genders in the classes and reproductive health is a private matter, especially for young women who really need a program in schools in the form of reproductive health education that could form understanding and be interesting. **Conclusion:** Reproductive health programs for young women are an important part of health promotion efforts and need to be developed according to the needs of young women. Based on the findings above, there are several important points that need to be studied in the context of services needed by young women in increasing knowledge, attitudes, beliefs, awareness, and reproductive health practices.

Keywords Identifying, Health Reproduction, Young Women, Health Education, Health Program

1. Introduction

Reproductive health is a critical aspect of young women's well-being, as it impacts their overall physical, mental and social health. The reproductive health issues faced by young women around the world are diverse, ranging from a lack of knowledge about contraception, and sexually transmitted infections (STIs), to challenges in accessing adequate health services. According to the World Health Organization (WHO), more than 200 million women in developing countries have unmet needs for modern contraception, leading to high rates of unintended pregnancies and increased health risks for young women [1]. In Indonesia, research shows that young women often face difficulties in obtaining accurate information about sexual and reproductive health, and experience social stigma that limits their ability to seek help or medical services for these issues [2].

Additionally, a report from the United Nations

Population Fund (UNFPA) highlights that social and cultural stigmas around reproductive health topics such as menstruation, contraception and sexually transmitted infections make many young women feel embarrassed or afraid to talk about their health issues [3]. This phenomenon is further exacerbated by limited access to health services in many areas, especially in rural areas that lack adequate health facilities [4]. This contributed to young women's low understanding of the importance of reproductive health and prevention of sexually transmitted diseases.

In response to these challenges, the GLOW (Girls Learning about Women's Health) Program has been developed to provide comprehensive, locally-based reproductive health education to young women. The program aims to provide better knowledge about menstrual health, contraception, STI prevention, and reduce social stigma related to reproductive health [3]. Although the program has shown positive impacts, there is insufficient research that examines in depth the specific needs of young women involved in the program. Therefore, this study aims to identify and explore the reproductive health needs of young women through the perspectives of GLOW Program participants, as well as identify the challenges they face in obtaining adequate health information and services.

2. Materials and Methods

2.1. Study Design And Sample Size

This study used a qualitative research design to explore and understand the reproductive health needs of young women participating in the GLOW (Girls Learning about Women's Health) Program. A qualitative approach was chosen because it allows for an in-depth understanding of participants' personal experiences, challenges, and perceptions regarding reproductive health. Semi-structured interviews were chosen as the primary data collection method, as this method allows participants to express their views freely, while also allowing the researcher to explore the reproductive health needs of young women.

The sample size in this study consisted of 50 young women aged 14-18 years who had participated in the planning of the GLOW program at Muhammadiyah High School 1 Semarang Indonesia. This sample was selected using a purposive sampling method, where participants were selected based on their direct involvement in the program and their ability to provide relevant insights into the research questions. This sample size was considered sufficient based on the principle of data saturation, which is the point at which additional interviews no longer produce new information [5].

2.2. Variables

Variables were analyzed to identify key themes and patterns in participants' experiences. The main variables explored in this study were:

1. Understanding and sources of reproductive health information: this theme explores the extent to which young women understand aspects of reproductive health, including knowledge about menstruation, contraception, sexually transmitted diseases (STDs), and sexual health in general. It also explores the sources of information they rely on to obtain this knowledge.
2. Learning needs and preferences: this theme identifies the types of learning and approaches that young women want in relation to reproductive health. In this regard, it is important to know how they prefer to receive information and the types of materials they find useful and relevant to their needs.
3. Engagement and support: This theme focuses on the extent to which young women feel supported in gaining knowledge and accessing reproductive health services. It covers external engagement in providing necessary support, as well as the role of health facilities in providing accessible and reliable services.

2.3. Data Analysis

Data analysis in this study used a thematic analysis approach, which is commonly used in qualitative research to identify, analyze, and report patterns or themes in data [6]. The following steps were taken to analyze the data:

1. Familiarization with Data: After the interviews were transcribed verbatim, the researcher read the data several times to gain an initial understanding of the participants' responses.
2. Coding: Researchers assign codes to text segments that are considered to represent meaningful units related to the research question. These codes are derived deductively (based on the research objectives) and inductively (emerging from the data itself).
3. Theme Development: After coding, researchers grouped similar codes into themes. These themes were then refined iteratively as the analysis process progressed.
4. Validation: To ensure the reliability of the findings, member checking was conducted by returning transcripts to participants to verify the accuracy of their responses. In addition, peer debriefing with a colleague was conducted to confirm the findings and interpretations produced.
5. Interpretation: The final stage of the analysis was to interpret the identified themes in relation to the research objectives. The researcher sought to provide a comprehensive understanding of young women's reproductive health needs through the perspective of the GLOW Program.

This research has been deemed ethically sound by the Faculty Nursing And Health Universitas Muhammadiyah

Semarang Ethics Committee (No.670/KE/09/2024).

3. Results

Based on data in table 1, the maximum age is 15 years old, as many as 21 people (42%); the minimum age is 14 years old, as many as 2 people (4%).

Table 1. Characteristics of Research Informant Respondents

Age	Frequency	%
14 years	2	4
15 years	21	42
16 years	15	30
17 years	9	18
18 years	3	6
Total	**50**	**100**

Source: Primary Data, 2024

a Understanding and Sources of Reproductive Health Information

1) How often do you get information about reproductive health?

The relationship between understanding and the frequency of accessing reproductive health information sources in obtaining reproductive health information. On average, 50% of women (adolescent girls) mostly still do not often and very rarely get information about reproductive health. The study is based on the quotes of the answers of several women/adolescent girls as follows:

"...information related to understanding reproductive health, I feel like I don't often get this information..." (R4, 16 years old)

"...I feel like I rarely get information about reproductive health so far..." (R15, 14 years old)

2) Where do you usually get information about reproductive health? (Examples: teachers, internet, friends, parents)

Women/adolescent girls get reproductive health information on average around 60% answered through the internet alone, but 40% answered a combination of the internet, teachers, friends and parents. The following are quotes from women/adolescent girls:

"...I usually get reproductive health information more through the internet..." (R7, 16 years old)

"...so far I have mostly done it via the internet, but sometimes I also ask friends..." (R33, 15 years old)

3) Do you think the information you got was enough? Why or why not?

Responses of women or young women who received information related to reproductive health. The average responses of women or young women, the majority of 35 women or young women, 65% felt that it was not enough and felt that they still had difficulty in understanding the relationship between reproductive health. In accordance with the following answers excerpt:

"...not enough because sometimes it is still difficult to understand..." (R7, 15 years old)

"...I feel inadequate, because I don't get detailed and in-depth information..." (R19, 16 years old)

b Learning Needs and Preferences

1) What topics would you like to learn more about reproductive health?

Responses from women or young women generally answered specific topics that they wanted to learn more about reproductive health that were considered very necessary for women or young women, such as the relationship between the menstrual process, vaginal discharge, how to care for the genitals, the risks of not taking good care of reproductive health, sexually transmitted diseases and the reproductive process. The following are excerpts from the answers from women/young women:

"...I really need information related to how to care for reproductive organs regarding diseases and prevention that can attack reproduction..." (R21, 15 years old).

"…I want to know about the smoothness and everything about menstruation..." (R33, 16 years old).

"…I want to know about how to avoid diseases that will arise in reproduction…" (R47, 15 years old)

2) How do you prefer to learn? (Examples: group discussions, teacher presentations, educational videos, reading materials)

Among women or young women, approximately 80% prefer learning methods that include presentations with explanations, combined with educational videos and books. This combination makes learning about reproductive health more engaging and less monotonous. The appropriate quotes from the answers of women or young women are as follows:

"...in every delivery of reproductive health information, it will be more interesting in the form of educational videos and reading materials that are easy to understand..." (R5, 14 years old).

"...I prefer it if it is delivered through educational videos, readings and presentations..." (R9, 15 years old).

3) Do you feel comfortable discussing reproductive health in class? If not, why not?

The connection that young women about the comfort of discussing reproductive health in class. On average, 50% of women or young women feel uncomfortable when discussing in class, because there are friends with different genders, namely men and reproductive health is a private matter, especially for women or young women. In accordance with the following quotes:

"...not comfortable, because when discussing it in class the boys' responses are unpleasant and not very comfortable..." (R4, 15 years old).

"…uncomfortable, because for me it is a private matter that male students should not know about..." (R11, 16 years old).

c Engagement and Support

1) How important do you think reproductive health education in schools is?

The relationship between how important information about reproductive health is in schools. The majority of almost all young women said it was very important, because it would provide insight and increase understanding in maintaining reproductive health. According to the following quotes:

"...very important because we could learn more about reproductive health..." (R2, 15 years old).

"…very important, because reproductive health is needed to keep our bodies healthy and well maintained. Therefore, we need to get more education about reproductive health in order to gain more insight..." (R17, 16 years old).

"…it is very important, because among young girls who will later become adult women, reproductive health will be important and important to be aware of…" (R48, 15 years old)

2) What can schools do to improve your understanding of reproductive health?

On average, women or young women think that around 60% of schools can do to improve their understanding of reproductive health by having a comprehensive curriculum involving health experts and through educational media in the form of videos with detailed explanations. In accordance with the following answers:

"...schools can provide a comprehensive curriculum involving health experts, interactive approaches and open discussions..." (R27, 15 years old).

"…providing understanding and learning through educational videos to women..." (R41, 16 years old).

"…providing educational videos, providing explanations about reproductive health…" (R48, 15 years old)

3) Do you have suggestions or ideas for reproductive health education programs in schools?

On average, some young women have suggestions that there is a need for programs in schools with the form of reproductive health education that can be through seminars and form of understanding with educational videos to make it interesting. In accordance with the following answer quotes:

"...suggestions can be made in the form of reproductive health programs in schools with materials that are appropriate to women's needs..." (R24, 15 years old).

"...Reproductive health programs in schools are delivered in collaboration with competent health workers..." (R40, 15 years old).

"...a program in the form of seminars and educational videos about understanding reproductive health..." (R42, 15 years old).

In-depth interviews have been conducted with young women regarding their needs analysis, resulting in several conclusions that can be drawn and are shown below:

a Understanding and Sources of Reproductive Health Information:

1. On average, 50% of young women mostly still do not often and very rarely get information about reproductive health.
2. On average, around 60% answered via the internet alone, but 40% answered a combination of the internet, teachers, friends and parents.

b Learning Needs and Preferences:

1. On average, they answered specific topics that they wanted to learn more about reproductive health that was considered very necessary for young women, such as the relationship between the menstrual process, vaginal discharge, how to care for genital organs, the risks of not taking good care of reproductive health, sexually transmitted diseases and the reproductive process.
2. On average, 80% want a presentation format with explanations and combined with educational videos and books so that it is not boring and interesting when delivered in understanding reproductive health.
3. On average, 50% of young women feel uncomfortable when discussing in class, because there are friends of the opposite gender, namely men, and reproductive health is a private matter, especially for young women.

c Involvement and Support:

1. The majority of almost all young women said it was very important, because it would provide insight and increase understanding in maintaining reproductive health.
2. The average young woman, about 60%, believes that what schools can do to improve understanding of reproductive health is to have a comprehensive curriculum involving health experts and through educational media in the form of videos with detailed explanations.

4. Discussion

Knowledge about reproductive health was the main foundation for building a correct understanding of the body and health. This knowledge helps young women understand the function of the reproductive organs, the

importance of hygiene, and the risks of sexually transmitted diseases [7].

Lack of knowledge is a major barrier for young women. This often occurs due to minimal exposure to reproductive health information from both formal and informal media. Information provided sporadically without a systematic education program also results in a lack of repetition, making it difficult to reinforce information. In reproductive health education, an approach based on repetition and interaction has proven effective in increasing understanding [8].

Positive attitudes towards reproductive health could be formed through structured education. These attitudes reflect adolescents' views and acceptance of the importance of maintaining reproductive health. Positive attitudes were often predictors of good health practices [9].

Attitudes towards reproductive health were influenced by the social, cultural, and educational environment. Young women who show fewer positive attitudes often need motivation from the community/ society, especially family and school, to be more proactive in maintaining reproductive health. Community-based interventions involving families and teachers are effective in increasing positive attitudes towards reproductive health [9].

Young women's beliefs about their ability to maintain reproductive health, such as confidence in using hygienic products or accessing health services, are influenced by education and experience [3].

Awareness of the importance of reproductive health was often the starting point for behavioral changes. Programs such as GLOW raised awareness through participatory approaches, including group discussions and simulations [10].

Access to accurate and reliable sources of information was essential. GLOW provided information through health workers, educational modules, and digital media to ensure accessibility and accuracy.

Lack of confidence in the accuracy of the information received, especially from the internet, indicates the need for validation of information sources. Young women need trusted educational media, such as evidence-based practice materials or direct training from health workers [8]. Evidence-based training can increase confidence and trust in the information received. Awareness of the importance of reproductive health was often still low because young women did not have the relevant context or experience for the information. Awareness can be increased through a personalized approach to information, such as through role-playing or interactive simulations [11].

Reliance on one type of media, such as the internet, can lead to adolescents receiving invalid or unbalanced information. Increasing access to trusted sources, such as school health clinics or verified health education apps, is important to provide alternatives to more accurate information [12]. Young women often needs clear and practical guidance on how to care for their reproductive health. Skill-based training that covers aspects of reproductive hygiene and an introduction to bodily functions can greatly improve their ability to maintain reproductive health [13].

Support from family, teachers, and the community was essential in encouraging reproductive health practices. A supportive environment provided additional motivation for adolescent girls to maintain their health [14].

This participatory learning could increase their understanding, motivate them to seek further information, and create a sense of comfort in discussing taboo topics such as reproductive health. WHO (2020) suggests that health education based on experience and active participation of adolescents is more effective than methods that are only lecture-based. With this approach, young women will feel more empowered to make better decisions about their reproductive health [15].

Reproductive health service programs for young women were an important part of health promotion efforts. Based on the findings above, there are several important points that need to be studied in the context of existing services, ranging from knowledge, attitudes, beliefs, and awareness, to the support provided. Accessibility of reproductive health services for young women was often still limited, especially in rural areas or communities with limited access to information. Most services were only available at health facilities such as health centers, clinics, or hospitals, which tend to be rarely used by young women. School-based services, such as counseling and education from teachers or counselors, are often inadequate or unsystematic. These limitations could prevent young women from understanding reproductive health comprehensively [16].

Practices such as maintaining menstrual hygiene, utilizing health services, and avoiding risky sexual behavior are the main goals of the program. Practice-based interventions, such as training, have been shown to be effective in improving healthy behaviors [17].

Reproductive health education was often carried out sporadically, without a consistent curriculum. Educational programs in schools rarely touch on sensitive topics such as contraception, menstruation, or self-protection from sexual violence. It could be due to the teachers not being comfortable or not being trained properly to teach these sensitive topics. Training of school reproduction health counsellors in schools and the community with peer programmes can be effective. Young women more often access information from the internet, which has the potential to provide inaccurate information [18]. The role of teachers and schools in supporting reproductive health programs Teachers had the great potential as agents of change in reproductive health education. However, studies show that most teachers feel less confident in delivering reproductive health materials due to lack of special training [19]. Utilization of digital technology for reproductive health information Digital technology, such as health applications or social media, was the main source of information for young women. However, information found on the internet was often unverified, which could

lead to misinformation [20]. Availability of reproductive health counseling and examination services Reproductive health counseling and examination services are often not utilized by adolescent girls, mainly due to the lack of information about the availability of these services and the stigma attached to them [16]. Mass media can play an important role in public education to reduce the stigma associated with school health reproduction topics. Improving reproductive health practices, young women had limited knowledge about reproductive health care practices, including menstrual hygiene and reproductive organ care. Skill-based training was an effective method to improve those abilities [16].

5. Conclusions

Reproductive health service programs for young women are an important part of health promotion efforts and need to be developed according to the needs of young women. Based on the findings above, there were several important points that needed to be studied in the context of services needed by young women in improving knowledge, attitudes, beliefs, awareness, and reproductive health practices. The ultimate goal is not only to improve young women's health outcomes but also to empower them to make informed decisions, reduce the risks of health issues, and create a society where they can fully participate in all aspects of life, confident in their health and well-being. By focusing on the specific needs of young women, GLOW programs can significantly contribute to the broader goal of improving reproductive health and overall quality of life for future generations.

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Conflict of Interest

We declare that there are no conflicts of interest in this research.

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