Support for The Comprehensive School Health Model to Increase Reproductive Health Knowledge of Elementary School Children as A Primary Prevention Effort

Ivony F. N. Putriningtyas[1], Nur Asmi Sulasri[2], Reflin Elan Mnsen[3]

[1,2,3] *Department of Nursing, Health Polytechnic, Ministry of Health, Sorong, Indonesia*

ABSTRACT

The research explores the impact of the Comprehensive School Health model on enhancing the reproductive health knowledge of primary school children as a primary prevention effort. In an era of rapid social and technological changes, early-age reproductive health awareness is crucial. This study aims to evaluate the effectiveness of the Comprehensive School Health model in improving the reproductive health knowledge of primary school children. The study employs a pre-experimental design with a One Group Pretest-Posttest Design. Data was collected through observations, interviews, and documentation. The sample consists of sixth-grade students from an elementary school in Sorong District, selected using total sampling. Statistical analysis included Wilcoxon tests and rank biserial correlation. The results indicate a significant improvement in the reproductive health knowledge of primary school children following the intervention. The Wilcoxon test showed a p-value of <0.001, and the mean difference was -35.0, signifying a substantial increase in knowledge. The effect size was 1.62, indicating a significant impact, and a strong negative rank biserial correlation of -1.00 revealed a robust correlation between the intervention and knowledge improvement. This study concludes that the Comprehensive School Health model is effective in significantly enhancing the reproductive health knowledge of primary school children, with a substantial effect size and a strong correlation between the intervention and knowledge improvement. These findings emphasize the importance of early-age reproductive health education and highlight the potential of this model as an effective strategy for primary prevention in the field of reproductive health.

INTRODUCTION

The reproductive health of primary school children is a profound and crucial issue in the context of public health. Along with rapid social and technological changes, children's knowledge and understanding of reproductive health is becoming increasingly important. Reproductive health education in primary schools has a strategic role in equipping children with knowledge that can protect them from potential reproductive health risks in the future (Mbizvo et al., 2023). Therefore, this study aims to evaluate the impact of the Comprehensive School Health model on increasing reproductive health knowledge in elementary school children as a primary prevention effort.

In the context of discipline, this research is relevant because it brings together two key aspects, namely health and education. Reproductive health is an integral part of public health, and education is an important tool for conveying information and understanding to children. Therefore, interdisciplinarity involving health and education experts is crucial to understand and address this problem effectively (Bendowska & Baum, 2023; Carr et al., 2018).

The Comprehensive School Health model is a holistic and holistic approach to promoting health in schools. Although there has been much research on this model in other contexts, research focusing on its effect on reproductive health knowledge of primary school children is limited. This creates a knowledge gap that needs to be filled to understand the effectiveness of this model in addressing reproductive health issues in this population (Miedema et al., 2020; Wong et al., 2021).

This study also draws on previous research indicating that a comprehensive approach to the school environment can have a positive impact on understanding reproductive health in children. However, this study has limitations in its focus on older age groups, leaving primary school children with unique needs in the context of reproductive health.

In addition, previous research has also revealed controversy in the selection of the most effective methods and approaches in improving reproductive health knowledge of elementary school children (Janighorban et al., 2022). Therefore, this study is expected to provide deeper insight into the contribution of the Comprehensive School Health model to primary prevention efforts in the field of reproductive health of elementary school children (Margaretha et al., 2023).

In this regard, the study not only has academic implications, but also significant practical implications in aiding the development of more effective education and health programs for primary school children. In addition, this study also tries to overcome the weaknesses of previous studies with a more specific focus on the population of elementary school children (Taber, 2018). However, this study is also faced with some limitations, such as limited resources and the possibility of limited generalization of the results of this study to various school contexts.

Lastly, this research arises from a personal interest in promoting children's well-being and the belief that primary prevention in the context of reproductive health in children can provide long-term benefits for future generations. Thus, this research aims to evaluate the effectiveness of the Comprehensive School Health model in improving the reproductive health knowledge of primary school children and expected to make a valuable contribution in efforts to improve the reproductive health of primary school children and society.

METHOD

The research method used in this study was pre-experiment with One Group Pretest-Posttest Design. This design was chosen to measure the impact of the application of the Comprehensive School Health model on reproductive health knowledge of primary school children before and after the intervention. This research will be conducted from March 2023 to April 2023.

The population that was the focus of the study was all grade 6 students at SDN X Sorong Regency. This study used a total sampling technique, where all grade 6 students were willing to be the subjects of the study. There are seventy-two students who participated as respondents in this research.

The intervention implemented for the students involved a comprehensive health education program integrated into the regular curriculum during scheduled class hours. Aligned with the Curriculum of Unit Level Education (KTSP) and conforming to the content standards specified in the Ministry of National Education Regulation number 22 of 2006, this educational initiative aimed to foster a holistic approach to health among students. The curriculum focused on enhancing students' knowledge, cultivating positive attitudes, and instilling values related to maintaining a healthy lifestyle. Students were educated on various vital aspects, including the importance of cleanliness, the significance of immunization, identification of nutritious foods, awareness about diseases like diarrhea, dengue fever, and influenza, maintaining environmental hygiene both at school and home, responsible waste disposal, understanding methods to maintain reproductive health, recognizing the health hazards associated with smoking, alcohol consumption, drug abuse, and educating them on how to reject and handle instances of sexual harassment. This multifaceted health education intervention was designed to equip students with comprehensive knowledge and skills essential for leading healthy lives and making informed decisions regarding their well-being.

Data collection techniques in this study include three main methods, namely observation, interviews, and documentation. Observations were used to directly observe children's participation in Comprehensive School Health model activities. The interviews were used to gain deeper insight into their understanding of reproductive health before and after the intervention consisting of 10 questions with true and incorrect answer choices. Meanwhile, documentation is used to collect historical data and supporting materials relevant to the research.

The data analysis technique to be used involves a comparative analysis between pretest and posttest results from reproductive health knowledge of elementary school children with the help of SPSS. The data will be analyzed using descriptive and inferential statistics to identify significant changes in children's knowledge after the implementation of the Comprehensive School Health model.

RESULT

A total of 72 respondents participated in the study. The data are presented in Table 1 below.

Table 1 Characteristics of Respondents

Variable	n	%
Gender		
Male	39	54.2 %
Female	33	45.8 %
Mother's Education		
Primary school	2	2.8 %
Junior High School	5	6.9 %
Senior High School	49	68.1 %
College	16	22.2 %
Father's Education		
Junior High School	5	6.9 %
Senior High School	33	45.8 %
College	34	47.2 %
Menstruation		
Not menstruating yet	12	16.7 %
Already menstruating	21	29.2 %
No Menstruation	39	54.2 %

The results of respondent characteristics show an important picture of the sample used in this study. In terms of gender, it was found that as many as 54.2% of respondents were men, while 45.8% were women. In the context of research on the reproductive health of primary school children, this comparison can affect research results because gender differences can affect understanding and experience related to reproductive health.

In terms of maternal education, most respondents (68.1%) have mothers who have completed High School, while only 2.8% have mothers with a primary school background. This showed significant variation in respondents' mothers' education levels, which could also affect children's understanding and knowledge of reproductive health.

In terms of paternal education, most respondents (47.2%) had a father with a college background, while only 6.9% had a father with a junior high school background. This indicates that most fathers of respondents have a higher level of education, which may have an impact on children's knowledge of reproductive health.

Then, in terms of menstrual status, as many as 54.2% of respondents have not experienced menstruation, while 29.2% have experienced menstruation. This menstrual status is important in the context of reproductive health research, as it can affect respondents' level of knowledge and understanding of the topic. Differences in menstrual status may also affect research results as there may be differences in levels of knowledge and involvement in reproductive health interventions.

Table 2. Differences in Reproductive Health Knowledge

			Statistic	p	Mean difference	SE difference	Effect Size	
PRE	POST	Wilcoxon	00.00	< .001	-35.0	1,62	Rank biserial correlation	-1.00

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The results of the analysis showed significant differences in reproductive health knowledge in primary school children before and after the intervention. The results of Wilcoxon's statistical test showed that this difference was very significant, with a p value of less than 0.001, indicating that this result was not a coincidence. In addition, it was found that the average difference in knowledge scores between before and after the intervention was -35.0. These results show that the Comprehensive School Health model intervention has succeeded in significantly increasing the reproductive health knowledge of primary school children.

In addition, the resulting effect size is 1.62. This is an indicator that the effect of an intervention on primary school children's reproductive health knowledge can be considered a major effect, indicating that it has a substantial impact in improving their understanding of reproductive health.

In the case of a Rank biserial correlation value of -1.00, this indicates a strong correlation between intervention variables (before and after) and increased knowledge of reproductive health. A negative correlation value indicates that the higher the intervention (after value), the greater the increase in knowledge achieved by primary school children.

Thus, these results confirm that the Comprehensive School Health model has succeeded in significantly increasing reproductive health knowledge in primary school children, with great effect, and a strong correlation between interventions and increased knowledge. These results support the effectiveness of interventions in primary prevention efforts in the field of reproductive health of primary school children.

DISCUSSION

The results of this study refer to the main purpose of the study, which is to evaluate the impact of the Comprehensive School Health model on increasing reproductive health knowledge in elementary school children as a primary prevention effort. The results of the analysis showed significant differences in reproductive health knowledge between before and after the intervention. This clearly answers the problem statement and research questions, indicating that the intervention was successful in improving children's understanding of reproductive health.

In the table presented, important data such as a p-value of less than 0.001 and an average difference in scores of -35.0 highlight the success of the intervention in achieving significant changes in children's knowledge. The high effect size, which was 1.62, showed that this intervention had a substantial impact in increasing their knowledge about reproductive health.

These positive results create a positive reaction in the context of primary prevention efforts in the reproductive health of primary school children. The Comprehensive School Health model can be an effective solution in improving understanding of reproductive health in elementary school children (Widyatuti et al., 2018).

This research consistently supports findings from previous studies that have proposed that the Comprehensive School Health model can be one of the effective solutions in improving understanding of reproductive health in elementary school children (Obach et al., 2022; Shimpuku et al., 2023; Wilkins et al., 2022). The findings of this study are in line with previous studies that highlight the importance of early reproductive health education in primary prevention efforts in the field of children's reproductive health (Hall et al., 2023; Meherali et al., 2021; Paton et al., 2020; Rabbitte & Enriquez, 2019).

Several previous studies have also shown that interventions carried out in the school environment can have a positive impact on reproductive health knowledge of primary school children (Austrian et al., 2021; Mulubwa et al., 2020). In this context, the Comprehensive School Health model applied in this study can be considered as one of the effective approaches in achieving this goal.

Meanwhile, a negative result to note is that several respondents still do not menstruate. However, this reflects the diversity of conditions of the subjects of the study. The negative reaction to these results is that these interventions may not be able to influence children who have not yet menstruated in terms of reproductive health knowledge.

What is interesting about these results is that there is a strong correlation between interventions and increased knowledge of reproductive health, with correlation values reaching -1.00. This suggests that the higher the level of intervention (after grades), the greater the increase in knowledge acquired by primary school children.

The results of this study are consistent with the findings of previous studies that have identified a positive correlation between reproductive health education interventions in the school environment and increased knowledge of reproductive health in children (Widyatuti et al., 2018). The strong correlation with scores reaching -1.00 in this study reinforces the concept that the greater the level of intervention or exposure of children to reproductive health education, the greater the increase in knowledge they can gain.

Previous studies that have involved similar intervention models in the context of reproductive health education in primary school children have also reported similar findings, although with correlation values that may vary (Abdurahman et al., 2022). However, the results of this study make an important contribution in strengthening understanding of the importance of these interventions in the context of primary prevention of reproductive health.

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Overall, the results of this study confirm that the Comprehensive School Health model can be an effective tool in increasing reproductive health knowledge in primary school children. These findings enrich the existing knowledge structure in this field and make a significant contribution in the context of primary prevention of reproductive health of primary school children. In conclusion, the results of this study strongly support efforts to improve understanding of reproductive health at the primary education level to reduce the risk of reproductive health problems in the future.

CONCLUSION

The research identified and analyzed the impact of this model as a primary prevention effort. The findings revealed a significant positive effect of the intervention on the children's understanding of reproductive health, indicating the model's potential effectiveness in improving this aspect of knowledge. However, limitations in subject coverage, confined to the Sorong Regency and a specific age group, imply caution in generalizing the results. Further research expanding the geographical scope and subject population is recommended for broader representation. The study highlights the importance of early reproductive health education and suggests integrating this model into the educational curriculum. Implementing policies that support the Comprehensive School Health model could significantly contribute to primary prevention efforts in enhancing the reproductive health knowledge of elementary school children.

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