

Influence of Sexual and Reproductive Health Knowledge on Risky Sexual Behaviour among Female Students Attending Teacher Training Colleges in Kenya

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ABSTRACT:

This study's objective was to investigate the influence of sexual and reproductive health knowledge on risky sexual behaviour among female students in public teacher training colleges. Using ex post facto research design, data was collected through a personally delivered questionnaire from 350 female students in 13 public teachers' training colleges in Kenya and subsequently analysed using simple regression statistic at 0.05 alpha level. The findings revealed a linear and statistically significant relationship ($F=4.172$; $df=1,345$; $P=.042$) between sexual and reproductive health knowledge and risky sexual behaviour. The computed beta index ($\beta = -.109$) was negative, weak but statistically significant ($t = 12.278$; $P = .042$). This finding suggests that the selected domains of sexual and reproductive health knowledge had the capacity to predict risky sexual behaviour. The adjusted R^2 value ($R^2 = .012$) further revealed that Sexual and reproductive health knowledge could account for 1.2% of the variation in risky sexual behaviour among female students. These findings have important implications in regard to reducing incidences of risky sexual behaviour among female teacher trainees, specifically, stakeholders in teacher training colleges including, college administrators, counsellors, and curriculum developers. These should develop and adopt strategies suggested in this study to address the challenge of sexual risk-taking among female teacher trainees.

Key Terms: Reproductive health, sexual knowledge, Risky sexual behaviour, female college students.

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Introduction

Sexual and reproductive health is a critical component of public health and part of human rights (WHO, 2011). Nevertheless, the majority of young people the world over, engage in sexual activities by the age of 20, regardless of their marital status (WHO, 2013). In that case, young adults expose themselves to a myriad of sexual health problems (Fentahun, & Mamo, 2014). Moreover, many young women die globally due to complications during pregnancy and abortions every year. In addition, the deaths caused by unwanted pregnancy and sexually transmitted infections are increasing around the globe. Most of the affected young people are female students in university and college campuses, and they are at high risk of becoming victims of sexually transmitted infections, unwanted pregnancy, drop out from college and other social problems (Rolison, & Scherman, 2002). Empirical evidence suggests that young women in colleges and universities are more vulnerable to the consequences of risky sexual behaviours (UNAIDS 2013; Ramjee, & Daniels, 2013) than their male counterparts. Indeed, the report of the Kenya 2009-2010 National Aids strategic plan noted that university and college female students were at higher risk of STI's Due to unsafe sex owing to several factors which include experimentation with drugs, and in general the perception that they are not likely to be infected following engagement in unsafe sex.

LITERATURE REVIEW

Sexual risk-taking among young college women has been associated with insufficient knowledge of sexual health issues (Guttmarker Institute, 2017; Sweya, Msuya, Mahande, & Manongi, 2016). For instance, the lack of knowledge in contraception is associated with negative health effect on mothers and the entire family (Albezrah 2015). Similarly, the insufficient knowledge regarding the female reproductive cycle is associated with incidences of unwanted pregnancy among adolescents and young women (Sweya et al., 2016). Notwithstanding Kwigizile

(2013), observed that the pattern of sexual practice among the college students, does not march the knowledge towards HIV and related awareness, and thus, there is lack of prevention with regard to HIV and other related consequences of risky sexual behaviour.

Moreover, Byno (2006) noted that college students are able to recognise, the consequences of risky sexual behaviour, for instance, they are able to recognise that HIV and AIDS is a problem in campus; however, their cognisance and knowledge fail to agree with their actual sexual behaviour. A case in point is an observation made by Ajide and Ballogun (2018) who noted that despite being introduced to different health education packages aimed at increasing knowledge of HIV, the trends of HIV prevalence among the young population in Nigeria continues to be worrisome. For instance, Oladepo and Fayemi (2011) earlier on observed that Nigerian youth and particularly adolescents have low-risk perception towards HIV infection and a high rate of new HIV infection. In addition, Sweya et al. (2016) observed that despite the high level of knowledge in contraception, and high rate of sexual activity among undergraduate university students in Kilimanjaro region of Tanzania, the rate of contraception use among female students remains low.

In addition, adolescent and young women in Kenya have vast, correct and good level of knowledge regarding condom use, however the author notes that despite the vast knowledge, risky sexual behaviour exists among the young women and girls as they engage in unprotected sex in exchange for money, engage in unprotected sex while drunk, and having unprotected sex with partners of unknown HIV status. Indeed, Mberia and Mukul (2011) observed that there exists a gap between knowledge and actual practise among college students with regard to sexual practices. They noted that knowledge about a sexual risk could be high, but there is still no change from risky sexual behaviour. Moreover, Mberia and Mukulu

(2011) concluded that the knowledge and behaviour gap is a problem in the Kenyan institutions of learning for the issue of HIV and AIDS as well as other STI's. Arguably, there exist inconsistencies between knowledge and practice regarding sexual behaviour among college students in Kenya.

However, Sweya et al. (2016) observed that advocacy for adolescent reproductive health education among college students is vital and needed. Bergström, Guevara, Colombo and Källestal (2018) concurred with Sweya et al. (2016) in the observation that sexual and reproductive health knowledge is a prerequisite for good sexual health and constitutes an important component in models of human behaviour and decision making, and particularly when it comes to the ability to make informed protective action. Moreover, Bergstrom et al. (2018) urge that curriculum-based sex education in schools improves sex risk awareness, knowledge of risk reduction, and higher intention to practice safe sex. Guttmacher Institute (2017) attributed a lack of sexual health education among the youth to the absence of school curriculum on sexual health at the secondary school level. The lack of knowledge on sexual activities makes young people vulnerable while transiting from the high school environment to a liberal and sometimes urban college environment (Guttmacher Institute, 2017). However, there is no clear empirical evidence to support associations between sex education and a decrease in sexual behaviours among young adults (Byno, 2006). Indeed, increased sexual education was related to increased sexual behaviour and more liberal sexual attitudes among college students. Moreover, most formal sex and HIV education programs produced participants with increased knowledge; however, they produced few changes in sexual risk-taking behaviour.

Somba, Mbonile, Obure and Mahande (2014), conducted a study on sexual behaviour and contraceptive knowledge among female undergraduate students in Tanzania, the

researchers observed that, although the knowledge of contraception was high among the students, the rate of use of contraceptives was still low. However, this study still recommended advocacy for adolescent's reproductive health education to promote the use of contraceptives among university students. This begs the answer to the question; what is the influence of sexual and reproductive health knowledge on risky sexual behaviour?

From the foregoing discussion, it is clear that the literature and data available regarding the influence of sexual and reproductive health knowledge on risky sexual behaviour is contradictory, and there is, therefore, the need to establish whether there exists any significant influence of sexual and reproductive health knowledge on risky sexual behaviour as well as examining the nature of the relationship if it exists. This knowledge gap is what informed this study. This study addressed itself to an investigation of the extent to which sexual and reproductive health knowledge may explain sexual risk-taking behaviour among female students attending teacher training colleges in Kenya. To achieve this purpose, the following null hypothesis was formulated and tested at .05 level of significance:

Ho: There is no statistically significant influence of sexual and reproductive health knowledge on risky sexual behaviour among female students in public teacher training colleges in Kenya.

METHODOLOGY

The study adopted *ex post facto* research design. Data was collected through a personally delivered questionnaire from 350 second-year female students attending public teacher training colleges. The questionnaire had three sections labelled A, B and C. Section A gathered respondents' biodata in regard to age, marital status and age of first sex debut. Sections B and C collected data pertaining to respondents' level of risky sexual behaviour and sexual and reproductive health knowledge,

respectively. Sexual behaviour section of the instrument comprised 15 Likert scale items with five response options labelled, Never; Rarely; Sometimes; Often, and Very often. The five choices were allocated 1,2,3,4 and 5 points, respectively. Data from the 15 items generated the level of risky sexual behaviour index (LRSB) whose value ranged from a minimum score of 1 to a possible maximum mean score of 5. The scores were grouped into four quotas and categorised into four levels of engagement in risky sexual behaviour, namely; very low, low; High, and very high. Sexual and reproductive health knowledge scale comprised of 20 items. The items had four response options regarding a respondent's level of sexual and reproductive health knowledge. Only one option was correct out of the four

choices in each item. Data from the sexual behaviour and sexual and reproductive health knowledge scale were analysed through the arithmetic mean. Simple regression statistics was further computed to determine whether sexual and reproductive health knowledge had a statistically significant influence on risky sexual behaviour at .05 alpha level.

FINDINGS AND ANALYSIS

The first level of data analysis involved the computation of Likert scale response averages to the 15 items in the sexual behaviour scale. This analysis is presented in table 1.

Table 1: Respondents' Mean Scores on Risky Sexual Behaviour

Risky sexual behaviour	Mean Score M	Standard Deviation SD
Sex without protection against infection	3.78	1.082
sex without protection against pregnancy	3.72	1.297
Sex with more than one partner	3.29	1.525
Having unexpected/unanticipated sex	3.20	1.395
Casual sex with a person not seriously engaged	3.15	1.123
Having cross-generational sex	2.97	1.565
sex after taking alcohol	2.78	1.431
Having unprotected oral sex	2.39	1.614
Having unprotected sex with a person known to abuse drugs	2.13	1.462
Sexual favours in exchange for gifts	2.07	1.373
Sex without a condom with unfamiliar people	1.96	1.295
Sex with a person you don't trust	1.89	1.126
Sex with a person having many sexual partners	1.61	1.054
Sex with an unfamiliar person	1.53	.922
Sex with more than one person in a group	1.45	.890

Grand Mean	2.53	1.280
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Table 1 reveals that respondents overall mean score for risky sexual behaviour was 2.53. It can be reasoned that the likelihood of respondents engaging in risky sexual behaviour was low. However, closer scrutiny of the mean scores reveals that the respondents had a high likelihood of exposing themselves to risky sexual behaviour through having sex without protection against infection (mean = 3.78) and pregnancy (mean 3.72). Other indicators of a high likelihood of being exposed to risky sexual behaviour were having sex with more than one partner, engaging in unexpected sex, and having casual sex with an unengaged partner, whose mean scores were 3.29; 3.20; and 3.15 respectively.

Further, a mean score from 20 items in the Sexual and reproductive health knowledge Questionnaire was computed. A higher number of correct responses (higher score) suggest more sexual and reproductive health knowledge. Frequency counts and percentages were also computed. This level of analysis aimed at getting the general impression of respondents' scores in the sexual and reproductive health knowledge test. The outcome of this analysis is presented in table 2.

Table 2: Distribution of Respondents by Scores on Sexual and reproductive health knowledge

Score	Frequency(f)	(%)
2	1	.3
4	1	.3
5	11	3
7	14	4
8	20	6
9	12	4
10	17	5
11	45	13
12	51	15
13	71	21
14	37	11
15	39	12
16	16	5
17	1	.3
Total	347	100.0

An examination of the data presented in table 2 shows that respondents' level of sexual and reproductive health knowledge was on average high and normally. The scores in table 2 nonetheless show that only 56(16.1%) respondents were in the very high range of sexual and reproductive health knowledge scores. It is also worthwhile to note that 13(4%) of respondents had a low level of sexual and reproductive health knowledge. These findings concur with the findings of an earlier study by Byno (2006) in Florida, USA, which noted that the University students who participated in the study were knowledgeable about sexual matters.

Figure 1 further reveals the distribution of respondents' scores on the sexual and reproductive health knowledge test.

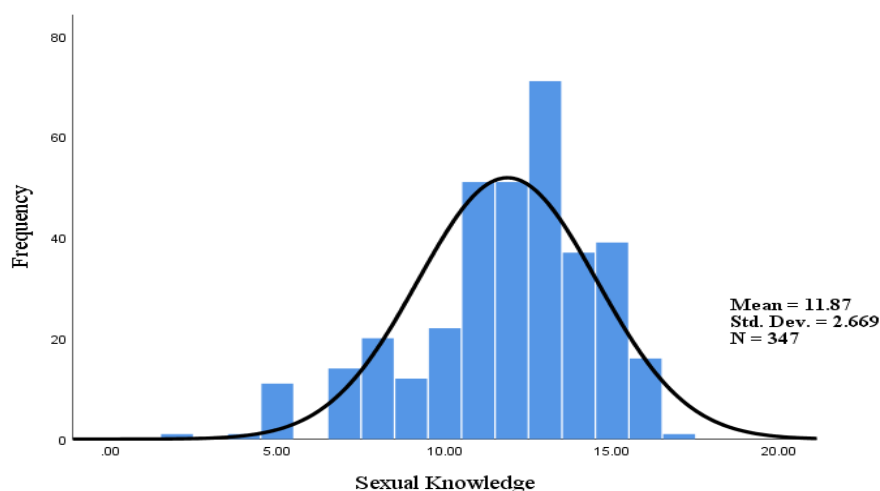


Figure 1: Distribution of respondents' scores on the sexual and reproductive health knowledge test

In addition, the Pearson product-moment correlation coefficient was computed with a view to establishing whether there was a relationship between the two variables as well as establishing the strength of the relationship if it existed. Results of the correlation analysis are summarised in table 3.

Table 3: Summary of Pearson Product Moment correlation between Sexual and reproductive health knowledge and Risky Sexual Behaviour of Female Teacher Trainees

		Risky sexual behaviour	Sexual and reproductive health knowledge
Risky sexual behaviour	Pearson Correlation	1	-.109 [*]
	Sig. (2-tailed)		.042
	N	347	347
Sexual and reproductive health knowledge	Pearson Correlation	-.109 [*]	1
	Sig. (2-tailed)	.042	
	N	347	347

*. Correlation is significant at the 0.05 level (2-tailed).

As it is evident from table 3, there was a negative and statistically significant relationship between sexual and reproductive health knowledge and risky sexual behaviour. ($r = -.109$, $P = .042$). This finding suggests that a low level of sexual and reproductive health knowledge had a likelihood of increasing the level of risky sexual behaviour. Additional

data analysis o was carried out using simple regression statistics. The objective of this level of analysis was to determine whether sexual and reproductive health knowledge was capable of predicting risky sexual behaviour. The result of the linear regression analysis is shown in table 4.

Table 4: Summary of Linear Regression Analysis between Sexual and reproductive health knowledge and Risky Sexual Behaviour

Variable		r	r ²	Constant	df	F	p
Dependent	Risky sexual behaviour	.109	.012	2.602	1,345	4.172	.042*
Independent	Sexual attitude		Beta β	Regression coefficient		t	
			-.109	-.032		12.278	.042*

(* means significant at .05 alpha level)

Table 4 shows the statistical indices in regard to the relationship between sexual and reproductive health knowledge and risky sexual behaviour. From the table, the generated F value ($F = 4.172$; $df = 1,345$; $P = .042$) was positive and statistically significant. In this regard, it can be concluded that there was a statistically significant relationship between sexual and reproductive health knowledge and risky sexual behaviour. Hence, sexual and reproductive health knowledge was capable of predicting risky sexual behaviour. The computed beta index ($\beta = -.109$) was negative and statistically significant ($t = 12.278$; $P = .042$). This finding suggests that the selected domains of sexual and reproductive health knowledge had the capacity to predict risky sexual behaviour. On further observation, of the data in table 4, it is clear that sexual and reproductive health knowledge accounted for only 1.2% of the total variation in risky sexual behaviour. It can,

therefore, be concluded that sexual and reproductive health knowledge was a poor predictor of risky sexual behaviour among the study participants. Drawing on these findings, the third hypothesis (H_0) was rejected, and conclusions made that sexual and reproductive health knowledge, and risky sexual behaviours were not statistically independent though the link between the two variables was not strong.

Discussion

This study revealed that although the level of risky sexual behaviour was generally low among the respondents, there was a high likelihood of the respondents engaging in sex without protection against pregnancy and infection. This is despite the fact that the respondent's knowledge of sexual and reproductive health was high on average.

The study revealed a weak but statistically significant relationship between knowledge of sexual and reproductive health and risky sexual behaviour. The observed weak relationship between sexual and reproductive health knowledge and risky sexual behaviour lends support to an earlier study by Byno (2006), which revealed a weak relationship ($r = .056$). However, a study by Ajide and Balogun (2018) in Nigeria indicated that college students with a higher level of sexual and reproductive health knowledge were more likely to engage in risky sexual behaviour, this observation indicated a strong positive relationship between sexual and reproductive health knowledge and risky sexual behaviour. Ajzen, Joyce, Sheikh, & Cote, (2011) opine that Knowledge is neither sufficient nor necessary in predicting behaviour; however, any observed correlation between knowledge and behaviour is because the knowledge in question reflects underlying attitudes and beliefs about the behaviour in question. According to Ajzen et al. (2011), knowledge will predict behaviour if it reflects or reinforces the beliefs and attitudes of an individual. This opinion lends support to Sweya et al. (2016) suggestion that for knowledge in reproductive health to be effective intensive education should be provided at a much earlier level of education, for instance during primary school and secondary school. Early education has an impact on attitudes; therefore, knowledge that is acquired in the early years of development may be more effective in influencing behaviour. Moreover, the assertions by Ajzen et al. (2011) may explain the observed weak relationship of the variables in this study, as well as the contradicting observations made in various studies discussed earlier concerning the relationship between sexual and reproductive health knowledge and risky sexual behaviour.

CONCLUSION AND RECOMMENDATIONS

The study revealed that there were incidences of risky sexual behaviour among female college students. The incidences were moderate but high on certain risky

behaviours such as having sex without protection against pregnancy and infection. The conclusion can, therefore, be drawn that risky sexual behaviour is an issue of concern among female students in teacher training colleges.

Findings from the study further revealed that the female students in teacher training colleges have good sexual and reproductive health knowledge, as indicated by the mean score in the sexual and reproductive health knowledge test. However, the findings indicated that sexual and reproductive health knowledge was a weak predictor of risky sexual behaviour. It can, therefore, be concluded that having sexual and reproductive health knowledge alone has very little influence on risky sexual behaviour, in other words imparting knowledge of sexual and reproductive health may not change sexual behaviour.

Based on the foregoing results and conclusion, a number of recommendations were proffered with a view to improving strategies to mitigate risky sexual behaviour among female teacher trainees. There is a need for curriculum developers to include reproductive and sexual health education in the early years of education, particularly in lower as well as upper primary. This is particularly important as Kenya rolls out the new competency-based curriculum. Introducing sex education in early years will mean that the knowledge gained by the children will impact on their attitudes and beliefs towards sexual behaviour in later years and consequently influence their sexual behaviour towards safer sex practices.

Moreover, Counsellors in the tertiary institutions and particularly teacher training colleges should target attitude change among the students towards safer sex practices, such as contraceptive use, rather than merely giving information about sexual practices. Information should aim at changing attitudes, beliefs and intention towards safer sexual practices. Young people should be encouraged to seek accurate information regarding issues of sexual and

reproductive health from professionals such as the medical personnel and counsellors as well as parents and trusted friends rather than the social media, televisions, and newspapers. This will help in dispelling myths and misconceptions concerning sexuality issues. In that case,

this study recommends that sexual and reproductive health information centres should be set up in colleges to readily avail accurate information that targets attitude and belief change regarding safe sexual practices.

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