

Effects Of Health Education on Knowledge of Sexual Coercion Among Secondary School Students in Rivers East Senatorial District, Rivers State

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Copyright © 2026 The Author(s): This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC BY-NC) which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use provided the original author and source are credited.	<p><i>Sexual coercion is widespread around the world, although it is especially prevalent in underdeveloped nations. This study examined how health education affected secondary school pupils in Rivers State's South East Senatorial District's understanding of sexual coercion. With a population of sixty-five thousand eight hundred and eighty-one (65,881) secondary school pupils in the Rivers East Senatorial District, a pre-test and post-test design was used. The "Prevention of Sexual Coercion Instrument (PoSEI)," a structured test instrument with a reliability index of 0.89, was used to gather data. Version 27.0 of the Statistical Product for Service Solution (SPSS) was used to enter and code the obtained data. To address study issues, descriptive statistics such as mean and standard deviation (SD) were used to analyse the data. The impact of the health education was determined by comparing the mean score of the pretest and posttest. One-Way Analysis of Covariance (ANCOVA) was used to test each hypothesis at the 0.05 level of significance. The ANCOVA result demonstrated that the intervention significantly impacted knowledge of online sexual coercion [$F(1,190) = 8.88, p < 0.05$], as it accounted for 4.5% ($\omega^2 = 0.043$) of the variation in the post-test score. Additionally, knowledge of commercial sexual coercion was significantly impacted by the intervention [$F(1,190) = 31.37, p < 0.05$]. It was determined that health education is an effective technique for influencing secondary school students' behaviour in the Rivers South East Senatorial District, Rivers State, with relation to their understanding of how to prevent commercial and online sexual coercion. Among other things, it was suggested that secondary school principals work with the ministry of education's ICT unit to regularly instruct students on how to use online resources responsibly in order to stop online sexual harassment. This will help to maintain the impact of the intervention on the students.</i></p>
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Introduction

Sexual coercion is widespread around the world, although it is especially prevalent in underdeveloped nations. Understanding the history of sexual coercion is crucial to comprehending the problem's implications. Some components that provide ways to prevent sexual coercion among students are crucial highlights, particularly in situations when the facilities and competence for preventing student victimisation are woefully insufficient (Fawowe, 2020). Therefore, according to Fawowe (2020), sexual abuse robs a child of their identity and causes issues that, unless addressed, they may face for the rest of their lives. There are sex predators everywhere, including in

places of worship and educational institutions, and they are typically not strangers. Children must be enabled to fend off predators because parents cannot accompany them everywhere they go. According to statistics, more kids are bullying other kids these days. However, if a child is equipped with the appropriate knowledge, the predator can no longer exploit the child. Because of this, preventing sexual coercion is essential to the effort to eradicate it. Sexual abuse has become an epidemic in Nigeria, particularly among secondary school students, and the number of victims is skyrocketing (Omogbolagun, 2021). There are repercussions to this widespread sexual coercion

of students. According to Cashmore and Shackel (2013) and Fisher et al. (2017), it is a serious crime that has been linked to several negative health, mental health, substance abuse, relationship problems, and other concerns in childhood, adolescence, and adulthood. Additionally, it has been linked to a higher chance of encountering or perpetrating various acts, including sexual assaults (Papalia et al., 2017). The child's siblings, non-implicated parents, other family members, and in certain situations, the community, are all negatively impacted by CSA in addition to the principal victim (Quadara et al., 2016). It has a significant economic influence on the neighbourhood (Letourneau et al., 2018). CSA must be prevented before it begins in order to prevent these negative effects on kids, families, and communities. It is widely acknowledged that in order to achieve this, we require a public health strategy that is methodical, cohesive, and makes use of the resources and expertise at our disposal (Higgins et al., 2019; United Nations Children's Fund, 2020).

Regarding sexual coercion prevention, Gubbels et al. (2021) claimed that by educating and training students to become more conscious of sexual coercion, its prevalence among them can be decreased, potentially lowering their future risk of developing emotional and psychiatric disorders. Child abuse is caused by a variety of variables, the most significant of which are parental incompetence, child personality features, economic and cultural issues, and improper and stressful relationships and behaviours at home. But the most significant issue may be children's inadequate sex education (Jordan, 2019). Numerous studies have identified additional risk factors for child abuse, including low parental literacy, family overcrowding, addiction, ineffective parental behaviour control, limited social relationships, social isolation of the family, and conflict among family members (Jordan et al., 2019).

Primordial, primary, secondary, and tertiary prevention are the four stages of sexual coercion prevention. In order to prevent or lessen exposure to risk factors linked to adversity, Kisling and Das (2021) clarified that the primordial entails the employment of laws and policies intended to improve underlying social and environmental conditions, including cultural knowledge of children. Primary prevention refers to actions taken to lessen risk exposure or vulnerability in a susceptible population or group in order to stop CSA from happening. While tertiary prevention includes restorative justice, which promotes both individual and group "healing," secondary prevention refers to actions taken to identify the risk of sexual abuse and take preventive action before it occurs (Kisling & Das, 2021). By lowering risk and lessening its effects, these four phases work together to prevent CSA (Kisling & Das,

2021). A whole-of-system approach to prevention requires each level.

Sexual coercion can occur at any age but its prevalence is likely to differ significantly on certain age groups. Studies suggest that children, adolescents and young people are at unique risk for sexual coercion because, they may have little or no knowledge about it at that time and may not have enough strength or will power to resist such advances. Secondary school students are not exempted in this respect because most of them fall within this age category. Do et al. (2019) reported that, a substantial percentage of children and adolescents are subjected to unwanted sexual experience by adults or older adolescents. The World Health Organization (2022) report showed that, about 150 million girls and 73 million boys under the age bracket of 18 years experienced sexual coercion more compared with those of other age bracket. This is due to their relative inexperience, limited negotiation skills, dependent financial position and traditional gender norms.

In a setting like Rivers East Senatorial District where the cost of living is very high, some adolescents, including school children are left to cater for themselves, thus making them prey in the hands of the perpetrators even in the school environment. Ideally, the school environment is supposed to be serene and conducive for learning, being free from any form of distractions including sexual coercion, yet, these students continue to suffer the effects of such sexual coercion. Consequently, if preventive measures are not put in place, the health effects of sexual coercion among secondary school students in Rivers East may be exacerbated due to lack of access to proper medical care and adolescent friendly sexual and reproductive services. On the other hand, several scholarly investigations made, as education diagnosis of the problem of sexual coercion, were descriptive in nature without any intervention. Thus, the need to carry out an intervention of this sought to equip the students with information to prevent themselves from sexual coercion. This study therefore focused on the effects of health education on the knowledge of prevention of sexual coercion among secondary school students in Rivers South East Senatorial District of Rivers State. The following research questions were answered in the study:

- 1 How does health education affect secondary school students in Rivers South East Senatorial District, Rivers State, in terms of their understanding of how to avoid online sexual coercion?
- 2 How does health education affect secondary school pupils in the Rivers South East Senatorial District of Rivers State's understanding of how to prevent commercial sexual coercion?

Hypotheses

The following null hypotheses were formulated to guide the study and were tested at 0.05 level of significance:

1. Secondary school pupils in Rivers South East Senatorial District, Rivers State, will not significantly benefit from health education in terms of their understanding of how to resist online sexual coercion.
2. Secondary school pupils in the Rivers South East Senatorial District of Rivers will not significantly benefit from health education in terms of their understanding of how to prevent commercial sexual coercion.

Methodology

This study used a pre-test, post-test research design. Sixty-five thousand, eight hundred and eighty-one (65,881) secondary school students in the Rivers East Senatorial District made up the study's population (Rivers State Universal Basic Education Board, 2024). This study used a multi-stage sampling technique to determine a sample size of 200 (100 in each group). The Senatorial District was first divided into four clusters based on cultural similarities using a cluster sampling technique. These were Obio/Akpor and Port Harcourt in Cluster 1, Emohua and Ikwerre in Cluster 2, Etche and Omuma in Cluster 3, and Ogu/Bolo and Okirika in Cluster 4. Four local government areas—one from each cluster—from the senatorial district—Obio/Akpor, Ogu/Bolo, Emohua, and Etche—were chosen at the second stage using a straightforward random sampling technique. In the third stage, the chosen LGAs were divided into two groups using the stratified sampling technique: the intervention group (Obio/Akpor and Etche) and the control group (Ogu/Bolo and Emohua). In the

fourth stage, one school from each of the chosen LGAs was chosen using the simple random sampling technique. In the fifth stage, the study participants were chosen using the simple random sampling technique.

A standardised test called the "Knowledge of Prevention of Sexual Coercion Instrument (KPoSCI)" was used to collect the data, and its reliability coefficient was 0.89. The pretest, the intervention, and the post-test were the three stages of the data collection process. Participants in the intervention and control groups were given copies of the test instrument as a pretest during the pretesting period. When the respondents had finished filling out the administered test, it was immediately retrieved. Then, during the second phase, known as the intervention phase, the intervention group received health education for ten weeks. Only those who were a part of the intervention group were exposed to the health education, which covered a variety of subjects related to the study's goals. The control group and the intervention group were given the identical test as a post-test during the final phase, known as the post-intervention phase. Upon completion, the fully loaded instruments were promptly retrieved. The Statistical Product for Service Solution (SPSS) version 26.0 was used to enter and code the data. To address research issues, data were analysed using descriptive statistics such as mean and standard deviation (SD), and all null hypotheses were tested using analysis of covariance (ANCOVA). Every hypothesis was examined at the significance level of 0.05. When a hypothesis's p-value was less than 0.05, it was considered significant, and the null hypothesis was rejected.

Results

The results of the study are presented below:

Table 1: Mean and standard deviation on effect of health education on knowledge of prevention of online sexual coercion of secondary school students in Rivers South East Senatorial District

SN	Item	Control		Interv.		Mean diff	Remark
		\bar{X}	SD	\bar{X}	SD		
1	Avoided viewing adult contents online to avoid sexual abuse	3.79	1.30	4.19	0.83	0.4	+effect
2	Maintained online privacy to block people from sending sexually abusive materials	3.71	1.58	4.73	1.14	1.02	+effect
3	Blocked anyone who tries to discuss sexual contents.	3.97	1.36	4.4	0.76	0.43	+effect
4	Protected personal information, particularly sexual life from the public online	3.73	1.61	4.25	1.02	0.52	+effect
5	Avoided engaging in sexual chats that can lead to sexual coercion	4.02	1.26	4.68	3.88	0.66	+effect
6	Reported to parents any illicit content sent online	3.94	1.23	4.8	4.13	0.86	+effect

7	Sought support from trusted persons when any sexual conversation online causes trouble	3.83	1.43	4.8	5.27	0.97	+effect
8	Reported to parents any adult that shows interest in sexual life online	4.06	1.25	4.42	0.63	0.36	+effect
9	Blocked anyone online who ask to hide their relationship with me from my families	3.96	1.33	4.37	0.81	0.41	+effect
10	Blocked anyone who sends a nude image or asked for personal nude picture	3.75	5.32	4.47	0.74	0.72	+effect
	Grand mean	3.87	1.76	4.51	1.92	0.63	+effect

Criterion mean = 3.00

Table 1 displays the mean scores and standard deviations reflecting the impact of health education on secondary school students' knowledge of preventing online sexual coercion in the Rivers South East Senatorial District. The findings reveal that the control group recorded a post-test mean score of 3.87 ± 1.76 , whereas the intervention group achieved a higher post-test mean score of 4.51 ± 1.92 . The observed mean difference of 0.63 indicates an improvement attributable to the intervention. Overall, the results suggest that health education exerted a positive influence on students' knowledge regarding the prevention of online sexual coercion in the study area.

Table 2: Mean and standard deviation on effect of health education on knowledge of prevention of commercial sexual coercion of secondary school students in Rivers South East Senatorial District

SN	Item	Control		Interv.		Mean diff	Remark
		\bar{X}	SD	\bar{X}	SD		
1	Students should be careful not to give their body in exchange for money or any other material gain	4.08	1.34	4.18	0.60	0.10	+effect
2	Paid attention to every attempt made by anyone to give one out for sexual transaction/business	3.46	1.46	4.13	0.78	0.67	+effect
3	Resisted/refused any effort made by anyone to give me out for sexual activities	3.74	1.5	3.99	0.93	0.25	+effect
4	Cannot present self for sexual shows	3.42	1.41	4.13	0.97	0.71	+effect
5	Cannot accept any offer to be used for the promotion of pornographic contents	3.35	1.66	4.25	0.81	0.90	+effect
6	Would turn down any invitation to travel for sexual activities no matter the amount of money they offered	3.77	1.39	4.37	0.65	0.60	+effect
7	Would confront anyone who plans to use me for sex business	3.64	1.58	4.26	0.85	0.62	+effect
8	Engaging in sex business is harmful so cannot engage in it	3.94	1.41	4.33	0.66	0.39	+effect
9	There is no big deal about sexual business provided one can make money from it	2.59	1.6	4.17	0.99	1.58	+effect
10	Avoided taking illicit drugs so that nobody will take advantage of sexually	4.13	1.39	4.33	0.79	0.20	+effect
	Grand mean	3.61	1.47	4.21	0.80	0.60	+effect

Criterion mean = 3.00

Table 2 presents the mean scores and standard deviations illustrating the effect of health education on secondary school students' knowledge of preventing commercial sexual coercion in the Rivers South East Senatorial District. The findings indicate that the control group recorded a post-test mean score of 3.61 ± 1.47 , while the intervention group achieved a higher post-test mean score of 4.21 ± 0.80 . The resulting mean difference of 0.60 demonstrates an improvement associated with the intervention. Overall, the results confirm that health education had a positive effect on students' knowledge of commercial sexual coercion prevention within the study area.

Table 3: Analysis of Covariate (ANCOVA) on effect of health education on knowledge of prevention of online sexual coercion of secondary school students in Rivers South East Senatorial District of Rivers State

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial eta square
Corrected Model	2.145 ^a	1	2.145	8.888	.003	.045
Intercept	20.277	1	20.277	84.037	.000	.308
Pretest	2.145	1	2.145	8.888	.003*	.045
Error	45.604	189	.241			
Total	476.000	191				
Corrected Total	47.749	190				

*Significant; p<0.05

Table 3 presents the results of the Analysis of Covariance (ANCOVA) conducted to determine the effect of health education on secondary school students' knowledge of preventing online sexual coercion in the Rivers South East Senatorial District of Rivers State. The ANCOVA results indicate that the intervention produced a statistically significant effect on students' knowledge of online sexual coercion prevention, $F(1, 190) = 8.88, p < 0.05$. The effect size, however, was modest, with the intervention accounting for only 4.5% of the variance in post-test scores ($\omega^2 = 0.043$). Consequently, the null hypothesis stating that health education has no significant effect on secondary school students' knowledge of online sexual coercion prevention in the study area was rejected.

Table 4: Analysis of Covariate (ANCOVA) on effect of health education on knowledge of prevention of commercial sexual coercion of secondary school students in Rivers South East Senatorial District of Rivers State

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial eta square
Corrected Model	6.799 ^a	1	6.799	31.378	.000	.142
Intercept	2.483	1	2.483	11.460	.001	.057
Pretest	6.799	1	6.799	31.378	.000*	.142
Error	40.950	189	.217			
Total	476.000	191				
Corrected Total	47.749	190				

*Significant; p<0.05

Table 4 presents the results of the Analysis of Covariance (ANCOVA) conducted to determine the effect of health education on secondary school students' knowledge of preventing vulnerability to commercial sexual coercion in the Rivers South East Senatorial District of Rivers State. The ANCOVA findings reveal that the intervention had a statistically significant effect on students' knowledge of commercial sexual coercion prevention, $F(1, 190) = 31.37, p < 0.05$. The effect size indicates that the intervention accounted for 14.2% of the variance in post-test scores ($\omega^2 = 0.142$). Accordingly, the null hypothesis stating that health education has no significant effect on secondary school students' knowledge of preventing commercial sexual coercion in the study area was rejected.

The findings of the study are discussed below

The study's conclusions demonstrated that health education had a favourable impact on preventing online sexual coercion and that the intervention had a major impact on doing so. Because the respondents were exposed to a learning process, the study's findings are not shocking. Because it provides knowledge on preventing online sexual coercion, this kind of learning process is a useful tool for influencing behaviour and intention. In secondary schools in Abeokuta South Local Government Area, Ogun State, teenage girls participated in a nurse-led training program on sexual violence. The results of this study support those of Sobanjo et al. (2021), who found that health education significantly reduced the incidence of online sexual coercion. The results of this study are consistent with those

of Dunkle et al. (2014), who found that health education interventions significantly reduced the incidence of online sexual coercion among females attending clinics in Soweto, South Africa. The results of this study are consistent with those of a study by Kandi et al. (2022) on the impact of information on children's self-protection against sexual abuse, which shown that an intervention that exposes children to knowledge has a substantial impact on their prevention of online sexual abuse. The results of this study support those of Miller et al. (2014), who found that coaching boys into men was a substantial intervention for preventing online sexual coercion and was an effective strategy for preventing teen sexual violence in Sacramento, California. Wilson (2014) found that secondary school pupils were exposed to online sexual coercion because they were not protected from sexual violence, which contradicts the findings of this study on sexual assault in South African schools. The difference between the two studies may be explained by the fact that the former was a descriptive study carried out among university students, whilst the latter was an intervention study done among secondary school students.

The study's conclusions demonstrated that health education had a favourable impact on preventing commercial sexual coercion and that the intervention significantly reduced commercial sexual coercion among students. The results of this study are also encouraging because they suggest that health education, as a true tool for influencing decision or intention to prevent commercial sexual coercion, can help secondary school students translate information into action, which is to prevent commercial sexual coercion. Health education's impact on preventing commercial sexual coercion suggests that secondary school students are accepting personal responsibility for safeguarding themselves against commercial sex. The results of this study support those of Sobanjo et al. (2021), who examined the impact of a nurse-led training program on sexual violence among teenage girls in secondary schools in Ogun State's Abeokuta South Local Government Area. They found that health education significantly reduced the incidence of commercial sexual coercion. The results of this study support those of Miller et al. (2014), who found that coaching boys into men was a substantial intervention for preventing commercial sexual coercion and was an effective strategy for preventing teen sexual assault in Sacramento, California. This study supports Chen et al.'s (2022) findings regarding the efficacy of a school-based intervention for child sexual abuse among schoolchildren in the new century, which demonstrated that the intervention

significantly reduced the incidence of commercial sexual coercion.

Conclusion

Based on the findings of the study, it was concluded that, health education is a veritable tool in influencing the actions of secondary school students in Rivers South East Senatorial District, Rivers State with regards to the knowledge of prevention of sexual coercion such as online, and commercial sexual coercion.

Recommendations

The following recommendations were made based on the findings of the study:

1. The principals of the secondary school should collaborate with the ICT unit in the ministry of education to routinely educate students on appropriate use of online materials to prevent online sexual harassment, this will help to sustain the effect of the intervention on the students.
2. Parents should also play their role of monitoring, coaching and assisting their secondary school wards/students, specifically their dressing, associations and outings to limit their exposure to sexual coercion, this will help to sustain the effect of the intervention on students' vulnerability to sexual coercion.
3. Policy makers should establish and work with local authorities to control verbal sexual coercion of students through the enforcement of regulations, and adequate control measures.

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