Life Skills Education to Improvement of Teenager's Knowledge, Attitude, Self-efficacy and Risk Health Behavior

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Abstract

IDHS data shows adolescent risky behaviors such as smoking, alcohol, drugs and free sex tend an increasing from year to year. The purpose of this study was to analyze the influence of life skills education on adolescents' knowledge, attitudes, self-efficacy and prevention of health risk behaviors.This study was a quasi-experimental design with non-equivalent pre-test post-test control group. Of 28 and 60 adolescents at the villages of Sembukan and Sukoharjo, Wonogiri were selected purposively to participate in this study. Life skills education were conduted for 3 months, every week for 6 hours. At the end of the intervention adolescent's ambassadors were formed called "Narsis" to share and educate their peers. Data were analyzed by univariate, independent t-test mann whitney and paired t-test. The findings show that there was significant influence on providing lifeskills education to adolescent's knowledge, attitudes, self efficacy and pre-vention health risk behaviour at the intervention group. Whilst, there was only a slight increase on knowledge and significantly decrease in attitudes and self-efficacy including the prevention risk behaviors of adolescents at control group. It is recommended that adolescents are necessary to provide intensive and comprehensive life skills education to prevent their risk behaviours.

Introduction

Adolescence is a period of rapid physical and psychological growth and development. At this time, adolescents have great curiosity, like challenging adventures, and even dare to take risks without careful consideration and understanding. If the decisions made by these adolescents are not correct, it is possible to fall into unhealthy behavior or lifestyles. Unhealthy lifestyles that arise since or during adolescence can have health impacts in the short and long term. These impacts can affect both physical and psychosocial health.

Based on the 2012 IDHS data, around 33.3% of girls and 34.5% of boys aged 15-19 years started dating when they were not yet 15 years old. At that age, it is concerned that they do not have adequate life skills. So they are at risk of having unhealthy date behavior, such as having premarital sex (Kemenkes RI, 2017).

Premarital sex among adolescents is at risk for teenage pregnancy and transmission of sexually transmitted diseases, including HIV / AIDS. Unplanned pregnancies in female adolescents can lead to abortion and early adolescent marriage. Both will affect the future of the teenager, the fetus he is carrying, and his family. Indonesia is among the 37th country with a near high percentage of young marriages. Marriage at a young age poses a risk to health because it is not ready physically, mentally, emotionally, and socio-economically (Kemenkes RI, 2017).

Other unhealthy behaviors that often appear during adolescence include drinking and smoking. In 2016, the number of novice smokers increased to 8.8% from 7% in 2015. Data from the Ministry of Health shows the prevalence of smokers in Indonesia aged 15 years and under increased by 36.3% compared to 27% in 1995. It causes Indonesia to become

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the country with the 3rd highest number of smokers in the world. Teens are already familiar with smoking while in elementary school, even earlier. The worrying number of novice smokers in Indonesia will impact the health and quality of future younger generations Nutbeam, 2018).

Injecting drugs has contributed as much as 7.7% of the Indonesia HIV / AIDS rate in 2014. Although this figure is smaller than in previous years, the HIV / AIDS phenomenon is an iceberg phenomenon that needs efforts to overcome and prevent as early as possible. It is because most people with AIDS acquire HIV when they are teenagers (Bezerra & Sorpreso, 2016).

In 2013, the Indonesian Ministry of Health issued the ABAT (Aku Bangga Aku Tahu/I'm Proud I Know) program to prevent the development of HIV / AIDS in adolescents. This program targets adolescents aged 15-24 years to increase their knowledge of HIV / AIDS, such as how it transmits through sex and unsafe injection drug use (Bezerra & Sorpreso, 2016). The National Population and Family Planning Board (BKKBN) has also developed a GenRe (Generasi Berencana/ Planning Generation) program for unmarried adolescents aged 10-24 years, families, and communities who care about adolescents. This program provides information and promotion on reproductive health, such as the dangers of early / child marriage, the risk of having premarital sex, and the harm of using drugs, cultivation of life skills or self-concept development, providing information on family life planning and providing information on population and family development. (Uhl et al., 2019).

Lifes skills-based learning program is to develop youth learning abilities and self-potential to dare to face problems and find solutions. With life skills, adolescents can be more responsible for their health and understand the risks resulting from risky behavior. In the health sector, life skills aim to develop the skills needed, patterns of thought and action, behave physically, mentally, and environmentally to improve health status (Seangpraw et al., 2017). This study aims to provide life-skills education interventions to adolescents and to analyze the effect of life skills education on increasing knowledge, attitudes, self-efficacy, and adolescent health risk behaviors such as smoking, alcohol, drugs, and free sex.

Method

This study is a quasi-experimental study using a non-equivalent pre-test post-test control design group approach. Respondents were selected purposively with the following criteria: 15-19 years old, willing to participate in the research, and residing in Sembukan Village and Sukoharjo Wonogiri Regency. As many as 50 respondents were selected from Sembukan Village as the intervention area. Sixty respondents in the control area came from Sukoharjo Village. We calculate the sample size based on the Lemeshow formula. The intervention was carried out for three months every Sunday for 6 hours with the material life skills provision through lectures, simulations, role-playing, video giving, case studies, and testimonials. The measurement of the dependent variable consisting of knowledge, attitudes, self-efficacy, and risky behavior is measured before and after the intervention using a questionnaire that has been tested for validity and reliability. Of the 50 adolescents, only 28 were able to participate in the full intervention. As many as 22 respondents dropped out because they had school activities and had to help their parents. The data were analyzed using the univariate test to determine the frequency distribution of characteristic variables. The characteristics variables are age, education, occupation, amount of pocket money, length of smoking, religiosity, self-esteem, place of residence, curfew rules and sanctions, and dependent variables such as knowledge, attitudes, self-efficacy, and health risk behavior (smoking, alcohol, drugs, and free sex). The bivariate test used an independent t-test for numerical data. The Chi-square test was used for categorical data to see the homogeneity of the intervention and control groups. Meanwhile, the paired t-test was used to see the impact of an increasing intervention. The Research Ethics Commission of the Faculty of Public Health, Diponegoro University, had approved this research protocol under approval number 055 / EA / KEPK-FKM / 2018.

Result and Discussion

The results showed that most of the respondents in this study were aged less and equal to 16 years (53.4%). The average age of the respondents was 16.51 years. More than half of the respondents were male (52.3%), and nearly half were female (47.7%). All respondents (100%) stated that they had not worked. Most (63.6%) received pocket money from their parents of ≤ IDR 15,000, and the rest received an allowance of more than IDR 15,000 (32.4%). The most types of expenditure used by teenagers were for food / snacks by 36.4%; school activities / needs 29.5%; for entertainment 17.0%; buying clothes 11.4% and gasoline / transportation 5.7%.

Table 1. Respondent's Characteristics

Characteristics	f	%
Age		
≤16 years	47	53,4%
>16 years	41	56,6%
Gender		
Male	46	52,3%
Female	42	47,7%
Income Source		
Parents	88	100%
Working	0	0%
Pocket Money		
≤ Rp. 15,000,-	56	63,6%
> Rp. 15,000,-	32	36,4%
Major Expenditures		
Food/Snacks	32	36,4%
Clothing	10	11,4%
Entertainment	15	17,0%
School needs	26	29,5%
Gasoline/transportation	5	5,7%
Father's Education		
Junior High and below	62	70,5%
Senior High and above	26	29,5%
Mother's Education		
Junior High and below	66	75,0%
Senior High and above	22	25,0%
Father's Occupation		
Farmer/Worker	26	29,5%
Non Farmer/Worker	62	70,5%
Mother's Occupation		
Farmer/Worker	22	25,0%
Non Farmer/Worker	66	75,0%
Family Income		
≤ Rp. 2,000,000,-	52	59,1%
> Rp. 2,000,000,-	36	40,9%
Parent's Marital Status		
Intact	85	96,6%
Divorced	2	2,3%
Both Passed Away	1	1,1%
Current Residential Status		
Dormitory	3	3,4%
Rent	1	1,1%
With Parent	84	95,5%
Visiting Hour Rule		
Yes	47	53,4%
No	41	46,6%
Punishment/Sanction on Rule Violation		
Yes	40	45,5%
No	48	54,5%

Source: Primary data, 2018

When viewed from the level of education of the respondent's parents, there were more who graduated from junior high school and below (father = 70.5%; mother = 75%) compared to those who graduated from high school and above (father = 29.5%; mother = 25%). Parents work more as laborers (father = 70.5%; mother = 75%) than as farmers (father = 29.5%; mother = 25%). The average income of most (59.1%) parents of respondents was less than or equal to Rp. 2,000,000, - per month. When viewed from their education and occupation, most of the re-spondent's families fall into the middle to lower / low socioeconomic families. Almost all of the parents' marital status was still intact / not divorced (96.6%). Most of the respondents still live with parents (95.5%) who provide rules for visiting hours (53.4%) and do not impose punishment/sanctions for violating these rules of 54.5%. It means that parents allow their children to play at night. Previous research states that parental supervision greatly affects pre-marital sexual behavior in adolescents (Tlustos et al., 2016).

Table 2. Difference Test Result on Intervention Group and Control Group Before Intervention

Characteristics	Intervention		Control		p-value
	Mean	SD	Mean	SD	
Age	15,80	0,997	16,73	1,260	0,001
Religiousity	9,333	2,0899	6,900	1,6229	0,000
Pocket Money	12900	5743,662	15033,33	5784,159	0,076
Parent's Income	2.246.666,67	1.316.142,046	2.915.833,33	4.073.867,646	0,859
Self-esteem	26,7	4,4268	59,1	6,73644	0,000
Spare time usage	67,8333	5,50914	28,5167	3,60551	0,000
Knowledge	69,6333	13,81275	2,9	0,39915	0,000
Attitude	69,6333	7,77921	61	14,92921	0,008
Self-efficacy	56,5	8,93945	72,0833	6,79803	0,000
Risky Behavior Prevention	32,4	3,11393	32,8667	3,93794	0,050

Source: Primary data, 2018

Table 2 shows the results of the Mann-Whitney test. Showing that the variables age, religiosity, self-esteem, use of leisure time, there are differences between the control and intervention groups, with a p-value <0.05 (age = 0.001; religiosity = 0.000; self-esteem = 0,000; use of free time = 0,000) so that these variables are categorized as confounding variables. Meanwhile, knowledge, attitudes and self-efficacy also have significant differences between the control and intervention groups because they have a p-value <0.05 (knowledge = 0,000; attitude = 0.008; and self-efficacy = 0,000). So it can be interpreted that the two groups are not the same or not homogeneous before the intervention. It is likely because the intervention group was in areas closer to the mountains or rural areas while the control group was closer to urban areas. The region's difference allows the different adolescents' conditions, especially in terms of knowledge, attitudes, and self-efficacy towards health risk behavior. Meanwhile, pocket money and parents' income have a p-value of more than 0.05 (0.076 and 0.859, respectively). So the two variables are homogeneous in the two groups, namely that both have almost the same socioeconomic conditions.

Table 3. Characteristics' Variation Test Result on Intervention Group and Control Group Before Intervention

Characteristics	Intervensi		Kontrol		p-value
	n	%	n	%	
Gender					
Male	20	42,6	27	57,4	0,052
Female	10	23,3	33	76,7	
Religion					
Moslem	30	34,5	57	65,6	0,291
Christian	0	0	3	100	
Father's Education					
Junior High and below	25	39,1	39	60,9	0,070
Senior High and above	5	19,2	21	80,6	
Mother's Education					
Junior High and below	26	38,8	41	61,2	0,060
Senior High and above	4	17,4	19	82,6	
Father's Occupation					
Farmer	19	70,4	8	29,6	0,000
Non Farmer	11	17,5	52	82,5	
Mother's Occupation					
Not Working	9	29	22	71	0,530
Working	21	35,6	38	64,4	
Residence					
With Parent	27	32,5	56	67,5	0,429
Separate from Parent	3	42,9	4	57,1	
Nighttime Visit Hour Rule					
Yes	7	17,9	32	82,1	0,007
No	23	45,1	28	54,9	
Visit Rule Violation Sanction					
Yes	3	8,8	31	91,2	0,000
No	27	48,2	29	51,8	
Parental Completeness					
Complete	29	35,4	53	64,6	0,328
Single Parent	1	16,7	5	83,3	

Source: Primary data, 2018

Based on the results of the Chi-Square Test which can be seen in Table 3, it shows that the father's occupation, restrictions on nighttime visits and the imposition of rule violations, there are differences between the intervention and control groups with a p-value <0.05, so these variables are as follows: confounding variables in this study. While the variable gender (p-value = 0.052), religion (p-value = 0.291), father's education (p-value = 0.070), mother's education (p-value = 0.0.530), mother's occupation (p-value = 0.530), residence (p-value = 0.429) and parental completeness (p-value = 0.328) all did not differ between the intervention and control groups with p value> 0.05. So that all homogeneous in the two groups.

Table 4. Difference Test Result between Pre-test and Post-test on Intervention Group

| Variable | Mean | | p-value |
	Pre-test	Post-test	
Knowledge	69,63	76,83	0,007
Attitude	69,63	72,03	0,109
Self-efficacy	56,50	57,46	0,544
Risky Behavior Prevention	32,40	33,43	0,008

Source: Primary data, 2018

Based on table 4, there are two variables found to have an average difference between the pre-test and post-test with a p-value <0.05, namely the knowledge variable (p-value = 0.007) and risky behavior (p-value = 0.008). In the knowledge variable, the post-test score (76.83) was higher than the pre-test (69.63), with an average delta of 7.2. It means that there is an increase in the knowledge value of adolescents by 7.2 points. Besides, though there was no statistically significant increase in attitude and self-efficacy, with p value> 0.05 (attitude: 0.109; self-efficacy: 0.544), both improved in the pre-test and post-test 2.4 points for attitude and 0.96 on self-efficacy. Meanwhile, the health risk prevention behavior shows a significant 1.03 points better before and after the intervention with a p-value of 0.008. It means that after the intervention, the risk behavior of adolescents decreased.

Table 5. Difference Test Result Between Pre-test and Post-test on Control Group

| Variable | Mean | | p-value |
	Pre-test	Post-test	
Knowledge	61,53	65,33	0,104
Attitude	72,17	66,10	0,000
Self-efficacy	59,03	54,86	0,001
Risky Behavior Prevention	32,83	31,24	0,005

Source: Primary data, 2018

Table 5 shows the difference in the pretest to posttest scores in the control group. The paired t-test shows that there is an average difference between the pretest and posttest in the control group with a p-value <0.05 on the attitude variable (p-value = 0.000); self-efficacy (p-value = 0.001) and health risk behavior (p-value = 0.005). However, the three variables experienced a significant decrease in the pretest to posttest scores, namely the attitude variable from 72.17 to 66.10; self-efficacy from 59.03 to 54.86; and risky behavior from 32.83 to 31.24. Meanwhile, the knowledge variable experienced a slight increase from the pretest to posttest score though it was not statistically significant (p-value 0.104), which was 3.8 points.

Before the intervention, the control group had better scores for attitude, self-efficacy, and risky behavior prevention than the intervention. But after the intervention, the scores for these three variables decreased significantly. It is due to the control group was not given the slightest understanding in terms of preventing health risk behavior and was only given a pocketbook on a healthy diet. Besides, the religious factor may affect risky behavior. Indicate that the level of the two groups is significantly different. The intervention group has a better level of religiosity. Previous research

has stated that religiosity is related to sexual behavior in adolescents (Haluza & Jungwirth, 2015).

Adolescence is currently volatile in social and psychological aspects, including physical. The conditions do not all happen simultaneously. It makes adolescents often involved with health risk problems. Such as sexual behavior, smoking, drinking alcohol, drugs, and so on. Lack of knowledge and skills needed to make the right decisions in many conditions, makes adolescents meet their emotional needs with sudden thought without considering the impact. It is due to neurologically, under 20 years of age, the growth of the psychological aspects is still not complete. So decision-making and thinking for the future skill have not yet been developed (Santrock, 2011). Therefore, through education, life skills are expected to increase the adolescents' understanding in acting as regulators about the impacts and risks. Thus they become individuals who can be responsible for their safety and health.

In the life skills education process, the characteristics of current adolescents who tend not to want to be patronized, like playing, sharing experiences, need to be understood. So the provision of life skills education to increase adolescent knowledge, understanding, attitudes, and self-efficacy are more appropriate by using games and case examples. according to their experience and needs (Kai, Chu and Kwan, 2015).

Donkin et al. (2014) suggested when studying something, we must consider several individual characteristics. Such as age, family status, education, and economy (Donkin et al., 2014). Not much different from Mayo (2015) which states that information needs to depend on activities or disciplines, availability of facilities, motivational factors for information needs, the need to make decisions, they need to look for new ideas or get the correct information (Mayo and Issa, 2015). Webster said that one of the needs to be fulfilled is a cognitive need that aims to strengthen knowledge or understanding based on the desire to know and understand the environment (Webster and Kruglanski, 2011). In everyday life, it can be exemplified such as curiosity about everything that has happened, is happening, or will be happened (Bezerra &

Sorpreso, 2016).

The results indicate that life skills education interventions significantly reduce the risk of smoking, drinking alcohol, drugs, and risky dating behavior. Aligned with research conducted by Abbasi Parvin et al. (2018), Parvaty V (2014), and Zulkifly A (2018) found that practicing life skills in adolescents can reduce drug use, especially in adolescents at risk, promiscuity, and smoking (Abassi, Ziapour and Kianipour, 2018; Valsala, Devanathan and Kuttappan, 2018). It is because a person's attitude relies on his cognitive level. For adolescents whose cognitive skills are not yet good, the information they put in their minds is the information they get from their environment. It is often wrong, but they think it is right to try. So, they try forbidden things and feel that by doing it, they are up to date with their friends, without thinking they will harm their health (including addiction) (Uhl, Koob and Cable, 2019).

The results also showed that the increase in knowledge between before and after the intervention was statistically significant. The knowledge increase was pretty high compared to attitudes, self-efficacy, and prevention of risky behavior. It is due to the intervention group provides life skills education using simulations, role-playing, and case study practices. Making it easier for adolescents to understand and improve knowledge in a comprehensive and youth-friendly manner (cases are adjusted to their situation).

Simulation and role-playing methods are learning methods by imitating and dramatizing behavior related to everyday problems. These provide opportunities to be creative, imagine, collaborate and appreciate it more. It will be easier for adolescents to believe in the impact of an object of negative behavior. Likewise, the case study or problem-solving method invites adolescents to be rational, active, and responsible for their behavior (Tlustos, Kirkwood and Wade, 2016; Punhagui, 2019).

According to Edgar Dale, his conical experience stated that learning methods and media determine the target achievement. The more involved a person is with their learning activities, the easier it is to understand, remember, and be sure and easy to practice

(Nutbeam, 2018). It is in line with Wahlund's research (2020) which states that there is an increase in knowledge in adolescents after intervention with extension methods followed on adolescent reproductive health and GenRe from an initial score of 11.43 to 14.90 with a p-value (0.000) (Wahlund, 2020). Saputri's research results (2015) explained the differences in the teenagers' knowledge in Semarang after the role-playing method intervention (Saputri and Azam, 2015). Inviting adolescents to learn by playing is a potential method for improving their attitudes (Bouris et al., 2015).

The intervention once a week, for three months, with 6 hours intervention created opportunities for adolescents to change their knowledge and improve their cognitive abilities (Wahlund, 2020). Align with the social cognitive theory put forward by Bandura stated that measuring changes in attitudes takes a relatively long time to consider the benefits and barriers of implementing these behaviors (Velasco and Harder, 2014; Beauchamp, Crawford and Jackson, 2018). Likewise, a person's self-efficacy (ability) to change towards a positive direction takes longer than time to increase knowledge. The theory of the transtheoretical model by Prochaska also says that changing positive attitudes, increasing self-efficacy, and implementing behavior require strengthening from oneself and assisted by a positive environment to anticipate unfortunate conditions that can cause relapse (Abassi, Ziapour and Kianipour, 2018; Valsala, Devanathan and Kuttappan, 2018).

This research has several limitations, namely because it was carried out from July to December 2019 at the same time as preparations for the Indonesian independence celebration. So many respondents were unable to attend during the intervention and eventually dropped out. According to Javanese culture, many people during these months also get married because it is considered a good month. Many teenagers are involved in helping community activities and their parents. Besides, the time for the research was coincided with the period for changing positions of village officials. This cause support from community leaders in the implementation is not sufficient when we carried out the need assessment at the beginning of the study.

Conclussion

Comprehensive cognitive life skills education has a significant effect on increasing adolescent knowledge in terms of the impact of health risk behaviors such as smoking, drinking, drugs, and free sex. Likewise, there was an increase in positive attitudes in prevention behavior. Yet the increase was not significant and not as high as knowledge. The self-efficacy variable also increased insignificantly with the lowest score increasing compared to the other three variables. Meanwhile, life skills education also has a significant effect on increasing risk behavior prevention behavior. In the control group, there was no significant difference in the knowledge. There was a slight increase in the average score. However, there are significant differences in attitude, self-efficacy, and preventive behavior. It leads to a decrease in the pretest to posttest scores. It means that the control group has more negative attitudes, self-efficacy, and behavior than before the intervention.

The characteristics of the two research groups are relatively the same. Particularly in socio-economy, parental education, and occupation. The religiosity of the intervention group was better than the control group. The average score of knowledge in the intervention group was better than the control group. The average score of attitude, self-efficacy, and prevention behavior in the control group was better before the intervention than in the intervention group.

Budget.

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