

Current State, Challenges, and Opportunities of the School-Based Sexual and Reproductive Health Education in Indonesia: A Systematic Literature Review

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ARTICLE INFO	ABSTRACT
ORCHID ID Author 1:- Author 2:-	Sexual and reproductive health education for adolescents remains crucial for Indonesia as it is home for more than 44 million teenagers as of 2022, in its way to anticipate demographic bonus in 2030. Government Regulation no. 61 of 2014 concerning Reproductive Health mandates sexual and reproductive health education in formal and informal education settings. By using a systematic literature review (SLR) method, this study assesses the current state of school-based sexual and reproductive health education in Indonesia. Findings reveal that the delivery of sexual and reproductive health education in Indonesian schools is fragmented, spread across various subjects such as Biology, Sports, Religious, Civic and Moral education classes, as well as extracurricular activities. Key stakeholders, including families, teachers, peers, and school principals, play crucial roles in shaping adolescents' understanding of reproductive health. However, challenges such as cultural taboos, easy access to potentially misleading online information, and inadequate teacher training hinder effective education. In addition, Comprehensive Sexual Education (CSE) has been suggested by WHO to be implemented and integrated in the core curriculum, with programs like SETARA pilot project showing promise in improving adolescent knowledge and attitudes towards reproductive health. However, the success of such programs requires cooperation from various stakeholders and a shift in societal norms regarding adolescent sexuality.
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1. Introduction

Indonesia is the 4th most populated country in the world (World Bank, n.d.), with 16 percent of its total population are adolescents, which is 44.67 million people as of 2022 (Badan Pusat Statistik, n.d.). World Health Organization (WHO) determined adolescent as individual aged 10-19 years old (World Health Organization, n.d.). This fact promises a huge advantage which is a demographic bonus for Indonesia in the coming years. It is forecasted that Indonesia will experience the demographic bonus in roughly 2030-2035 (Yudho, 2023). Demographic bonus refers to a situation where the population majority (more than 60% of population) dominated by individuals of productive age (Kominfo, 2023). However, it is of most importance to note that the demographic bonus could only bring advantage and beneficial impact for

Indonesia if the productive age group including adolescent is having good health (Yudho, 2023). Health refers to the optimal condition in physical, mental, spiritual, and social aspects, enabling individuals to lead a productive life socially and economically. Health is also a part of an individual basic rights that needs to be fulfilled. This is stated in the preamble of the Constitution of the Republic of Indonesia of 1945 (UUD 1945). In the health context, reproductive health is one of the vital aspects in maintaining health in general. Referring to Law no. 36 of 2019 concerning Health, reproductive health refers to the optimal condition of physical, mental, spiritual, and social aspects, not only mean that free from illness or disability related to the system, function and process of reproduction of a woman and man. Reproductive health concept also includes the rights of each individual to access safe, effective and affordable reproductive health services (Undang-undang (UU) Nomor 36 Tahun 2009, 2009). Based on the above, the role of a state in ensuring the fulfilment of the health rights including reproductive health of each individual is a basic responsibility needs to be done and is of most importance. Talking on the correlation between the demographic bonus potential and the health aspect which was said as one of the main depending factors to its success, the Ministry of Health of Indonesia explained that if the productive age group people experiencing health issues and the intellectual level is low, it will not benefit Indonesia, instead, adding more burden to the state (Yudho, 2023).

In regard to the demographic bonus, adolescents' reproductive health is crucial and it has a power in threatening the future of a country, in this case, it gives a threat to Indonesia if failing to achieve its demographic bonus if the government does not able to handle this issue properly. Prof. dr. Ova Emilia, Rector of Gadjah Mada University who is also a Medical Educationist and ObGyn Practitioner said that the inability of the state in its responsibility to fulfill the adolescent reproductive health rights causing the emergence of reproductive health issues or problems for adolescents (Universitas Islam Indonesia, 2023). This is because adolescent group is extremely prone to the reproductive health problems including unwanted pregnancy, sexual transmitted infection including HIV/AIDS, unsafe abortion as well as mother mortality, sexual violence and many more (Universitas Islam Indonesia, 2023). United Nations Population Fund (UNFPA) explained that the situation happens because adolescent age is a transition period from child to adult. During this period, adolescents experiencing a change, ranging from physical transformation on their body, mental and emotional that make them vulnerable to some human rights violations especially related to sexuality, marriage, etc (UNFPA, 2014). This phenomenon becomes crucial for Indonesia, as the currently adolescent group will be the future of Indonesia, and the future of Indonesia depends on them. The adolescent group is part of the productive age group concerned in the demographic bonus of Indonesia in 2030-2035.

Reproductive health problems in Indonesia are worrying. In 2022, the national population and family planning agency (BKKBN) recorded that Age Specific Fertility Rate (ASFR) on women age 15-19 years in Indonesia reached 26,64 per 1.000 women of childbearing age (BKKBN RI, 2023). This number increased from the 2021 ASFR rate which is at 20,49 per 1000 women of childbearing age. Head of BKKBN Hasto Wardoyo on January 18, 2023, in (CNN Indonesia, 2023) stated that until 2021, around 50,000 Indonesian adolescents were recorded to have married early due to pregnancy out of wedlock or unwanted pregnancies. Besides adolescent childbirth issues (girls who become pregnant and give birth as teenagers), BKKBN in (AP, 2021) noted that 20% of abortion cases in Indonesia are carried out by adolescents. Meanwhile, HIV data in Indonesia from the Ministry of Health RI (2022)

shows that new cases of HIV disease in Indonesia in 2021 increased significantly with an estimated 27 thousand new cases, and around 51% of these new cases were found in adolescents. Clarifying this data, the Chair of the Indonesian Pediatrician Association's HIV Task Force, Dr. Endah Citraresmi, SpA(K) in (K, 2022) explained that many adolescents in Indonesia are infected with HIV due to risky sexual behavior, not because they were infected since childhood as no transmission history from parents was found. These adolescent HIV cases are most prevalent in West Java and DKI Jakarta on the island of Java. Outside Java, they are found in Papua. Regions in Indonesia with a high proportion of adolescent HIV include West Java. In 2022, the West Java AIDS Commission (KPA) revealed that productive age individuals, including adolescents and students, dominate HIV-AIDS transmission cases found in the capital of West Java, Bandung, with a rate of 6.97% or reaching 414 cases out of the total cases found (CNN Indonesia, 2022). Data from UNICEF in 2021 in (Yayasan Kesehatan Perempuan, n.d.) reported that more than 200 million women in 30 countries, including children, have experienced Female Genital Mutilation (FGM), where Indonesia ranks third with the largest number of FGM cases in the world after Egypt and Ethiopia.

Sexual violence is a kind of reproductive health problems. This is because sexual violence can have various health consequences, including physical, reproductive, and psychological effects (Jina & Thomas, 2013). Moreover, sexual violence causes various others reproductive health problems. In Indonesia, cases of sexual violence are often found and also frequently occur among adolescents. Cases of adolescent sexual violence in Indonesia even occur in school environments, where schools should be safe places for adolescents and places where they receive formal education, including reproductive health education (Oktariani et al., 2023). Data from the Indonesian Child Protection Commission (KPAI) in (Ikhwan, 2021) showed that cases of sexual violence in educational institutions or school environments throughout 2021 are most commonly found in religious-based schools in Indonesia. 18 cases of sexual violence that occurred in educational institutions throughout 2021 involved 207 child and adolescent victims aged 3-17 years. This data is from reported (known) cases and recorded by the KPAI. From this data, 77.78% were contributed by schools registered under the Ministry of Religion, and 22.22% were from schools registered under the Ministry of Education, Culture, Research, and Technology (Kemendikbudristek). Geographically, the distribution of these cases is most commonly found in schools in West Java, followed by East Java, Central Java, Yogyakarta, West Sumatra, South Sumatra, South Sulawesi, and Papua, with the majority of perpetrators being educators (55.55%) and school principals (22%) (Ikhwan, 2021)

To prevent and address adolescent reproductive health problems, comprehensive reproductive health education is necessary. This action also reflects the fulfillment of human rights regarding adolescent reproductive health, as stated in the sixth point of the 1996 International Planned Parenthood Federation's 12 reproductive rights (PKBI Jawa Tengah, 2018). The sixth point emphasizes the right of every individual to receive information and education related to reproductive health, including health insurance and individual or family welfare guarantees. The high number of adolescent reproductive health problems, as reflected in the above data, highlights the importance of comprehensive adolescent reproductive health education.

Reproductive health education and services for adolescents are crucial to protect them from the risks of early marriage, unwanted pregnancy, abortion, Sexually Transmitted Infections (STIs), HIV/AIDS, sexual violence, and other reproductive health problems (PKBI

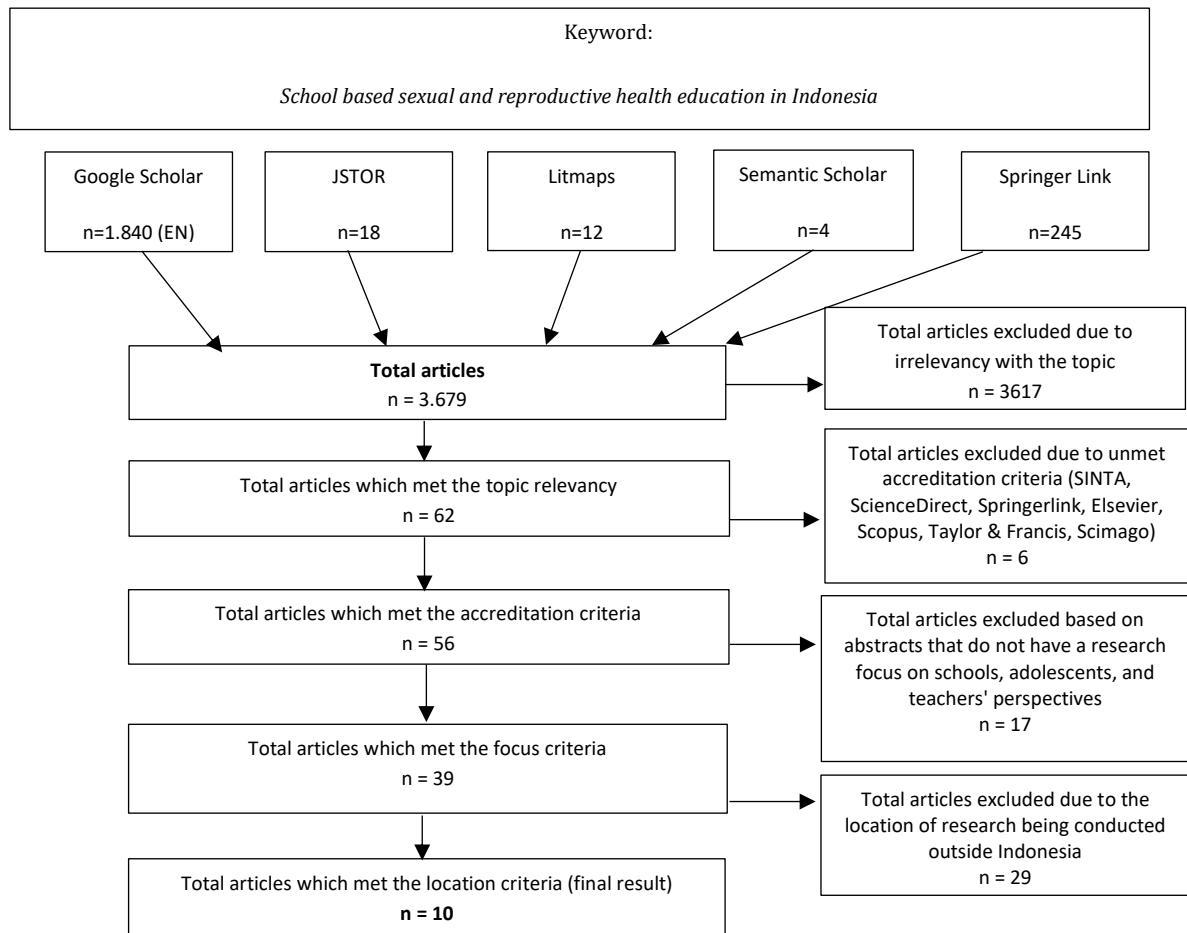
DIY, 2009). The movement to promote access to reproductive health education and services for the public, including children and adolescents in Indonesia, has received attention from the government since Indonesia, along with 178 other countries, committed to paying attention to and investing in sexual and reproductive health through the International Conference on Population and Development (ICPD) in Cairo, Egypt, in 1994. Nationally, this issue has been regulated by the Indonesian government through Law number 36 of 2009 concerning Health. As implementation guidelines, the Indonesian government issued a derivative regulation through Government Regulation (PP) no. 61 of 2014 concerning Reproductive Health. This regulation also regulates "Adolescent Reproductive Health Services" as stipulated in its second part. In Article 11, it is explained that adolescent reproductive health services need to be carried out with the aim of "preventing and protecting adolescents from risky sexual behavior and other risky behaviors that can affect Reproductive Health;" and "Preparing adolescents to lead healthy and responsible reproductive lives". Article 12 further clarifies that to achieve these two goals, adolescent reproductive health services are carried out by "providing communication, information and education, counseling, and/or medical clinical services". It is further clarified that "communication, information, and education are carried out through formal and non-formal education processes". Thus, it is clear that the government has regulated adolescent reproductive health education to be implemented in schools as formal education institutions. However, a previous study by (Susanti & Doni, 2021) found that school-based sexual and reproductive health education in Indonesia is still part of the extracurricular activities, even though WHO has recommended Indonesia to integrate it in the core curriculum. Moreover, since Indonesia participated and declared its commitment to paying attention to and investing in the sexual and reproductive health of the community, including adolescents, at the International Conference on Population and Development (ICPD) in Cairo, Egypt, as well as the issuance of government regulations regulating adolescent sexual and reproductive health education in Indonesia, adolescent sexual and reproductive health problems in this country continue to emerge and even show an increase, based on the data provided above. Therefore, this study aims to explore the implementation of school-based sexual and reproductive health education at schools in Indonesia.

2. Method

This research employs a systematic literature review method where predefined criteria and protocol were applied to discover the situation of school based sexual and reproductive health education in Indonesia. A systematic literature review (SLR) identifies, selects and critically appraises research in order to answer a clearly formulated question (Sambunjak et al., 2017), where which in this research, the guiding question is "how is the situation of school based sexual and reproductive health education in Indonesia?". To answer the question, a comprehensive search was conducted across several academic databases, including Google Scholar, JSTOR, Semantic Scholar, Springer Link, and Litmaps. The search was limited to articles published within the last five years (2018-2023). The initial search resulted 3,679 articles. These articles were then thoroughly filtered based on the following criteria: (1) Relevance to the topic (2) Publication in reputable Indonesian journals as indexed by SINTA (for Indonesian publications) and publication in internationally recognized journals indexed by ScienceDirect, Springerlink, Elsevier, Scopus, Taylor & Francis, Scimago (for international publications) (3) Focus on schools (including faith-based schools), adolescents, and teacher perspectives and (4) Research conducted outside Indonesia. Articles that are not met the inclusion criteria being excluded. This filtering process resulted in a final selection of 10 high-

quality articles that serve as the foundation for this study's analysis. Following are the detail process of the systematic literature review:

Figure 1. Diagram of Systematic Literature Review Process



3. Result and Discussion

Based on the systematic literature review screening process, a total of 10 articles were obtained and to be used in this study. The result showed in the Table 1.

Table 1. Overview of the Characteristics of the Studies in the Systematic Literature Review (SLR) Results

No	Author, Year	Article Title	Objectives	Focus/ Scope	Result
1	(Diarsvitri & Utomo, 2022)	Medical perspective of reproductive health education in Indonesian schoolbooks	Compared the accuracy of the material related to reproductive health education to scientific evidence published in medical scientific	School books	Even though the schoolbooks were used in Indonesia's 2006 minimum standard requirements of subject matter (KTSP)

			journals or medical textbooks		curriculum, we found much inaccurate information that is not based on the scientific literature and unnecessarily detailed information on therapy and technology.
2	(Susanti & Doni, 2021)	Implementation Of Sexual Education Programs for Adolescents In Indonesia: Narrative Review	Conducting a review of the implementation of sexual education policies for adolescents in Indonesia and other countries, with the aim of finding the best methods for providing sexual education to adolescents that can be integrated into the Indonesian government's programs	Sexual And Reproductive Health Education Programs And Policies	Sexual education in Indonesia struggles due to lack of funding, resources, and commitment, and it's not included in the school curriculum despite WHO's recommendations.
3	(Shibuya et al., 2023)	The Process Of Overcoming Conflicts Among Teachers In The Implementation Of Comprehensive Sexuality Education At Ordinary Public Senior High Schools In Mataram City, Indonesia: A Qualitative Study	aims to understand how teachers resolve conflicts when implementing Comprehensive Sexuality Education (CSE) in the local context, particularly regarding the teaching of sexual topics that often conflict with religious and cultural norms. Additionally, this study will investigate teachers' views and acknowledgments of CSE	Teacher's Role and Interaction Among Teacher	Teachers in Mataram face religious, cultural, and gender conflicts with CSE but adapt to meet diverse needs through comprehensive guidance.

			implementation, and provide recommendations to improve the CSE approach in majority Muslim communities.		
4	(Pinandari et al., 2023)	Short-Term Effects Of A School-Based Comprehensive Sexuality Education Intervention Among Very Young Adolescents In Three Urban Indonesian Settings: A Quasi-Experimental Study	To evaluate the effects of Comprehensive Sexuality Education (CSE) interventions on short-term psychosocial outcomes related to healthy sexuality among very young adolescents in urban Indonesia	Effect Of School Based CSE	This program significantly improves knowledge about pregnancy, gender attitudes, and communication skills in reproductive health, especially for girls and students in Semarang and Denpasar.
5	(Amalia et al., 2021)	Strategies To Improve The Adolescent's Reproductive Health Knowledge In The Traditional Islamic Boarding School In Sidoarjo, Indonesia	To observe the effectiveness of trained peer educators compared to experts in delivering reproductive health knowledge	Peer Educator's Role	Trained peer educators are as effective as experts in increasing teens' reproductive health knowledge.
6	(Wardiati et al., 2023)	Reproductive Health Literacy Of Adolescents At Public Islamic School: A Cross-Sectional Study In Indonesia	To assess the level of adolescent literacy on reproductive health and identify the related factors.	Adolescent Literacy On Sexual And Reproductive Health	Teenagers have moderate reproductive health literacy. Key factors include family role, age, and peer support, which explain 43.4% of the variation.
7	(Muthmainnah et al., 2021)	Implementation Of Adolescent Health Programs At Public Schools And Religion-Based Schools In Indonesia	To investigate the implementation of adolescent health programs in schools, particularly public and religious-based schools	Implementation Comparison In Different Type Of Schools	Youth health programs in schools, especially public and religious-based, enhance reproductive health literacy. Student attitudes and environmental

8	(Van Reeuwijk et al., 2023)	Creating An Enabling Environment For A Comprehensive Sexuality Education Intervention In Indonesia: Findings From An Implementation Research Study	To identify the factors that support and hinder the creation of an enabling environment for the implementation of Comprehensive Sexuality Education (CSE) SETARA in three school locations in Indonesia	CSE Pilot Project	factors also play a role. Introducing CSE to government officials and aligning it with local policies gains formal support. Good relationships with officials and school principals are crucial despite challenges like complex materials and limited preparation time.
9	(Faidah et al., 2020)	Islamic Values-Based Sex Education To Prevent Loss Generation For Senior High School Students	To formulate views from experts, education practitioners, and adolescents about the importance of teaching sex education in schools, as well as to develop prototypes of sex education materials, media, and learning strategies.	Material, Media, Learning Strategies.	Sex education helps teens understand sexuality, foster responsible attitudes, and avoid promiscuity. It covers social ethics, consequences of promiscuity, and is presented through ethical and religious contexts
10	(Meilani & Setiyawati, 2022)	The effectiveness of peer educators and guidance counselling teachers to the knowledge of reproductive health	To determine the effectiveness of peer educators and guidance and counselling teachers in adolescent reproductive health level of knowledge.	Role Of Peer Educators And Guidance and Counselling Teachers	The results of this study showed that the provision of information was more effective through guidance counselling teachers

Source: Secondary Data

In Indonesia, the adolescent reproductive health education is regulated in the Government Regulation no. 61 of 2014, aims to protect adolescents from risky sexual activities that can affect their reproductive health as well as to prepare adolescents in having a healthy and responsible reproductive life. In the said regulation, adolescent reproductive health education and services should be carried out by "providing communication, information and education, counseling, and/or medical clinical services". It is further clarified that "communication, information, and education are carried out through formal and non-formal

education processes". Thus, it is clear that the government has regulated adolescent reproductive health education to be implemented in school as a formal education institution.

3.1. Situation of School-based Sexual and Reproductive Health Education in Indonesia

As mentioned in the Government Regulation no. 61 of 2014, reproductive health education for adolescent aims to be held in informal and formal education institution – school. However, situation in Indonesia showed that formal sexual and reproductive health education is often absent from the core curriculum. Schools only integrate some aspects into Science, Biology, Sport, and Health Education Classes, but often in a limited way (Diarsvitri & Utomo, 2022). Besides, in Indonesia sexual and reproductive health education is still part of the extra-curricular although WHO has even recommended to have a comprehensive sexual education (CSE) program be implemented in Indonesia and involving all related components namely parents, schools, communities, government and adolescents themselves and integrate it in the core curriculum (Susanti & Doni, 2021). According to the interviews done with teachers in (Faidah, Rusmanto, & Rahmawati, 2020), a bit more details of how sexual and reproductive health education is taught in school were revealed. It is integrated in Sport class (HIV/AIDS, prevention of free sex/promiscuity), Biology class (sexual and reproductive health from a biological perspective), Religious class (religious perspective about sex and relationships), Civic class (Sociology), Moral education class (Pancasila and Character Education).

Efforts have also been made by the government through several programs with school as one of its main targeted location. The programs are The Youth Care Health Services-YCHS (Pelayanan Kesehatan Peduli Remaja-PKPR) which was initiated and launched since 2002 as well as the Genre program which stands for Generasi Berencana (Generation Planning) program which has been exist since 2011 (Susanti & Doni, 2021). The YCHS program is a government program providing quality health services and increasing knowledge among adolescents, implemented at health centers, hospitals, and schools with the supervision of Public Health Offices in each city/regency under the provincial public health coordination. Meanwhile the Genre program which consists of the Youth Family Development Program (BKR) and the Youth Reproductive Health Information and Counseling Center Program (PIK-KRR) is a program developed by the National Population and Family Planning Board (BKKBN) of Indonesia (Susanti & Doni, 2021). It aims to educate and inform Indonesian teenagers and young people to become a generation with mature life planning. The program targets young people to develop national character by teaching them to avoid early marriage, premarital sex, and drugs, thereby becoming resilient teenagers who can contribute to the nation's development (BKKBN RI, 2023)

However, based on research by Muthmainnah, it was found that the programs were still uncoordinated in its implementation and had not been evaluated effectively (Muthmainnah et al., 2021). Specifically, both programs faced various obstacles that caused the achievement of its goals to be suboptimal. The PKPR program experienced obstacles in terms of the lack of understanding of health workers, unsupportive laws and policies, and socio-cultural constraints. The Genre program also experienced similar obstacles, namely human resource constraints, commitment, and organizational as well as administrative structures that were not yet in accordance (Susanti & Doni, 2021)

Besides, a research conducted by Meilani found that access for sexuality education and reproductive health services that is comprehensive and youth-friendly is still limited in Indonesia (Meilani & Setiyawati, 2022)

3.2. Role and Involvement of Family, Teacher, Peers and School Principal

When the students come home, family plays a significant role in shaping adolescents' knowledge and behavior regarding reproductive health. Studies have shown that family involvement significantly influences adolescents' reproductive health literacy, as families are key in transmitting information and knowledge on the subject (Wardiati et al., 2023)

Meanwhile at school, it is not only teachers who play significant role, but peers also play a crucial role in shaping adolescents' understanding of sexuality and reproductive health. Due to the lack of formal education and information, teenagers often turn to their peers for advice and guidance on sexual matters, viewing peer groups as more influential than teachers (Faidah et al., 2020) Some studies showed that peer educator role is more effective in reproductive health education (Amalia et al., 2021). However, peers may offer solutions without considering ethics, norms, or long-term impacts (Faidah et al., 2020)

Contrastingly, teachers are seen as essential figures in adolescents' lives, responsible not only for imparting knowledge but also for instilling life values and acting as second parents (Faidah et al., 2020). Studies have highlighted the importance of teachers in increasing adolescent reproductive health knowledge and addressing related issues through education. Moreover, a study emphasized the unique role of guidance and counseling teachers in reproductive health education. It found that the provision of information was most effective through guidance and counseling teachers, suggesting a need to optimize their role in improving adolescents' reproductive health knowledge (Meilani & Setiyawati, 2022). The study also emphasized that the role of counseling teachers cannot be replaced by peers, but however the roles of counseling teachers and peers are complementary, with both playing essential roles in effective education (Meilani & Setiyawati, 2022)

The role of School Principal is also crucial for the successful implementation of reproductive health education in school. Active support from the school principal determines whether the education or programs are implemented and delivered through intra- or extra-curricular activities (Van Reeuwijk et al., 2023)

3.3. The Challenges of Sexual and Reproductive Health Education: Culture, Technology, and Teacher Capacity

In Indonesia, culture presents a significant barrier in conveying information and knowledge related to reproductive health (Wardiati et al., 2023). Adolescent sexuality remains a taboo subject, and combined with teacher discomfort, as well as dominant social-religious norms, which limited the implementation of sexual and reproductive health education and programs. Many teachers lack training and feel uncomfortable discussing these sensitive topics, a hesitation that can be fueled by their own religious beliefs and social norms (Pinandari et al., 2023)

Technology adds another layer of complexity. Adolescents often turn to peers, social media, or unreliable online sources for information, which can be inaccurate or misleading.

This ease of access, as highlighted by high school teachers in a research done by Faidah(2020), can be concerning in a modern era marked by readily available information and technology. Unfiltered access may contribute to a perceived acceleration of both physical and emotional development, leading to increased curiosity or experimentation. This concern is evidenced by findings of nude photographs or instances of sexual intercourse among teenagers (Faidah et al., 2020)

The capacity of teachers to deliver effective sexual and reproductive health education is crucial. Implementation data highlights key factors at the teacher level that hinder the quality of programs. As Vanwesenbeeck et al. in Van Reeuwijk(2022) pointed out, a first priority for sexuality education should be to better support teachers, equipping them with the knowledge and confidence to deliver these information and or programs effectively(Van Reeuwijk et al., 2023)

3.4. Comprehensive Sexual Education (CSE) in Indonesia

Sexual and reproductive health education in Indonesia is not a comprehensive education and it is not incorporated in the core curriculum. World Health Organization (WHO) has suggested Indonesia to include Comprehensive Sexual Educaiton (CSE) into core curriculum. However, many challenges and pro cons do exist in the society. Rutgers Indonesia, has implemented comprehensive sexuality education (CSE) in some parts of Indonesia through a programme called SETARA (Semangat Dunia Remaja). The programme has been implemented in a number of junior high schools, several of which are public schools (UNESCO, 2023)The SETARA intervention is a 2-year, rights-based, teacher-led CSE curriculum for junior high school students aiming to support healthy sexuality development and improving adolescent health and well-being in Indonesia. SETARA was adapted from the 'World Starts with Me' curriculum developed by Rutgers, which follows the UNESCO International Technical Guidance on Sexuality Education (Pinandari et al., 2023). A three-year evaluation of the SETARA intervention yielded positive results in specific areas. Students demonstrated improved knowledge of pregnancy, more equitable gender attitudes, and increased comfort communicating about sexual and reproductive health and rights (SRHR) However, the program had a lesser impact on personal sexual well-being. This could be attributed to the continued social taboo surrounding adolescent sexuality in Indonesia, potentially leading to student hesitancy and discomfort discussing personal experiences. Additionally, teacher discomfort with the subject matter, possibly influenced by dominant social and religious norms, may have further limited the program's effectiveness.

Based on the SETARA program, a study by Shibuya, et. al (2023) indicated that promoting CSE in Indonesia may require cooperation with the community and society, leadership from school principals, and the implementation of CSE under a formal policy(Shibuya et al., 2023). In this review, it is important to acknowledge the limitations inherent in the evidence included. Due to the absence of a specific tool like PRISMA, there is a possibility that some relevant studies may have been overlooked. Moving forward, the implications of these results are significant for informing current practices and policies regarding school-based sexual and reproductive health education in Indonesia. The findings highlight the need to address existing challenges and capitalize on opportunities to improve the quality of education in this area. Recommendations derived from this study can serve as a valuable resource for stakeholders, policymakers, and educators to develop strategies that

enhance the effectiveness and inclusivity of sexual and reproductive health education in schools.

4. Conclusion

School-based sexual and reproductive health education in Indonesia is currently delivered in a fragmented manner across various subjects such as Biology, Sports, Religious, Civic and Moral education classes, and through extracurricular activities. Influence of key stakeholders including families, teachers, peers, and school principals, is crucial in shaping adolescents' understanding of reproductive health. Families serve as the primary source of information, while teachers play a vital role in imparting knowledge and values, especially through guidance and counseling. However, challenges such as teacher discomfort and inadequate training hinder effective education. Peers also have a significant impact, although their influence may sometimes lack ethical considerations and overlook long-term consequences. Active support from school principals is essential for the successful implementation of reproductive health education. In addition, several factors, including cultural taboos and easy access to potentially misleading online information, complicate efforts to provide comprehensive sexual and reproductive health education. The WHO-recommended Comprehensive Sexual Education (CSE) has shown promise, as demonstrated by the positive outcomes of the SETARA pilot program. However, achieving broader societal acceptance, enhancing teacher training, and making policy changes are necessary for the successful large-scale implementation of CSE in Indonesian schools. This study recommends to explore the strategy of integrating Comprehensive Sexuality Education (CSE) into the core curriculum by considering social, cultural, and religious norms alongside community and societal acceptance.

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