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RESEARCH ARTICLE

Effect of Integrated Reproductive Health Learning Module Application on Student's Motivation and Learning Satisfaction in Junior High School

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Abstract

One of the potential public health issues in Indonesia is adolescent reproductive health (ARH) issue, particularly premarital sex and promiscuity behaviors which create the risk for unwanted pregnancies and sexual transmitted diseases such as HIV and AIDS. This study aimed to increase in student's motivation and learning satisfaction through the application of integrated reproductive health learning module in junior high school. This was a pre- and post-test quasiexperimental study with control group design on 358 seventh grade junior high school students in Bandung city. Sampling was performed using multistage random sampling method and subjects were divided equally into treatment group (n=179) and control group (n=179). Data collected were analyzed using chi-square test, Wilcoxon test, and Mann-Whitney test. Results showed that the application of integrated reproductive health learning module influenced motivation and satisfaction, which was evident from the increase in motivation and learning satisfaction scores in the treatment group (21.9% and 6.23%) when compared to the control group (2.2% and 6.1%). In conclusions, the use of integrated reproductive health learning module significantly influences student's motivation and learning satisfaction among seventh grade junior high school students.

Key words: Learning satisfaction, module, reproductive health, student motivation

Pengaruh Penerapan Modul Pembelajaran Kesehatan Reproduksi Terintegrasi terhadap Motivasi dan Kepuasan Belajar Siswa di Sekolah Menengah Pertama

Abstrak

Salah satu permasalahan kesehatan masyarakat yang potensial di Indonesia adalah masalah kesehatan reproduksi remaja (KRR) khususnya perilaku seks pranikah dan pergaulan bebas yang berisiko kehamilan yang tidak diinginkan dan penyakit infeksi menular seksual (IMS) seperti HIV dan AIDS. Penelitian ini bertujuan meningkatkan motivasi dan kepuasan belajar siswa dengan menerapkan modul pembelajaran kesehatan reproduksi terintegrasi di sekolah menengah pertama (SMP). Penelitian ini menggunakan *pre- and post-test quasi-experimental study* dengan desain kelompok kontrol pada 358 siswa kelas tujuh SMP di Kota Bandung pada Maret–April 2017. Pengambilan sampel dilakukan menggunakan metode *multistage random sampling* dan subjek dibagi secara merata menjadi kelompok perlakuan (n=179) dan kelompok kontrol (n=179). Data yang dikumpulkan dianalisis menggunakan uji *chi-square*, uji Wilcoxon, dan uji Mann-Whitney. Hasil penelitian menunjukkan bahwa penerapan modul pembelajaran kesehatan reproduksi terintegrasi memengaruhi motivasi dan kepuasan belajar yang terbukti dari peningkatan motivasi dan skor kepuasan belajar pada kelompok perlakuan (21,9% dan 6,23%) bila dibanding dengan kelompok kontrol (2,2% dan 6,1%). Simpulan, penerapan modul pembelajaran kesehatan reproduksi terintegrasi secara signifikan memengaruhi motivasi dan kepuasan belajar siswa kelas tujuh SMP.

Kata kunci: Kepuasan belajar, kesehatan reproduksi, modul, motivasi siswa

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Introduction

Reproductive health is included as one of the government major programs as a result of the international convention in reproductive health which was held on 5–13 September 1994 in Cairo. Adolescent reproductive health (ARH) is one of aspects of the Sustainable Development Goals (SDGs) to reduce maternal mortality, which is more likely to happen among adolescents who have unwanted pregnancies and unsafe abortion, and HIV and AIDS control because adolescents are vulnerable to this disease when they are promiscuous.[1–3]

The lack of information about sexuality and ways to protect health and reproductive health has created a risk for adolescents in addition to their lifestyle, cultural values, and loose social control. Adolescents have limited access to information regarding reproductive health, making them seeking for the information from inappropriate sources and media. Sexual and reproductive health often receive little attention because it is considered culturally sensitive and is vulnerable to debates among various perspectives. As a result, various problems caused by poor ARH knowledger occurs, including premarital sex, teenage pregnancy, unsafe abortion, early marriage, sexual abuse, and rape and/or sexual violence which are widely reported by the media.[1,4–6]

Adolescent is defined as individuals aged 10–19 years in a dynamic growth and development phase.[7–10] According to the Regulation of the Minister of Health Republic of Indonesia,[11] adolescents are those in the age range of 10–18 years.[12] Meanwhile, the National Population and Family Planning Board (*Badan Kependudukan dan Keluarga Berencana Nasional*/BKKBN) defines adolescents as individuals aged 10–24 years who are not yet married.[9,13] The World Health Organization (WHO) estimates that the ratio of adolescents in the world is around 1–6 people or 1.2 billions. The number of adolescents West Java province in 2015 is 12,535,838 people or 27% of the total population 17 while in 2014 the number in Bandung city is 703,522 or 27.3% of the total population of 2,575,478 people.[17]

Adolescence is an important period in life. This period also includes the period of sexual learning and development which lasts from about thirteen years old to sixteen or seventeen years old. Adolescence as a transition period from childhood to adulthood is characterized by rapid growth and development including physical, cognitive, behavioral, and psychosocial developments which are characterized by an increased desire to seek self-identity and independence. On average, puberty in adolescent girls starts 12–18 months faster than in adolescent boys. Because of the increased interest in sex, teenagers will try to find sex-related information from various sources such as discussing with friends, reading books about sex, and even trying certain behaviors to satisfy their curiosity.[3,18]

According to WHO, Indonesia is the country in ASEAN with the highest number of unwanted pregnancies that involves more than 32,000 women between 2010–2014.[7] In developing countries, around 15 million adolescents under the age of 18 are married and 2.5 million adolescents under the age of 16 have already given birth. The United Nations Population Fund (UNFPA) stated that 40% of HIV positive cases are detected at the age of 20–29 years. This shows that they were infected with HIV around 5–10 years before, that is when they were around 15 years old.[7,10]

Based on data from the Indonesian Child Protection Commission (*Komisi Perlindungan Anak Indonesia*/KPAI) showed that 32% of adolescents aged 14–18 years living in big cities in Indonesia (Jakarta, Surabaya, and Bandung) have been involved in premarital sexual intercourse and 62.7% of teenagers lost their virginity when they are still in high school and 21.2% of them even had an abortion.[19] Based on the 2015 data from the West Java Women Empowerment Child Protection and Family Planning Agency (*Badan Pemberdayaan Perempuan, Perlindungan Anak dan Keluarga Berencana*/BP3AKB), of all child-related violence cases, 40% involves sodomy, 11.3% involves rape, 3.48% involves incest, and 0.87% involves sexual abuse.[22] In 2015, West Java province has recording 801 and 354 cases of HIV and AIDS for adolescents aged 15–24 years old, respectively.[13] Unfortunately, in Indonesia the topic of sexuality is still considered taboos to be discussed with adults, including parents and teachers. However, with the increase use of internet by children and adolescents, these age groups know have open access to pornographic images and movies that may give a false impression about sexuality in real life. This is also added by the increased vulnerability in family

resilience caused by permissiveness as well wrong interpretation on religion in society.[19,21–23]

Sex education is one method to reduce and prevent sexual abuse and other negative impacts related to sexual behaviors. Sexual life contents must have been taught before a child leaves senior high school and preparations for it should have been done since junior high school.[24] In 2009, the United Nations Educational, Scientific and Cultural Organization (UNESCO), the United Nations Population Fund (UNFPA), the United Nations Program on HIV & AIDS (UNAIDS), and WHO issued a guide to sexuality education for schools, teachers, and health educators entitled International Technical Guidance on Sexuality Education: An Evidence-Informed Approach to Schools, Teachers and Health Educators (ITGSE). This guide divides learning objectives and main ideas for learning sexual and reproductive health based on age levels. In Indonesia, the ITGSE guideline has not yet been adopted by the Ministry of Education and Culture into the national curriculum. Thus, when someone has completed compulsory education in Indonesia (generally at the age of 19 years), he or she does not necessarily have good understanding on reproductive and sexual health.[27,28]

Efforts to overcome adolescent reproductive health problems, especially in developing countries, are based on program settings, namely school-based, mass-based, community-based, workplace-based, and health-based programs. School is one of the main institutions to ensure adolescents gain effective and inclusive access to sexual health education and to equip youth with knowledge, understanding, skills and attitudes to consider and make decisions regarding their sexual health.[25,26] Reproductive health education in adolescents can build values, attitudes and habits of adolescents to be able to respect and protect their own reproductive health and rights.[27] The use of a module will make learning activities to be better planned with clear outputs, independent, and comprehensive. Thus, the need to develop a module as teaching materials on reproductive health in schools is considered an urgent need to achieve quality learning.[28]

Basically, very little learning results can be obtained if students are not motivated. Student motivation is an important element needed for quality education.[30] Learning motivation and learning satisfaction are among determinants for effective learning that will reinforce learning. To achieve this, it is necessary to clarify learning objectives to be achieved and to determine various controls on learning stimuli. Motivation is the most important aspect and there have been many studies performed due to its strong relationship with learning achievement.[31]

A module will be considered effective when its application creates a pleasant feeling and satisfaction to the students that they become motivated to learn and practice. Students as customers in education play an important role that is beyond the role of recipient of knowledge only and student satisfaction is a quality that is important for successful learning. This quality can be measured through the gap between perceived service and expected service by looking at satisfaction that is reflected from the suitability between expectations and what are obtained from a service.[33,34]

The preparation of this integrated reproductive health learning module was linked to the National 2013 Curriculum, UNESCO Comprehensive Sexual Education, and HOT Program that addresses reproductive health, sexuality, and individual development. This module was developed on the principles of evidence-based, contextual learning, and student centered, which is harmonized with adolescent development including physical, psychological, cognitive, and social by applying aspects of moral ethics, religion, culture, psychology, and information technology development.

Methods

This was a pre- and post-test quasiexperimental study with control group design conducted in 5 regions of Bandung city, namely west Bandung, east Bandung, southeast Bandung, north Bandung, and south Bandung in March–April 2017. The sampling in this study used multistage random sampling approach which includes all subjects in an affordable population with a total population of 179 respondents in each group.

An ethical clearance for this study was gained from the Health Research Ethics Committee of the Faculty of Medicine, Universitas Padjadjaran with the issuance of ethical approval number: 363/UN6.C10/PN/2017. This study applied three basic principles of research ethics, namely respect to person, beneficence and non maleficence, and

justice.

Results

The integrated reproductive health learning modules was applied simultaneously for 4 weeks in state junior high schools that had never used similar reproductive health modules. All junior high school teachers involved in this study were teachers of Natural Sciences (NS) and Sports and Health Physical Education (HPE) totaling 18 people.

Data were collected after eight sessions were performed using the integrated reproductive health learning modules and analysis was performed to determine the effect of the application of integrated reproductive health learning modules on learning motivation and learning satisfaction of seventh grade junior high school students. As shown in Table 1 respondents were homogenous which enable comparison between the two groups.

Significant differences in motivation scores and learning satisfaction before and after the application of integrated reproductive health learning modules were seen ($p<0.05$). The increase in motivation score and learning satisfaction before and after treatment in the treatment group (21.9% and 6.23%, respectively) was better than those in the control group (2.2% and 6.1%, respectively), as listed in Table 2.

Table 3 presents that in the treatment group, 125 of 179 students (69.8%) experienced improvement in learning motivation, and 111 of 179 students (62%) experienced improvement in learning satisfaction. The increase in motivation

Table 1 Characteristics of Respondents

Characteristics	Groups		p Value
	Treatment (n=179)	Control (n=179)	
Age			0.144
X (SD)	12.64 (59.7)	12.73 (55.9)	
Range	12–16	12–15	
Median	13	13	
Gender			0.833
Boys	86	88	
Girls	93	91	

Table 2 Differences in Motivation Score and Learning Satisfaction

Variables	Groups				p Value
	Treatment (n=179)		Control (n=179)		
	Pretest	Posttest	Pretest	Posttest	
Motivation					<0.001
X (SD)	66.8 (12.6)	81.4 (8.1)	67.4 (10.8)	68.9 (10.5)	
Range	14.5–85.5	42.5–100	24.2–83.3	48.6–98.6	
Median	69.4	82.8	70.4	76.4	
p value	<0.001		0.081		
Increase (%)	21.9		2.2		
Satisfaction					<0.001
X (SD)	78.36 (13.8)	83.57 (9.3)	83.95 (9.99)	79.12 (10.66)	
Range	50–100	55.56–100	50–100	51.39–100	
Median	80.6	83.3	84.72	76.39	
p value	<0.001		0.070		
Increase (%)	6.23		6.1		

Table 3 Differences in Increased Motivation and Learning Satisfaction

Variables	Groups		p Value
	Treatment (n=179)	Control (n=179)	
Motivation			<0.001
Good	125 (69.8%)	54 (30.2%)	
Poor	54 (30.2%)	125 (69.8%)	
Increase (%)	69.8	30.2	
Satisfaction			<0.001
Good	111 (62%)	68 (38%)	
Poor	68 (38%)	111 (62%)	
Increase (%)	62	38	

and learning satisfaction was statistically very significant (p≤0.05).

Discussion

Student learning motivation in this study was measured using a questionnaire developed by Pintrich et al.,[36] Motivated Strategies for Learning Questionnaire (MSLQ), with 31 items. The questionnaire evaluates learning by emphasizing the concepts of cognitive psychology in assessing students' motivational orientation. In the study process, before the integrated reproductive health learning module was used, the teachers were equipped with training regarding the use of the module for 3 days. The objective was to make teachers understand the contents and process for delivering the module that it can be applied correctly. For that reason, researchers created an observation sheet regarding module delivery to help observers in evaluating the teaching process by the teachers. This observation sheet contained 12 assessment points.

The module as a learning tool was developed in a systematic and interesting manner to be able to achieve the expected competencies according to the level of complexity. The results of the evaluation in this study presented that learning using this module could help students to improve their understanding, achieve minimum comprehensiveness criteria, to bring students to be actively involved in learning activities, and familiarize students to find concepts in independent learning activities.[28,35] The application of the module was able to condition learning activities to be more well planned, independent, and comprehensive with clear results.[28]

Integrated learning is an approach to develop students 'knowledge based on interactions with life experiences in accordance with students' interests and needs.[29] In line with Howorth's[32] opinion, students who have an interest towards the module will learn more contents, enjoy, and have a better understanding of the materials. The results of this study indicated that the effective implementation of integrated reproductive health learning modules can improve students' learning motivation. Learning satisfaction theory by Cardozo[33] mentioned learning satisfaction as the result of a comparison between expectations and services that are felt with a sense of pleasure or not happy. A person will feel satisfied if expectations are in accordance with reality and feel dissatisfied if something is not in line with their expectations. Learning satisfaction shows students 'feelings and attitudes towards learning activities and can affect students' motivation and behavior.[34] For that, it requires a change in learning techniques to achieve expectations that are in accordance with the needs of students in order to improve student learning satisfaction.

Measurement of learning satisfaction according to Parasuraman et al.'s[31] theory consists of five dominant factors of service quality determinants which are then proxied to assess student learning satisfaction when learning using the integrated reproductive health learning module. Indicators of learning satisfaction were based on reliability, responsiveness, assurance, empathy, and tangibility.

This study revealed that student satisfaction in the treatment group increased by 6.23% compared to the control group that showed a

negative gap between perceived services with desired expectations of 6.1%. This difference in learning satisfaction was statistically very meaningful with p≤0.001, meaning that the application of integrated reproductive health learning module was able to improve student learning satisfaction. According to Hasan et al.,[38] one of the problems seen in education is the difficulty of maintaining student motivation and interest in obtaining good academic achievement at school. More and more students are becoming less interested in learning when they enter junior high school and will be increasingly unmotivated when entering senior high school.

Students' learning satisfaction increased in 111 students (62%) in the treatment group while in the control group, the increase was only seen in 68 students (38%) out of 179 students. The presence negative gaps seen in the control group reflects a condition that the perceived learning still cannot meet the expectations of students. The effect on satisfaction may come from the different learning approaches and strategies applied in the national 2013 curriculum and integrated reproductive health modules.

Conclusions

The use of integrated reproductive health learning module significantly influences student's motivation and learning satisfaction among seventh grade junior high school students.

Conflict of Interest

The authors declare no conflict of interest.

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