



Predictors of Risky Sexual Behavior among Trainee Teachers in the Case of Dilla, Arbaminch, and Hosanna College of Teacher Education; SNNPRS, Ethiopia

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Abstract

This study investigated determinants of risky sexual behavior among trainee teachers enrolled at Dilla, Arbaminch, and Hosanna Colleges of Teacher Education in Southern Ethiopia. A descriptive cross-sectional design employing a convergent mixed-method approach was applied. Data were collected from 353 trainee teachers (191 males and 162 females) and 15 purposively selected key informants. Standardized and adapted instruments were utilized, and quantitative data were analyzed using binomial testing and multiple linear regression, while qualitative responses were examined thematically. Findings revealed that more than half of the respondents demonstrated engagement in moderate levels of risky sexual behavior. Regression analysis indicated that peer norms and permissive attitudes were statistically significant predictors, whereas self-esteem, self-efficacy, and substance use were not significant in the final model. Trainees who perceived stronger peer influence and who held favorable attitudes toward risky sexual practices were more likely to report such behaviors. The findings suggest the importance of sustained psychosocial interventions targeting peer group influence and attitude modification within teacher education institutions.

1 Introduction

1.1 Background of the Study

Sexual health and behavioral decision-making among young people continue to attract global attention due to their implications for public health and social well-being. Adolescents and young adults, particularly those between the ages of 15 and 24, experience significant biological, psychological, and social transitions that influence their attitudes and behaviors toward sexuality (World Health Organization [WHO], 2010). During this developmental stage, individuals often begin exploring intimate relationships while simultaneously facing peer expectations, changing social norms, and increased personal independence. These circumstances may increase exposure to behaviors that elevate the risk of sexually transmitted infec-

tions (STIs), unintended pregnancies, and related psychosocial challenges (Odeigah *et al.*, 2019).

Risky sexual behavior generally refers to sexual practices that heighten vulnerability to adverse health outcomes, including early sexual initiation, inconsistent condom use, multiple sexual partners, and sexual activity influenced by alcohol or other substances (Glen-Spyron, 2015; Centers for Disease Control and Prevention [CDC], 2012). Evidence from developing countries indicates that students enrolled in higher education institutions may face additional risks due to new social environments, reduced parental supervision, and limited access to comprehensive reproductive health services (Alamrew *et al.*, 2013; Magu *et al.*, 2012).

In Ethiopia, research examining risky sexual prac-

tices among students has increased in recent years; however, many studies have focused on isolated determinants such as social media exposure or individual attitudes (Girma, 2017; Tsige, 2012). Limited attention has been given to how multiple psychosocial factors interact to influence behavior, particularly among trainee teachers in colleges of teacher education. Understanding these combined influences is important because trainee teachers serve as future role models and educators whose health behaviors may indirectly influence wider student communities. Therefore, examining the predictors of risky sexual behavior within this population is essential for informing targeted educational and psychosocial interventions.

Therefore, the study addressed the following basic research questions:

1. What is the prevalence of risky sexual behavior among trainee teachers?
2. What are the major predictors of risky sexual behavior among trainee teachers?

1.2 Review of Related Literatures

1.2.1 Essence of Risky Sexual Behavior

The prevalence of risky sexual practices is increasing rapidly, creating serious concern both for “adolescents in general and college students in particular.” Risky sexual behavior encompasses practices such as “early initiation of sexual activity, multiple sexual partners, inconsistent or non-use of condoms, and sexual encounters with unknown individuals.” These behaviors heighten vulnerability to “sexually transmitted infections (STIs), including HIV, as well as unintended pregnancies and psychological challenges” (Kerpelman *et al.*, 2016).

Adolescents and school-age youths often have little prior experience or maturity in managing sexual relationships. As a result, they are “more likely to engage in unsafe practices” such as frequent changes of partners, unusual forms of sexual activity, and diverse orientations, expectations, and desires, which differ significantly from those of adults (Odimegwu & Somefun, 2017).

One of the most notable risk factors is engaging in sex without protection. This “significantly in-

creases the likelihood of contracting STIs”, and numerous studies have documented the strong association between having multiple partners and the high prevalence of HIV infection (Kyllieh *et al.*, 2018). Kyllieh and colleagues (2018), as cited in Kato and Omona (2021), reported that many school-age adolescents engage in unprotected sex for reasons such as testing fertility, proving love, seeking marriage prospects, or economic survival. In such contexts, condoms are often avoided because they are perceived as reducing sexual pleasure or due to difficulties in accessing them, making their consistent use impractical (Kato & Omona, 2021).

1.2.2 Major Predictors of an Individual’s Risky Sexual Behavior

Peer groups and risky sexual behavior

Peer groups consist of individuals of similar age who generally share comparable educational backgrounds, social status, and interests. Within such groups, peer norms and peer influence play an essential role in shaping health-related behaviors (Peci, 2017). These peer norms strongly affect decisions about sexual initiation, early engagement in sexual activity, and later patterns of sexual behavior. Peers may influence college youths directly by modeling risky sexual practices or indirectly through perceptions of their attitudes and behaviors (Sneed *et al.*, 2015).

Adolescents who believe their peers are sexually active are more likely to start sexual activity early and to have multiple partners compared with those who think their peers abstain (Olufemi *et al.*, 2018). Similarly, research with high school learners has shown that when young people perceive approval of sexual activity within their friendship circles or peer groups, they are more inclined to practice risky sexual behaviors themselves (Doornwaard *et al.*, 2015).

University and college students are particularly vulnerable to peer influence because of their heightened sensitivity to social reinforcement and the desire for peer approval. This often drives them to behave in ways that secure recognition and acceptance within their age group (Blakemore, 2018).

Attitude and risky sexual behavior

Attitude reflects an individual's beliefs and perceptions toward certain behaviors. According to Guilamo-Ramos *et al.* (2008), as cited in Muhammad *et al.* (2017), attitudes shape whether a person chooses to engage in specific actions. In conservative societies such as Malaysia, Hong Kong, and China, non-permissive attitudes toward premarital sex are traditionally common. However, modernization and social changes have contributed to more permissive outlooks among sexually active youth in these regions (Ahmadian *et al.*, 2014).

Tilahun *et al.* (2020), conducted study in Metu Town, Southwestern Ethiopia, found that many respondents demonstrated permissive attitudes that made them more likely to engage in risky sexual behaviors. Out of the total participants, 70.4% reported that they supported or practiced substance use such as alcohol, hashish, or cigarettes, which can contribute to unsafe sexual activity. Additionally, over half of the respondents (51.5%) expressed favorable attitudes toward risky sexual behavior, while 48.5% displayed negative or restrictive attitudes.

Earlier findings also align with this. Nigatu & Seman (2011), cited in Tsige (2012), revealed that many university students displayed unfavorable attitudes toward risky sexual practices, emphasizing the diversity of attitudes across campuses.

Theoretical Model of the Study

Various approaches discuss risky sexual behavior among adolescents from different models. Among these models and approaches, the following is the most significant and has more details on risky behaviors, including risky sexual behavior.

Theory of “Planned Behavior”

To better explain and predict how individuals regulate their own behavior, the Theory of Reasoned Action (TRA) was first proposed by Icek Ajzen in 1980. This model was later refined into the Theory of Planned Behavior (TPB), which places strong emphasis on the role of behavioral intentions (Whitton *et al.*, 2019). According to this framework, people's intentions and their perceived ability

to control certain actions are shaped by different background factors. These background factors influence their underlying beliefs, which in turn shape their intentions and ultimately their actual behavior.

The TPB has been widely used to understand health-related practices, including sexual behaviors, by highlighting how personal beliefs and intentions are connected to engagement in risky practices. It has also provided valuable insight into how behavioral factors contribute to disease prevalence (Ngidi *et al.*, 2016).

The model identifies three categories of beliefs: behavioral, normative, and control.

- Behavioral beliefs are linked to the anticipated outcomes of a particular action. These beliefs influence attitudes, which depend on how strongly a person holds the belief and how they evaluate its consequences.
- Normative beliefs reflect the expectations and perceived approval of others, especially larger social groups. These feed into subjective norms, or the sense of peer or social pressure, which shape decisions about whether to act.
- Control beliefs involve the perception of factors that either enable or hinder behavior. They contribute to perceived behavioral control, which refers to how capable a person feels of performing a given behavior. This perception can act as a substitute for actual control, which is often difficult to measure directly.

Overall, TPB offers a comprehensive approach for analyzing why young people may engage in risky sexual behaviors by connecting intentions, social influences, and perceived control with actual practices (Whitton *et al.*, 2019).

2 Materials and Methods

This study was designed to explore the primary predictors influencing trainee teachers' engagement in risky sexual behaviors. A descriptive cross-sectional survey design was adopted, guided by a convergent parallel mixed-methods approach. Within this framework, both quantitative and qualitative data were gathered simultaneously, analyzed separately, and then integrated for triangulation.

The use of a mixed-method design made it possible to generate a more comprehensive understanding of the problem by combining statistical analysis with

in-depth qualitative insights. As noted by Greene (2008), such an approach allows for blending qualitative and quantitative data within a single research project at different stages, thereby strengthening the reliability and interpretability of the findings.

2.1 Study Population

The target “population of this study” was all available regular trainee teachers at Dilla, Arbaminch, and Hosanna College of Teacher Education for the 2021/22 academic year. As data secured from the records of respective colleges reveals, the total number of all available regular trainee teachers was almost 2,827 (i.e., DCTE = 953, ACTE = 1,035, and HCTE = 839). Thus, it encompasses all students from diverse streams and their respective departments. For the qualitative data, 15 key informants were purposely selected for the sake of having depth and factual information.

2.2 Sample and Sampling Procedure

In the current research, 353 trainee teachers were selected via a multi-stage sampling procedure from their respective colleges. For the qualitative part of the study, 15 key informants were purposely selected to attain some supportive information to triangulate with the main quantitative data of the issue under investigation.

2.3 Data collection instruments

Data collection instruments were chosen and decided based on the types of variables in the study. Both developed and adapted questionnaires were employed to collect information on predictive variables. In doing so, the present researchers used a total of 40 items to measure the determinants of risky sexual behavior. A questionnaire for substance abuse was developed by current researchers based on a review of the literature. Instruments to assess peer pressure, social norms, attitude, and self-efficacy towards risky sexual behavior were reviewed, contextualized, and adapted from Muhammad *et al.* (2017) Youth Sexual Intention Scale (YSI-Q), which was constructed based on the Theory of Planned Behavior.

The self-esteem measure was adapted from Rosenberg’s (2015) Self-Esteem Measurement Scale

(RSE). The measure or instrument for risky sexual behaviors (practice and intention to engage in risky sexual activity) was more internalized, strictly as well as carefully contextualized or adapted from the Risky Sex Scale/Survey of Turchik (2007). The instruments of this study were checked and evaluated by the selected psychology department’s staff. The experts evaluated the appropriateness of each item, the required components, the adequateness of the items in each instrument, how each item expressed the required issue, and the amenity of each item in terms of the participants’ socio-cultural contexts. In addition to this, a pilot test was carried out by having 10% of the sample size of participants without replacing them in the main study. Thus, the total items’ internal consistency, or Cronbach’s alpha, was 72.

On the other side, three (3) specific semi-structured questions or key informants’ guidelines were used to explore some key, in-depth, and supportive information to triangulate with quantitative data.

2.4 Data Analysis

After collecting the data, an initial cleaning process was conducted to exclude incomplete responses. For the quantitative dataset, responses were coded and transformed into numerical values to facilitate entry and analysis. Structured and close-ended items were systematically organized before being processed using SPSS version 20.

Several statistical techniques were employed. To determine the prevalence of risky sexual behavior among trainee teachers, a nonparametric binomial test was applied. In addition, stepwise multiple linear regression was used to assess both the main and interaction effects of predictors namely social norms/peer pressure, attitudes, self-esteem, self-efficacy, and substance use on risky sexual behavior.

For the qualitative dataset, responses obtained from interviews were examined using thematic content analysis. This approach allowed the researchers to identify recurring patterns, themes, and explanations that complemented the statistical findings, thereby ensuring a deeper understanding of the issue under study.

3 Results

The primary aim of this investigation was to identify the key factors associated with risky sexual behavior among trainee teachers enrolled at Dilla, Arbaminch, and Hosanna Colleges of Teacher Education in the Southern Nations, Nationalities, and Peoples’ Region (SNNPRS) of Ethiopia. To address this aim comprehensively, the study employed both quantitative and qualitative research methods. Data obtained from surveys and interviews were analyzed separately and interpreted in alignment with the guiding research questions. The findings from the statistical analyses were subsequently integrated with insights generated from the qualitative data to provide a comparative and complementary understanding of the issue under investigation.

As divulged in Table 1, the majority of the study respondents (190), or 54%, were above an average or mean value, while 163 (46%) were below the mean value concerning the nonparametric binomial test. The result confirmed that the majority of respondents tend to agree with all issues that describe the basic features of “risky sexual behavior”. That is to say that the majority of the respondents engaged in moderate or average amounts of “risky sexual behavior on the current study sites”. On the other hand, findings from key informants strongly solidified that there is an observable as well as extreme

prevalence of risky sexual behavior among students in their respective colleges. The key informants confirmed the existence of “risky sexual behavior” among students by checking and observing students’ odd clothing styles, hairstyles, unique facial features, sexual (erotic)-related actions, and making relationships with many opposite-sex partners in and out of the classroom.

The results in Table 2 show the extent to which the model explains variations in the dependent variable, alongside the residual portion that remains unexplained. The findings indicate that “the independent variables” collectively exert a significant influence “on the dependent variable”. This is evidenced by an F-value of 27.411 and a p-value below 0.05 ($p < 0.000$). Hence, the model applied in this study can be considered statistically robust and effective in accounting for the observed variation in the dependent variable.

As shown in Table 3, the value of adjusted R^2 (.273) indicates the predictive variables in the model explain 27% of the variation in the dependent variable. “This outcome empirically indicates that independent variables” such as peer pressure and permissive attitude are witnessed as predictive variables or factors that trigger trainee teachers to take part in risky sexual behavior.

Table 1: Results of Binomial Test on Prevalence of Risky Sexual Behavior among Respondents

Binomial Test						
		Category	N	Observed Prop.	Test Prop.	Exact Sig. (2-tailed)
Practice of Risky sexual behavior dichotomy	Group 1	.00	163	.46	.50	.166
	Group 2	1.00	190	.54		
	Total		353	1.00		

Table 2: ANOVA Summary Result of Multiple Linear Regression Model

ANOVA ^a						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	3918.679	5	783.736	27.411	.000 ^b
	Residual	9921.542	347	28.592		
	Total	13840.221	352			

a. Dependent Variable: Risky Sexual Behavior

b. Predictors: (Constant), Substance Abuse, Peer pressure/social norms, Self Esteem, Self-Efficacy, Attitude

Table 3: Regression Model Summary to the Independent Variables (*i.e.* model to the major predicting factors of risky sexual behavior among trainee teachers)

Model Summary ^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.532 ^a	.283	.273	5.34718	1.847

a. Predictors: (Constant), Substance Abuse, Peer norms, Self Esteem, Self-Efficacy, Attitude.
 b. Dependent Variable: Risky Sexual Behaviors.

Table 4: Results of the Regression Model

Model		Coefficients ^a											
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics			
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF		
1	(Constant)	16.139	2.542		6.349	.000							
	Peer norms	.250	.067	.183	3.730	.000	.332	.196	.170	.855	1.170		
	Self Esteem	-.024	.068	-.017	-.358	.721	-.025	-.019	-.016	.941	1.063		
	Self Efficacy	-.141	.096	-.070	-1.465	.144	-.138	-.078	-.067	.903	1.108		
	Attitude	.607	.072	.423	8.408	.000	.501	.411	.382	.815	1.227		
	Substance Abuse	.007	.184	.002	.036	.971	.062	.002	.002	.976	1.025		

a. Dependent Variable: Risky Sexual Behavior

Table 4 “shows the results of the regression model”. The result reveals that among predictive variables, self-esteem, self-efficacy, and substance abuse “were insignificant, whereas there is a significant relationship between peer norms as well as attitude and risky sexual behavior among the research participants”.

As illustrated in Table 4, among the five explanatory variables tested in this study, peer norms with coefficient (beta = .183) and attitude with coefficient (beta = .423) and attitude with coefficient (p-value <.001) were “statistically significant at 5 percent or lower”. The result implies that peer group and attitude are attested as predictive variables or factors that propel trainee teachers to engage in risky sexual behavior by the weights and signs on the coefficients of beta. That is to say that there is a high level of involvement in risky sexual behavior among participants who are exposed to the influence of peer pressure and a permissive or directive outlook or attitude towards risky sexual behavior by holding all the other independent variables constant. Furthermore, key informants also frankly proved that there is a direct and obvious pressure or influence from social groups, especially peers, low self-esteem, economic as well as academic dependency, deprived life skills,

limitation of sex-related education, out-of-campus residence or owning more freedom, and favorable or permissive views of trainee teachers towards risky sexual behavior.

4 Discussions

The “general objective of this study was to assess predictors of risky sexual behavior” among all trainee teachers at the study sites. Having this, the discussion was made as follows:

Regarding the first research objective, *i.e.*, the magnitude of the prevalence of risky sexual behavior among respondents, as divulged in Table 1, the majority of the study respondents (190) or 54% were above an average or mean value, while 163 (46%) were below the mean value with respect to the nonparametric binomial test. Thus, “the result revealed that the majority of respondents tend to agree with all items that describe the basic features of risky sexual behavior”. On the other side, findings from key informants strongly proved that there is a tangible, or observable, as well as extreme prevalence of risky sexual behavior among students in their respective colleges.

The key informants assured the existence of risky

sexual behavior among students by checking and observing students' odd clothing styles, hairstyles, sexual (erotic)-related actions, and making relationships with many opposite-sex partners in and out of the classroom. The result is utterly supported by and related to the study of Odimegwu and Somefun (2017) in Nigerian youth, which found that large numbers of school youth have limited experience and commitment to sexual relations and are more likely to have risky sexual behavior. It incorporates the large number and different types of partnerships or multiple partners, unusual sexual practices, and sexual orientation, wishes, expectations, and outlooks compared to other age groups, especially adults.

Correspondingly, the current finding is consistent with the investigation of Kyilleh *et al.* (2018), as quoted in Kato and Omona (2021), where school “adolescents engaged in unprotected sexual practices as a way of testing their fertility, assurance of love, bait for marriage, and livelihood”. Condoms were believed to inhibit the pleasure of sex, and since many engaged in sex for pleasure, the use of a condom was also regarded as impracticable, coupled with inconvenience or challenges involved in getting condoms.

Based on the second objective of the current study, which was to identify the major predictors of risky sexual behavior among participants, as expressed in Table 3, among the five predictive variables tested in this study, peer pressure and social norms with a coefficient ($\beta = .183$) and a p -value $< .001$ and attitude with a coefficient ($\beta = .423$) and a p -value $< .001$ were statistically significant at 5 percent or lower. The result implies that peer pressure, social norms, and attitude are examined as predictive variables or factors that trigger trainee teachers to engage in risky sexual behavior by the weights and signs on the coefficients of β . That is to say that there is a high level of involvement in risky sexual behavior among trainee teachers and students who are exposed to the influence of peer pressure and a permissive or directive outlook or attitude towards risky sexual behavior. Furthermore, key informants also confirmed that there is supreme pressure from social groups, especially peers, positive or permissive views, and low self-esteem of trainee teachers

towards risky sexual behavior.

The current researchers have tried to explore ample related literature or evidence to conduct cross-checking between the present study's results and already existing research findings. Thus, the current finding on the predictive variable, i.e., the significant influence of peer pressure and social norms towards risky sexual behavior, thoroughly agreed with the finding of Sneed *et al.* (2015), who concluded that peer norms have a significant impact on intentions to have sex, early sexual debut, and subsequent sexual behavior; peers may influence college students, especially youths' sexual behavior, through direct modeling of sexual behavior, including risky sexual practice, and the adolescent's perception of peer outlook, views, or tendency toward sex-related activities.

In addition to this, the finding of the current research is quietly consistent with the corresponding investigation by Doornwaard *et al.* (2015), who explain that young school students with perceptions that their peers or norm group approve of and engage in sexual activity are more likely to engage in sexual activity incorporating risky sexual practices themselves. Furthermore, the finding of Olufemi *et al.* (2018) in a study on the prevalence and predictors of early sexual debut among adolescents in Ogbomoso, Nigeria, implicitly supports the present study's finding by explaining that school youth who think and accept that their friends are “sexually active are more likely to have initiated sex and have more partners compared to the youths who perceive that their friends are not sexually active”.

The finding of the current study regarding the significant impact of a permissive attitude towards risky sexual behavior or practice is supported by Ahmadian *et al.* (2014), who conducted a study on risky sexual behavior among rural female adolescents in Malaysia. They stated that a non-permissive attitude towards premarital sex, or risky sexual behavior, is common among conservative cultures like the people in Malaysia. However, there are inadvertent or unexpected changes in people's attitudes, and a permissive attitude is now common among sexually active youths in Malaysia due to the modernization system.

Also, Tilahun *et al.* (2020), in a study titled “Knowledge, Attitude, and Practice towards Risky Sexual Behaviors among Secondary and Preparatory Students of Metu Town, South Western Ethiopia”, confirmed and agreed that attitudes pertained to risky sexual behaviors; about 254 (70.4%) of the respondents responded that they appreciated, favored, and were willing to expose and engage in risky sexual behaviors. However, the finding is inconsistent with the result of Nigatu & Seman (2011), as quoted in Tsige (2012), who stated that practical observation and systematic review show that for many campus students, there was an unfavorable or negative attitude or outlook toward risky sexual behavior (Tsige, 2012).

5 Conclusion

The current research investigation has tried to surround as well as engross the predictive factors of risky sexual behavior among trainee teachers in the selected teacher training colleges. As a result of both quantitative and qualitative approaches, the majority of trainee teachers are involved in risky sexual behavior at the current study sites. In the vein of linear regression, peer pressure and favorable or permissive outlooks are the major predictors of risky sexual behavior. Furthermore, economic as well as academic dependency, norm groups, one’s outlook, deprived life skills, lack of awareness, out-of-campus residence, or owning more freedom are also the major triggering factors behind students’ risky sexual behavior regarding thematic content analysis.

6 Recommendations

Based on “the conclusions made from the findings”, the following major avenues are given:

- It is advisable that professional counselors, counseling centers, and resources be available to college students.
- Follow-up and monitoring, as well as evaluations, are more advisable for students’ both in- and out-of-room maladaptive behaviors (like unique wearing styles, sexual (erotic)-related actions, unusual hairstyles, and having imbalanced alcohols or other stimulating drugs).
- Parents and the community should be involved in the psychoeducation of risky sexual behavior.
- Students in the campus dormitory residence or house service need to be facilitated and maintained.

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Conflict of Interests

The authors declare that there is no conflict of interest.

Ethical Approval

Consent was sought from the research participants. Confidentiality was maintained when reporting information.

References

- Ahmadian, M., Hamsan, H. H., Abdullah, H., Samah, A. A., & Noor, A. M. (2014). Risky sexual behavior among rural female adolescents in Malaysia: a limited role of protective factors. *Global journal of health science*, 6(3):165.
- Alamrew, Z., Bedimo, M., & Azage, M. (2013). Risky sexual practices and associated factors for HIV/AIDS infection among private college students in Bahir Dar City, Northwest Ethiopia. *International Scholarly Research Notices*, 2013.
- Blakemore, S. J. (2018). Avoiding social risk in adolescence. *Current directions in psychological science*, 27(2):116-122.
- Centers for Disease Control and Prevention. (2012). Adolescent and School Health: Alcohol and other drug use. Updated May, 1, 2012.

- Doornwaard, S. M., TerBogt, T. F., Reitz, E., & Van Den Eijnden, R. J. (2015). Sex-related online behaviors, perceived peer norms and adolescents' experience with sexual behavior: Testing an integrative model. *PLoS One*, 10, e0127787.
- Girma, W. (2017). The effects of social media on student's risky sexual behavior at Hawassa University: Unpublished MA thesis.
- Glen-Spyron, C. (2015). Risky sexual behavior in adolescence.
- Greene, J. C. (2008). Is mixed methods social inquiry a distinctive methodology? *Journal of mixed methods research*, 2(1):7-22.
- Kato, E. I. & Omona, K. (2021). Peer Influences to the Risky Sexual Behaviours Among Out-of-School Adolescents in Kamuli Municipality.
- Kerpelman, J. L., McElwain, A. D., Pittman, J. F., & Adler-Baeder, F. M. (2016). Engagement in risky sexual behavior: Adolescents' perceptions of self and the parent-child relationship matter. *Youth & Society*, 48(1):101-125.
- Kyilleh, J. M., Tabong, P. T. N., & Konlaan, B. B. (2018). Adolescents' reproductive health knowledge, choices and factors affecting reproductive health choices: a qualitative study in the West Gonja District in Northern region, Ghana. *BMC international health and human rights*, 18(1):1-12.
- Magu, D., Mutugi, M., Wanzala, P., Ndahi, L., WANZALA, P. W., MUTUGI, M. W., & NDAHI, L. P. W. (2012). Sexual risky behaviours among the youth in Kenya. *Medicine Science*, 1(3):177-187.
- Mercy, O. N., & Peter, A. S. (2014). Risky sexual behaviors among female in-school adolescents in delta, Nigeria: self-esteem, parental involvement and religiosity as predictors. *European Scientific Journal*, 10(31):157-177.
- Odeigah, L., Rasaki, S. O., Ajibola, A. F., Hafsat, A. A., Sule, A. G., & Musah, Y. (2019). High risk sexual behavior among adolescent senior secondary school students in Nigeria. *African Health Sciences*, 19(1):1467-1477.
- Odimegwu, C. & Somefun, O. D. (2017). Ethnicity, gender and risky sexual behaviour among Nigerian youth: an alternative explanation. *Reproductive health*, 14(1):1-15.
- Olufemi, A. T., Paulin, O. I., & Akinbode, O. O. (2018). Prevalence and predictors of early sexual debut among adolescents in Ogbomoso, Nigeria. *Am J Public Health*, 6(3):148-154.
- Peci, B. (2017). Peer influence and adolescent sexual behavior trajectories: links to sexual initiation. *European Journal of Multidisciplinary Studies*, 2(3), 96-105.
- Sneed, C. D., Tan, H. P., & Meyer, J. C. (2015). The influence of parental communication and perception of peers on adolescent sexual behavior. *Journal of Health communication*, 20(8):888-892.
- Muhammad, N. A., Shamsuddin, K., Amin, R. M., Omar, K., & Thurasamy, R. (2017). Questionnaire development and validity to measure sexual intention among youth in Malaysia. *BMC public health*, 17(1):1-10.
- Ngidi, N. D., Moyo, S., Zulu, T., Adam, J. K., & Krishna, S. B. N. (2016). Qualitative evaluation of selected social factors that impact sexual risk-taking behaviour among African students at Kwazulu-Natal in the South Africa. *SAHARA-J: Journal of Social Aspects of HIV/AIDS*, 13(1):96-105.
- Tilahun, A. & Mamo, A. (2020). Knowledge, attitude and practice towards risky sexual behaviors among secondary and preparatory students of Metu town, south western Ethiopia. *BMC Public Health*, 20(1), 1-8.
- Tsige, M. (2012). Assessment of Attitude towards Risky Sexual Behavior and Sexual Practice among Adama University Under Graduate Students, Adama, Ethiopia. Unpublished MSC Thesis.
- Whitton, A., Swahn, M. H., Culbreth, R., & Kasirye, R. (2019). Attitudes and Risky Sexual Behavior among Youth in Kampala, Uganda: Empirical Analyses of Risk Factors by Gender.
- World Health Organization (2010). *Global strategy to reduce the harmful use of alcohol*. World Health Organization.