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**Research** Paper

# **Development of School-Based Comprehensive Sexuality Education Module in Junior High School**

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Adolescent's sexual changes without being accompanied by the proper arrangements can make young people caught in risky sexual behavior which affects their future. Various challenges in giving sex instruction encourage the realization of comprehensive school-based sexuality education that's compelling in avoiding risky sexual behavior in adolescents. The objectives of this study are (1) Development of comprehensive school-based sex education using the ADDIE model. (2) Validation of a comprehensive school-based sex education module. The research method is research and development using the ADDIE model. A questionnaire served as the instrument. Data were analyzed descriptively qualitatively and descriptively quantitatively. The results showed that (1) the module design and development process followed five steps of the ADDIE model as follows: Analysis, Design, Development, Implementation, and Evaluation. (2) Based on the content expert validation, the module was suitable for use with improvements. There were some comments given by experts about the module. The average of student's questionnaires fell into the good category.

Keywords: Comprehensive Sexuality Education, School, Adolescent, ADDIE Model

#### **INTRODUCTION**

Adolescence is a transitional and turbulent period. This period occurs in various physical, cognitive, social, and emotional changes towards the level of maturity. Adolescent sexuality is one of the risk-taking behaviors of this age group (Gambadauro et al., 2018). Research shows that 45% of teenage girls and boys between the ages of 15 and 17 start a date. Most teenage girls and boys report engaging in physical activities such as examples: handrails (64% men, 75% men), hugging (17% men, 33% men), kissing (30% men, 50% men), molestation/molestation (5% male, 22% male). Among teenage girls and adolescent men who had premarital sex, 59% of teenage girls and 74% of teenage boys admitted (Ministry of Health Indonesia, 2018). Younger age at sexual intercourse, including other health-related risk behaviors in adolescents, is a strong predictor of future sexual health (Shayo & Kalomo, 2019).

According to the World Health Organization (WHO), adolescents are an important population with great potential for physical, mental, and psychological development. The largest population group is young people, with 1.8 billion people between the ages of 10 and 24, 70% of whom live in developing countries. Adolescents play a crucial role in maintaining good reproductive health (Yari et al., 2016). Indonesia is experiencing a demographic bonus which is productive people are greater than non-productive. The demographic bonus requires proper management of reproductive health issues. The dominance of the working-age population requires adequate education and understanding of reproductive health issues. This will create a generation capable of better family planning (Darmayasa et al., 2021). Younger age at sexual intercourse, including other health-related risk behaviors in adolescents, is a strong predictor of future sexual health. Sexuality is a physiological component of adolescent development, but its early onset is associated with risks to reproductive health (Shayo & Kalomo, 2019). There are several issues



about sexuality education in Sragen district. For example, lack of communication skills, parents' insufficient sexual knowledge, and taboos. Therefore, it is essential for comprehensive sexuality education to be taught in school.

Education in schools has a role to play in giving information about the changes that young people are experiencing. This must be taught to prepare young people to deal with problems that may arise from adolescence. The information provided is not limited to the topic of pornography or sexual relationships but includes broader information such as physical, social, and gender changes, roles in society, and basic life skills which is called comprehensive sexuality education (CSE). Teachers trained in sexuality education can act as agents of change and provide high-quality information to students, which has been documented to help prevent reproductive risk behaviors as a result (Ramírez-Villalobos et al., 2021).

School-based sexual reproductive health in early adolescents in Sragen is one of the most under-researched groups. Teachers' taboo perception and limited skills for addressing these topics. Therefore, it is important to develop a school-based comprehensive sexuality education model in Sragen Regency. This research aims to develop a school-based comprehensive sexuality education model that empowers teachers for junior high school students.

## LITERATURE REVIEW

Comprehensive sexuality education (CSE) is a curriculum-based preparation of educating and learning about the cognitive, emotional, physical and social aspects of sexuality. It points to prepare children and youthful individuals with information, attitudes, states of mind and values that will enable them to: realize their health, well-being and respect; develop respectful social and sexual relationships; consider how their choices affect their own well-being and that of others, get it and ensure the protection of their rights throughout their lives (UNESCO, 2018). Based on Social Learning Theory and Social Cognitive Theory, sexual education utilizes the thought that understudies got to be able to see themselves within the material, seeing their instruction as important to themselves. The National Sexuality Education Standards for CSE covers seven topic areas: Healthy Relationships, Anatomy and Physiology, Puberty and Adolescent Sexual Development, Gender Identity and Expression, Sexual Orientation and Identity, Sexual Health, and Interpersonal Violence (NSES, 2020). Bringing comprehensive and deliberateness talks approximately sex and sexuality into classes past wellbeing instruction has the potential to sustain students' sense of self, sentiments of compassion for others, and capacity to lock in in sound connections (Palmer & Hirsch, 2022)

# **RESEARCH METHOD**

This is a Research and Development (R&D) research with the ADDIE model development plan. The ADDIE model consists of five stages, namely: analysis, design, development, implementation, and evaluation. The ADDIE model was used to develop the school-based CSE module because the researchers believed that this instructional model would help educators improve the rigor of their instructional methods to achieve lesson objectives. ADDIE is orderly because it provides a reliable way to establish principles and methods, policies and systems, conventions, and handle planning direction (Alnajdi, 2018). The model development design is described in Figure 1.

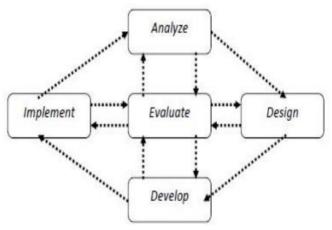


Figure 1. ADDIE Model

The data sources used are primary and secondary sources. The instrument used in this research was the researcher. Data analysis is carried out using a data reduction process, presenting data, drawing conclusions, and a verification process. The results of the data analysis are used as material for discussion in the research and then arranged in sentence form systematically using descriptive qualitative techniques

## FINDINGS AND DISCUSSION

### Analysis

The ADDIE model begins with an analysis phase, which often includes needs assessment, problem clarification, and goal setting (Zulkifli et al., 2018). The researcher looked into the teachers, students, headmasters, and stakeholders that have school based sexual education programs about sexuality education programs that were held and hope of the model sexuality education. The researcher conducted several interviews to clarify the problems faced by students during the teaching and learning processes. The researcher employed focused group discussion with stakeholders that have a program of sex education in Sragen.

Researchers conducted a situational analysis to determine the need to develop a comprehensive sexuality education model. This analysis stage examines the context of sex education for students, including the types of sex education activities conducted, the materials and media provided, and supporting and inhibiting factors. They were also asked about suggestions for sexual and reproductive education programs that could be offered to middle school students. Data collection techniques at this stage include interviews and Focused Group Discussion (FGD). Interviews were conducted with students and parents. Additionally, FGDs were conducted with stakeholders delivering reproductive health programs for youth in the Sragen Regency.

Interviews with two students that the only sex education they received at school was either a short conversation with a teacher about reproductive organs or counseling from a local health center, but only the student representatives were present. Students are embarrassed to talk to their parents about sexual and reproductive health. Students said that learning about reproductive health is important for their future.

"I received sexual health education from teachers at school and counseling through a local health center, but I did not participate. Only my friends told me about it. I searched for it on the internet (laughing, looking confused). That's okay, it's good to understand. " (student 2). "My parents never asked me to talk about reproductive sexual health, but I didn't ask any questions because I was embarrassed to tell them." (student 1) The results of interviews with 2 parents revealed that parents felt confused and embarrassed when providing explanations to their children regarding sexual and reproductive health, which was done only to provide messages to maintain interactions with the opposite sex. Parents feel happy if there is sexual and reproductive health material at school provided by the teacher.

I think sex education should be included in the curriculum of schools by teachers. For people who don't know what education is appropriate for their age, I would support existing learning." (Parent 2)

Apart from that, FGDs were also carried out with several parties who contributed to adolescent reproductive health education in schools such as the Sragen Departments of Woman Empowerment, Child Protection, Population Control and Family Planning, Health Service (including the Community Health Center, school principals, teacher representatives. The results of FGD obtained the following data:

- 1. Sexual and reproductive health education has been provided to adolescents but is not yet comprehensive and optimal
- 2. The sex education that is implemented may be limited by human resources and budget
- 3. School-based CSE that intracurricular is needed to strengthens attitudes and confidence in making reproductive health decisions for all students
- 4. It is necessary to strengthen materials and guidance for teachers by completing materials, media and evaluation as part of the learning tools

Schools are ideal places to pass on knowledge and teach teens how to practice responsible sexual behavior (Ramírez-Villalobos et al., 2021). School-based sexual education (intracurricular) is effective because it can be reached by more teenagers, so that access to information for teenagers is maximized (Keogh et al., 2021). Furthermore, since sex education for parents is considered taboo, sex education in schools is also a means of educating young people about sexual and reproductive health. With limited teacher capacity and school facilities, supporting the implementation of sex education in schools requires efforts to build teacher capacity through multiparty involvement (Acharya et al., 2017).

### Design

The design phase of this school sex education model begins with the creation of a blueprint model.

Session	Subjects	Торіс	Media
1	Counseling	Relationships: self-	Poster : positive self love; self love;
	Guidance	introduction, friendship, love,	family; friendship; tolerance, wedding
		and long-term commitment	
2	Counseling	Gender and gender equality	1. Video: gender
	Guidance		2. Trigger statement about
			gender
3	Counseling	Adolescent and puberty	1. Video of male and female
	Guidance		puberty
			2. Conversation script
4	Counseling	Adolescent reproductive	1. Poster: male and female

**Table 1.** Blue Print for School-Based Comprehensive Sexuality Education in Grade 8

Session	Subjects	Торіс	Media
	Guidance	health	reproductive organ
			2. Video: male and female
			reproductive health
5	Counseling	Values, rights, and social	Power Point: values, rights, and social
	Guidance	norms in reproductive health	norms in reproductive health
			Question list to explore pupils'
			responses
6	Counseling	Concepts and prevention of	Video: types of sexual violence and
	Guidance	sexual violence	how to deal with sexual violence
7	Counseling	Sexuality and sexual behavior	1. Power point: types of sexual
	Guidance		behavior
			2. Video: promiscuity and
			unwanted pregnancy
8	Physical	Sexually Transmitted Infection	Video: HIV; Sexually Transmitted
	Education		Infection
9	Counseling	Decision-making, negotiation,	Poster: Effective communication
	Guidance	and communication skills	tips; decision making; case and trigger
			statements
10	Indonesian	Literacy and skills in making	- short story: incomparable pleasure
	language	healthy reproductive media	<b>-</b>

#### Development

Initial Product Preparation

This module is intended to facilitate teachers in teaching comprehensive sexuality education. The material in this module is integrated with counseling guidance, physical education and Indonesian language subjects for one semester. The material prepared in this module is adapted to grade 8 students by strengthening cognitive, attitudes, and basic life skills such as decision-making and respecting others.

This module is divided into 3 main parts, namely the first part contains the cover, foreword, table of contents. The second part contains chapter 2 of learning which consists of 10 sessions of learning activities with 9 themes, namely: 1) relationships, 2) gender, 3) puberty and hygiene, 4) reproductive organs, 5) value of rights, reproductive health norms, 6) prevention of violence sexual, 7) sexual behavior, 8) decision making, effective communication and 9) media and sexual violence prevention campaigns. Then the third part consists of the closing which is the conclusion and suggestions.

The material in the module is comprehensive sexuality education given to teenagers in grade 8. Comprehensive sexuality education is a teaching and learning process that is curriculum-based, and culturally relevant, according to information related to the physical, cognitive, social, and emotional aspects of a person's sexuality (Olufadewa et al., 2020). The topics taught in this module are following the concept of comprehensive sexuality education from the aspects of knowledge, attitudes, and skills including relationships with other people; values, rights, culture; gender; violence and staying safe; skills for health and prosperity; body development; sexuality and sexual behavior and sexual reproductive health (UNESCO, 2018). The concept of contraception is not taught to junior high school students, considering that at this age they cannot yet take full responsibility for themselves and others, and are still dependent on other people. Apart from that, if there is non-compliance with social and religious norms and health aspects, the focus is on

avoiding premarital sexual relations.

This module also involves parents, to stimulate interaction between children and parents discussing sexuality. The results of the trial explain that the challenges facing sexual education teaching related to culture and parents' shyness in discussing discussions with their children can be minimized considering that discussions between children and parents start from the parents' experiences. Parents synergize with teachers in teaching sexuality education. Teachers who feel unsure are also strengthened by the similarity of perceptions regarding the material to be taught, so that it can encourage teachers and parents to remove obstacles in teaching sexuality education to teenagers (Nyimbili et al., 2019)

## Content Validity

The parties who are competent as expert validators are the Sragen Departments of Woman Empowerment, Child Protection, Population Control and Family Planning, the Sragen Education Office, the Kakak Foundation, Surakarta and the Population and Gender Research Center UNS. Assessment by material and curriculum experts includes learning objectives, material selection, exercises/questions as well as language and writing. Each component has a rating of > 80. The average score given by experts, both material and curriculum experts, is 86.4. Based on the results of module validation, it was found that the module was suitable for use with improvements.

## Implementation

This stage carried out a limited trial at Plupuh 1 Junior High School. The trial was carried out on students for 10 face-to-face meetings for one class of 32 students. The trial process involved 4 teachers, namely the Guidance and Counseling teacher, Indonesian language teacher and the Physical Education teacher. Before implementation, a briefing was given to the facilitator teacher first. After that, the teacher will convey to students' comprehensive sexuality education material for 10 sessions.

At the end of the comprehensive sexuality education trial session, students and teachers were evaluated regarding the model that had been implemented. A total of 32 students and 4 teachers filled out a questionnaire regarding the effectiveness of the model that had been tested. The questionnaire components include 3 parts of the questionnaire, namely cognitive, affective, and conative. The results of the questionnaire analysis obtained an average student score of 89.46 and an average teacher score of 89.48. This means that a school-based CSE model can be used.

Adolescence is a critical period in the lives of young people globally. This period occurs in developing reproductive abilities, affirming identity, realizing independence, and strengthening self-assertion (Ramírez-Villalobos et al., 2021). Adolescence is also called puberty, which is marked by the emergence of new sensations related to sexual life. Therefore, adolescents are at risk of experiencing sexual and reproductive health vulnerabilities, including the initiation of sexual behavior (characterized by first sexual intercourse before the age of 15 years) (Tenkorang et al., 2020). The characteristics of adolescents include increased curiosity about various things and a process of imitation of adult behavior, so that sometimes risky behavior occurs in adolescents. This is because many passionate desires are not accompanied by the ability to assess the detailed consequences of these actions. The main task of educators is to teach students to anticipate the consequences of their actions (Ahunovna, 2021).

# Evaluation

The evaluation stage is an overall evaluation. The input results are followed up by making videos from several infographics or posters, then making them into one different link for teachers

and students. Each teacher will also receive a printed version of the module.

### CONCLUSIONS

The module of CSE has been developed based on the ADDIE model which covers 5 steps. Those are analysis, design, development, implementation, and evaluation.

Validation results of module explain that each component has a rating of > 80. The average score given by experts, both material and curriculum experts, is 86.4 which means that the module is good enough. Qualitatively, there are some suggestions given by experts. The results of the questionnaire analysis obtained an average student score of 89.46 and an average teacher score of 89.48. This means that a school-based comprehensive sexuality education model can be used.

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