



Description of Internet-based Information on Sexual and Reproductive Health and rights (SRHR) in High Schools

Via Afriyatin[✉], Oktia Woro Kasmini Handayani, Sofwan Indarjo

Department of Public Health, Faculty of Medicine, Universitas Negeri Semarang, Indonesia

Article Info

Article History:

Submitted

17 July 2025

Revised

31 July 2025

Accepted

29 August 2025

Keywords:

Health Information, Internet, Sexual and Reproductive Health and Rights (SRHR)

DOI:

<https://doi.org/10.15294/phpj.v9i2.29852>

Abstract

The internet has become an essential source of information for adolescents, especially when it comes to accessing information about reproductive and sexual health. However, inadequate access to accurate reproductive and sexual health information, minimal parental supervision, and a culture that considers sexuality a taboo topic make adolescents vulnerable to misinformation and risky behavior. The absence of sex education in schools and limited access to reproductive health services further exacerbate this problem. On the other hand, the SDG 2030 target emphasizes universal access to reproductive health information and services. This study focuses on how high school students understand and evaluate reproductive and sexual health information from the internet and the factors that influence their access and interpretation. This study uses a qualitative approach with a case study design. Informants were selected using purposive sampling and snowball sampling techniques. The research subjects were students from SMK X and SMA Y Semarang. In this study, saturation was achieved in the 10th interview with the primary informants (students aged 15-19 years) with an interview duration of 30-45 minutes per informant. In addition, there were four triangulations of teachers and two triangulations of close friends. Data analysis was performed using thematic analysis with NVivo 12 software. The results show that the internet is the primary source of reproductive and sexual health information for adolescents, but their ability to sort information is still limited. Cultural barriers, conservative norms, and generational gaps hinder open communication, while family and school support remain weak. There is a need to integrate SRH material into the curriculum, train teachers, and improve adolescents' digital literacy through collaboration between families, schools, and communities.

[✉]Correspondence Address:

Kampus UNNES Jl Kelud Utara III, Semarang, 50237, Indonesia

E-mail: viaafriyatin1436@students.unnes.ac.id

p-ISSN 2528-5998

e-ISSN 2540-7945

INTRODUCTION

The WHO defines adolescents as individuals in the 10-19 age group. Approximately 1.3 billion (16%) of the world's population are adolescents. About 17% of the total population in Indonesia falls into this category. (WHO, 2024). During adolescence, individuals begin dating. (Batubara, 2016). Dating is a common behavior among adolescents that may involve sexual contact, ranging from touching, kissing, and fondling sensitive areas to sexual intercourse. The 2017 SDKI survey found that 55.6% of unmarried adolescent girls (aged 15–19) had held hands, 10.2% had hugged, 21.4% had kissed, 3.7% had touched or been touched, and 0.9% had experienced premarital sexual intercourse (BKKBN et al., 2017).

The SDG target for reproductive and sexual health by 2030 is to ensure universal access to reproductive and sexual health services, including family planning, information and education, and integrating reproductive health into national strategies (WHO, 2024b).

According to a World Bank Group report, internet users worldwide have reached 5.5 billion (68%) (International Telecommunication Union (ITU), 2025). The Indonesian Internet Service Providers Association (APJII) announced that the number of internet users in Indonesia in 2024 will reach 79.5%, an increase of 1.4% compared to the previous period (APJII, 2024). According to data from the Central Statistics Agency (BPS), the proportion of individuals using the internet in Central Java in 2019 increased compared to 2019 (BPS, 2023). The percentage of people aged 5 years and above who accessed the internet per month in February 2021 in Semarang reached 83.45% (BPS Jawa Tengah, 2022).

Internet addiction can affect information-seeking behavior, including about sexual and reproductive health. According to the 2017 Indonesian Demographic and Health Survey, adolescents are more vulnerable to engaging in risky sexual behavior than adults (BKKBN et al., 2017). In 2020, an estimated 374 million new sexually transmitted infections (STIs) occurred globally among individuals aged 15-49 years. In addition, global HIV cases increased in 2023 compared to 2022, with the highest burden

occurring in those aged 15 years and above (WHO, 2023, 2024, 2025).

According to data from the Central Java Province HIV/AIDS Program in 2023, the number of HIV/AIDS cases and deaths in Central Java Province from 2019 to 2023 has increased (Dinkes Provinsi Jawa Tengah, 2023). From 2010 to 2014, the PILAR PKBI Central Java Youth Center reported 65-85 consultations per year related to STIs, with most cases involving secondary school students aged 15-18 years (PKBI Jawa Tengah, 2015).

In 2023, Semarang City recorded the highest number of new HIV cases in Central Java (684), mainly among the productive age group, with a notable increase among adolescents aged 15-19 years (Dinkes Kota Semarang, 2021, 2022, 2023)

Adolescents' reproductive rights are hampered by a lack of knowledge about sexuality, limited information and access to services, and prevailing negative attitudes and discrimination. However, Indonesian law, particularly Government Regulation No. 61 of 2014 on Reproductive Health (Articles 11-12) and its implementing guidelines for Adolescent Reproductive Health Services (PKRR), guarantees adolescents' right to accurate information and services (Hapsari, 2019; PP No. 61, 2014). Implementing policies such as Adolescent Reproductive Health Education (PKRR) still faces challenges, including limited dissemination of information and difficulties for adolescents accessing friendly and inclusive reproductive health services (Dungga & Ihsan, 2023).

In this context, the internet has become a significant source of information, with approximately 41% of women and 32% of men learning about HIV/AIDS from this platform (BKKBN et al., 2017). However, unstable internet access, lack of parental supervision, and lack of education in schools about reproductive health and the dangers of premarital sex contribute to low self-control among adolescents (Fa'ida & Noorizki, 2023; Hastuti et al., 2024).

The internet's role in adolescents' lives is crucial because it provides them with a space to build experiences and explore essential issues such as independence, identity formation, and

understanding of sexuality (Borca et al., 2015). However, excessive and uncontrolled internet use can cause negative impacts and increase vulnerability to various psychosocial risks (Andrade et al., 2020). Sexuality is often considered a taboo topic that is inappropriate to discuss openly, especially within the family and community (Porter, 2019; Shaikh & Ochani, 2018). Lack of school education, limited access to information, and environmental factors contribute to adolescents' deficit of reproductive health information (Ruan et al., 2021; Yillah et al., 2025). This situation increases the risk of sexually transmitted diseases (STDs), unwanted pregnancies, early marriage, abortion, and mental health problems (Kemenkes RI, 2022).

Research by Thalita (2020) shows that adolescents often feel awkward seeking information and tend to obtain it from friends, the media, or parents. Misperceptions and a lack of understanding of sex education have also been identified as triggers for promiscuous behavior, with the internet contributing to an increase in premarital sex (Fa'ida & Noorrizki, 2023). So far, research on SRHR among adolescents has used chiefly quantitative approaches, such as surveys on knowledge levels or risky behaviors. Meanwhile, qualitative studies that explore how students obtain, interpret, and use SRHR information from the internet are still minimal. In a study by Ijeoma J. (2018) entitled Use of the Internet as a source for reproductive health information seeking among adolescent girls in secondary schools in Enugu, Nigeria, a quantitative study focused on women only. This emphasizes the need for a more in-depth discussion of adolescent sexual reproductive health information sourced from the internet.

A preliminary study conducted at SMK X and SMA Y in Semarang City shows that access to smartphones and the internet is widespread, coupled with a lack of comprehensive information on reproductive and sexual health. Currently, KRS (Reproductive and Sexual Health) education is still limited to the topic of HIV/AIDS in the Physical Education and Health curriculum. This highlights the need for further research in Semarang to explore adolescents' perceptions of SRH information sourced from the internet in senior high schools (SMA).

Based on this background, the researcher chose Lawrence Green's theory through the PRECEDE model because this model is considered relevant and appropriate for understanding adolescent behavior towards reproductive and sexual health (KRS) in internet use. How do adolescents interpret and evaluate the information about reproductive and sexual health they receive online.

METHOD

This study uses a qualitative approach with a case study design. The researcher chose the case study approach because they wanted to explore in greater depth the description of Internet-based information on reproductive and sexual health and rights (SRHR) in high schools. The researcher had no prior personal relationship with the participants. This minimized potential relational bias while creating a supportive professional relationship during interviews through an empathetic and non-judgmental approach. Because this topic is sensitive, the researcher's position as a facilitator of safe and comfortable dialogue was critical so informants felt free to express their opinions.

Informants were selected using purposive sampling and snowball sampling techniques. The data collection techniques used included in-depth interviews and documentation. Interviews were conducted once for each participant with an average duration of 30-60 minutes, with the possibility of additional sessions as a form of member check. The interview was conducted face-to-face in a special room provided by the school. The interview atmosphere was designed to be semi-formal so that participants felt comfortable but still focused. Moreover, the researcher used an interview guide (topic guide) developed by combining aspects of Lawrence Green's theory and the research problem formulation covering themes regarding adolescents' understanding of KRS, attitudes towards sexual phenomena, challenges and obstacles, social roles, and perceived impacts.

The data collection technique used was in-depth interviews and searching for and collecting the necessary data from various types and forms of existing data. The tools used in the research

Table 1. Distribution of Qualitative Research Subjects

| Research Subject Characteristics | DISTRIBUTION | | | |
|--|--------------|-------------|----------|-------------|
| | SMA Y | | SMK X | |
| | n | % | n | % |
| MAIN INFORMANTS | | | | |
| Age | | | | |
| ≤16 Years Old | | | 2 | 33,3 |
| 17 Years Old | 3 | 75 | 3 | 50 |
| 18 Years Old | 1 | 25 | 1 | 16,7 |
| ≥19 Years Old | | | | |
| Gender | | | | |
| Male | 2 | 50 | 6 | 100 |
| Female | 2 | 50 | | |
| Grade | | | | |
| X (Ten) | | | 2 | 33,3 |
| XI (Eleven) | 2 | 50 | 3 | 50 |
| XII (Twelve) | 2 | 50 | 1 | 16,7 |
| Total Informants | 4 | 100% | 6 | 100% |
| TEACHER TRIANGULATION INFORMANTS | | | | |
| Lama Mengajar | | | | |
| 1 – 10 Years Old | 1 | 50 | 1 | 50 |
| 11 – 20 Years Old | | | 1 | 50 |
| 20 – 30 Years Old | 1 | 50 | | |
| Gender | | | | |
| Male | 2 | 100 | 1 | 50 |
| Female | | | 1 | 50 |
| Position | | | | |
| Guidance Counselor | 1 | 50 | | |
| Physical Education Teacher | 1 | 50 | | |
| Islamic Education Teacher | | | 1 | 50 |
| Public Relations Teacher | | | 1 | 50 |
| Total Informants | 2 | 100% | 2 | 100% |
| CLOSE FRIEND TRIANGULATION INFORMANTS | | | | |
| Gender | | | | |
| Male | 2 | 100 | | |
| Female | | | | |
| Age | | | | |
| 17 Years Old | 1 | 50 | | |
| 18 Years Old | 1 | 50 | | |
| Total Informants | 2 | 100% | | |

included recordings, notebooks, and pens. Member checks and source triangulation were carried out to obtain the findings' validity. The researcher conducted phased interviews accompanied by preliminary analysis to identify themes and patterns. The process continued until additional interviews no longer provided new information, so the data was declared saturated at the 10th informant and the 4th triangulation informant. This study applied data reduction through thematic analysis using the NVivo 12 Pro program. First, the interview results were transcribed verbatim (word for word according to the participants' statements). The transcripts were then imported into NVivo for analysis. Next, the researcher read the data thoroughly and coded it by marking relevant text passages. Similar codes were grouped into themes and sub-themes using the nodes feature in NVivo. After that, the themes were reviewed and refined using tree node visualizations. The final stage was to interpret and compile the formed themes in a research report.

The subjects of this study were students of SMK X and SMA Y in Semarang. There were six primary informants from SMK X and four from SMA Y with the following criteria: Aged 15-19 years old, Residing in Semarang City, Active students at SMK X and SMA Y in Semarang City, Informants have communication devices (mobile phones/computers/laptops), Have accessed reproductive and sexual health information from the internet, Willing to participate in the study, Able to communicate well and be cooperative. Meanwhile, triangulation includes teachers and close friends of the informants.

The criteria for teachers included: 1) Teachers who teach at SMK X and SMA Y and have been teaching at the school for at least 1 year, 2) Guidance/ Religion/ Public Relations/Physical Education teachers, and 3) Willing to be research informants. Meanwhile, the criteria for students' close friends include: 1) Close friends of the primary informants, 2) Willing to be research informants.

The research procedure to be carried out has three stages, including:

1) Data Collection Stage

The researcher determines the informants through purposive sampling based on specific criteria and snowball sampling by recruiting initial informants who then recommend other informants. After obtaining approval through a consent form, in-depth interviews are conducted with students as the primary informants and teachers as triangulation informants. The instruments used include writing tools and voice recorders.

2) Data Analysis Stage

Data from recordings and notes were transcribed and then reduced using NVivo 12 Pro software with a deductive and inductive approach through open coding to conclude.

3) Reporting Stage

The researcher compiled a final report based on the field findings.

This research was conducted by a female Master of Public Health student from the Faculty of Medicine, Semarang State University, with an S.K.M. educational background. The researcher had experience in qualitative research at the undergraduate level, had received training in research methodology and ethics, and had participated in data analysis training using NVivo 12 Pro.

adolescents. The researcher had no personal relationship with the informants, thereby minimizing bias. Potential bias due to academic background was addressed by maintaining neutrality through semi-structured interview guidelines, data triangulation, and discussion of the results with the supervisor.

RESULTS AND DISCUSSIONS

The results of the interview-based study revealed four aspects considered in describing reproductive and sexual health information from the internet among adolescents based on the research objectives.

1. Teenagers' Knowledge about SRH

A) Definition of SRH

Interviews with key informants at SMK X and SMA Y showed that teenagers generally understand the basics of reproductive health, such as puberty, organ hygiene, and sexually transmitted diseases. However, their knowledge is still limited and not in-depth, even though understanding is an important basis for shaping a person's views.

"One of the causes of disease is HIV/AIDS" (A-1)

"Sexually transmitted diseases such as HIV/AIDS, puberty such as menstruation and wet dreams" (A-6)

"Relationships between individuals, especially between opposite sexes" (A-7)

"Reproduction itself is one of the human reproductive organs for producing children, right? Health itself is more about maintaining the reproductive organs so they do not get sick or in poor condition" (A-10).

In addition, a gap in understanding was found among several informants who did not know the meaning of reproductive and sexual health, as seen in informants 2, 3, and 5 statements.

"What is it, I do not know" (A-2, A-3, A5).

This finding is in line with Firdaus et al., (2023), who stated that most adolescents do not fully understand the term "reproductive health," even though some are familiar with certain aspects, such as PMS. Adolescents with good

Table 3. Characteristics of Triangulation Informants

| No | Code | Gender | School | Position |
|----|------|--------|--------|----------------------------|
| 1 | IT-2 | L | SMA Y | Physical Education Teacher |
| 2 | IT-3 | L | SMA Y | Guidance Counselor Public |
| 3 | IT-4 | P | SMK X | Relations Teacher Islamic |
| 4 | IT-5 | L | SMK X | Education Teacher |
| 5 | IT-6 | L | SMK X | Close Friend (Student) |
| 6 | IT-7 | L | SMK X | Close Friend (Student) |

Before the interviews, the researcher explained the purpose of the study, which was to explore information on the internet regarding reproductive health and sexual rights among

self-esteem tend to be able to convey information accurately based on the knowledge they have acquired through education or relevant scientific sources (Safitri, 2021).

The limited understanding of adolescents regarding reproductive and sexual health indicates the need for stronger and more comprehensive education tailored to their needs. To improve literacy in this area, it is important to convey relevant, age-appropriate information through media that is easily accessible to adolescents. In this way, adequate knowledge is expected to shape healthier and more responsible attitudes towards issues related to reproductive and sexual health.

This was also conveyed by a teacher at SMK X as a triangulation source who stated that adolescents do not receive enough information about reproductive and sexual health at school.

"Judging from several of our students who have been interviewed, it seems that they lack a deep understanding of their reproductive and sexual health. Teenagers are also less open about this issue with their teachers. We also realize that teenagers lack information about reproductive and sexual health. (IT-4)

This gap is consistent with the findings of Sawalma et al., (2023) dan Sieving et al., (2021), emphasizing the need for a more structured and comprehensive educational approach. This indicates that adolescents' knowledge of reproductive and sexual health is still uneven and superficial, requiring more systematic, relevant, and accessible education to improve literacy and support the development of healthy attitudes and behaviors.

B) Adolescent Sexual Reproductive Health Information

1) Accessibility of SRH Information

Adolescents obtain information on reproductive and sexual health through the internet, such as anatomy, puberty, menstruation, and sexual relations. The interview results show that adolescents most often access information about puberty, menstrual health, sexually transmitted diseases (HIV/AIDS), reproductive organ hygiene, as well as issues of

teenage pregnancy and promiscuity on the internet.

"More towards the topics raised, for example, maintaining relationships, there are many sources." (A-7)

"Specific topics, like if I maintain hygiene, sometimes I have vaginal discharge. How healthy is menstrual blood, if the color is like this, how healthy is vaginal discharge, etc." (A-9)

In addition, information accessibility shows the extent to which adolescents obtain reproductive and sexual health knowledge, which is generally obtained through the internet (Google, TikTok, Instagram, YouTube).

"...usually on the internet or social media, we follow people who follow us so that they will appear on our homepage too." (A-7, A-9).

"Google, then if content appears on Instagram. Sometimes on WhatsApp, there is a channel [page] from the Ministry of Health. If on IG [Instagram] I follow it, it will appear on my timeline." (A-10).

"From Google, YouTube, social media" (A-1, A-3, A-4, A-6).

This aligns with Koswara, (2018) research, which states that the internet facilitates access to various global information that can broaden one's knowledge.

Apart from the internet, several informants also mentioned school (through Biology or Physical Education lessons), discussions with peers, and, in rare cases, parents or guidance counselors as sources of information. The following are the informants' explanations.

"There is material on it, in physical education class, but only about HIV/AIDS" (A-4).

"... I got it from the student affairs office" (A-5).

"In the past, most of it was from biology class" (A-9, A-5).

"From the health center, we learned about general health, anemia, and reproductive health. Coincidentally, during the MPLS, there will be a sub-topic on reproductive health, which may be related..." (A-7)

"At that time, only a few people were selected to participate in a socialization program led by university students. The content was about HIV/AIDS, but I forgot because I did not pay much attention" (A-3).

In addition, one informant mentioned that they received more KRS material in junior high school than in vocational high school, as explained by the informant.

"... regarding the material, in junior high school, I remember getting it from the health center, student affairs, and biology lessons" (A-5).

This experience shows that students receive more SRM information from formal sources in junior high school. In contrast, access is more limited in vocational high school, so they tend to rely on informal sources such as peers or the internet.

Although considered more credible, SRH material in schools is still limited, brief, and lacking in depth. This was confirmed by a physical education teacher [SMA Y] who mentioned that the delivery of SRH material in physical education lessons was minimal and depended on the physical education teacher's decision to include it in the lesson syllabus.

"There was, there used to be, but the material on reproductive and sexual health was only a little. It was more dominant on the dangers of sex. It is included in the syllabus, a combination of reproductive and sexual health, but it focuses more on diseases such as HIV and syphilis. Physical education usually discusses the dangers of sex. It depends on the teacher, because it is included in the syllabus. So it depends on which one the teacher wants to take." (IT-2).

This aligns with the findings of Nisaa & Arifah, (2019), which reveal that most high school students tend to access comprehensive information related to reproductive and sexual health primarily through the internet. Limited access to accurate information has an impact on adolescents' understanding and behavior regarding reproductive and sexual health. The lack of resources in schools and families can lead to a knowledge gap that risks triggering inappropriate decisions or behavior.

Based on UNESCO's Internet Universality Indicators, young people are the most active internet users, making access to the internet at school an important indicator. The curriculum must support digital literacy, safety, and healthy internet use. These efforts align with the UNICEF, UNESCO, and Global Kids Online

framework for assessing the experiences of adolescents in the digital age (UNESCO, 2021).

These limitations can be caused by several factors, such as the lack of comprehensive KRS material integration in the school curriculum, limited access to accurate information sources, and the influence of social and cultural norms that make reproductive health topics rarely discussed openly. Thus, understanding is important in shaping adolescents' attitudes and behaviors related to SRH, as emphasized by Handayani et al., (2019) dan Nasution, (2019). Adolescents rely more on the internet as a source of SRH information because it is considered easy and diverse. Meanwhile, school material is limited, lacks depth, and depends on teacher initiative.

This indicates that adolescents tend to depend on the internet as their primary source of reproductive and sexual health information, as access from schools and families is still limited. Therefore, more targeted, comprehensive, and reliable educational efforts are needed.

2. Adolescents' Attitudes toward Sexuality

A) Adolescents' Interest in Sexuality

Adolescents' attitudes toward sexuality are influenced by various factors, such as social environment, access to information, cultural values, and personal experiences (Mutea et al., 2020). The interview results showed that 6 out of 4 participants were interested in reproductive and sexual health issues, but a deep understanding did not support this interest. This interest was triggered by curiosity about bodily changes, relationships with the opposite sex, and exposure to social media, films, and the internet.

"I am interested, sis, because it is important, especially for teenagers. Even though it is sometimes considered taboo, it cannot be ignored. Especially if it is not discussed in our circle, the impact could be something we do not want" (A-10).

In addition, there were still several informants who felt less interested or even uninterested in the topic of reproductive and sexual health. The following are the informants' explanations.

"Honestly, I am not really interested in that kind of thing" (A-2).

"I am not really curious about sexual and reproductive health" (A-3).

This is in line with Nur, (2018) findings, which highlight the low interest in reading by Indonesians, which can lead to low interest in health information.

B) Sexual Phenomena Among Teenagers

The interviews revealed that teenagers are becoming interested in the opposite sex, forming romantic relationships, and even dating, which is now considered normal and part of the search for identity. However, this phenomenon is also influenced by exposure to social media, movies, and the internet.

"In fact, the majority are like this. When they are in a relationship, they hold hands and so on. They say things like, 'Come on, it is normal.'" (A-8)

"It is very common, I am also normal. I am one of the normal ones. Holding hands, hugging. However, I have my limits. However, some of my friends even take their boyfriends or girlfriends to their rooms. I do not know what they do, but I have seen photos of them with their boyfriends or girlfriends in their rooms. In the past, if someone were seen holding hands or hugging in front of the class and caught on CCTV, they would be punished immediately. Sometimes the teacher would catch them right away." (A-9, A-10)

This is in line with the findings of (Damanik & Saliman, 2024), who stated that activities such as holding hands, hugging, and even being together in private spaces are considered normal among teenagers. Patton et al., (2014) dan Scull et al., (2022) also note that social media has the potential to be a means of sexual education, but often displays risky behavior and unhealthy relationships.

In addition, premarital sex is becoming more openly discussed. However, it is still taboo, with findings of sexual relationships among school-age children, unwanted pregnancies, and the spread of obscene videos.

"I have heard about it before. Let me give you a concrete example of a case where a male student sent an indecent video of himself with his girlfriend to her parents. That case was in Ngaliyan. The impact on the male student was that he was prosecuted because his family reported him. He was sentenced to 18 months in

prison. The perpetrator was an older male student who had entered school late, you know" (A-7).

The findings of Adem et al., (2025) emphasize that the high rate of pregnancy among 18- to 19-year-olds is influenced by family factors, peer pressure, and a lack of understanding of reproduction. In Indonesia, the distribution of sexual content without consent violates Law No. 19 of 2016 and is punishable by criminal sanctions. However, many adolescents do not understand this legal aspect due to the lack of legal education in the context of KRS.

Exposure to sexual content on the internet also triggers the emergence of sexual deviance issues among adolescents. Not only that, sexual harassment is also a phenomenon that is often experienced or witnessed, both at school and on social media, in the form of inappropriate comments, unauthorized touching, and sending sexual content without consent.

"I watch it honestly, but I watch the girls, girls with girls [Lesbian]. I watch anime [animation] like a web novel [online]. Sometimes when I am with her [close female friend], I like to think about GL [Girls Love], GL" (A-8)

"That's why there is so much verbal harassment. It is not just talking; sometimes it is insults in stories. Sometimes it is even the girls themselves who sexualize themselves like that. But, from male teachers, sometimes I've seen and heard it verbally too... My friend was once groped, but not at school" (A-9).

In addition to heterosexual behavior, issues of sexual deviance, such as same-sex attraction, have also begun to emerge (Leonardi et al., 2019). Contributing factors include increased access to digital sexual content, such as anime, manhwa, web novels, and social media (Russell & Fish, 2016). Lu et al., (2022) noted increased public acceptance of the LGBT community, reflecting a shift in social values. In addition, the findings of Ståhl & Dennhag, (2021) emphasize the importance of comprehensive values-based education so that adolescents understand, dare to reject abuse, and are aware of boundaries and the meaning of consent. Dahlström et al., (2025); dan Hardt et al., (2023) found that victims of sexual harassment tend to experience symptoms of depression and negative

impacts on their mental and physical well-being.

This shows that adolescent sexuality is becoming increasingly complex, influenced by dating, media exposure, and a lack of understanding of the law and risks. Cases of premarital sex, teenage pregnancy, the spread of immoral content, deviance, and sexual harassment underscore the importance of comprehensive, values-based KRS education that covers legal aspects so that adolescents can maintain boundaries and develop healthy and responsible sexual behavior.

3. Challenges and Obstacles to KRS for Adolescents

A) Technical Obstacles

Technical obstacles include lacking facilities, infrastructure, and support systems for accessing KRS information. Informants mentioned that schools do not yet provide formal and structured materials, the curriculum lacks explicit discussion, and there are limitations in internet access and cell phone capacity.

"Network problems and usually web errors." (A-1, A-8, A-2, A-3, A-6).

"There is nothing in the lessons. It is not enough, it is lacking. Rarely. Maybe it is more about norms." (A-8-A-10).

This is in line with the triangulation of informants' statements that the KRS material in schools is limited, depends on the teacher, and emphasizes sexual dangers or infectious diseases rather than a comprehensive understanding.

"... there used to be some, but sometimes the material on reproductive and sexual health was only a little about reproductive health. It was more dominant on sexual dangers, ma'am. The syllabus was about health diseases. It depends on the teacher, ma'am, because it is included in the syllabus" (IT-2).

In addition, several informants assessed that information on the internet is often inaccurate, and easy internet access and weak security make teenagers easily exposed to false content or pornography.

"Internet access is safe, sis. We use mobile data at school and Wi-Fi at home, because the school does not provide a password." (A-4).

"... then internet security is not very strict for access, so people access inappropriate things." (A-8)

"Someone once watched [pornography] at school. Their friends found out and then others joined in. There were many of them. They just continued watching from the advertisement. It only happened once" (IT-6).

"Sometimes when I search for diseases, I get scared, thinking that I will end up dying of cancer" (IT-7).

This is in line with the research by Abdurahman et al., (2022), which revealed that internet network constraints are one of the challenges in utilizing digital media for reproductive health. The findings of Swire-Thompson & Lazer (2019) also mention that internet access to information is often inaccurate, and weak digital security makes teenagers easily exposed to pornographic content. Furthermore, research by Sanyang et al., (2025) states that access to reproductive and sexual health information and services will be improved if supported by social approaches.

Triangulation informants also conveyed this, who stated that students are indeed restricted in their use of Wi-Fi access at school.

"We restrict students' access to Wi-Fi at school, considering the inappropriate use of it by students. Because currently, students cannot be separated from their cell phones" (IT-4).

This restriction on Wi-Fi access can be understood as an effort by schools to protect students from inappropriate internet use. However, on the other hand, this policy can also limit students' access to educational information sources that can support the learning process.

This shows that access to KRS information for adolescents is still hampered by limited school facilities and the risk of exposure to age-inappropriate internet content, so more structured, secure, and reliable sources of information are needed. Internet access allows adolescents to obtain reproductive and sexual health information quickly and extensively through various educational sources. However, this convenience also comes with the risk of

exposure to pornographic content and misinformation. Therefore, guidance and digital literacy are needed so adolescents can use the internet wisely and healthily.

B) Socio-cultural barriers

Socio-cultural barriers in the form of taboos make teenagers reluctant to discuss sexual issues, receive less guidance from their parents, and ultimately seek information on their own without proper guidance.

"... not close to my parents." (A-5, A-8).

"... in Indonesia, talking about things like this is considered taboo; it is not good for people here." (A-7, A-3, A-9).

A significant factor is the lack of open communication between children and parents (Agyei et al., 2025). This is also in line with the research by Janighorban et al., (2022), which found that there are still personal, family, social, legal, and political barriers to adolescent SRH information, compounded by stigma that triggers the spread of misinformation due to a lack of reliable sources.

This indicates that socio-cultural barriers and a lack of open communication make adolescents vulnerable to seeking KRS information independently without proper guidance, thereby risking misunderstandings. Therefore, efforts are needed to build open communication within families and provide accurate and reliable sources of KRS information.

C) Psychological Barriers

Psychological barriers arise due to feelings of shame, fear of judgment, or being considered inappropriate, making it difficult for teenagers to open up and obtain accurate KRS information.

"Honestly, I am a bit reserved at home and do not interact much with my parents. I limit myself to talking to other people except in cases like this. When I want to discuss something, I usually sit at my study table, facing the wall, take out my old cell phone, zoom in, and talk to myself. So sometimes I talk to myself, I do not really like talking to people about things like that, usually before going to bed. I prefer to keep it to myself; sometimes if I open up, I am afraid it will get out and spread" (A-8).

This is in line with the research by Hall et al., (2018), which states that stigma related to reproductive and sexual health in adolescents covers five main domains: community norms that negatively judge sexual behavior outside of marriage, social stigma from the surrounding environment, internal stigma in the form of shame and guilt, attempts at concealment, and resilience through social support.

Psychological barriers arise from shame, fear of judgment, and awkwardness among adolescents in discussing reproductive and sexual health issues. This condition makes them reluctant to engage in open discussions. It tends to make them close themselves off, thereby limiting their access to information that they should be able to understand correctly. Efforts are needed to create a safe and stigma-free discussion space so adolescents are more confident in accessing the correct information.

D) Adolescent Self-Awareness Levels and Environmental Influences

Some adolescents still consider the issue of KRS unimportant and tend to be indifferent, while environmental influences often become pressures or determinants of their attitudes toward this topic.

"For me, young people are allowed to be influenced by the times; we cannot avoid it. It is just a matter of the child's awareness." (IT-3).

"The environment does influence it, though whether our environment is safe or not." (A-8).

A study by Khan et al. (2023), revealed that most adolescents agree on the importance of SRH but lack independence in practicing it. This shows that access to information alone is insufficient; intervention is needed to change attitudes and behavior. A study by Dune et al., (2021) revealed that the surrounding environment also plays an important role in encouraging adolescents to seek SRH assistance, such as accessing easily accessible health services. In line with the study conducted by Eze et al., (2023), public awareness, perception, and support for adolescent sexual and reproductive health services are influenced by SRH interventions and socioeconomic factors. This shows that the environment can be both an obstacle and a motivator, depending on the

quality of interaction and support provided.

4. The Role of Society in Shaping Adolescents' Perceptions of Reproductive and Sexual Health

A) The Role of the Family

The family, especially parents, plays an important role in shaping adolescents' understanding of RSH, but communication is still minimal, especially on sensitive topics.

"... there is no communication at all with the family [about reproductive and sexual health]." (A-3)

"When it comes to menstruation, I just report every month that I have had my period." (A-9).

This is in line with research by Bekele et al., (2022), which reveals that, in general, the level of communication between parents and children regarding sexual and reproductive health issues is still relatively low. This low level of communication is influenced by various multidimensional factors (Eshete & Shewasinad, 2020). Findings by Mataraarachchi et al. (2023), also reveal that although mothers recognize their important role in sexuality education, many lack confidence. Therefore, improving parents' knowledge and communication skills, especially mothers', is crucial. Therefore, there needs to be encouragement for open communication between parents and adolescents through parent training and collaboration with health workers.

B) The Role of Peers

Research shows that peers play an important role in shaping adolescents' perceptions of SRH, often being the first place to ask questions, share, and seek validation of information.

"Usually just ask friends." (A-2, A-5, A-6)

"But when it comes to friends, you know, not everyone can be trusted. Maybe closer friends are more specific." (A-7, A-9)

This is supported by research by Hamidiyanti et al., (2021), which revealed that adolescents have a better understanding after receiving peer intervention. Dependence on peers is risky if the information is incorrect or encourages negative behavior, so adolescents need to choose a positive environment to avoid pornography and weak self-control. In line with

Purwatiningsih (2019), research, friends are the factor that most influences adolescent sexual behavior, as well as being the ones who are often confided in regarding reproductive health issues.

C) The Role of Teachers

Several informants said that teachers rarely discuss this topic in depth and often only convey general information or limit themselves to the dangers of infectious diseases. In addition, the approach teachers use sometimes feels rigid or does not provide a safe and comfortable space for student discussion.

"Because it is limited at school, and the mindset of teachers is different from ours, you know. How do you respond to things like that?" (A-9)

"Yes, that is right, sis, it is considered embarrassing because guidance counselors are like parents, so sometimes discussing it is not very open. It seems lacking and awkward if you discuss things like that with teachers. (A-10)

"Teenagers are also less open about this with teachers. We also realize the lack of information that teenagers get about reproductive and sexual health (IT-4)

Research by Zheng et al., (2024), confirms that support from teachers and classmates plays an important role in improving physical and psychological health, and shows that direct social interaction significantly supports adolescent well-being.

This shows that the support of these three social actors for adolescents on the issue of KRS is still weak, so collaboration between schools, families, and communities is needed to build a consistent and sustainable support ecosystem in line with the needs of adolescents.

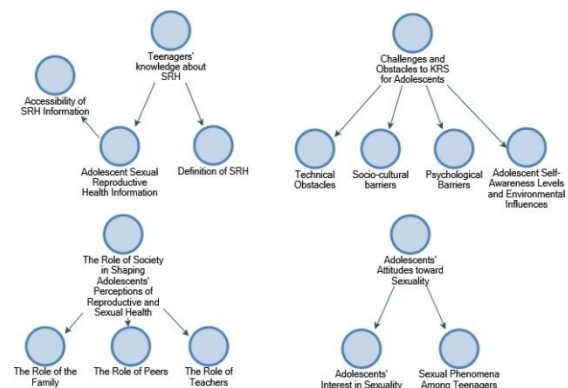


Figure 1. Analysis Results Diagram from NVivo 12 Pro Program Interviews

CONCLUSION

This study shows that the internet is the primary source for adolescents to obtain reproductive and sexual health information because of its easy, fast, and widespread access. However, adolescents' critical ability to sort through information is still limited. Hence, the risk of exposure to incorrect or inappropriate content often offsets the benefits of the internet as an educational tool. Cultural barriers, conservative social norms, and generational gaps also limit open communication on this issue in the family and school environments. At the same time, dependence on peers confirms the weakness of educational support from formal social actors.

To overcome this, strategic steps are needed, such as integrating reproductive health material into the school curriculum, training teachers to discuss sensitive issues openly and inclusively, and improving adolescents' digital literacy so they can identify credible sources of information. In addition, collaboration between families, schools, and communities needs to be strengthened to create a safe, open learning environment that aligns with local cultural values.

RESEARCH RELIABILITY AND LIMITATIONS

1) Reliability

These findings were obtained through interviews with adolescents who are active internet users as a source of reproductive and sexual health information. The consistency of responses regarding limited understanding and dependence on the internet shows a recurring pattern. At the same time, the qualitative approach allows for an in-depth understanding of their perceptions and experiences.

2) Limitations

This study is limited by the number of participants and the specific context, so the results cannot be generalized. Potential social bias and limitations in participants' understanding also affect the depth of the data. Further studies with a larger sample and mixed methods are recommended to strengthen the findings.

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