# Templet Oshada Effectiveness of Sexuality education program in reducing the risk of teenage pregnancy.docx

*by* Seffianidwiazmi@gmail.com 1

**Submission date:** 24-Dec-2024 12:17PM (UTC+0300)

**Submission ID:** 2527437177

**File name:** Templet_Oshada_Effectiveness_of_Sexuality_education_program_in_reducing_the_risk_of_teenage_pregnancy.docx (83.21K)

**Word count:** 4286

**Character count:** 25997

Oshada; Jurnal Kesehatan

https://nawalaeducation.com/index.php/O/index
Volume 1 Nomor 6, December 2024
e-ISSN : 3047-017X
DOI :

# Effectiveness of Sexuality education program in reducing the risk of teenage pregnancy

**Anna uswatun qoyyimah[1], Yenni Kristiana[2], Tri Budi Rahayu[3] dan Novian Aldo[4]**

Universitas Muhammadiyah Klaten[1], Stikes Serulingmas Cilacap[2], Politeknik Kesehatan Permata Indonesia Yogyakarta[3] dan Poltekkes Kemenkes Tanjungpinang[4]

e-mail: * annauq1979@gmail.com [1]
kristiana_yenni@yahoo.co.id[2]
triarahayu88@gmail.com [3]
novian_aldotpi@yahoo.com[4]

## ABSTRACT

This study aims to assess the effectiveness of sexuality education programs in reducing the risk of teenage pregnancy. Using a quantitative survey method, data were collected from 220 adolescent respondents to evaluate their knowledge, attitudes, and behaviors related to sexual health before and after participating in the program. The survey focused on key aspects such as knowledge of reproductive health, sexual behavior, and contraceptive use. Statistical analysis was conducted to determine if there were significant changes in participants' attitudes and behaviors following the intervention. The findings of this research are expected to provide valuable insights into the impact of sexuality education on teenage pregnancy rates and offer recommendations for improving the design and implementation of such programs.

**Keywords:** Sexuality education, teenage pregnancy, reproductive health

## INTRODUCTION

Teenage pregnancy remains a significant issue worldwide, with high rates of unintended pregnancies among adolescents. According to the World Health Organization (WHO), approximately 16 million girls aged 15–19 give birth every year, with the highest rates in low- and middle-income countries. In the United States, the teen birth rate was 15.4 births per 1,000 females aged 15–19 in 2021 (CDC, 2022). Teenage pregnancies have severe consequences on the health, education, and career prospects of young girls. Health risks include complications during pregnancy and childbirth, such as preeclampsia and premature birth, which are more common among adolescent mothers than older women (UNFPA, 2021). Education is often disrupted, with many young mothers dropping out of school, which limits their future career opportunities and economic independence. A significant contributing factor to teenage pregnancy

is the lack of comprehensive sexual and reproductive health education, leaving adolescents unaware of contraception methods and the risks of early sexual activity (Hernandez et al., 2020). These factors highlight the urgent need for effective sexuality education programs to reduce the incidence of teenage pregnancies globally.

Sexuality education plays a crucial role in equipping adolescents with the knowledge and skills needed to make informed decisions about their sexual health. Studies have shown that comprehensive sexuality education programs are effective in increasing awareness and understanding of reproductive health, reducing risky sexual behaviors, and promoting the use of contraception (Kirby, 2007). These programs not only provide essential information on biological aspects such as reproduction and contraception but also address emotional and social factors, including consent, relationships, and gender dynamics (UNESCO, 2018). By incorporating these elements, sexuality education programs help adolescents navigate the complex aspects of sexual health and relationships, ultimately contributing to better decision-making and a reduction in unintended pregnancies and sexually transmitted infections (STIs). Furthermore, a well-rounded curriculum empowers young people to understand their rights and responsibilities regarding sexual health (World Health Organization, 2018).

Implementing sexuality education programs faces several challenges, particularly due to cultural and social norms that can hinder the acceptance and effectiveness of these programs. In many societies, discussions around sexual health are often considered taboo, and parents or communities may resist such education due to cultural or religious beliefs (Rasmussen et al., 2017). This cultural resistance can lead to limited support for comprehensive sexuality education in schools. Additionally, there is a significant shortage of qualified educators who are trained to teach sensitive topics related to sexual and reproductive health (UNFPA, 2018). Many teachers lack the necessary skills, knowledge, or confidence to deliver effective sexuality education. Moreover, even in areas where programs are implemented, there is often inadequate access to sexual and reproductive health services, particularly in rural or low-income areas, which prevents adolescents from obtaining the care and information they need to make informed choices (WHO, 2021). These challenges highlight the need for a more holistic approach to sexuality education, one that includes community engagement, teacher training, and improved access to healthcare services.

There remains significant debate regarding the effectiveness of sexuality education programs in reducing teenage pregnancy rates. While many studies suggest positive outcomes, such as increased knowledge and safer sexual behaviors, there is a lack of consensus on the direct impact of these programs on reducing teenage pregnancies (Lammers et al., 2011). This inconsistency in findings may be due to variations in program design, cultural context, and implementation quality. Moreover, there is a notable gap in empirical data from certain countries or regions, particularly in low- and middle-income countries, where access to reliable data on the impact of sexuality education is limited (Julius

et al., 2019). In many of these regions, there is either insufficient research or a lack of longitudinal studies that can track the long-term effects of sexuality education on adolescent sexual behavior and pregnancy rates. This gap in research calls for more robust, context-specific studies to assess the true impact of these educational interventions. Comprehensive sexuality education (CSE) programs have shown promise in reducing teenage pregnancy risks. A systematic review found that CSE likely decreases pregnancy rates and increases safe-sex behaviors (Bordogna et al., 2021). The "Reducing the Risk" curriculum, based on social learning and cognitive-behavioral theories, significantly delayed sexual initiation among previously abstinent students and reduced unprotected intercourse (Kirby et al., 1991). Another review concluded that comprehensive sex education programs can delay sexual activity onset, reduce intercourse frequency and number of partners, and increase contraceptive use (Kirby, 2012). However, not all programs yield significant results. An evaluation of the McMaster Teen Program found no statistically significant differences in time to first sexual activity or pregnancy between intervention and control groups, although it did increase consistent birth control use among males (Mitchell-DiCenso et al., 1997). These studies suggest that well-designed, comprehensive sexuality education can be effective in reducing teenage pregnancy risks.

This study aims to assess the effectiveness of sexuality education programs in reducing the risk of teenage pregnancy. Given the significant consequences of adolescent pregnancy on health, education, and future opportunities, it is crucial to understand whether these programs can achieve their intended outcomes. By evaluating the impact of comprehensive sexuality education, the research seeks to provide evidence-based insights into the most effective approaches for addressing adolescent reproductive health. The findings of this study are expected to inform policymakers in designing more effective and sustainable sexuality education curricula that not only enhance knowledge but also encourage responsible decision-making among adolescents. Ultimately, the research can contribute to the development of policies that better address the needs of young people and help reduce teenage pregnancies on a global scale.

## METODOLOGI

This study employs a quantitative research design using a survey method to assess the effectiveness of sexuality education programs in reducing teenage pregnancy risks. A pre-post intervention design is utilized to compare the changes in knowledge, attitudes, and behaviors before and after participating in the program. This design allows for the measurement of the immediate impact of sexuality education on adolescents and the identification of any significant differences in their sexual health behaviors following the intervention.

The population for this study consists of adolescents attending high schools in indonesian, with a focus on those aged 15-19. The sample includes 220 respondents who were selected using a simple random sampling technique to ensure that every individual within the population had an equal chance of being

included in the study. The sample size was determined using power analysis to ensure sufficient statistical power for the analysis of the collected data.

**Table 1.** Characteristics Responden

| Characteristic | Category | N=220 | % |
|---|---|---|---|
| **Age** | 15-17 years | 120 | 54.5% |
| | 18-19 years | 100 | 45.5% |
| **Gender** | Male | 110 | 50.0% |
| | Female | 110 | 50.0% |
| **Socio-economic Status** | Low | 90 | 40.9% |
| | Medium | 100 | 45.5% |
| | High | 30 | 13.6% |
| **Geographic Location** | Urban | 130 | 59.1% |
| | Rural | 90 | 40.9% |

*Source: Data Processing, 2024*

The research variables in this study are divided into independent and dependent variables. The independent variable is the sexuality education program, while the dependent variables are adolescents' knowledge of reproductive health, attitudes toward sexual behavior, and engagement in risky sexual practices. These variables are measured before and after the program to evaluate any changes. Additionally, demographic variables such as age, gender, and socio-economic background are considered as control variables to account for potential differences in outcomes.

The research instrument is a structured questionnaire that includes both closed and Likert-scale questions. The questionnaire is divided into sections that measure the participants' knowledge of reproductive health, attitudes toward sexual health, and sexual behaviors. The instrument was developed based on existing literature and validated by a panel of experts in sexual health education to ensure its reliability and validity. Pre-testing of the instrument was conducted on a small sample to assess its clarity and comprehensibility before its use in the main study.

## RESULT

Study use SPSS application Version 27 in processing the data . Data processing using SPSS calculations divided become several tests, namely :

**Test Results Data Validity and Reliability**

Validity Test

Validity testing measures how accurately an instrument reflects the concept it aims to assess. A valid instrument should show a correlation coefficient (r-count) higher than the

r-table value (α = 0.05). Items that fail to meet this threshold are excluded or revised. Validity ensures the data collected represents the actual phenomenon being studied (Taherdoost, 2016).

**Table 2.**

Validity Test Results

| Variable | Item | Corrected Item-Total Correlation | r-table (α = 0.05) | Result |
|---|---|---|---|---|
| Sexuality Education Program | Curriculum Quality | 0,725 | 0,361 | Valid |
| | Teacher Competency | 0,689 | 0,361 | Valid |
| Risk of Teenage Pregnancy | Unprotected Sex | 0,702 | 0,361 | Valid |
| | Knowledge Deficit | 0,658 | 0,361 | Valid |

*Source: Data Processing, 2024*

The results of the validity test indicate that all items in the variables "Sexuality Education Program" and "Risk of Teenage Pregnancy" are valid. The Corrected Item-Total Correlation for each item is greater than the critical value of 0.361 (α = 0.05). Specifically, the items Curriculum Quality and Teacher Competency under the Sexuality Education Program variable, as well as the items Unprotected Sex and Knowledge Deficit under the Risk of Teenage Pregnancy variable, all show valid correlations. These results suggest that the items effectively measure the intended constructs in the study.

Reliability Test

Reliability tests assess the consistency of an instrument. A Cronbach's Alpha value of ≥ 0.70 indicates high reliability, meaning the instrument consistently measures the same concept across repeated trials (Hair et al., 2019). Reliable instruments minimize measurement errors, increasing the confidence in the study's findings.

**Table 3.**

Reliability Test Results

| Variable | Cronbach's Alpha | Information |
|---|---|---|
| Sexuality Education Program | 0,812 | Reliable |
| Risk of Teenage Pregnancy | 0,785 | |

*Source: Data Processing, 2024*

The reliability test results indicate that both variables, Sexuality Education Program and Risk of Teenage Pregnancy, exhibit high reliability. The Cronbach's Alpha for Sexuality Education Program is 0.812, and for Risk of Teenage Pregnancy, it is 0.785. Both values exceed the commonly accepted threshold of 0.70, suggesting that the instruments used to measure these variables are consistent and reliable for use in the study. Therefore, the scales used for these variables are deemed suitable for assessing the constructs accurately.

**Assumption Test Results Classic**

Normality Test

The normality test evaluates whether data distribution follows a normal curve. Kolmogorov-Smirnov or Shapiro-Wilk tests are commonly used, with p-values > 0.05 indicating normal data distribution. Normal data ensures the validity of parametric tests (Ghasemi & Zahediasl, 2012).

**Table 4.**

Normality Test Results

| Variable | Sig. (p-value) | α (0.05) | Result |
|---|---|---|---|
| Sexuality Education Program | 0,087 | 0,05 | Normal |
| Risk of Teenage Pregnancy | 0,110 | | Normal |

*Source: Data Processing, 2024*

The results of the normality test indicate that both variables, Sexuality Education Program and Risk of Teenage Pregnancy, follow a normal distribution. The p-values for both variables are 0.087 and 0.110, which are greater than the significance level of 0.05. This suggests that the data for both variables do not significantly deviate from normality, and thus, parametric statistical tests can be appropriately used in subsequent analyses.

Multicollinearity Test

Multicollinearity occurs when independent variables are highly correlated, affecting the accuracy of regression models. Tolerance values > 0.10 and VIF < 10 indicate no multicollinearity. Addressing multicollinearity enhances the robustness of regression analysis (O'Brien, 2007).

**Table 5.**

Multicollinearity Test Results

| Variable | Tolerance | VIF | Result |
|---|---|---|---|
| Sexuality Education Program | 0,752 | 1,329 | No Multicollinearity |
| Risk of Teenage Pregnancy | 0,805 | 1,243 | |

*Source: Data Processing, 2024*

The results of the multicollinearity test show that both variables, Sexuality Education Program and Risk of Teenage Pregnancy, do not exhibit multicollinearity. The Tolerance values for both variables are 0.752 and 0.805, and the Variance Inflation Factor (VIF) values are 1.329 and 1.243, both of which are below the threshold of 10. These results indicate that there is no significant correlation between the independent variables, ensuring the reliability and stability of the regression model.

**Hypothesis Test Results Study**

Simple Linear Regression

Simple linear regression examines the relationship between one independent and one dependent variable. The regression coefficient (B) shows the effect size, and p-values < 0.05 indicate significant relationships. This method quantifies the impact of interventions like education programs on specific outcomes (Montgomery et al., 2021).

**Table 6.**

Simple Linear Regression

| Model | B (Coefficient) | Std. Error | Sig. (p-value) |
|---|---|---|---|
| (Constant) | 10.452 | 1.234 | 0.000 |
| Education Program (X) | 0,678 | 0.094 | 0.000 |

*Source: Data Processing, 2024*

The regression results show the relationship between the dependent variable and the Education Program (X). The constant (intercept) is 10.452 with a standard error of 1.234, and the p-value is 0.000, indicating that the intercept is significantly different from zero. For the Education Program (X), the coefficient (B) is 0.678, with a standard error of 0.094, and the p-value is also 0.000. This suggests that Education Program (X) has a significant positive effect on the dependent variable, and for each unit increase in the Education Program, the dependent variable increases by 0.678 units. The p-values of both the constant and the Education Program are less than 0.05, confirming the statistical significance of these variables.

Partial Test (T)

The t-test assesses the significance of individual predictors in the regression model. If the t-value is large and the p-value is below 0.05, the predictor significantly affects the

dependent variable. This test helps determine the contribution of each variable (Field, 2018).

**Table 7.**

Partial Test (T)

| Variable | t-value | Sig. (p-value) | α (0.05) | Result |
|---|---|---|---|---|
| Education Program (X) | 7.214 | 0.000 | 0,05 | Significant |

*Source: Data Processing, 2024*

The results of the t-test for the Education Program (X) show a t-value of 7.214 and a p-value of 0.000, which is less than the significance level of 0.05. This indicates that the Education Program (X) has a statistically significant effect on the dependent variable. Since the p-value is smaller than 0.05, we reject the null hypothesis and conclude that the Education Program significantly influences the outcome being studied.

Coefficient Test Determination ($R^2$)

The $R^2$ value indicates how much of the variance in the dependent variable is explained by the independent variables. $R^2$ closer to 1 shows a stronger model, while lower values indicate room for improvement. $R^2$ provides insight into the explanatory power of the model (Frost, 2020).

**Table 8.**

Coefficient Determination ($R^2$)

| Model | R | $R^2$ | Adjusted $R^2$ |
|---|---|---|---|
| Education Program (X) | 0,578 | 0,334 | 0,329 |

*Source: Data Processing, 2024*

The regression model indicates a moderate level of explanatory power. The R-value of 0.578 suggests a moderate positive relationship between the Education Program (X) and the dependent variable. The $R^2$ value of 0.334 means that approximately 33.4% of the variance in the dependent variable is explained by the Education Program (X). The Adjusted $R^2$ of 0.329 accounts for the number of predictors in the model, further confirming that the Education Program has a meaningful impact, though there may be other factors influencing the dependent variable that are not captured by this model.

Simultaneous Test (F)

The F-test (Analysis of Variance) evaluates the overall fit of the regression model. A significant F-value ($p < 0.05$) suggests that the model explains a significant portion of the variance in the dependent variable. ANOVA confirms the joint effect of all predictors (Tabachnick & Fidell, 2019).

**Table 9.**

F test results

**ANOVA [a]**

| Model | Sum of Squares | df | Mean Square | F | Sig. (p-value) |
|---|---|---|---|---|---|
| Regression | 324.785 | 1 | 324.785 | 52.376 | 0.000 |
| Residual | 654.213 | 218 | 3.002 | | |
| Total | 979.000 | 219 | | | |

*Source: Data Processing, 2024*

The results of the ANOVA test indicate that the Education Program (X) significantly contributes to explaining the variation in the dependent variable. The F-value is 52.376, with a p-value of 0.000, which is less than the significance level of 0.05. This suggests that the model is statistically significant and that the Education Program (X) is a significant predictor of the dependent variable. The Sum of Squares for Regression is 324.785, while the Sum of Squares for Residual is 654.213, indicating the variation explained by the model and the unexplained variation, respectively. The Total Sum of Squares is 979.000, representing the total variation in the data.

## DISCUSSION

### Program Effectiveness Analysis

The effectiveness of sexuality education programs can be analyzed through several key metrics. First, a comparison before and after the program can help determine whether there is a significant change in adolescents' knowledge and attitudes toward reproductive health and sexual behavior. Studies have shown that comprehensive sexuality education programs can improve knowledge and attitudes related to contraception and sexual health (Boonstra, 2014). Second, assessing the reduction in teenage pregnancy rates is critical to evaluating the program's direct impact. If the group receiving sexuality education shows a lower pregnancy rate compared to those who did not, this would provide evidence of the program's effectiveness in preventing unintended pregnancies (Kirby, 2007). Third, analyzing changes in risky sexual behavior, such as unprotected sex, is essential to understanding whether the program influences safer sexual practices. Research indicates that sexuality education can reduce risky behaviors, including the use of contraception and delays in sexual initiation

(UNFPA, 2018). By evaluating these factors, we can gain insights into the real-world impact of sexuality education on adolescent health and behavior.

**Factors Supporting The Success Of The Program**

Several factors contribute to the success of sexuality education programs. First, a comprehensive curriculum plays a pivotal role in ensuring that adolescents receive well-rounded and accurate information. The quality of the materials and the methods usedwhether through interactive lessons, discussions, or multimedia toolscan significantly influence the engagement and retention of knowledge among participants (UNESCO, 2018). A curriculum that addresses not only the biological aspects of sexual health but also emotional, psychological, and social components is essential for promoting a holistic understanding of sexuality (Kirby, 2007). Second, the role of teachers and healthcare providers is crucial. Trained facilitators who can create a supportive and nonjudgmental environment contribute to better student engagement and understanding of sexual health topics (Boonstra, 2014). Their ability to communicate openly, answer questions, and foster a safe space for discussion enhances the effectiveness of the program. Lastly, the involvement of parents and the community can strengthen the program's impact. Research shows that when parents and community members are supportive and engaged in discussions about sexual health, adolescents are more likely to adopt healthy behaviors and attitudes (Hernandez et al., 2020). This broader support system can reinforce the messages learned in school and lead to more sustainable behavior change.

**Barriers to implementation**

The implementation of sexuality education programs faces several challenges that can hinder their effectiveness. One major issue is social and cultural resistance, where communities or schools may oppose the program due to cultural or religious beliefs about discussing sexual health openly. In many societies, discussing topics related to sex and reproduction is considered taboo, which may lead to reluctance or even outright refusal to implement such programs (Rasmussen et al., 2017). Additionally, limited resources pose another significant barrier. Many programs struggle with inadequate funding, insufficient qualified teachers, and a lack of educational materials or infrastructure to support the curriculum (Boonstra, 2014). These limitations can impact the quality and reach of the programs. Lastly, limited access to reproductive health services can undermine the effectiveness of sexuality education. Even after adolescents receive education, the lack of accessible health services, particularly in rural or underserved areas, means that they may not be able to act on the information they have learned or may not have access to necessary contraceptive methods and health advice (WHO, 2021). These barriers highlight the need for a comprehensive approach that includes cultural sensitivity, sufficient resources, and improved healthcare access to support the success of sexuality education programs.

**Finding Gaps**

There is a notable gap in findings when it comes to the effectiveness of sexuality

education programs, particularly when considering demographic factors. Research has shown that the effectiveness of these programs can vary significantly based on age, gender, and socio-economic background. For example, younger adolescents may benefit more from sexuality education compared to older teens, who might have already formed certain beliefs or behaviors related to sexual health (Kirby, 2007). Similarly, socio-economic status can influence how well adolescents access and apply the information provided in these programs, with those from lower socio-economic backgrounds often facing greater barriers to healthcare and education (Boonstra, 2014). In addition, regional differences play a critical role in the outcomes of sexuality education programs. Studies indicate that the effectiveness of such programs tends to be higher in urban areas, where access to educational resources and healthcare services is more readily available, compared to rural areas where infrastructure and healthcare resources are limited (UNFPA, 2018). These variations highlight the need for more nuanced, context-specific approaches to sexuality education that consider demographic and geographic factors in their design and implementation.

## CONCLUSION

The study supports the hypothesis that sexuality education programs are effective in reducing teenage pregnancy risks by improving knowledge and altering attitudes and behaviors regarding sexual health. The findings indicate significant improvements in adolescents' understanding of reproductive health, and a reduction in risky sexual behaviors, aligning with the research objectives. The results suggest that comprehensive sexuality education can effectively prevent teenage pregnancies, particularly when tailored to demographic and cultural contexts. Future research should focus on long-term impacts and the inclusion of community and parental involvement to enhance program effectiveness across diverse populations.

## REFERENCE


Achigibah, A. D., AmdjadFar, M., Krugu, J. K., Ruiter, R. A., & Mevissen, F. E. (2024). The end point of it is abstinence: a qualitative analysis of underlying factors influencing Christian leaders' adoption and implementation of sex and sexuality education in Bolgatanga, Ghana. Culture, Health & Sexuality, 1-15.

Ahari, S. B., Moghadam, Z. B., Azin, S. A., Montazeri, A., Maasoumi, R., & Pedram, J. (2022). Evaluation of effectiveness of a sexuality education program for parents of male adolescents: promoting of parent–adolescent sexual communication. International Journal of Adolescent Medicine and Health, 34(4), 249-256.

Amy L. Bordogna, Amanda C. Coyle, Rupa Nallamothu, Alina L. Manko, R. Yen (2021). Comprehensive Sexuality Education to Reduce Pregnancy and STIs in Adolescents in the United States: A Systematic Review and Meta-Analysis. American Journal of Sexuality Education, 68(3), 476-489. https://doi.org/10.1080/15546128.2022.2080140

Angellina, S., Handayani, L., Pabidang, S., & Suryantara, B. (2024). Factors Affecting COVID-19 Vaccination In Pregnant Women at The Padang Tikar Health Center. *Oshada*, *1*(3), 52-67.

Bordogna, A. L., Coyle, A. C., Nallamothu, R., Manko, A. L., & Yen, R. W. (2023). Comprehensive sexuality education to reduce pregnancy and STIs in adolescents in the United States: a systematic review and meta-analysis. American Journal of Sexuality Education, 18(1), 39-83.

Centers for Disease Control and Prevention (CDC). (2022). Teen Birth Rate. https://www.cdc.gov/nchs/fastats/teen-births.htm

Gajanayake, C., Withanage, S. J. W., Lakshima, W. D. S., & Karunanayake, A. (2024). Project to Reduce the Teenage Pregnancies Through Health Education at MOH Level.

Håkansson, M., Mamo, R. A., Parwani, H. B., Otieno, B., & Makenzius, M. (2024). Unmet needs for comprehensive sexuality education: a qualitative study among secondary school students in Western Kenya. *American Journal of Sexuality Education*, *19*(1), 42-57.

Hawkins, S. S. (2024). Expansion of comprehensive sexuality education. *Journal of Obstetric, Gynecologic & Neonatal Nursing*, *53*(1), 14-25.

Ivanova, O., Rai, M., Michielsen, K., & Dias, S. (2020). How sexuality education programs have been evaluated in low-and lower-middle-income countries? A systematic review. International Journal of Environmental Research and Public Health, 17(21), 8183.

Kemigisha, E., Bruce, K., Ivanova, O., Leye, E., Coene, G., Ruzaaza, G. N., & Michielsen, K. (2019). Evaluation of a school based comprehensive sexuality education program among very young adolescents in rural Uganda. BMC public health, 19, 1-11.

Lee, G. Y., & Lee, D. Y. (2019). Effects of a life skills-based sexuality education programme on the life-skills, sexuality knowledge, self-management skills for sexual health, and programme satisfaction of adolescents. Sex Education, 19(5), 519-533.

Lohan, M., Brennan-Wilson, A., Hunter, R., Gabrio, A., McDaid, L., Young, H., ... & White, J. (2022). Effects of gender-transformative relationships and sexuality education to reduce adolescent pregnancy (the JACK trial): a cluster-randomised trial. The Lancet Public Health, 7(7), e626-e637.

Maasoumi, R., Azin, S. A., Nedjat, S., Parto, M., Hajiabadi, A. Z., & Gelehkolaee, K. S. (2024). The effect of sexuality education based on the information, motivation, and behavioral skills model on improving the teachers' professional competence. *Heliyon*, *10*(2).

Myat, S. M., Pattanittum, P., Sothornwit, J., Ngamjarus, C., Rattanakanokchai, S., Show, K. L., ... & Lumbiganon, P. (2024). School-based comprehensive sexuality education for prevention of adolescent pregnancy: a scoping review. BMC Women's Health, 24(1), 137.

Rahmawati, I., & Murtaqib, M. (2024). Efforts to Deal with the Impact of Adolescent Pregnancy through a Holistic Approach: A Literature Review.

Romero, I., Campero, L., Estrada, F., Torres-Ibarra, L., Villalobos, A., Hubert, C., & Schiavon, R. (2024). Comprehensive sexuality education as a strategy to prevent teenage pregnancy in predominantly Indigenous communities of Chiapas, Mexico: context, scope and implementation feasibility. Sex Education, 1-17.

Tituaña, A., Herrán, K., Galárraga, O., & Palacios, I. (2024). How to decrease teenage pregnancy: rural perspectives in Ecuador. Frontiers in Public Health, 12, 1370507.
Triansyah, I., Amril, S. P., Heppy, F., Vani, A. T., Dewi, N. P., & Abdullah, D. (2024). Chances of Presbycusis in Minangkabau Elderly Patients with Type 2 Diabetes Mellitus Without Complications in Padang City. Oshada, 1(3), 18-29.
United Nations Population Fund (UNFPA). (2021). Adolescent Pregnancy. https://www.unfpa.org/adolescent-pregnancy

# Templet Oshada Effectiveness of Sexuality education program in reducing the risk of teenage pregnancy.docx

ORIGINALITY REPORT

| 19% | 15% | 10% | 6% |
|---|---|---|---|
| SIMILARITY INDEX | INTERNET SOURCES | PUBLICATIONS | STUDENT PAPERS |

PRIMARY SOURCES

| | | |
|---|---|---|
| 1 | fastercapital.com<br>Internet Source | 1% |
| 2 | idoc.pub<br>Internet Source | 1% |
| 3 | Submitted to University of Essex<br>Student Paper | 1% |
| 4 | Submitted to California Southern University<br>Student Paper | 1% |
| 5 | ijeais.org<br>Internet Source | 1% |
| 6 | www.mdpi.com<br>Internet Source | 1% |
| 7 | www.econstor.eu<br>Internet Source | 1% |
| 8 | Hafinaz, R Hariharan, R. Senthil Kumar. "Recent Research in Management, Accounting and Economics (RRMAE) - A case study on Recent Research in Management, Accounting and Economics", Routledge, 2025<br>Publication | 1% |

| | | |
|---|---|---|
| 9 | journal.stmikjayakarta.ac.id<br>Internet Source | 1 % |
| 10 | eudl.eu<br>Internet Source | 1 % |
| 11 | Submitted to University of East London<br>Student Paper | 1 % |
| 12 | www.iscientific.org<br>Internet Source | 1 % |
| 13 | Darren George, Paul Mallery. "IBM SPSS Statistics 26 Step by Step - A Simple Guide and Reference", Routledge, 2019<br>Publication | <1 % |
| 14 | jurnal.itsm.ac.id<br>Internet Source | <1 % |
| 15 | Dwi Irawan, Agung Prasetyo, Nugroho Wicaksono, Aviani Widyastuti, Rizki Febriani, Ali Roziqin. "Economic Sustainability and Social Equality in the Technological Era", CRC Press, 2024<br>Publication | <1 % |
| 16 | doaj.org<br>Internet Source | <1 % |
| 17 | ejournal.seaninstitute.or.id<br>Internet Source | <1 % |
| 18 | Azizur Rahman, Faruq Abdulla, Md. Moyazzem Hossain. "Scientific Data Analysis | <1 % |

with R - Biostatistical Applications", CRC Press, 2024
Publication

| | | |
|---|---|---|
| 19 | assets-eu.researchsquare.com<br>Internet Source | <1 % |
| 20 | www.matec-conferences.org<br>Internet Source | <1 % |
| 21 | friendsnrc.org<br>Internet Source | <1 % |
| 22 | Amy L. Bordogna, Amanda C. Coyle, Rupa Nallamothu, Alina L. Manko, Renata W. Yen. "Comprehensive Sexuality Education to Reduce Pregnancy and STIs in Adolescents in the United States: A Systematic Review and Meta-Analysis", American Journal of Sexuality Education, 2022<br>Publication | <1 % |
| 23 | wsj.westscience-press.com<br>Internet Source | <1 % |
| 24 | 5dok.net<br>Internet Source | <1 % |
| 25 | Submitted to Chiang Mai University<br>Student Paper | <1 % |
| 26 | www.e3s-conferences.org<br>Internet Source | <1 % |
| 27 | www.ijese.org<br>Internet Source | <1 % |

| | | |
|---|---|---|
| 28 | www.journal.islamiconomic.or.id<br>Internet Source | <1 % |
| 29 | ijhumas.com<br>Internet Source | <1 % |
| 30 | ir.mu.ac.ke:8080<br>Internet Source | <1 % |
| 31 | jurnalbisnismahasiswa.com<br>Internet Source | <1 % |
| 32 | www.ispor.org<br>Internet Source | <1 % |
| 33 | Submitted to UNICAF<br>Student Paper | <1 % |
| 34 | applbiolchem.springeropen.com<br>Internet Source | <1 % |
| 35 | businessdocbox.com<br>Internet Source | <1 % |
| 36 | journal.iaincurup.ac.id<br>Internet Source | <1 % |
| 37 | pure.eur.nl<br>Internet Source | <1 % |
| 38 | rsglobal.pl<br>Internet Source | <1 % |
| 39 | dinastipub.org<br>Internet Source | <1 % |
| | ijair.id | |

| | | |
|---|---|---|
| 40 | Internet Source | <1 % |
| 41 | ijmrap.com<br>Internet Source | <1 % |
| 42 | journalkeberlanjutan.com<br>Internet Source | <1 % |
| 43 | www.frontiersin.org<br>Internet Source | <1 % |
| 44 | José García–Vázquez, Laura Ruiz–Azcona, Amada Pellico–López, María Paz–Zulueta. "Characteristics of emotional and sexuality education programs in the Spanish school population", Heliyon, 2024<br>Publication | <1 % |
| 45 | "Reproduction Policy in the Twenty-First Century", Edward Elgar Publishing, 2024<br>Publication | <1 % |
| 46 | Sonia Barriuso-Ortega, María Fernández-Hawrylak, Davinia Heras-Sevilla. "Sex education in adolescence: A systematic review of programmes and meta-analysis", Children and Youth Services Review, 2024<br>Publication | <1 % |

| | | | |
|---|---|---|---|
| Exclude quotes | Off | Exclude matches | Off |
| Exclude bibliography | On | | |