

Assessment of the Relationship between Religiosity and Sexual behaviour among Unmarried Adolescents in Selected Secondary Schools in Lusaka, Zambia

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Abstract

Objective: The objective of the study was to determine the association between religiosity and sexual behaviour among secondary school adolescents.

Research design: The study population included in-school adolescents aged between 15-19 years and used multistage and random sampling to pick elements at every stage.

Participants: The total sample size ($N = 400$) comprised adolescents from selected secondary schools in Matero and Woodlands townships in Lusaka.

Main outcome measures: The outcome measures included: levels of religiosity, sexual behaviour and association between religiosity and sexual behaviour.

Results: The analysis included all 400 adolescents. The majority of respondents were female ($n = 59.3\%$) and Pentecostal Christians at (29%). The mean age was 16.2 with a standard deviation of 1.33. Age range of respondents was from 15-19 years with the majority aged 15 (34.25%). 87% respondents were religious and 88.25% of respondents were not involved in sexual activities. The Chi-square test results showed significant predictors of religiosity with a p -value less than 0.05. The test results showed that greater levels of religiosity were associated with lower levels of sexual activities and vice versa with a Chi-square value of 0.9954 and p -value=0.318. The relationship was however not significant at p -value 0.05.

Conclusion: The study concluded that greater levels of religiosity were associated with lower levels of sexual activities and vice versa with a Chi-square value of 0.9954 and p -value=0.318. The relationship was however not significant at p -value 0.05.

Keywords: Adolescent, Association, Behaviour modification, Religiosity, Religion, Sexual behaviour.

Introduction

The likelihood of negative consequences associated with adolescent sexual behaviour such as unintended pregnancies, Sexually Transmitted Infections (STIs) and HIV infection is a major public health concern. Due to the complex nature of adolescent sexuality, numerous studies to investigate reasons associated with early or delayed sexual debut have been conducted using theories such as Problem Behaviour Theory (Donovan and Jessor, 1984), Social Control Theory (Hirsch, 1969; Ensminger et al. 1982) and Social Learning Theory (Gagnon and Simon, 1973). The problem-behavior theory posits that behavior is as a result of personal interaction with the environment viewed as a social problem, a source of concern, or as an undesirable behaviour by the community (Donovan and Jessor, 1984). Social control theory on the other hand points to the fact that deviant behaviour is kept in check by society and its norms (Ensminger et al. 1982). Social learning theory stresses on the significance of detecting behaviour of others. As stated by Bandura (1977), most human behaviour is learned through observing others as well as through constant mutual interactions. In line with this theory, an examination on the role of a family as a socialization agent revealed that over the years, social control examined by elders on adolescent sexuality has been weakened by modernization and westernization (Meekers, 1994).

Zambian studies

A study by UNFPA (2015), revealed that teenage pregnancies were very common in Zambia. Based on data collected through Zambia Health Demographic Survey of (2013-14) adolescent sexual behaviour had different

characteristics depending on geographic location, gender and Socio-Economic Status (SES). The prevalence of HIV among adolescents at global, regional and national level - Zambia in particular - is high (UNAIDS, 2016). According to UNAIDS report (2016), in 2015, new infections were estimated to be between 180,000-340,000 among adolescents and that 29 adolescents acquired HIV every hour. The report also stated an estimated increase of AIDS related deaths by 45% among adolescents aged 15-19 between 2005 and 2015 (UNAIDS report, 2016).

Religion and sexuality

Religion is defined as an individual's level of church attendance, religious practices (e.g., prayer, meditation, scripture reading, devotion), and/or engagement in religious activities (e.g., praise and worship, various ministries, discipleship courses) (Chatters 2000; Hatcher et al. 2008; Musgrave et al. 2002). In Zambia, the church occupies an important and significant social and cultural position and as such, consistent and public affirmed religious orientation can make a significant contribution to delayed sex debut among adolescent leading to alleviation of potentially negative consequences.

In line with Problem Behaviour, Social Control and Social Learning Theories (Hirsch, 1969; Ensminger et al. 1982, Gagnon and Simon, Donovan and Jessor, 1984), adolescents engage in sexual activities due to a number of reasons including peer pressure, constant interaction with other adolescents and coercion. These activities end up putting them at risk of transmitting and contracting STIs including HIV infection and having unplanned pregnancies. Though many adolescents report high levels of knowledge of HIV and AIDS, very few are reported to use condoms each time they have sexual intercourse (Penhollow, Young & Denny, 2005).

On the other hand, religion is a source of moral prohibitions and influences individual attitudes and behaviours. Literature review indicates that religious individuals have delayed sexual debut than those that are none religious (Meier, 2003). In Zambia, religion has not been given adequate attention in the role of adolescent sexuality.

Statement of the problem

The body of research on the association of religiosity and adolescent sexual behaviour has progressed at a very slow pace in terms of theoretical development despite several studies affirming that religiosity plays a role in adolescent sexual behaviour (Smith, 2003). Several studies have shown that religiosity is associated with reduced and or delayed sexual activities among adolescents (Lammers, et al. 2000; Hardy and Raffaelli 2003; Meier 2003; Jones, et al. 2005; Regnerus 2007). Though a number of these studies have considered this association, review of literature shows that few or no studies have been conducted in Zambia. As a result, empirical understanding of this association is fairly limited in the Zambian context as it relies on studies conducted elsewhere. This study investigated the association between religiosity and adolescent sexual behaviour in the Zambian context.

Purpose of the study

The overall aim of the study was to assess the association between religiosity and sexual behaviour among adolescents in selected secondary schools in Lusaka Zambia in order to obtain an understanding of the relationship as evidenced elsewhere. This exploratory study will contribute to understanding on how adolescents view the relationship between religious beliefs and practices and will reveal dynamic features that predict religiosity and adolescent sexual behaviour.

Rationale of the study

Religiosity as shown by several studies is associated with reduced sexual activities in adolescence. One of the societal relevance of this study is to contribute towards responses to questions that are often asked by the society at large in pursuit to solve risky sexual behaviour among adolescents. The social change of this research is to make known the association between religiosity and adolescent sexual behaviour among adolescents in selected secondary schools in Lusaka Zambia. This will create the need to come up with strategies that will lessen risky sexual behaviours among adolescents and in turn reduce HIV transmission among adolescents.

Understanding measures of preventing HIV transmission through studies like this one will entail reduced incidences of HIV infection. The outcome will be of benefit to a number of stakeholders who among others include students, lecturers, policy makers and the community as a whole. The long term effect will be change of mind set of sexual behaviour among adolescents and reduction of HIV infection and transmission and other problems associated with risky sexual behaviours.

Objectives of the study

The objective of this study was to assess the relationship between religiosity and sexual behaviour among adolescents in selected secondary schools in Lusaka Zambia. Specifically, the study aimed to assess the levels of religiosity and sexual involvement, to determine whether greater levels of functional, behavioural and subjective religiosity is associated with low sexual involvement among adolescents.

Review of literature

Religiosity and sexual involvement

A study conducted to assess the impact of religiosity and sexual involvement within romantic couples by LeJeune et al, (2013), revealed that both individual and couple religiosity impacted on sexual behaviour. The study also highlighted the importance of incorporating a broader social perspective in order to understand adolescent sexual behaviour. The study involved 374 couples (748 participants), in order to predict sexual involvement (LeJeune et al, 2013).

Hardy and Marcela (2003) conducted a study to investigate reciprocal influences on religiosity and sexuality on adolescents. The study looked at the two associations between religiosity and sexual debut. This was a 2-year longitudinal study that utilized data from two different periods. The study aimed at examining two-way influences between religiosity and teen sexual behaviour. The study hypothesised that “teens who reported higher religiosity would be less likely to transition to sexual activity than those who reported lower religiosity” and that teens who transitioned to sexual activity would experience a significant decrease in religiosity (Hardy and Marcela, 2003). According to Meier (2003), as quoted in (Hardy and Marcela, 2003), existing studies that have used similar measures of religiosity, have supported higher religiosity to be related to delayed sexual debut.

Adolescent religiosity and sexuality

Another study conducted by Hardy and Raffaelli (2003), looked at possible two-way association between religiosity and sexual debut. As stated above adolescent sexuality catches the concern of key players such as policy makers and public health practitioners because of the anticipated negative outcomes of sexual activities among adolescents if not properly guided. These negative consequences include Sexually Transmitted Infections and unplanned pregnancies (Center for Disease Control and Prevention, 2000). It is for this reason that scholars such as Hardy and Raffaelli came up with this study to search for delayed sexual debut. According to Wilcox, Rostosky, Randall & Wright, (2001) as quoted in Hardy and Raffaelli (2003), such factors include religious behaviour and attitudes. The study suggested that religiosity was likely to delay sexual debut and may also reduce the level of sexual involvement (Wilcox et al., 2001). The study concluded that religiosity may help delay sexual debut. The study on the other hand, failed to prove that becoming sexually active might influence subsequent religiosity. However, the study supported the fact that religiosity was associated with delayed sexual debut and was in line with other studies that have been conducted elsewhere Meier, (2003) as quoted in Hardy and Raffaelli (2003). Therefore, this study strengthens the notion that religiosity can act as a “protective factor” against teen sexual intercourse which might further reduce on risky sexual behaviours.

Impact of religiosity on sexual behaviour

A study conducted by Laumann, Gagnon, Michael & Michaels revealed that individuals not affiliated to any religion had more sexual partners than those that were affiliated to some religion (Penhollow, Young & Denny, 2005). Another study revealed that the frequency of sexual activities decreased with increased religiosity (Penhollow, Young & Denny, 2005). Furthermore, practical evidence demonstrates that the level and strength

of religious conviction including active participation of church activities plays an important role in predicting whether or not an individual has sex ((Brewster, Cooksey, & Guilkey et al,1998).

A study to measure the frequency of attendance at worship services and self- reported religiosity was carried out to assess among others giving and receiving oral sex and participation in anal sex in addition to participation in sexual intercourse which most of the researchers have dealt on. This study assumed that the number and level of one's religiosity would be distinguished between those that participated and those that did not participate in certain sexual behaviours (Penhollow, Young & Denny, 2005). The study concluded that religious belief plays a major role for individuals in regard to sexual behaviours. It also revealed that different aspects of religiosity have different effects on sexual attitudes and perception of risk sexual behaviour (Miller & Gur, 2002). Miller and Gur, (2002) also stated that those who engage in sexual activities eventually tend to become less involved in religious activities. Furthermore, even those who engage in short term acts of sexual activities, decrease the level of religious involvement (Miller & Gur, 2002). The findings of the research further demonstrated that religiosity influences several dimensions of sexuality in a way that is unique such that effective programs aimed at reducing sexual risk-taking among adolescents should address social sexual ideologies.

Adolescent risk behaviours and religion

About two decades ago, it was noted that there was little known about religious lives of American youths because most of the studies by most researchers focused on adults (Smith, 2003). This resulted in lacking scientific knowledge of religious affiliation, practices and beliefs etc. This led to publishing of results by Smith and Denton (2005), on a national sample of adolescents aged 13 – 17. Many studies conducted previously including the study conducted by Cnaan, Gelles, & Sinha (2004) alluded to the fact that teens are more exposed to organize religion than is often assumed.

The research revealed that a parent or guardian reported that systematic worship was related with risk behaviours as it was earlier hypothesized that those who attended worship and those who participated in religious groups were associated with less risky sexual behaviours. The study established that increased religiosity perception and religious behaviour are generally good predictors of decreased adolescent risky sexual behaviours. This means that though religious adolescents like any other adolescents do engage in risky sexual behaviours, the likelihood of involvement is less than their non-religious counterparts.

Theories on church involvement and sexual behaviour

In Brazil, a study was conducted on adolescents on the association between religious and sexual initiation and age at marriage (McQuillan, 2004). The study looked at how religion would affect sexual behaviour of adolescents through the connection of Smith's many theoretical frameworks which stated that religion can influence the lives of American adolescents (Smith, 2003). The study concluded that Smith's pathway can be used to explain effects of religion on sexual behaviour of Brazilian adolescents (Smith, 2003). It is this theory that this study will rely on in an attempt to explain the religion on the sexual behaviour of Zambian adolescents.

Religious knowledge, practices and attitudes among adolescents

Sinha & Gelles, (2007) conducted a study on adolescents after noting that there was relatively little knowledge about religious knowledge on American adolescents. They stated that researchers invested less attention to youths' religious lives. In this study, they concluded that knowledge, practices and attitudes were lacking among American youths (Sinha & Gelles, 2007, Wallace and Forman, 1998). Another study that was published by Smith and Denton (2005) revealed that youths in general do not so much as reject their parent's religious affiliation and practice much as they fail to engage in religion in a way that is meaningful. Other studies pointed out that there is a positive connection between being a member of a faith community and pro-social behaviour. This means that affiliation to a congregation corresponds with improved mental health and likewise, adolescents benefit from belonging to a religious group (Bergan & McConatha, 2000; Koenig, McCullough, & Larson, 2001).

Further studies showed an association between participation in religious activities and decreased risky behaviours such as drug and alcohol abuse (Roehlkepartain et al, 2006). A study conducted on 8,165 youths

between fifth and ninth grades showed a relationship between youth's social behaviour and connections to the church. In addition, the study suggested that youths were less likely to use drugs when church involvement was high (Forliti & Benson, 1986). This was also in line with the findings of Australian adolescents which indicated that youths who considered themselves to be highly involved in church activities were less involved in risky sexual behaviours (Abbott-Chapman & Denholm, 2001). In conclusion, these studies concluded that practices and attitudes were lacking among American youths, that youths in general do not so much as reject their parent's religious affiliation and practiced much as they failed to engage in religion in a way that was meaningful and that adolescents benefit from belonging to a religious group. The above reviewed literature indicates that no study has been conducted in Zambia on religiosity and adolescent sexual behaviour. It is however not certain whether the outcomes obtained in studies conducted elsewhere would be applicable to the Zambian context. In order to advance the understanding of the association of religiosity and adolescent sexual behaviour, it is important to conduct similar studies in Zambia.

Hypothesis

This study was designed to assess the hypothesis that **“Adolescents who are involved in church activities are less likely to be involved in sexual activities than those that are not”**. This study attempted to obtain an understanding of the relationship between religiosity and sexual behaviour among adolescents as evidenced elsewhere.

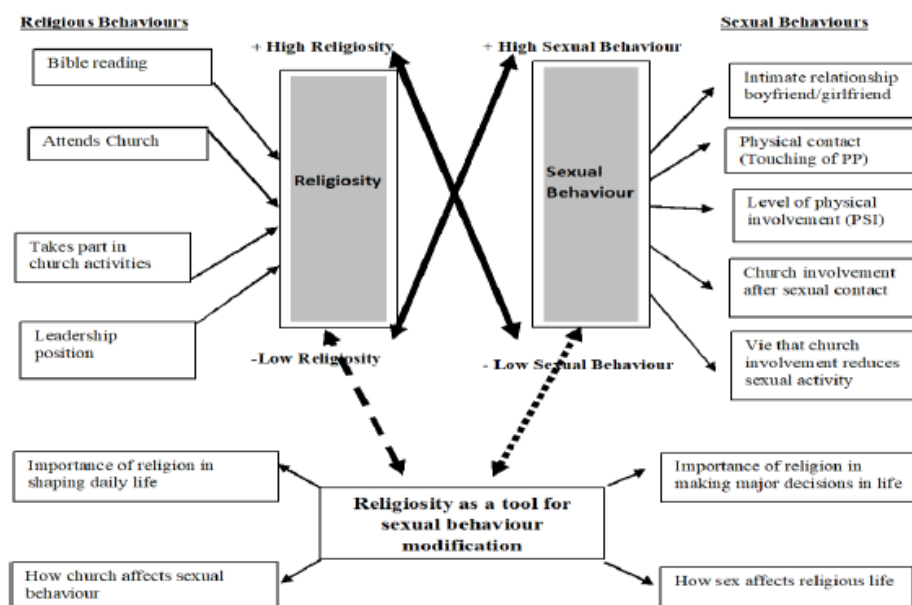


Figure 1. Conceptual framework of religiosity and sexual behaviour

Methodology

Research design

This was a cross-sectional study that took an integrated approach of both quantitative and qualitative methods to provide a better understanding of the relationship between religiosity and sexual behaviour among unmarried high school adolescents. Integration gave room for a comprehensive and synergistic use of data and a widespread variety of research questions (Creswell and Clark, 2011). Additionally, the mixed method not only provided validation for the two-way approach but allowed a solid foundation for drawing conclusion about the research (Creswell and Clark, 2011). The research proposal was approved by the University of Zambia Biomedical Ethical Research Committee for research with human subjects.

Study site

The study was conducted in 2 residential areas in Woodlands and Matero compounds in Lusaka, Zambia and drew respondents from 6 purposely selected high schools namely: Matero boys, Matero Girls and Chunga Secondary Schools in Matero residential area, while Kabulonga girls, Kabulonga boys and Woodlands “A” Secondary Schools were selected from Woodlands residential area. The objective of the selection was to provide an equal chance of in school adolescents from both high (Matero), and low cost (Woodlands) residential areas. High schools were purposely selected as a good target for in school adolescents for easy collection of data in that respondents were to be found in one place. This made it more efficient and cost effective for data collection (Dalla Zuanna and Crisafulli, 2004a).

Study population

The study population included all in-school and unmarried adolescents in Matero and Woodlands residential areas of Lusaka city aged between 15-19 years. Adolescents below the age of 15 were excluded from the target population bearing in mind that they could not fully understand the objective of responding to a self-administered questionnaire.

Eligibility criteria

The study included unmarried school going adolescent boys and girls in grade 10, 11 and 12 between the ages of 15 to 19 years who were willing and consented to take part in the study. It excluded girls and boys who were eligible but were not willing to take part in the study.

Sampling technique and sample size

The study applied purposive sampling technique to identify the province and the two residential areas based on the social economic differences of the two areas i.e. Matero being a high density and low cost area while Woodlands being a low density and high cost area. Multistage sampling was then used to sample in school adolescents from the 2 residential areas. Multi-stage sampling for in-school adolescent stated by sampling secondary schools followed by, classes that were likely to house 15 to 19 year age group adolescents i.e. grades ten, eleven and twelve classes. Actual respondents were then sampled in the final stage. Random sampling was used to pick elements at every stage. The total sample size (N= 400) comprised in school adolescents selected from secondary schools Matero and Woodlands compounds in Lusaka.

Data collection

The study collected both qualitative and quantitative data. Quantitative data was collected from school-going adolescents using a self-administered survey questionnaire containing closed ended questions, while qualitative data on the other hand was collected using Focus Group Discussion (FGD) from adolescents in schools. Each focus group comprised up to 8 participants. Due to the sensitive nature of the topic, male and female adolescents were put in different groups. This was to avoid resentment and encourage active and fair participation by all. The groups were given a guide on the topic to be discussed and were informed that the discussions would be recorded but purely for research purposes only.

Results

Statistical description

Data from 400 adolescents were analyzed. The study analyzed the level of religiosity, level of sexual behaviour and whether greater levels of behavioural, subjective or functional religiosity was associated with low levels of sexual behaviour. Age range of respondents was from 15-19 years with the majority aged 15 (34.25%). The mean age was 16.2 with a standard deviation of 1.33 as indicated in Table 1. Table 2 shows that the majority of respondents were: female 59% (n=237), from low cost residential areas 53%, Pentecostal Christians 29%, from Chunga Secondary school 25%. Figure 3 shows that out of 400 respondents, 87% were religious and figure 4 shows that 88.25% of respondents were not involved in sexual activities. Table 3 shows

that 47% (n=187) they sometimes read the scriptures, 26% stated that they usually attend church services, 23% stated that they sometimes hold positions and participate in church activities. Recoded data shows that 99% of respondents were religious. The majority of the respondents (47%) stated that it was very true that greater levels of religiosity were associated with lower levels of sexual activities. Table 4 shows that 79% of respondents were not involved in sexual activities.

Bivariate analysis

Logistic regression was used to find the association between religiosity and residential gender and school. Table 5 shows that adolescents in low residential areas were 27% less likely to be religious with p-value of 0.308 which was not significant. Female adolescents were 68% more likely to be religious compared to their male counterparts with p-value 0.086 which was not significant as indicated in Table 6. Table 7 shows that there was an association between religiosity and type of school attended (mixed sex school or single sex school). According to Table 7, adolescents in same sex schools were 2 times more likely to be religious compared to their peers in mixed sex schools with p-value less than 0.01 which was highly significant. Table 8 shows that adolescents in low residential areas were 10% less likely to have been involved in sexual activities with p-value of 0.749 which was not significant. Female adolescents were 70% less likely to be involved in sexual activities compared to their male counterparts with p-value less than 0.001 which was significant as seen in table 9. There was an association between sexuality and type of school attended (either co-education school or single sex school). As seen in Table 10, adolescents in single sex schools were 55% less likely to be involved in sexual activities compared to their peers in mixed sex schools with p-value of $0.013 < 0.05$ which was highly significant.

Chi-square tests for religiosity

Table 11 shows the Chi-square test between behavioural, subjective and functional religiosity subcategories and predictors. The Chi-square test results show that all the subcategories of religiosity (reading the bible, attending church meetings, participating in church activities, having a leadership position in church, considering whether religiousness was important in shaping daily life and in making decisions) where significant predictors of religiosity (that is, predictors having a p-value less than 0.05).

Chi-square test for sexual behaviour

Table 12 shows the Chi-square results for Sexuality and the predictor variables. Based on the tests, church attendance (p-value = 0.024), hugging, touching of private parts, mouth to mouth kissing, penetrative sexual intercourse (p-value = 0.00) and having an opinion that church involvement reduces sexual involvement (p-value = 0.01) where the significant predictors for sexuality involvement.

The association between religiosity and sexual activity was assessed using Chi-square. Table 13 shows that 88% of adolescents were religious and were not involved in sexual activities. Table 13 further shows that greater levels of religiosity was associated with lower levels of sexual activities and vice versa with a chi square value of 0.9954 and p-value=0.318. The relationship was however not significant at p-value 0.05.

Discussion

This study assessed the association between religiosity and sexual behaviour among 400 male and female high school adolescents in selected schools in Matero and Woodlands areas of Lusaka Zambia. The study finds that there were greater levels of religiosity and low levels of sexual involvement among adolescents though the level was not significant at p-value 0.05.

The majority of the sample were: female 59% (n=237), 53% from low cost residential areas, 29% (n=114) were Pentecostal Christians. Same sex schools were more religious than their counterparts in mixed sex schools. In terms of gender, females were more religious than males, while in terms of sexual activities males were more involved than females. Adolescents from low cost areas were more involved in sexual activities and had low levels of religiosity than those from high cost areas.

This study also finds that female adolescents were highly religious than males and showed very low levels (11.75%) of sexual activities. The association was in line with the hypothesis that greater levels of religiosity is

associated with lower levels of sexual activity among secondary school adolescents. The study showed greater levels (87%) of religiosity and lower levels (75%) of sexual activity among respondents.

Conclusion

This study attempts to provide a better understanding between religiosity and adolescent sexual behaviour in secondary schools in Lusaka Zambia. It has been motivated due to the fact that there are few or no studies on the same topic that have been conducted in Zambia as evidenced by literature review. Being one of the first studies to openly focus on the association between religiosity and sexual behaviour among high school adolescents, the study attempted to bring out an important understanding of this association and some of the relevant factors that influence this association.

From the findings of this study, it is evident that high school adolescents in Lusaka Zambia are highly religious and that those that have greater levels of religiosity engage in lower levels of risky sexual behaviour than those that are less religious. From the outcome of the study, it is anticipated that the research can positively contribute towards the developing effective HIV-prevention programmes among adolescents. As a maiden assessment, this study will lead to further investigations that will lead to formation of a standardized and culturally appropriate HIV-prevention programme that may be extended to a wider context in Zambia and beyond.

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List of tables and figures

Table 1. Summary of respondents

Variable	Observations	Mean	Std. Dev	Minimum	Maximum
Age	400	16.42	1.33	15	19

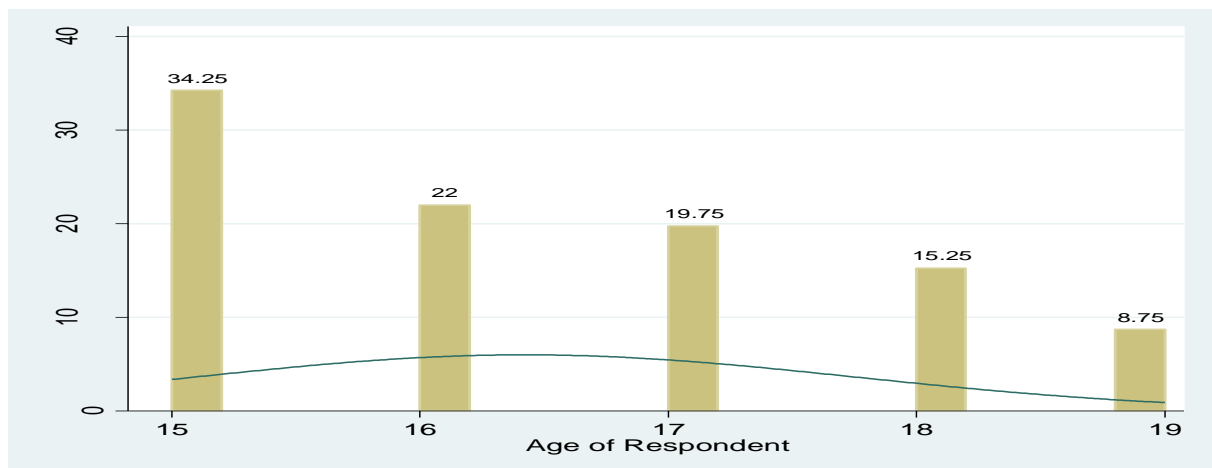


Figure 2. Age distribution**Table 2.** Percentage distribution of the sample

Variable	Category	N	%
School	Woodlands	45	11%
	Matero Girls	93	23%
	Matero Boys	19	5%
	Kabulonga Girls	70	18%
	Kabulonga Boys	72	18%
	Chunga	101	25%
Adolescent Gender	Male	163	41%
	Female	237	59%
Residence	High cost	187	47%
	Low cost	213	53%
Azsdv	Religious	350	88%
	Not Religious	50	13%
Denomination	Catholic	74	19%
	SDA	53	13%
	UCZ	52	13%
	Pentecostal	114	29%
	Jehovah's Witness	40	10%
	New Apostolic	16	4%
	Other	51	13%

Table 3. Percentage distribution of the sample (Religiosity)

Variable	Category	N	%
Read the Bible	Never	4	1%
	Rarely	31	8%
	Occasionally	39	10%
	Sometimes	187	47%
	Frequently	56	14%
	Usually	52	13%
	Everyday	31	8%
Church Attendance	Never	4	1%
	Rarely	30	8%
	Occasionally	28	7%
	Sometimes	74	19%
	Frequently	87	21%
	Usually	104	26%
	Everyday	73	18%
Church Activities	Never	40	10%
	Rarely	54	14%

	Occasionally	42	11%
	Sometimes	90	23%
	Frequently	73	18%
	Usually	65	16%
	Everyday	36	9%
Church leadership position	Yes	128	32%
	No	272	68%
Religious Importance in shaping daily life	Not at all important	4	1%
	low importance	2	1%
	Slightly important	11	3%
	Neutral	6	2%
	Moderately important	8	2%
	Very Important	206	52%
	Extremely important	163	41%
How important is religious faith in taking your major decision	Not at all important	10	3%
	low importance	3	1%
	Slightly important	12	3%
	Neutral	2	1%
	Moderately important	4	1%
	Very Important	229	57%
	Extremely important	140	35%
Has church involvement affected sexual behaviour	Not at all	234	59%
	Slightly	36	9%
	Moderately	24	6%
	Very much	1	0%
	Extremely	105	26%

Table 4. Percentage distribution of the sample (Sexual behaviour)

Variable	Category	N	%
Hugging	Never	124	31%
	Rarely	100	25%
	Occasionally	13	3%
	Sometimes	65	16%
	Frequently	34	9%
	Usually	27	7%
	Every time	37	9%

Touching of private parts	Never	277	69%
	Rarely	106	26.90%
	Occasionally	3	1%
	Sometimes	11	2.75%
	Frequently	1	0.25%
	Every time	2	0.50%
Mouth to mouth kissing	Never	177	44%
	Rarely	122	31%
	Occasionally	21	5%
	Sometimes	46	12%
	Frequently	9	2%
	Usually	11	3%
Coitus (Penetrative sexual intercourse)	Never	317	79%
	Rarely	66	17%
	Occasionally	3	1%
	Sometimes	9	2%
	Frequently	1	0%
	Usually	2	1%
Whether sexual behaviour has affected your religious life	Never	317	79%
	Rarely	66	17%
	Occasionally	3	1%
	Sometimes	9	2%
	Frequently	1	0%
	Usually	2	1%
Have had intimate boy/girlfriend In the past one year	Not at all	249	62%
	Slightly	73	18%
	Moderately	16	4%
	Very much	49	12%
	Extremely	13	3%
How would you rate your church involvement before and after you were involved in sexual activities	No	256	64%
	Yes	144	36%
	Much worse	81	20%
	Somewhat worse	39	10%
	About the same	67	17%
	Somewhat better	39	10%
What is your opinion concerning the statement that church involvement reduces sexual	Much better	174	44%
	Very untrue	13	3%
	Untrue	20	5%
	Somewhat untrue	5	1%
	Neutral	26	7%
	Somewhat true	37	9%
	True	110	28%
	Very true	189	47%

Table 5. Religion vs Residence

rel_new	Odds Ratio	Std.Err.	z	P> z	[95% Conf.	Interval]
Residence						
Low Cost	.7305389	.2249133	-1.02	0.308	.3995594	1.335689
_cons	8.35	1.975759	8.97	0.000	5.251423	13.27688

Table 6. Religion: Gender

rel_new	Odds Ratio	Std.Err.	z	P> z	[95% Conf.	Interval]
Gender						
Female	1.684307	.511215	1.72	0.086	.9291105	3.053338
_cons	5.269231	1.127182	7.77	0.000	3.464656	8.013723

Table 7. Religion: School

rel_new	Odds Ratio	Std.Err.	z	P> z	[95% Conf.	Interval]
Sch-New						
SS Sch	2.278772	.6958569	2.70	0.007	1.252489	4.145987
_cons	4.407407	.9395162	6.96	0.000	2.902249	6.693168

Table 8. Sexual Contact Recoded (SCR): Residence

SCR	Odds Ratio	Std.Err.	z	P> z	[95% Conf.	Interval]
Residence						
Low Cost	.905452	.2813225	-0.32	0.749	.4924912	1.664686
_cons	.1402439	.0312262	-8.82	0.000	.0906481	.2169749

Table 9. Sexual Contact Recoded (SCR): Gender

SCR	Odds Ratio	Std.Err.	z	P> z	[95% Conf.	Interval]
Gender						
Female	.3082762	.1007732	-3.60	0.000	.1624383	.5850478
_cons	.2348485	.046872	-7.26	0.000	.1588186	.3472754

Table 10. Sexual Contact Recoded: School

Sexual Cont	Odds Ratio	Std.Err.	z	P> z	[95% Conf.	Interval]
School1_New						
SCR: School	.4589656	.1437005	-2.49	0.013	.2484689	.8477899
_cons	.2066115	.0453909	-7.18	0.000	.1343237	.3178019

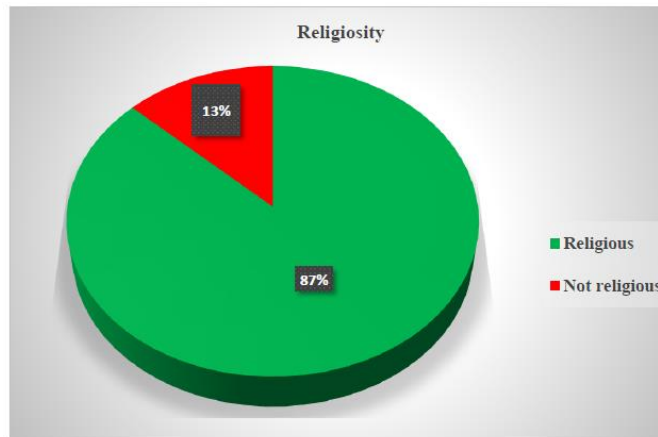


Figure 3.

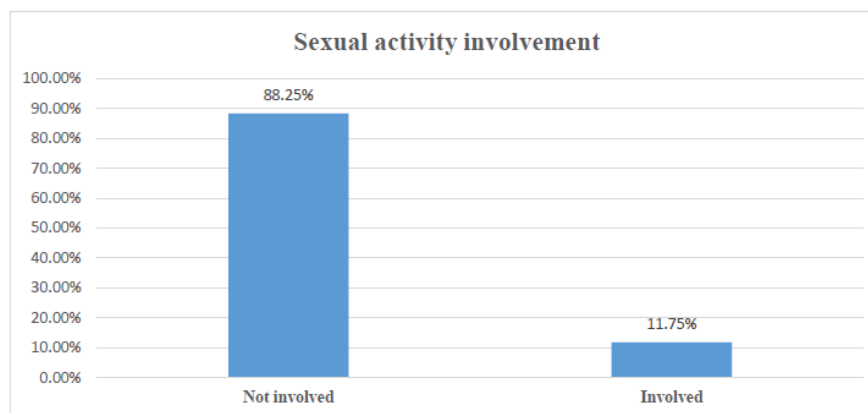


Figure 4

Table 11. Chi-square test between religiosity and the predictors

Variable	chi-square	p-value
Denomination	5.2468	0.513
reading the bible	37.5119	0.000
church Attendance	56.1196	0.000
Church activities	295.1029	0.000
Leadership position in church	26.8908	0.000
Importance of religiosity	32.901	0.000
Importance of religious faith in decision making	31.0034	0.000
Intimate relationship in the past one year	2.4802	0.115
Hugging	11.119	0.085
Touching of private parts	8.7109	0.121
Mouth to mouth kissing	2.1418	0.906
Coitus (Penetrative sexual intercourse)	4.3604	0.628

Church involvement before and after involvement in sexual activities	1.8257	0.768
Opinion concerning the statement that church involvement reduces sexual	11.8122	0.06
Sexual contact recorded	0.9954	0.318

Table 12. chi-square test results of sexuality and the predictor variables

Sexuality versus	chi-square	p-value
Denomination	3.7306	0.713
reading the bible	12.1832	0.058
church Attendance	14.528	0.024
Church activities	4.0248	0.673
Leadership position in church	0.1021	0.749
Importance of religiosity in shaping daily life	1.4924	0.96
Importance of religious faith in decision making	8.8915	0.18
Intimate relationship in the past one year	2.4802	0.115
Hugging	35.6609	0.00
Touching of private parts	80.9957	0.00
Mouth to mouth kissing	104.9235	0.00
Coitus (Penetrative sexual intercourse)	89.3697	0.00
Church involvement before and after involvement in sexual activities	1.8257	0.768
Opinion concerning the statement that church involvement reduces sexual	22.4111	0.01

Table 13. Religiosity: Sex behaviour

rel_new	Sexual_Contact_Recoded		Total
	Not Invol	Involved	
Not Religious	42	8	50
	84.00	16.00	100.00
Religious	311	39	350
	88.86	11.14	100.00
Total	353	47	400
	88.25	11.75	100.00

Pearson chi2 (1) = 0.9954
Pr = 0.318