

Research Article

# Assessment of Teacher Competence and Quality Delivery of Comprehensive Sexuality Lessons in Rural Public Secondary Schools of Muchinga Province of Zambia

Mulenga Memory Chibalange<sup>1,\*</sup> , Penda Annie<sup>2</sup> 

<sup>1</sup>Department of Education, Mulungushi University, Kabwe, Zambia

<sup>2</sup>Department of Education, Kwame Nkrumah University, Kabwe, Zambia

## Abstract

The study focused on assessing teacher competence and quality delivery of Comprehensive Sexuality lessons in rural public secondary schools of Muchinga province of Zambia. The main objective was to ascertain the level of teacher competency in quality delivery of Comprehensive Sexuality Education lessons. The research employed Quantitative method. It used positivism paradigm. It employed descriptive design which described the state of affairs of Comprehensive Sexuality Education as it existed at the time when the research was conducted. The study sample comprised of the total number of 62 teacher respondents. It employed the close ended questionnaire. The study ascertained that Some teachers were competent, while others were not because the lowest mean score of 1.13 was for "I attended School Based Continuous Professional Development in Comprehensive Sexuality Education" and the highest mean score 1.77 was for "I trained through cascading model." the statistical tests were significant because the difference between two mean was equated to less than 0.05, the regression resulted indicated that more teachers were trained using School Based Continuous Professional Development while a few teachers were trained using Cascading model which is the better way of training teachers for Comprehensive Sexuality Education. The recommendations for this research were that; Comprehensive Sexuality Education should be implemented in all schools, school leadership should champion the implementation of it, School leaders should ensure the development of deliberate Comprehensive Sexuality Education school policy in all schools and facilitate adherence to its implemented. School leaders to intensify more School Based Continuous Professional Development meetings in order to capacity build teachers in Comprehensive Sexuality Education and teachers should continue using subjective pedagogical skills which makes learners freely share their sexuality experiences. It is highly recommended that, the government should develop a deliberate policy of teaching Comprehensive Sexuality Education as a standalone subject and continue training teachers in Comprehensive Sexuality Education during in-service and pre-service trainings. The future recommendation from this study was that, assessments of teacher competence and quality delivery of comprehensive sexuality lessons in selected public secondary schools of Muchinga province of Zambia research should be conducted in other secondary schools of Muchinga Province of Zambia.

## Keywords

Competence, Quality Delivery, Comprehensive Sexuality Education

\*Corresponding author: [chibalangemulengamemory@gmail.com](mailto:chibalangemulengamemory@gmail.com) (Mulenga Memory Chibalange)

**Received:** 21 May 2024; **Accepted:** 11 June 2024; **Published:** 25 June 2024



Copyright: © The Author(s), 2024. Published by Science Publishing Group. This is an **Open Access** article, distributed under the terms of the Creative Commons Attribution 4.0 License (<http://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, distribution and reproduction in any medium, provided the original work is properly cited.

## 1. Introduction

The vision concerning Comprehensive Sexuality Education is to, "to equip children and young people with knowledge, skills, attitude and values that will empower them to realise their healthy, wellbeing and dignity, develop respectful social and sexual relationships, consider how their choices affect their own wellbeing and that of others, and understand and ensure the protection of their rights throughout their lives [17].

Globally, Comprehensive Sexuality Education have its trace in Europe and United States where it is implemented as a school curriculum subject [13]. However, to improve quality delivery, China increased on digital tools. And supported teachers with lesson plans, presentations, demonstration videos, cartoons and interactive games.

In Africa, the use of scanned instrument which determines Comprehensive Sexuality Education curriculum that promotes diversity and effectiveness of teaching methods along with sensitivity to gender and human rights across topics [14], [15]. The instrument aimed at assessing the content, quality, and delivery methods of sexuality education (SE) curricula by ensuring increase comprehensive knowledge among young people and empower them to adopt protective behaviours, such as refusing unwanted sex, delaying sex, using condoms and testing for Human Immunodeficiency viruses(HIV) [23]. In South teachers were supported with the provision of a range of scripted lesson plans to aid and guide teachers to deliver and address a range of important topics in a systematic manner [24, 21]. Nonetheless to ensure uniformity, appropriate coordination and synergy were required among the different government agencies [19, 2]. The topics were not examinable and teachers were lacking teaching skills [5].

The implementation of Comprehensive Sexuality Education begun is 2014 in Zambia, Comprehensive Sexuality Education is integrated into the school curriculum [7]. The factors such as inadequate teacher competency, poor quality of lesson delivery, and negative perception of the concept by teachers, learners, and parents impeded teacher competencies [11]. UNESCO further highlighted lack of pedagogical skills, integration skills, knowledge gaps, lack of teaching resources, cultural barriers especially in rural areas [16].

In order to work on teacher preparation and delivery skills, Zambia implemented a program of teacher training by using a cascade model of training. The cascade model proved expensive, and the content was watered down at every stage. hence the introduction of online training has been rolled out through partnership with UNESCO, United Nations Population Fund (UNFPA) and the Ministry of General Education have subsidized the cost of training [17]. This was coupled with lack of appropriate curriculum [25]. The study therefore sought to assess teacher competence and quality delivery of Comprehensive Sexuality Education lessons.

### 1.1. Statement of the Problem

Comprehensive Sexuality Education was not being comprehensively delivered [10].

Despite Comprehensive Sexuality Education having potential to equip learners with knowledge, skills, attitude and values that would empower them to realise their healthy, wellbeing and dignity, develop respectful social and sexual relationships, consider how their choices affect their own wellbeing and that of others, understanding and ensuring the protection of their rights throughout their lives [12] also provide learners with necessary information about their bodies, sexuality, reduction of misinformation, shame, anxiety and improving the ability to make safe and informed decisions about their sexual and reproductive health [20].

Munkonka established that, despite learners having knowledge for Comprehensive Sexuality Education, the school has continued having girls dropping out of school due to teenage pregnancies, early marriages and contraction of Sexual Transmission Infections (STIs) and Human Immunodeficiency viruses (HIV) [9].

It's is in light of the foregoing that the study sought to assess teacher competence and quality delivery of Comprehensive Sexuality lessons in rural Secondary Schools of Zambia.

### 1.2. Purpose of the Study

The main purpose of the study was to explore the potential reasons for the implementation of Comprehensive Sexuality Education and its expected outcomes in selected rural public secondary schools of Muchinga province of Zambia.

### 1.3. Research Objectives

To measure the level of teacher competency in quality delivery of Comprehensive Sexuality Education lessons in selected rural public Secondary Schools of Muchinga Province of Zambia.

To ascertain quality delivery of Comprehensive Sexuality Lessons in selected rural public Secondary Schools of Muchinga Province of Zambia

## 2. Presentation of Findings

In order to ascertain the level of teacher competence and quality delivery of lessons in Comprehensive Sexuality Education in selected rural public Secondary schools of Muchinga Province of Zambia, the questions were asked from the closed ended questionnaire for the teacher. The data was collected on teacher competency and quality delivery of lessons and coded then run on SPSS version 27 to generate tables on descriptive statistics, one sample t-test and binary logistic regression.

**Table 1.** Descriptive Statistics for teachers.

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
I do implement CSE professionally to learners	62	1	2	1.55	.502
I attended SBCPDS ON CSE	62	1	2	1.13	.338
I am trained to teach CSE	62	1	2	1.55	.502
I was trained through cascading model	62	1	2	1.77	.422
I was trained through in-service training	62	1	2	1.39	.491
I am fully trained to teach CSE to the learners	62	1	2	1.53	.503
I am competent in teaching CSE to learners	62	1	2	1.16	.371
We have enough required CSE teaching materials	62	1	2	1.34	.477
School leaders supervise and monitor closely the teaching of CSE	62	1	2	1.73	.450
I involve learners while teaching CSE	62	1	2	1.31	.465
Valid N (list wise)	62				

Table 1 indicates the average of responses from teachers concerning the implementation of Comprehensive Sexuality Education in rural public Secondary Schools of Muchinga Province of Zambia.

The sub-topics are (a) I do implement CSE professionally to learners, (b) I attended School Based Continuous Professional Development on Comprehensive Sexuality Education (c) I am trained to teach Comprehensive Sexuality Education, (d) I was trained through cascading model (e) I was trained through in-service training (f) I am fully trained to teach CSE to the learners (g) I am competent in teaching CSE to learners (h) We have enough required CSE teaching materials (h)

School leaders supervise and monitor closely the teaching of Comprehensive Sexuality Education i) I involve learners while teaching Comprehensive Sexuality to learners?

The mean score in all categories were between 1.13 and 1.77. The lowest mean score is; I attended School Based Continuous Professional Development Comprehensive Sexuality Education and the highest I was trained through cascading model 1.77. It worth noting that high scores were under the following sub topics; School leaders supervise and monitor closely the teaching of Comprehensive Sexuality Education.

*One sample statistics – t test*

**Table 2.** One- Sample Statistics –t test for Comprehensive Sexuality Education-Teachers competence and quality Delivery.

One-Sample Test						
	Test Value = 0				95% Confidence Interval of the Difference	
	T	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
	I do implement CSE professionally to the learners	24.301	61	.000	1.548	1.42
I attended SBCPDS ON CSE	26.304	61	.000	1.129	1.04	1.21
I am trained to teach CSE	22.244	61	.000	1.581	1.44	1.72
I was trained through cascading model	33.142	61	.000	1.774	1.67	1.88
I was trained through in-service training	22.242	61	.000	1.387	1.26	1.51

One-Sample Test						
	Test Value = 0			Mean Difference	95% Confidence Interval of the Difference	
	T	df	Sig. (2-tailed)		Lower	Upper
	I am fully trained to teach CSE to the learners	23.985	61		.000	1.532
I am competent in teaching CSE to learners	24.660	61	.000	1.161	1.07	1.26
We have enough required CSE teaching materials	22.092	61	.000	1.339	1.22	1.46
School leaders supervise and monitor closely the teaching of CSE	30.215	61	.000	1.726	1.61	1.84
I involve learners while teaching CSE	22.133	61	.000	1.306	1.19	1.42

Note: denotes significant value (<0.05)

The one sample test was run to compare the mean difference in the five sub-topics concerning the implementation of Comprehensive Sexuality Education under teacher competence and quality delivery of Comprehensive Sexuality Education lessons. The statistics were significant in all situations for instance the difference between two mean was less than

0.05. I attended School Based Continuous Professional Development in Comprehensive Sexuality Education (t=26.304; DF=61; sig. (2-tailed) =.000 a=0.05 and Are you trained to teach Comprehensive Sexuality Education? (t=33.142; DF=61; sig. (2-tailed).000 a=0.05.

*Binary Logistic Regression Analysis*

**Table 3.** Omnibus Test of Model Coefficients.

Omnibus Tests of Model Coefficients				
		Chi-square	df	Sig.
Step 1	Step	30.649	9	.000
	Block	30.649	9	.000
	Model	30.649	9	.000

Table 3 on the omnibus tests of model coefficients provide information on the overall fit of the model. The Chi-square test 30.649 indicates that the model is a good fit for the data, with a p-value of less than .05 indicating that the model is statistically significant. The df (degrees of freedom) and Sig.

values also support this conclusion, the model is a good fit for the data and the relationship between the predictor variables (I do implement CSE professionally to the learners) and the outcome variable (teacher competent and quality delivery) is statistically significant.

**Table 4.** Model Summary.

Model Summary			
Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	54.719 <sup>a</sup>	.390	.522

**Model Summary**

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
------	-------------------	----------------------	---------------------

a. Estimation terminated at iteration number 6 because parameter estimates changed by less than .001.

Table 4. on the model summary provides information on the overall fit of the model. The -2 Log likelihood value 54.719 shows that the model fits the data well, with a lower value indicating a better fit. The Cox & Snell R Square and Nagelkerke R Square values indicate that the model explains

39% and 52% of the variation in the outcome, respectively. This means that the model is capturing a significant amount of the variation in the outcome, but there are still other factors that affect the outcome.

*Table 5. Classification Table.*

**Classification Table<sup>a</sup>**

Observed	Predicted		Percentage Correct
	I do implement CSE professionally to the learners		
	YES	NO	
Step 1 I implement CSE professionally to the learners	YES	17	60.7
	NO	5	85.3
Overall Percentage			74.2

a. The cut value is .500

Table 5. shows how well the classification model predicted the outcome variable, i.e. whether or not you implement CSE to the learners. The table revealed that 74.2% of the observed values were correctly predicted by the model. In other words, the model was correct in predicting 74.2% of the cases where

the outcome was "yes" or "no." the cut value is .500 which indicated the point at which the predicts on shifts from 'NO' to 'YES' that the model is quite accurate at predicting the outcome.

*Table 6. Variables in the Equation.*

**Variables in the Equation**

	B	S.E.	Wald	df	Sig.	Exp(B)
I attended School Based CPDs	-.844	1.147	.541	1	.462	.430
I am trained to teach CSE	-.659	.607	1.177	1	.278	.517
I was trained through cascading model	3.634	1.221	8.856	1	.003	37.867
Step 1 <sup>a</sup> I was trained through in-service training	-1.195	.842	2.011	1	.156	.303
I am fully trained to teach CSE to the learners	-.594	.743	.639	1	.424	.552
I am competent in teaching CSE to learners	.677	1.006	.453	1	.501	1.968
We have enough required CSE teaching materials	1.491	.824	3.274	1	.070	4.442

Variables in the Equation						
	B	S.E.	Wald	df	Sig.	Exp(B)
School leaders supervise and monitor closely the teaching of CSE	-.740	.913	.657	1	.418	.477
I involve learners while teaching CSE	.219	.801	.075	1	.785	1.244
Constant	-3.585	3.660	.960	1	.327	.028

a. Variable(s) entered on step 1: I attended SBCPDS ON CSE, I am trained to teach CSE, I was trained through cascading model, I was trained through in-service training, I am fully trained to teach CSE to the learners, I am competent in teaching CSE to learners, We have enough required CSE teaching materials, School leaders supervise and monitor closely the teaching of CSE, I involve learners while teaching CSE.

Table 6 indicates the results of the regression analysis for the first step of the model. The variables that were entered into the model were I attended SBCPDS on CSE, I am trained to teach CSE, I was trained through cascading model, I was trained through in-service training, I am fully trained to teach CSE to the learners, I am competent in teaching CSE to learners, We have enough required CSE teaching materials, School leaders supervise and monitor closely the teaching of CSE, and I involve learners while teaching CSE.

The B values reveals the magnitude of the relationship between the predictor variables and the outcome variable. There is a strong positive relationship 'I trained through cascading model with B value 3.634 and a weak negative relationship with ' I trained through in-service training with B-value -1.195 meaning teacher competence and quality delivery of Comprehensive Sexuality Education is basically highly dependent on training through cascading model.

The study on ascertaining teacher competence and quality delivery of Comprehensive Sexuality Education lesson discovered that, the mean score in all categories were between 1.13 and 1.77. The lowest mean score 1.13 'I attended School Based Continuous Professional Development Comprehensive Sexuality Education' and the highest mean score 1.77 'I was trained through cascading model.' The statistics were significant in all situations for instance the difference between two mean was less than 0.05. I attended School Based Continuous Professional Development in Comprehensive Sexuality Education ( $t=26.304$ ;  $DF=61$ ; sig. (2-tailed)  $=.000$   $\alpha=0.05$  and are you trained to teach Comprehensive Sexuality Education? ( $t=33.142$ ;  $DF=61$ ; sig. (2-tailed).000  $\alpha=0.05$ . The omnibus tests of model coefficients provided information on the overall fit of the model. The Chi-square test 30.649 indicated that the model is a good fit for the data, with a p-value of less than .05 indicating that the model is statistically significant. The df (degrees of freedom) and Sig. values also support this conclusion, the model is a good fit for the data and the relationship between the predictor variables (I do implement CSE professionally to the learners) and the outcome variable (teacher competent and quality delivery) is statistically significant. The model summary provided information on the overall fit of the model. The -2 Log likelihood value 54.719

shows that the model fits the data well, with a lower value indicating a better fit. The Cox & Snell R Square and Nagelkerke R Square values indicate that the model explains 39% and 52% of the variation in the outcome, respectively. This means that the model is capturing a significant amount of the variation in the outcome. The classification model predicted the outcome variable, i.e. whether or not you implement CSE to the learners. The table revealed that 74.2% of the observed values were correctly predicted by the model. The cut value is .500 which indicated the point at which the predicts on shifts from 'NO' to 'YES' that the model is quite accurate at predicting the outcome. The B values reveals the magnitude of the relationship between the predictor variables and the outcome variable. There is a strong positive relationship 'I trained through cascading model with B value 3.634 and a weak negative relationship with ' I trained through in-service training with B- value -1.195 meaning teacher competence and quality delivery of Comprehensive Sexuality Education is basically highly dependent on training through cascading model.

### 3. Discussions and Interpretation of Findings

This chapter discusses the findings of the study on exploring the potential reasons for the implementation of Comprehensive Sexuality Education and its Expected Outcome in selected Rural Public Secondary Schools of Muchinga Province of Zambia basing on; to ascertain the level of teacher competency in quality lesson delivery of Comprehensive Sexuality Education in selected rural public Secondary Schools of Muchinga Province of Zambia.

Comprehensive Sexuality Education (CSE) has gained global recognition as a vital effort to empower adolescents and young people; enable them to improve and protect their health, well-being and dignity; and support them in developing critical thinking skills, citizenship, and equal healthy and positive relationships. Therefore, the study ascertained the level of teacher competence in teaching Comprehensive Sexuality Education and revealed that, the mean score in all

categories were between 1.13 and 1.77. The lowest mean score 1.13 'I attended School Based Continuous Professional Development Comprehensive Sexuality Education' and the highest mean score 1.77 'I was trained through cascading model.'

The statistics were significant in all situations for instance the difference between two mean was less than 0.05. I attended School Based Continuous Professional Development in Comprehensive Sexuality Education ( $t=26.304$ ;  $DF=61$ ; sig. (2-tailed) =.000  $\alpha=0.05$  and are you trained to teach Comprehensive Sexuality Education? ( $t=33.142$ ;  $DF=61$ ; sig. (2-tailed).000  $\alpha=0.05$ ).

The omnibus tests of model coefficients provided information on the overall fit of the model. The Chi-square test 30.649 indicated that the model is a good fit for the data, with a p-value of less than .05 indicating that the model is statistically significant. The df (degrees of freedom) and Sig. values also support this conclusion, the model is a good fit for the data and the relationship between the predictor variables (I do implement CSE professionally to the learners) and the outcome variable (teacher competent and quality delivery) is statistically significant.

The model summary provided information on the overall fit of the model. The -2 Log likelihood value 54.719 shows that the model fits the data well, with a lower value indicating a better fit. The Cox & Snell R Square and Nagelkerke R Square values indicate that the model explains 39% and 52% of the variation in the outcome, respectively. This means that the model is capturing a significant amount of the variation in the outcome.

The classification model predicted the outcome variable, i.e. whether or not you implement CSE to the learners. The table revealed that 74.2% of the observed values were correctly predicted by the model. The cut value is .500 which indicated the point at which the predicts on shifts from 'NO' to 'YES' that the model is quite accurate at predicting the outcome. The B values reveals the magnitude of the relationship between the predictor variables and the outcome variable. There is a strong positive relationship 'I trained through cascading model with B value 3.634 and a weak negative relationship with 'I trained through in-service training with B- value -1.195 meaning teacher competence and quality delivery of Comprehensive Sexuality Education is basically highly dependent on training through cascading model.

UNESCO study in Philippine indicated that, teachers generally had the skills to teach Comprehensive Sexuality Education topics and that they complied, especially with the presence of official orders in implementing guidelines from the Department of Education [20]. Some teacher needed to work on some preparation and delivery skills who are discreet in the manner they deliver information to learners as well as their comfort and confidence, [18]. The school headteachers are not in privy to Sexual Health Relationships (SHR) efforts to promote learning and adaptations, likewise the headteacher engagement learners on the agenda and sharing experiences.

The headteacher led teacher motivation through teacher trainings, recognition of high performing teaching time along with Sexual Health Relationship (SHR) material provision, they supported teacher to teach and provided guidance on regular head and teacher guidance and regular headteacher and teacher meetings [6]. This was in support with Munkonka who established that, the implementation of Comprehensive Sexuality Education in the selected primary schools assisted learners; teachers and communities obtain information which helped them to form appropriate attitudes and beliefs related to sex, gender, relationships, and intimacy and that, despite learners having knowledge of Comprehensive Sexuality Education, the schools continued having girls dropping out of school due to teenage pregnancies, early marriages and contraction of Sexual Transmission Infections (STIs) and Human Immunodeficiency viruses (HIV). The research further revealed that, although teachers are trained to deliver Comprehensive Sexuality Education at school level, they fail to deliver as expected because they are inadequately trained. It was therefore recommended that, more trainings on capacity building of teachers concerning Comprehensive Sexuality Education is needed because the challenges faced by learners in terms of sexuality is with significant progress on the ground [9].

The sexual knowledge and attitudes showed the positive effects were largely due to the motivation, attitudes and skills of teachers, and the ability to employ participatory teaching techniques [4]. Concurrently, I was revealed that, many teachers grapple to come to terms with the conflicts they experience between teaching Comprehensive Sexuality Education and dominant socio-cultural and religious norms. The researcher noted that in Uganda many teachers feared losing respect and authority altogether when talking about sex with learners. Many teachers are still inclined to teach abstinence, continue to use fear-based messages and have difficulty letting go of traditional cultural beliefs regarding sexuality as immoral and taboo, not least where young people and (unmarried) young people are concerned. The study indicated that there is need for gender transformative teaching methods [1]. Additionally, Munkonka highlighted that, teachers are trained to deliver Comprehensive Sexuality Education at school level but they fail to deliver because they are inadequately trained [9].

Furthermore, Comprehensive Sexuality Education is implemented in public schools through sensitization of teachers about Comprehensive Sexuality Education; Integration of Comprehensive Sexuality Education into existing subjects; and the use of extra-curricular activities. Nevertheless, the integration of Comprehensive Sexuality Education was not as comprehensive as it should be because teachers tended to focus mainly on topics bordering on human development, sexual and reproductive health, with more emphasis on abstinence, which were already part of the curriculum of the existing subjects. The other important components of Comprehensive Sexuality Education such as values, attitudes and

skills; culture, society and human rights; sexual behavior and relationships, were not emphasized upon because teachers did not make use of the national Comprehensive Sexuality Education framework [8].

In the same vein, UNESCO conducted a research on Review of the Evidence on Sexuality Education Report to inform the update of the UNESCO International Technical Guidance on Sexuality Education; Paris, UNESCO". The study discovered what is of quality in Comprehensive Sexuality Education delivery such as increase in digital tools being harnessed to strengthen sexuality education and the training of teachers. The study further revealed that teachers were supported with lesson plans, presentations, demonstration videos, cartoons and interactive games as well as participatory pedagogies which help in building the capacities of teachers to provide high quality delivery of Comprehensive Sexuality Education lessons [16].

According to the study conducted on Comprehensive Sexuality Education in South Africa, the sexual and reproductive health rights of children and adolescents are enshrined in the Constitution and a number of other policies in various government departments of South Africa, Cape Town. The study found that, capacity building training prepared the teachers in order to provide high quality Comprehensive Sexuality Education. The study further revealed that, the nation had placed a strong focus on teacher training by putting in place cascading model of training to ensure quality delivery. The study did not clearly, assess, inquire and indicate how effective the scripted lesson plans were in terms of integration and quality delivery with regards to the rural set up [3].

The implementation of Comprehensive Sexuality Education was not being comprehensively implemented in some Zambian public schools in Samfya district. Most teachers were not adequately trained in Comprehensive Sexuality Education delivery due to the use of the cascading method. Cascading method in which teachers that were trained at national level went and trained those at the provincial level. Then those who were trained at the province went to train teachers at the district in their zones and then who were trained at the zonal level went to train teachers in their respective schools which watered down the information and affected the ability of teachers in terms of quality lesson delivery [10]. The knowledge was what caused failure in terms of quality lesson delivery such as sensitization of other teachers by those who attended the first workshop on which this study embarked also, the study did not show how effective the cascading model had been water down. The implementation in school setting is largely dependent on an individual teacher's decision on what, how and when to teach coupled with lack of guidance, lack of legitimacy of the curriculum, and lack of local ownership of the agenda. According to the researcher's report, the wide space left for teacher discretion in sexuality education resulted in haphazard teaching of Comprehensive Sexuality Education [8]. Comprehensive Sexuality Education is implemented in public school through

integration into existing subjects.' and partly into extra-curricular activities though lacking parental involvement in its delivery. However, the integration of Comprehensive Sexuality Education was not comprehensive because teachers tended to focus mainly on topics bordering on human development and sexual reproductive health, with more emphasis on abstinence leaving important components in the approach such as values, attitudes, and skills; culture, society and human rights; sexual behavior and relationships. The findings further showed that, teachers were not adequately trained in Comprehensive Sexuality Education integration and delivery as they were just sensitized by others who attended workshop on the same who were also inadequately trained [10].

Subsequently, the government's efforts to integrate Comprehensive Sexuality Education into the curriculum, there is a lack of clarity on the scope and content of Comprehensive Sexuality Education, leading to inconsistent implementation across schools [11]. Lack of access to appropriate curriculum also non creation of conditions for effective teaching and learning of Comprehensive Sexuality Education [25] Lastly, the current study is in congruent with Rosenstock Healthy Belief Model who said that learners need to be involved while learning aspects of sexuality for instance through brainstorming [12]. This is also in agreement with UNPA who stated that, the abilities and attitudes of those who teach sexuality education have a huge impact on the quality and effectiveness of those programmes alongside with teaching methods which affect the outcomes [22]. This is in line with what the researcher aimed at assessing how learners' get involved during Comprehensive Sexuality Education lessons. Nevertheless, the researcher's opinion is that, it could be better if all the teaching staff for Comprehensive Sexuality Education were to be supported by the headteachers so that they are trained through cascading model concerning the Implementation of Comprehensive Sexuality Education.

## 4. Conclusion

Basing on the results found, teacher competence and quality delivery of lessons varied, there was strong relationship between teacher competence and cascading model type of training. This variable has a Sig. value of 0.003, which is below 0.05, indicating a significant association with the implementation outcomes of CSE. The Exp (B) value of 37.867 suggests that being trained through the cascading model increases the odds of positive implementation outcomes by about 38 times compared to not being trained this way. In summary, this suggests that this particular training method might be an important factor in the successful implementation of CSE in the selected rural public secondary schools of Muchinga Province, Zambia. The government should develop a deliberate policy of teaching Comprehensive Sexuality Education as a standalone subject and training program using cascading model for all teachers during in-service and pre-service training.

## Abbreviations

UNESCO	United Nations Educational Scientific Culture Organisation
UN	United Nations
CSE	Comprehensive Sexuality Education.
SBCPD	School Based Continuous Professional Development
HIV	and Human Immunodeficiency Virus
STI	Sexually Transmission Infection
UN ITGSE'	United Nations International Technical Guidance on Sexuality Education

## Author Contributions

**Mulenga Memory Chibalange:** Funding acquisition, Project administration

**Penda Annie:** Supervision

## Conflicts of Interest

The authors declare no conflicts of interest.

## References

- [1] De Haas (2020). Teachers professional identities in the context of school-based sexuality education in Uganda: A qualitative study in Kampala, Uganda. <https://doi.org/10.1093/her/cyaa044>
- [2] Fredrick, M. W., Vivian N., Joan N., & Martin B., (2019). Implementation of Comprehensive Sexuality Education in Zambia: Comprehensive Sexuality Education in Sub- Sahara Africa. Lusaka: Zambia. <https://aphrc.org/wp-content/uploads/2019/12/>
- [3] Julia L, C., (2019) Comprehensive Sexuality Education in South Africa, the sexual and Reproductive health rights of children and adolescents are enshrined in the Constitution and a number of other policies in various government departments of South Africa, Cape Town. <https://www.tandfonline.com/doi/full/10.1080/14681811.2019.1620008>
- [4] Kontula (2010). The impact of school-based sexuality education on pupils' sexual knowledge and Attitudes. Finland: Europe. <https://doi.org/10.1093/acrefore/9780190632366.013.205>
- [5] Mercelline, Ogolla, Miriam, O., (2019). Assessment of the implementation of Comprehensive Sexuality Education in Kenya. National Library for Biotechnology Information. <https://doi.org/10.29063/ajrh2019/v23i2.11>
- [6] Masibhera C., Samuel O. M., Samwel M. W. (2021). The role of the headteachers on promoting access to adolescent sexual reproductive health services in secondary schools in Arusha city, Tanzania. <https://doi.org/abs/10.1177/0022057419877393>
- [7] Ministry of General Education. (2014). Comprehensive Sexuality Education Framework (Grades 5– 12. Lusaka: Curriculum Development Centre. <https://www.comprehensivesexualityeducation.org/wp>
- [8] Mumba, J. Z., Blystad, A., Haaland, M. E. S., Michelo, C., Haukanes, H. & Moland, K. M., (2019), 'Why teach sexuality education in school? Teacher discretion in implementing comprehensive sexuality education in rural Zambia', International Journal of Equity Health. Zambia. <https://doi.org/10.1186/s12939-019-1023-1>
- [9] Munkonka (2022). Establishing the Implementation of Comprehensive Sexuality Education (CSE) in Selected Primary Schools of Zambia from 2014 – 2018 in Lusaka, Kabwe and Choma Districts of Zambia. <https://www.researchgate.net/publication/365806317>
- [10] Munsaka Ecloss & Mwape Joseph, (2020). Investigating the implementation of Comprehensive Sexuality Education in selected public schools in Samfya district. Lusaka, Zambia. <https://www.researchgate.net/profile/Ecloss-Munsaka>
- [11] Mwale S., Mtondera, M. Mandiwa, C., & Isabel (2021). Knowledge and Perceptions of misconception care among healthy workers and women of reproductive age in Muzuzu City, Malawi: a cross-sectional study. <https://doi.org/10.1186/s12978-021-01282-w>
- [12] Rosenstoch (1960). Historical Origins of the Health Belief Model. Public Health. New York. <https://journal.sage.com/doi/abs/10.1177/109019817400200403>
- [13] UNESCO (2009). International Technical Guidance: An Evidence-Informed Approach For Schools Teachers and Health Educators. Paris: United National Economics, Social and Cultural Organisation. <https://doi.org/10.54675/UQRM6395>
- [14] UNESCO (2012). Review of Policies and Strategies to Implement and Scale up Sexuality Education in Asia and the Pacific, Bangkok, Thailand: UNESCO Bangkok. <https://healtheducationresources.unesco.org/sites/>
- [15] UNESCO & UNFPA (2012). 2011–2012 Education Sector HIV and AIDS Global Progress Survey: Progression, Regression or Stagnation? Paris: UNESCO <https://unesdoc.unesco.org/ark:/48223/pf0000220367>
- [16] UNESCO (2016) Review of the Evidence on Sexuality Education Report to inform the update of the UNESCO International Technical Guidance on Sexuality Education. Paris, UNESCO. <https://unesdoc.unesco.org/ark:/48223/pf0000264649.ED/PSD/HAE/2018/01>
- [17] UNESCO (2016). Strengthening comprehensive sexuality education for young People in school settings in Zambia: A review and documentation of the scale-up process. Lusaka, Zambia. <https://unesdoc.unesco.org/ark:/48223/pf0000247267.HAR/2016/AR/H/1>
- [18] UNESCO (2018) Review of the Evidence on Sexuality Education. Report to inform the update of the UNESCO International Technical Guidance on Sexuality Education; by Paul Montgomery and Wendy Knerr, University of Oxford Centre for Evidence-Based Intervention. Paris, UNESCO". Review of the Evidence on Sexuality Education. <https://unesdoc.unesco.org/ark:/48223/pf0000264649>

- [19] UNESCO (2018). International technical guidelines on sexuality education. An evidence-Informed Approach, UNESCO, Paris. <https://doi.org/10.54675/UQM6395>
- [20] UNESCO (2020). Supporting Teachers in Implementing CSE: Insights from a Baseline Assessment of Capacities in Teaching CSE of Philippine Public School Teachers from Regions. <https://unesdoc.unesco.org/ark:/48223/pf0000235707>
- [21] UN ITGSE (2018). International Technical Guidance on Sexuality Education: An Evidence-informed approach for schools, teachers and health educators. Ration Sex Education. <https://doi/org/10.54675/UQRM6395>
- [22] UNFPA (2010) Comprehensive Sexuality Education: Advancing Human Rights, Gender Equality and Improved Sexual and Reproductive Health, Report on an International Consultation to Review Current Evidence and Experience Bogotá Columbia. <https://unfpa.org/sites/default/files/resource-pdf>
- [23] UNFPA (2012). Sexuality Education: A Ten-Country Review of School Curricula in East and Southern Africa, New York: UNESCO and UNFPA. <https://unesdoc.unesco.org/ark:/48223/pf0000221121>
- [24] UNFPA (2017), Incorporating comprehensive sexuality education within basic and higher Institutions of learning in KwaZulu-Natal, South Africa. <https://southafrica.unfpa.org/sites/default/files/>
- [25] UNFPA (2017), Adolescent Pregnancy in Zambia: Lusaka Zambia. <https://zambia.unfpa.org/sites/default/files/pub>