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Reproductive health promotion through traditional art media reduced premarital sex intention among adolescent population in Gianyar, Bali



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ABSTRACT

Background: Sex education in adolescents is still considered taboo to be discussed in the community. Traditional arts as communicative and informative socialization media contain meaningful messages, it is expected that teenagers get a good understanding of reproductive health so that they become healthy and quality adolescents. Therefore, this study aimed to evaluate reproductive health promotion through traditional arts media on adolescent knowledge, attitudes and sexual intentions in Gianyar, Bali.

Methods: A quantitative study with a quasi-experimental design was conducted with nonequivalent (pretest and posttest) control group. Data on premarital sex knowledge, attitudes and intentions were collected before and after staging traditional arts in the intervention group (75 adolescents). Data were collected from self-filled questionnaires

and analyzed using STATA (version 12.0). Data analysis was conducted using Wilcoxon rank test and Wilcoxon rank-sum.

Results: The results showed an overall significant improvement in the knowledge and attitudes of adolescents about premarital sex and a decrease intention toward premarital sex after intervention (p value 0.00). The improvement in knowledge, premarital sex attitudes and intentions was more pronounced in the intervention group compared to control group. The control group that was not given an intervention showed a higher average value of premarital sex intention.

Conclusion: Reproductive health promotion program using traditional arts media was able to significantly reduce premarital sex intentions among teenagers.

Keywords: Promotion of reproductive health, traditional arts, premarital sex intentions, adolescents

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INTRODUCTION

With a large number of adolescents in developing countries such as in Indonesia, as well as a lot of exposure to information technology, adolescents who are less literate/exposed to information will potentially have less knowledge about reproductive health. One of the problems that should be considered is the risky sexual behavior of adolescents. National figures from the Indonesian Demographic and Health Survey in 2012 showed that 33.3% of women and 34.5% of men aged 15-19 years had been dating before age 15 years old.¹ Data from Basic Health Research (National Health Research) in 2010 found that a significant portion of population aged between 10-24 year olds have had premarital sexual experience.² Meanwhile, the high TFR (Total Fertility Rate) is also emerged as a new problem which is related to the incidence of unwanted pregnancies in adolescents and early marriage. One of the risk factors of of teenage pregnancy is the attitude to premarital sex. Premarital sexual behavior is all sexual behavior driven by sexual desire, in this case, unmarried teenagers, ranging from a less intimate level to sexual intercourse.³

Teenagers in Bali cannot be separated from problems related to sexuality. PKBI in the Province of Bali in 2015 stated that as many as 274 teenagers were recorded for sexually transmitted diseases treatment and as many as 29 adolescents were reported to have pregnancy counseling. Gianyar Regency is one of the districts in Bali Province with a large number of adolescents, recorded at 86,665 people in 2015. With the large number of teenagers, the problem of adolescents in Gianyar Regency is quite diverse. However, data is difficult to obtain because of sensitive nature of the issue or under-reported.⁴

Adolescent problems could be solved by providing comprehensive sexual and reproductive health education.⁵ Everyone has the right to obtain information on education and counseling on reproductive health according to the Health Act No. 36 of 2009 article 72.⁶ However, in the reality, current socio-cultural conditions in Indonesia places reproductive health problems as a taboo and sensitive matter to talk about in the community so that the implementation of this regulation is far from expectations. This condition contributes to the low

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level of knowledge and attitudes about sexual and reproductive health among teenagers that results in increased intention of premarital sex intentions as well as risky sexual behavior among adolescents.⁷

Reproductive health education in adolescents has been carried out mostly in a formal environment such as schools. Sekeha Teruna Teruni (STT) is one of the traditional community-based non-formal organizations, a cultural heritage that exists today in Bali. STT is an organization for young people to develop their creativity and also preserve local culture and traditions. STT as one of the traditional non-formal organizations needs to be targeted in health promotion, especially reproductive health.

In Bali there is quite a lot of potential from local wisdom that can be used to mediate sex and reproductive health education to the community, one of which by utilizing traditional arts media. Sex education in adolescents is still considered taboo to be discussed in society. However, with the existence of traditional art media, it can be very effective to communicate the messages and for socialization. Therefore, the research objective of this study was to determine the effect of reproductive health promotion programs based on traditional arts on knowledge, attitudes and premarital sex intentions of adolescents.

METHODS

This study used a quasi experiment nonequivalent pretest-posttest control group design. Sample size calculation was conducted using Lemeshow sample size formula which resulted in a minimum of 75 subjects for each intervention and control group.⁸ Sampling methods was carried out by stratified sampling, located in Gianyar Regency. Two sub-districts were chosen in Gianyar Regency with high rates of pregnancy among adolescence, namely Tegallalang District and Payangan Subdistrict with each of them having seven and nine villages, respectively. Then, the village with the highest incidence of adolescence pregnancy was chosen from each sub-district, namely Tegallalang Village in Tegallalang District as sampling location for intervention group and Kerta Village in Payangan District as a control group. Each village has several banjars and the sample was chosen in each banjar randomly.

The intervention in the intervention group was given as reproductive health promotion through traditional arts media. The traditional arts presented are dramaturgy that created by several STT teenagers representing each banjar in Tegallalang Village as an intervention group. The difference in traditional art media used in this

study with other studies is the direct involvement of STT adolescents in making the art media which would be performed in front of a teenage audiences in Tegallalang Village. The variables measured were knowledge about premarital sex, premarital sex attitudes and premarital sex intention.

Data was collected using a structured questionnaire and filled by teenagers themselves before and after the performance of traditional dramaturgy art. Data analysis was conducted using STATA (version 12.0). Because the data was not normally distributed, non-parametric test Wilcoxon signed-rank and Wilcoxon rank-sum test were used.

RESULTS

The total number of participants in both control and intervention group was 150 adolescents. The demographic characteristics of participants are depicted in [Table 1](#).

Based on participant demographic data, it can be seen that participants from both groups have several similar characteristics. The average age of participants in the intervention and control groups was 20.02 ± 2.33 and 19.5 ± 2.12 years, respectively. The majority of participants in the intervention group were girls (56%) while the majority of participants in the control group were boys (52%). Father's work background of the majority of participants worked in non-formal sectors, which included as an entrepreneur, laborer, farmer and trader. Most of the participants have also received reproductive health material which were mostly came from teachers and lecturers. Demographic data also shows a slight difference in terms of educational level of the father and mother as well as the occupation of the mothers. In the intervention group, most of their parents were senior high school graduates (61.33% in father and 52% in mother), while in the control group the majority of the parents were elementary school graduates.

Then, comparative test results were carried out on three measured variables, namely, the level of adolescent knowledge, premarital sexual behavior, and premarital sex intention. The results of comparative analysis are described in [Table 2](#).

Normality test of the data in the intervention group and the control group showed that the data were not normally distributed, so tests were performed with Wilcoxon sign-rank. The results showed that the average value of knowledge in the intervention group and the control group before intervention was 12.11 and 12.08, respectively. After the intervention, the average value of the intervention group at posttest was significantly higher than the pretest (the average difference in the intervention

Table 1 Demographic characteristics of participants

	Intervention Group (n=75)		Control Group (n=75)	
Age				
Mean ± S.D.	20.02 ± 2.33		19.5 ± 2.12	
Median (min- max)	(18 - 24)		(18 - 24)	
	F %		F %	
Sex				
Male	33	44	39	52
Female	42	56	36	48
Father's educational level				
Not educated	1	1.33	1	1.33
Elementary	5	6.67	32	42.77
Junior High School	7	9.33	20	26.67
Senior High School	46	61.33	18	24
University	16	21.33	4	5.33
Father's occupation				
Informal (Private sector, laborer, farmer, merchant)	53	70.67	68	90.67
Formal (State employee, Soldier, Company employee)	22	23.33	7	9.33
Mother's level of education				
Not educated	2	2.67	1	1.33
Elementary	15	20	35	46.67
Junior high school	12	16	29	38.67
Senior high school	39	52	8	10.67
University	7	9.33	2	2.67
Mother's occupation				
Housewife	29	38.67	3	4
Working	46	61.33	72	96
Have you ever had information about reproductive health?				
Yes	64	85.33	62	82.67
No	11	14.67	13	17.33
Source of Information				
Friends	7	9.33	4	5.33
Parents	8	10.67	5	6.67
Teachers	33	44	32	42.67
Public health Office	12	16	14	18.67
News media and internet	4	5.33	6	8
Others	11	14.67	13	17.33

group = 1.92; p-value = 0.00). The mean score comparison between the two groups showed that the intervention group had a significantly higher score than the control group (the difference in mean values between groups = 2.14; p-value = 0.00).

Attitude variables showed the mean values in the intervention group and the control group before intervention were at 56.93 and 54.74. After

the intervention, the mean post-test value of the intervention group was statistically higher than the pre-test value. Both the average value in the intervention and the control group were statistically different (the difference in the average value of attitudes between groups was 8.42; p-value = 0.00).

In intention variable, the mean values in the intervention and the control group before

Table 2 Comparative test of knowledge, premarital sex attitudes and intentions

	<i>Mean ± SD</i>		Within group mean difference (post-pre) (p-value) ⁽⁺⁾	Intergroup mean difference (intervention - control) (p-value) ⁽⁺⁺⁾
	Before Intervention	After Intervention		
Knowledge				
Intervention group (n = 75)	12.11 ± 1,49	14.03 ± 1,41	1.92 (p=0.00) ⁺	2.14 (p=0.00) ⁺⁺
Control group (n = 75)	12.08 ± 1.76	11.86 ± 1.85	-0.22 (p=0.34) ⁺	
Attitude				
Intervention group (n = 75)	56.93 ± 8.88	64.34 ± 6.68	7.41 (p = 0.00) ⁺	8.42 (p= 0.00) ⁺⁺
Control group (n = 75)	54.72 ± 8.70	53.70 ± 8.24	-1,01 (p = 0.67) ⁺	
Intention				
Intervention group (n = 75)	9.46 ± 9.36	2.13 ± 3.21	-7.33 (p= 0.00) ⁺	4.69 (p= 0.00) ⁺⁺
Control group (n = 75)	14.05 ± 8.65	11.41 ± 8.28	-2.64 (p= 0.00) ⁺	

(* p<0,05, ⁺Wilcoxon sign-rank and ⁺⁺Wilcoxon rank-sum)

intervention were 9.46 and 14.05, respectively. After the intervention, intervention group showed a significantly lower average post-test intention value compared to pre-test value (p-value = 0.00). The difference in the average value of premarital sex intention in the intervention group was 7.33. The mean of premarital sex intention was also significantly different between intervention and control group (the difference in the mean value of premarital sex intention among the intervention and control groups was 4.69; p-value = 0.00).

DISCUSSION

Promotion of reproductive health is mostly carried out in a formal environment, such as schools. Many studies on reproductive health are tend to be school-based. Somart and Sotta conducted an evaluation of the effectiveness of school-based sexual health and found that many school students really need the right information, but the information obtained tends to be inadequate or satisfying.^{9,10} Current conditions also limit the promotional attempts of reproductive health in the informal environment. Sekeha Teruna Teruni (STT) or Karang Taruna is one of the traditional community-based non-formal organizations, a cultural heritage that exists today in Bali. STT as one of the traditional non-formal organizations needs to be targeted in health promotion, especially reproductive health.

Currently, reproductive health problems are considered as taboo and sensitive to be discussed in the community so that they affect risk behavior among adolescents.⁷ However, there are local wisdoms in the form of regional performances that can be used as promotional and communication media. Information conveyed through traditional art media can be modified to be in harmony with the socio-cultural community. They can be devised to be highly persuasive instead of just contain information.¹¹ With meaningful messages conveyed through the media of traditional arts, it is expected that adolescents will obtain a good understanding of reproductive health which would be beneficial for their teenage years in avoiding problems and also for their growth. When communication and information technology has not yet been so advanced, the means of entertainment in Balinese society were mainly from traditional arts such as puppets, masks, arja, drama gongs and so on. Apart from being a means of entertainment, the art also functioned as a communication tool to socialize the norms and philosophy of life.¹²

The uniqueness of the socio-cultural life of the Hindu community in Bali is reflected in every religious ceremony. Each religious ceremony activity is almost always accompanied by Balinese art performances such as dance and tabuh/gamelan, showing a close relationship between in the implementation of traditional and religious activities.¹³

The art of Balinese culture is related to the system of Balinese beliefs and the link is clear in several fields of art. In Bali, there is quite a lot of potential from local wisdom that can be used as sex and reproductive health education in the community, one of which through traditional arts media. Traditional arts are very effective as communicative and informative socialization media because they convey a meaningful messages. In general, for Balinese, traditional art is very close to tradition, culture and religious ceremonies, so it becomes an effective means of conveying various messages such as socio-religious.

The results of this study indicate that the average post-test value of knowledge and attitudes in the intervention group was statistically higher than the pretest. The mean score between the two groups showed that the intervention group had a higher score than the control group. Increased knowledge and attitudes in the prevention of premarital teenage sex are also in line with research conducted by Somart and Sotta who reported that school-based sexual health educational programs could effectively induced a positive changes in sexual health knowledge and attitudes among high school students.⁹ Some other studies that use traditional arts as a health promotion media include the one that conducted by Gusti Gede Ngurah Kursista, et al. who found that health promotion using innovative Balinese puppet media could increase the knowledge among the heads of family regarding the prevention of HIV/AIDS compared to health promotion using lecture method.¹⁴ Another study by Winy Lestari et al. stated that interactive puppet show also could be used as a media for health promotion; these shows were considered new for teenagers which regarded as creative, interesting, funny, and providing a motivation as well as knowledge to adolescents related to smoking, drugs and promiscuity. The response of adolescents to gain knowledge about adolescent problems was considered as good and the material also could easily understand by adolescents.¹⁵

Promotion of reproductive health with traditional arts media in the intervention group was also able to reduce premarital sex intention. The mean score between the two groups showed that the intervention group had a significantly lower score than the control group. Low premarital sex intention would reduce the risk of premarital sex in adolescents and the finding of this study is in line with Weight et al. who evaluated sex education delivered through schools by teachers and reported reduced intention among teenagers to engage risky sexual behavior.¹⁶ Therefore, this approach can reduce the tendency of sexual activity among

under-15-years-old adolescents.¹⁷ However, this research is different from other studies that also use art media as a promotional media. In this study, teenagers within STT were directly involved in the making traditional arts media used as the intervention in this study.

CONCLUSION

Reproductive health promotion using traditional art media was useful in generating positive changes in the knowledge, attitudes, and intentions of premarital sex in adolescents. The results of this study indicate that reproductive health promotion using traditional art media was able to reduce premarital sex intentions among adolescents. Therefore, this approach is recommended to be developed in the community by utilizing the potential of local wisdom and community participation, especially teenagers within STT, in the promotion of adolescent reproductive health.

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CONFLICT OF INTEREST

All authors declared that there is no conflict of interest regarding the publication of this article.

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AUTHOR CONTRIBUTION

All author contributed equally in writing this articles.

ETHIC APPROVAL

This research has been approved by the ethics committee of the Faculty of Medicine, Gadjah Mada University with the numbers Ref: KE / FK / 0/25 / EC / 2018.

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