Risky Sexual Behavior, Stress and Health Related Quality of Life among Makerere University Students

Ninsiima Susan 19/U/7090/EVE

Nalugo Adrianah Kevin 19/U/7119/EVE

Naluwuge Justine 19/U/7101/EVE

Luyiga Justine 19/U/7133/EVE

Gwokyalya Passy Kebrine 19/U/7112/EVE

A Dissertation Submitted to the School of Psychology, Department of Mental Health and
Community Psychology in Partial Fulfillment of the Award of Bachelor of Community

Psychology Makerere University

Declaration

We declare that this dissertation entitled Risky Sexual Behavior, Stress and Health Related Quality of Life among Makerere University students is our original work and that it has not been previously submitted for any degree or examination in any other university or institution. All the sources that we have used and quoted have been indicated and acknowledged as references.

Signature... Ninsiima Susan

Signature..... Nalugo Adrianah Kevin

Signature.... Naluwuge Justine

Luyiga Justine

Signature...... Gwokyalya Passy Kebrine

Date 601/2023

Approval

I satisfy that these candidates have been under my supervision. The research work presented is original and has been recommended for the award of a Bachelor of community psychology.

Signature Say

Date 10th/01/2023

Dr. Mayanja Kajumba

Dedication

We dedicate this dissertation to our beloved parents who have given us the love and support that has taken us through our studies.

Acknowledgements

We extend our sincere thanks to God who has enabled us to complete this research work.

We greatly thank God for the gift of life and especially for keeping us healthy and strong during our three years of study.

We greatly appreciate our supervisor, Dr. Mayanja Kajumba, who has equipped us with the knowledge, understanding of all the steps of research work and who has tirelessly been available to answer our endless questions.

We owe gratitude to our parents whose moral and financial support have been instrumental in seeing us through our academic years.

Lastly, we also extend sincere appreciation to our class mates for always encouraging us. God bless you.

Table of Contents

Declaration	i
Approval	ii
Dedication	iii
Acknowledgements	iv
Table of Contents	v
List of Figures	viii
List of Tables	ix
Abstract	X
Chapter One:Introduction	1
Background	1
Problem Statement	2
Purpose of the Study	2
Objectives	3
Scope	3
Significance	4
Conceptual Framework	5
Chapter Two:Literature Review	6
Introduction	6
Risky Sexual Behavior and Health Related Quality of Life	6
Risky Sexual Behavior and Stress	7
Stress and Health Related Quality of Life	8
Conclusion	9

Hypotheses	9
Chapter Three:Methodology	10
Introduction	10
Research Design	10
Study Population	10
Sample Size	10
Research Instruments	10
Validity	11
Reliability	11
Procedure for Data Collection	12
Ethical Considerations	12
Data Analysis	12
Chapter Four:Results	13
Introduction	13
Testing Hypothesis 1	18
Testing Hypothesis 2	18
Testing Hypothesis 3	18
Chapter Five: Discussion, Conclusion and Recommendations	19
Introduction	19
Discussion	19
Risky Sexual Behavior and Health Related Quality of Life	19
Risky Sexual Behavior and Stress.	19
Stress and Health Related Quality of Life	20

Recommendations	21
Limitations	21
References	22
Appendix I: Questionnaire	20

List of Figures

Figure 1: A conceptual frame work showing the relationship between Risky sexual behavior,	
Stress and Health related quality of life.	5

List of Tables

Table 1: Gender	13
Table 2: Age Group	14
Table 3: Colleges	14
Table 4: Year of Study	15
Table 5: Marital status	15
Table 6: Last Sexual Intercourse	16
Table 7: Descriptive Statistics	16
Table 8: Correlations	17

Abstract

The study aimed at establishing the relationships between risky sexual behavior, stress and health related quality of life among Makerere University students. A quantitative correlation study design was adopted to determine the relationship between the variables. The study targeted 200 respondents, (77 females and 123 males), between the ages of 20-25 years. Data was collected using self-administered questionnaires and analyzed using statistical package for social sciences (SPSS). The study findings indicated that there was no significant relationship between risky sexual behavior and health related quality of life, (r = 0.005, p = 0.939 > 0.05). There was also no significant relationship between risky sexual behavior and stress, (r = 0.120, p = 0.089)0.05), and between stress and health related quality of life, (r = -0.044, p = 0.532 > 0.05) among Makerere University students. These unexpected results might be because the students did not disclose accurate information due the sensitive nature of the topic, or did not perceive the healthrelated threat associated with involvement in risk sexual behavior. We recommend further research to investigate the student population characteristics, and other confounding factors that explain those unexpected weak and non-significant relationships. Further research could also examine whether there might be polynomial or other types of non-linear relationships between these variables.

Chapter One

Introduction

Background

Risky sexual behavior has led to increased HIV/AIDS infections, unwanted pregnancies, abortions, fear, worry and stress among university students aged 19-25 (Wolvaardt,2020). World Health Organization (2019), states that 350 million new sexually transmitted infections (STIs) occur every year; one-third in young people under the age of 25 and nearly 90% live in low to middle-income countries. Research also indicates that university students aged 18-25 years describe having had sexual intercourse at least one time and 45.5% of female students describe having sex with two or more sexual partners (World Health Organization, 2019). In addition, research evidence suggests that a large number of university students do not use condoms, which increases the risk of contracting sexually transmitted infections (STIs) (Dolphin, 2017), and Melbourne, Australia account for 10% of new HIV infections national wide (Chen, 2017). University students face several challenges that come with engaging in risky sexual behavior such as weakened immunity because of contraction of sexually transmitted infections (STIs), unwanted pregnancy, mental health problems and stress among others (Tesfaye et al., 2019; Menon et al., 2016).

Studies done particularly among university students in East African universities have documented worrying levels of stress ranging from 21.6% to 86% (Karimi, 2020). Stress affects university students in two ways. The first is that due to the demanding nature of life at the university characterized by change in environment, adjustment to academic programs, search for identity, compatibility with roommates, peer pressure among others (Wangeri et al., 2012), students resort to risky sexual behavior to reduce the stress that comes from the fore mentioned challenges (Brandhorst et al., 2012; Messman-Moore et al., 2010). Students also experience stress because of

engaging in risky sexual behavior (Weiss et al. 2019). This is because they fear unwanted pregnancies, contracting sexually transmitted diseases and infections, maintaining multiple sexual partners and so many others (Zaleski et al., 1998; Thompson & Levine, 1996). Prolonged periods of stress from these two ways affect their health related quality of life (Braithwaite et al., 2010).

Stress poses a great threat to the health related quality of life by straining both the emotional and psychological coping mechanisms of individuals (Megahed, 2014). For university students who engage in risky sexual behavior, stress frustrates their functional ability, social function, individual perception of one's health and functional ability (Beck & Shah, 2012).

Problem Statement

Risky sexual behavior is a growing health concern among the university students.

University students engage in risky sexual behaviors including having multiple sexual partners, casual sexual partners and having unprotected sex and sex whilst drunk. Engaging in these risky sexual behaviors can cause stress to the students because of the fear of contracting sexually transmitted diseases (HIV/AIDS) and unwanted pregnancies which could disrupt their education.

Long term exposure to this stress compromises of the health status of university students especially for those who contract sexually transmitted diseases and infections. This is due to the fact that their bodies are working very hard to reduce the impact of stress hormones while protecting them from the diseases and infections. This leads to conditions such as ulcers, high blood pressure, obesity/malnourishment and the like.

Purpose of the Study

To examine the relationships between risky sexual behavior, stress and health related quality of life.

Objectives

- 1. To examine the relationship between risky sexual behavior and health related quality of life.
- 2. To identify the relationship between risky sexual behavior and stress.
- 3. To assess the relationship between stress and health related quality of life.

Scope

The study was conducted at Makerere University in Kampala Uganda because of the sexual culture of the students at Makerere University. We mainly focused on the second- and third-year students because they were already accustomed to campus culture of having intimate sexual relationships. These are characterized by risky sexual behaviors so they no longer perceive them as a threat to their wellbeing. According to Adolescent Mental Health (2011), Makerere University hinges on the fact that 7 out of every 10 students are sexually active, 70% of the students have had sexual intercourse with boyfriends/girlfriends and 5 out of every 10 female students where at a high risk of engaging in sexual relationships with partners 10 years older than them.

Risky sexual behavior refers to the involvement with at least one of the following; (1) multiple sexual partnerships (2) unprotected sex (3) casual sexual partners (4) inter-generational sex (5) sex whilst drunk (6) sex with commercial sex workers (Wolvaardt, 2020).

Sexual behavior refers to a manner in which humans experience and express their sexuality for example sex done alone (masturbation), sex with other people (sex intercourse, non-penetrating sex,

The study focused on multiple sexual partners; being in a romantic relationship with many partners, unprotected sex such as didn't use a condom or it broke and didn't take a pill. Casual

oral sex, anal sex) (Walker, A, Schlozman et al., 2021).

sexual partners such as consensual, sex out-side romantic relationship between young and old among Makerere University students.

Stress refers to an event or series of events that lead to strain which often results into physical and psychological health problems (Burnard, 1991). The events such as unwanted pregnancies, contracting sexually transmitted diseases (STIs), HIV/AIDS, fear of testing that occur after engaging in risky sexual behavior cause emotional, physical and psychological strain to university students leading to stress which affects their health as well.

WHO defines health as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity (World Health Organization, 2013). Health-related quality of life (HRQOL) is an individual's or a group's perceived physical and mental health over time. However, the focus of the study was on physical health because most students are likely to suffer sexually transmitted diseases (STDs), STIS and immune suppression as a result of engaging in risky sexual behavior.

Significance

To identify the problems that may contribute to the increased risky sexual behavior among university students and come up with the solutions that would enable them to reduce on the consequences.

Findings from this study may serve as a baseline data for future studies. It might be used by the university authorities to develop policies, especially for students with serious mental health problems.

This study may act as a reference for future students and other researchers who are interested in the topic related to risky sexual behavior, stress and health related quality of life among students.

Furthermore, this study could inform parents and guardians to make an effort to provide financial, emotional and social support to the university students. Students, would in turn, rely on their parents more for support at the university instead of engaging in risky sexual behavior to buffer the challenges that they face.

Conceptual Framework

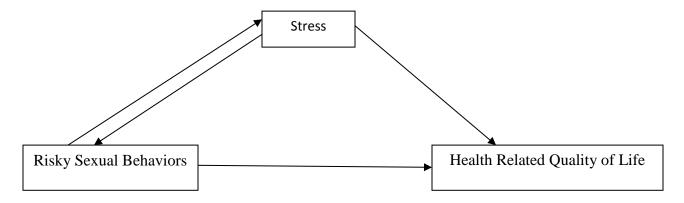


Figure 1: A Conceptual Framework Showing the Relationships between Risky Sexual Behavior, Stress and Health Related Quality of Life.

According to the conceptual framework above, risky sexual behavior may either work through stress to influence the health related quality of life or directly influence the health-related quality of life. Additionally, stress might also work independently to lead to risky sexual behavior and influence health related quality of life.

Chapter Two

Literature Review

Introduction

This chapter presents the review of the existing literature related to risky sexual behavior, stress and health related quality of life among Makerere University students.

Risky Sexual Behavior and Health Related Quality of Life.

Risky sexual behavior and health related quality of life are closely interrelated. If the students engage in risky sexual behavior, they are likely to be infected with HIV/AIDS, STIS. In accordance with Tomas et al., (2015) early sexual activity at a young age can expose them to the risk of unintended pregnancy, abortion and STIs/HIV/AIDS. Furthermore, prior reviews argue that unsafe sexual behaviors and poor HIV knowledge significantly increase the probability of acquiring HIV infections among adolescents (AfraNuwasiima et al., 2017). Risky sexual behaviors are significant health problems that may lead to long-term poor reproductive health outcomes such as infertility (Grodstein, Goldman, & Gramer, 1993), pelvic inflammatory diseases and sexually transmitted infections (STIs) including HIV (Van Der Pol et al., 2008). Similarly, Sipsma (2019) reported that most undergraduate students experienced early sex debut hence engage in risky sexual behavior and mostly diagnosed with sexually transmitted diseases (STDs).

In accordance with Agard et al., (2012), STIs make students vulnerable to many health problems such as Human Immunodeficiency Virus (HIV) and Acquired Immune Deficiency Syndrome (AIDS). Unsafe sex such as having sex without or failure to use a condom is ranked second among the top ten risks to health in terms of the burden they cause (Torres et al., 2011). This was alarming since it increased sexually transmitted diseases (Antai & Adaji, 2012) and females were the most engaged in risky sexual behavior. Unsafe sexual behavior and the associated

exposure to infection is one of the major causes of preventable mortality in low-income countries (after childhood underweight and unsafe water) (World Health Organization, 2009). In addition, a behavior factor such as risk sexual behavior has also been reported to be associated with HRQL (Wilson et al., 2013).

Risky Sexual Behavior and Stress

Risky sexual behavior is related to stress in a way that when students engage in risky sexual behavior, they may get stressed due to the outcomes such as pregnancy and STIs. Alternatively, stress can also result to risky sexual behavior.

University students undergo a great deal of psychological pressure as a result they may resort to coping mechanisms like risky sexual behavior which result to stress (Cox et al., 2007). According to Lungu et al., (2021), stress has high values contributing to the tendency towards risky sexual behavior among students and young people. Other studies also found that an extremely troubled youth may use sexual activity as an alternative to relieve tension and seek affection through risky sexual behavior (Bennet and Bauman, 2000). Various researchers also found that adolescents who are sexually active and show symptoms of stress mostly engage in sexual risky behavior comprising of several partners and unprotected sex that is not using condoms which continues even into their young adulthood (Kupoluyi, 2020). In addition, various studies done in Ugandan universities indicated a strong correlation between multiple sexual partners and condom use among stressed female students and anxiety among males who engage in risky sexual behaviors persistently (Baum et al., 2016).

Most of the youth engage in multiple sexual relationships especially when stressed (Menon et al., 2016). Stress has been linked to a wide array of risky sexual behaviors (Weiss et al., 2019). A study conducted among high school students found a low GPA associated with a high number of sexual partners and lower condom use. It could also be urged that poor academic performance may lead to risky sexual behavior due to psychological stress. Such individuals may not be able to do a good risk assessment of interpersonal situations (Luster & Small, 1994). More so, Baum et al., (2016) found that youth who use sexual activity as an alternative to relieve negative emotions and seek affection through risky sexual behavior end up using sex as a self-medication to the health issues.

Stress and Health Related Quality of Life

University life, where major life transitions occur has often been recognized as stressful period in one's life which can result in lowered levels of HRQO (Hamaideh, 2011). Adolescent stress is the commonest among health problems which affect one-fifth of this population, indicating its public health importance (Frade et al., 2021s). Excessive and continuous stress has effects that go beyond mere health treatment, by triggering various diseases, and it is well stablished that these stress related somatic events can affect the quality of life (Ribeiro et al., 2017). Stress can have both physical and psychological effects on individuals ranging from headaches, gastrointestinal discomfort, and poor memory and difficult with concentration among students (Seyle H. A syndrome).

Furthermore, Menon et al., (2016), shows that students on campus experience high levels of stress as compared to other adolescents. That is, the environment of the individual cultivates stress which causes imbalances in the system and this upsets the psychological and physical well-being of the individual. Consequently, stress accounts for the highest contributor to the decline of health as compared to any chronic disease (Wolvaardt et al., 2020). However, if individuals fail to employ

effective stress coping mechanisms to handle the stressful situation, their feeling of stress can persist overtime in return, become at a higher risk of developing physical and mental problems (Auerbach & Gramling, 1998).

Overall, it is generally accepted that stress is directly related to many medical conditions and long term exposure to daily hassles is also associated with compromised health status of university students (Caricchia & Graham, 2006; Kim & Seidlitz, 2002).

Conclusion

It is clear from the research reviewed that risky sexual behavior, stress and health related qualities of life among university students are strongly correlated. This means that the more university students engaged in risky sexual interactions, the more likely these interactions caused deterioration in their overall health and well-being as well as increase their stress levels. However most of the literature focused majorly on contracting HIV/AIDS as a major challenge that sexually active university student's face with little light thrown on the link between stress and risky sexual behavior. This study will seek to solve this discrepancy and confirm whether there is a similarity with existing literature.

Hypotheses

- 1. There is a significant relationship between risky sexual behavior and health related quality of life.
- 2. There is a significant negative correlation between stress and health related quality of life.
- 3. There is a positive correlation between risky sexual behavior and stress.

Chapter Three

Methodology

Introduction

This chapter reflects how the study was conducted. It elaborates on the research design, study population, sample size, sample design, research instruments, validity and reliability of the research instrument, procedure for data collection, ethical consideration and data analysis of the study.

Research Design

The researchers used an exploratory correlation survey design that was descriptive and quantitative in nature. It explored the relationship between risky sexual behavior, stress and health related quality of life.

Study Population

The study population included both male and female Makerere University students aged between 20-25 years.

Sample Size

The sample constituted of 200 male and female students between the ages of 20-25, and in their second and third year of study at Makerere University. The sample included only students who were sexually active. Students who were not sexually active were excluded from the study.

Research Instruments

Data was collected using standardized Questionnaires including Perceived Stress Scale (PSS-10), Risky sexual behavior scale (RSBS) and WHO Quality of life scale Bref (WHO Bref). These questionnaires have been tested for reliability and validity. The respondents chose the best

answer from the given options; answers that better represented their respective situations. The researchers endeavored to explain each question clearly to the respondents. A self-report questionnaire was used. It was composed of close-ended questions.

Section A contained respondents bio data including date, college, program, year of study, age, gender, marital status, sexually activity and frequency of engaging in sexual intercourse.

Section B consisted of 10 questions on Perceived stress scale (PSS-10), Never = 0, Almost never = 1, Sometimes = 2, fairly often = 3, Very often = 4. Section C consisted of 6 questions on Risky sexual behavior scale measuring risky sexual behavior, Never = 0, rarely = 1, Sometimes = 2, Often = 3, Very often = 4. Section D consisted of 7 questions on WHO quality of life scale Bref focusing on the physical domain, Never = 0, rarely = 1, Sometimes = 2, Often = 3, Very often = 4

Validity

Validity is the extent to which an instrument measures what it is intended to measure (Eikeland, 2006). All the instruments that were used to measure variables were adopted from the scales whose validity had been established in earlier studies. The validity of risky sexual behavior scale was proved by panelists that all six items satisfied the criteria (Karabenick et al., 2007). The PSS-10 exhibited strong validity among university students (Roberti JW, et al., 2006). The WHOQOL-BREF scale also exhibited validity that was generally satisfactory and the physical domain was found to be a strong contributor for both overall quality of life. (Kalfoss MH, ETL, 2008).

Reliability

Reliability refers to the extent to which a research tool provides similar results from different study settings (Golafshani, 2003). The risk sexual behavior scale was found to have a Cronbach alpha of 0.84 (Fino, et al., 2021), PSS-10 was a = 0.78 (Cohen & Williamson, 1988) and

WHOQOL- BREF was a = 0.897 where physical domain had a = 0.72 (Mazaheri, 2010). Therefore, all the measures were considered to be reliable.

Procedure for Data Collection

An introductory letter was obtained from Makerere University School of psychology department of mental health and community psychology. The letter was used to seek permission to reach out to students as stated in the scope of the study. After getting the letter, efforts were made to approach students at random explaining to them the purpose of the study and why their participation was needed in the study. The student who accepted to participate was given a questionnaire and asked to fill it and return it immediately.

Ethical Considerations

The researchers sought consent through an introduction letter from the supervisor at the department of mental health and community psychology at the school of psychology Makerere University. Verbal consent from students who were interviewed before they filled in the questionnaires was obtained. Additionally, the students were free to refuse or withdraw from participating in the research at any time without adverse consequences. The researchers ensured and enforced confidentiality of information provided by each respondent whereby that information was not to be used for other purposes but only for that research.

Data Analysis

The data was analyzed with the aid of the statistical package for the social sciences (SPSS) version 22 computer software. Both descriptive and inferential statistics were used. Descriptive statistics summarized data into frequency tables and percentages while inferential statistics provided a means for testing significance of our hypotheses 1, 2, and 3 using the Pearson product momentum correlation coefficient(r).

Chapter Four

Results

Introduction

This chapter presents the results that were obtained from the study and are presented in eight tables. Table 1 comprises of gender that is male and female. Table 2 presents age group. Table 3 covers schools, table 4 presents year of study, table 5 incorporates marital status, table 6 presents last sexual intercourse, table 7 comprises of descriptive statistics of stress, risky sexual behavior and health related quality of life and table 8 shows correlations of stress, risky sexual behavior and health related quality of life.

Table 1: Gender

	Frequency	Percent
Female	77	38.5
Male	123	61.5
Total	200	100.0

Table 1 above shows that all the respondents that participated in the study were female and male. The male with the highest percentage of 61.5 and 38.5 for female as the lowest.

Table 2: Age Group

Age group	Frequency	Percentage
 20-21	27	13.5
22-23	121	60.5
24-25	52	26.0
Total	200	100.0

indings of the table shows that the majority of the participants fell between the age 22-23 with 60.5% and the least were between the ages of 20-21 with 13.5%.

Table 3: Colleges

Colleges	Frequency	Percent	Valid Percent	Cumulative Percent
CAES	10	5.0	5.0	5.0
CEDAT	13	6.5	6.5	11.5
CEES	33	16.5	16.5	28.0
CHUSS	67	33.5	33.5	61.5
COBAMS	47	23.5	23.5	85.0
COCIS	11	5.5	5.5	90.5
CONAS	3	1.5	1.5	92.0
COVAB	8	4.0	4.0	96.0
LAW	6	3.0	3.0	99.0
CHS	2	1.0	1.0	100.0

Findings in the table above show scores of participants from different colleges with a highest percentage of 33.5% and a lowest of 1.0%.

Table 4: Year of Study

Year of study	Frequency	Percent
2	60	30.0
3	140	70.0
Total	200	100.0

The above table shows participation of respondents according to years where year 3 has the higher percentage of 70.0 as compared to year 2 with 30.0.

Table 5: Marital status

	Frequency	Percent
Married	1	0.5
Single	199	99.5
Total	200	100.0

The findings of the above table show marital status of the participants.

Table 6: Last Sexual Intercourse

	Frequency	Percent	
1-2 weeks	86	43.0	
About a month	45	22.5	
2-3 months	24	12.0	
4-6 months	13	6.5	
6months to a year	5	2.5	
Longer than a year	27	13.5	
Total	200	100.0	

Table 6 shows the last sexual intercourse of the participants with 1-2 weeks as having the highest percentage of 43.0 and 6months to a year as the lowest with a percentage of 2.5.

Table 7: Descriptive Statistics

Variables	Mean	Std. Deviation	Number
Stress	22.09	5.78	200
Risky sexual behavior	3.53	3.16	200
Health related quality of life	24.37	3.61	200

Table 7 displays stress with mean of 22.09, standard deviation of 5.78 and population of 200. Risky sexual behavior with mean of 3.53, standard deviation of 3.16 and population of 200. Health related quality of life with mean of 24.37, standard deviation of 3.61 and population of 200

The table below shows correlation of variables.

Table 8: Correlations

Variables		Stress	Risky sexual	Health related quality
			behavior	of life
Stress	Pearson correlation	1		
	Sig. (2-tailed)	089		
	N	.200		
Risky sexual	Pearson correlation	.I20	1	
behavior	Sig. (2-tailed)	.089		
	N	200	200	
Health related	Pearson correlation	044	.005	1
quality of life	Sig. (2-tailed)	.532	939	
	N	200	200	200

Correlation is significant at the level of 0.05 2-tailed

The results in table 8 above show the correlation between risky sexual behavior and health related quality of life, the correlation between risky sexual behavior and stress and also correlation between stress and health related quality of life.

Testing Hypothesis 1

Risky sexual behavior and Health related quality of life

The results from the table above show that the level of significance (p value) was higher in magnitude than the level of significance at 0.05 level (r = 0.005, p = 0.939 > 0.05). It was therefore concluded that there was no significant relationship between risky sexual behavior and health related quality of life.

Testing Hypothesis 2

Risky sexual behavior and Stress

The results from the table above show that the level of significant (p value) was higher in the magnitude than the level of significance at 0.05 level (r = 0.120, p = 0.089 > 0.05). It was therefore concluded that there was no significant relationship between risky sexual behavior and stress.

Testing Hypothesis 3

Stress and Health related quality of life

The results from the table above show that the level of significant (p value) was higher in the magnitude than the level of significance at 0.05 (r = -0.044, p = 0.532 > 0.05). It was therefore concluded that there was no significant relationship between stress and health related quality of life.

Chapter Five

Discussion, Conclusion and Recommendations

Introduction

This chapter represents the discussion of the study findings in relation to the findings of the previous researchers. It also contains the conclusions and recommendations drawn from our study findings.

Discussion

Risky Sexual Behavior and Health Related Quality of Life.

Findings showed that there was no significant correlation between risky sexual behavior and health related quality of life. This may be because university students engage in safe sex which has no impact on their health. Students might also have failed to disclose since the questionnaire was sensitive. Our findings are in agreement with Magu et al., (2012) who reported that young adults participate in High Risk Sexual Behaviors (HRSBs) but they don't seriously perceive it as a threat to their health. However, inconsistent with Torres et al., (2011) who found that "Unsafe sex such as having sex without or failure to use a condom is ranked second among the top ten risk factors to health in terms of the burden they cause.

Risky Sexual Behavior and Stress.

The findings of the study showed that there was no significant correlation between risky sexual behavior and stress. This may be so because students are not worried of the consequences, despite them having sound knowledge about sexual health risks (WHO, 2011). The absence of statistically significant association between risky sexual behavior and stress might be attributed to post-intercourse safety measures such as vaginal streaming and taking pregnancy and infection prevention. Our findings are consistent with Folkman et al., (1992) who found that there was no

relationship between stress and unprotected anal intercourse which is risky sexual behavior. However, inconsistent with Kupoluyi (2020) who stated that adolescents who are sexually active and show symptoms of depression mostly engage in sexual risky behavior, comprising of several partners and unprotected sex.

Stress and Health Related Quality of Life

Our findings indicated that the relationship was there but not statistically significant because the students are not stressed by the risky sexual behavior so there is no negative impact on their health. Our findings are inconsistent with Hamaideh (2011) who found that over the years, several studies have demonstrated the importance of health related quality of life assessment among different groups of people, including university students, University life where major life transitions occur has often been recognized as stressful period in one's life which can result in lowered levels of Health Related Quality of Life.

Conclusion

The study findings revealed no statically significant relationships among risky sexual behavior, stress and health related quality of life among university students. Since these non-significant relationships are contrary to expectation, we recommend further research to examine whether there might be polynomial or other types of non-linear relationships between these variables. Further research could also investigate the student's population characteristics, and other confounding factors that explain these unexpected weak and non-significant relationships.

Recommendations

Counseling and guidance centers of Makerere University need to provide psychosocial support and life skills to the students to build competency in managing their sexual life and also in case of any health assistance.

Further research is recommended to develop deeper understanding of how there is no relationship between risky sexual behavior, stress and health related quality of life among university students. This would help to find out the hindrance of the relationship between the variables.

Makerere University Department of Health is recommended to grant more easy and free accessibility of condoms, free treatment services and the use of other safe post sex activities such as vaginal steaming and taking pills.

Finally, we recommend all health practitioners to encourage the students to use post sex measures such as emergency contraceptive pills and vaginal steaming to prevent STIs, PEP to prevent HIV/AIDS, Pills like Lydia to prevent pregnancy.

Limitations

Some students were unwilling to answer the questionnaires especially the part of risky sexual behavior. This was because of fear to disclose their sexual life, other students wanted money in exchange for filling the questionnaires.

Part of the questions in the questionnaire were so sensitive that students felt shy to answer especially with the question of being sexually active, risky sexual behavior section and the questions that called for the period of last engagement in sex.

References

- Nuwasiima, A., Onyango, N. O., Navvuga, P., Nuwamaya, E., Nyabigambo, A., Lubinga, S. J., &Babigumira, J. B. (2017). Predictors of HIV prevention knowledge and sexual behaviors among students at Makerere University Kampala, Uganda. *Epidemiology, Biostatistics, and Public Health*, *14*(4).
- Agardh, A., Cantor-Graae, E., &Östergren, P. O. (2012). Youth, sexual risk-taking behavior, and mental health: a study of university students in Uganda. *International journal of behavioral medicine*, 19(2), 208-216.
- Al Shamli, S., Al Omrani, S., Al-Mahrouqi, T., Chan, M. F., Al Salmi, O., Al-Saadoon, M., ...& Al-Adawi, S. (2021). Perceived stress and its correlates among medical trainees in Oman: A single-institution study. *Taiwanese Journal of Psychiatry*, 35(4), 188.
- Amanya, S. B., Nakitende, J., &Ngabirano, T. D. (2018). A cross-sectional study of stress and its sources among health professional students at Makerere University, Uganda. *Nursing open*, 5(1), 70-76.
- Antai, D., & Adaji, S. (2012). Community-level influences on women's experience of intimate partner violence and terminated pregnancy in Nigeria: a multilevel analysis. *BMC* pregnancy and childbirth, 12(1), 1-15.
- Baum, N. (2016). Secondary traumatization in mental health professionals: A systematic review of gender findings. *Trauma, Violence, & Abuse, 17*(2), 221-235
- Beck, C. A., & Shah, S. (2012). Research on health related quality of life and cardiac conditions.

 Home Health Nurse, 30(1), 54-60.

- Bennett, D. L., & Bauman, A. (2000). Adolescent mental health and risky sexual behaviour: Young people need health care that covers psychological, sexual, and social areas. *BMj*, *321*(7256), 251-252.
- Brandhorst, S. R., Ferguson, B., Sebby, R. A., & Weeks, R. (2012). The Influence of Peer Sexual Activity upon College Students' Sexual Behavior. *North American Journal of Psychology*, *14*(1).
- Braithwaite, S. R., Delevi, R., &Fincham, F. D. (2010). Romantic relationships and the physical and mental health of college students. *Personal relationships*, *17*(1), 1-12.
- Cohen, L., Manion, L., & Morrison, K. (2002). Research methods in education. routledge.
- DeLonga, K., Torres, H. L., Kamen, C., Evans, S. N., Lee, S., Koopman, C., & Gore-Felton, C. (2011). Loneliness, internalized homophobia, and compulsive internet use: Factors associated with sexual risk behavior among a sample of adolescent males seeking services at a community LGBT center. *Sexual Addiction & Compulsivity*, 18(2), 61-7
- Dolphin, L., Fitzgerald, A., & Dooley, B. (2018). Risky sex behaviours among college students: The psychosocial profile. *Early Intervention in Psychiatry*, 12(6), 1203-1212.
- Eikeland, O. (2006). The validity of action research-validity in action research.
- Ezzati, A., Jiang, J., Katz, M. J., Sliwinski, M. J., Zimmerman, M. E., & Lipton, R. B. (2014).

 Validation of the Perceived Stress Scale in a community sample of older adults. *International journal of geriatric psychiatry*, 29(6), 645-652.
- Fino, E., Jaspal, R., Lopes, B., Wignall, L., &Bloxsom, C. (2021). The Sexual Risk Behaviors Scale (SRBS): Development & Validation in a University Student Sample in the UK. *Evaluation* & the Health Professions, 44(2), 152-160.

- Golafshani, N. (2003). Understanding reliability and validity in qualitative research. *The qualitative* report, 8(4), 597-607
- Hamaideh, S. H. (2011). Stressors and reactions to stressors among university students. *International journal of social psychiatry*, 57(1), 69-80.
- Huang, X., Li, H., Meyers, K., Xia, W., Meng, Z., Li, C., ...& Wu, H. (2017). Burden of sleep disturbances and associated risk factors: A cross-sectional survey among HIV-infected persons on antiretroviral therapy across China. *Scientific reports*, 7(1), 1-8.
- Jones, K., Williams, J., Sipsma, H., &Patil, C. (2019). Adolescent and emerging adults' evaluation of a Facebook site providing sexual health education. *Public Health Nursing*, *36*(1), 11-17.
- Karabenick, S. A., Woolley, M. E., Friedel, J. M., Ammon, B. V., Blazevski, J., Bonney, C. R., ... & Kelly, K. L. (2007). Cognitive processing of self-report items in educational research: Do they think what we mean? *Educational Psychologist*, 42(3), 139-151.
- Kheswa, J. G., &Hoho, V. N. (2017). Exploring the factors and effects of alcohol abuse on the behaviour of university female students at one South African University Campus. *Rupkatha J Interdiscip Stud Humanit*, 9(1)
- Kupoluyi, J. A. (2020). Intimate partner violence as a factor in contraceptive discontinuation among sexually active married women in Nigeria. *BMC women's health*, 20(1), 1-11.
- Kutcher, S., & McDougall, A. (2009). Problems with access to adolescent mental health care can lead to dealings with the criminal justice system. *Paediatrics & child health*, *14*(1), 15-18.
- Lungu, M., Neacsu, E. L., & Cornelia, R. A. D. A. (2021). Anxiety, Depression, Stress,

 Emotionality & Aggressivity factors that may influence irrational alcohol consumption and risky sexual behavior. *Anthropological Researches and Studies*, *1*(11), 139-164.

- Manga, M., Hassan, U., Halima, F., Bot, P., Fatima, B., Mohammed, I., & Mohammed, A. (2021). Sexually transmitted infections in Gombe, north-eastern Nigeria.392.
- Manseau, M. W. (2015). The Social Determinants of Mental Health, 121.
- Mathers, C., & Mascarenhas, M. (2009). Global health risks: mortality and burden of disease attributable to selected major risks. World Health Organization.
- Mazaheri, M. (2010). Overall, and specific life satisfaction domains: preliminary Iranian students' norms. *Iranian journal of public health*, *39*(2), 89-94.
- Mcharo, R. D., Olomi, W., Mayaud, P., &Msuya, S. E. (2021). Risky sexual behaviours among young adults attending Higher Learning Institutions in Mbeya, Tanzania: implications for STIs and HIV preventive programs. *AAS Open Research*, *3*, 41.
- Menon, J. A., Mwaba, S. O., Thankian, K., &Lwatula, C. (2016). Risky sexual behaviour among university students. *International STD Research & Reviews*, 4(1), 1-7.
- Messman-Moore, T. L., Walsh, K. L., &DiLillo, D. (2010). Emotion dysregulation and risky sexual behavior in revictimization. Child abuse & neglect, *34*(12), 967-976.
- Mirmohamadsadeghi, S., &Karimi, K. (2020). Recovery of silica from rice straw and husk. In *Current Developments in Biotechnology and Bioengineering* (pp. 411-433).

 Elsevier.Kaggwa, M. M., Arinaitwe, I., Muwanguzi, M., Nduhuura, E., Kajjimu, J., Kule, M., ...&Rukundo, G. Z. (2022). Suicidal behaviours among Ugandan university students: a cross-sectional study. *BMC psychiatry*, 22(1), 1-13.
- Phiri, T. M., Nyamaruze, P., & Akintola, O. (2021). Stress and coping among unmarried pregnant university students in South Africa. *BMC Pregnancy and Childbirth*, 21(1), 1-13.

- Ribeiro, Í. J., Pereira, R., Freire, I. V., de Oliveira, B. G., Casotti, C. A., &Boery, E. N. (2018).

 Stress and quality of life among university students: A systematic literature review. *Health Professions Education*, 4(2), 70-77.
- Roberti, J. W., Harrington, L. N., &Storch, E. A. (2006). Further psychometric support for the 10item version of the perceived stress scale. *Journal of College Counseling*, 9(2), 135-147.
- Rush, M. C., Schoel, W. A., & Barnard, S. M. (1995). Psychological resiliency in the public sector:" Hardiness" and pressure for change. *Journal of Vocational Behavior*, 46(1), 17-39.
- Smits, I., Soenens, B., Vansteenkiste, M., Luyckx, K., &Goossens, L. (2010). Why do adolescents gather information or stick to parental norms? Examining autonomous and controlled motives behind adolescents' identity style. *Journal of Youth and Adolescence*, *39*(11), 1343-1356.
- Srahbzu, M., &Tirfeneh, E. (2020). Risky sexual behavior and associated factors among adolescents at high schools in Aksum town, Tigray, Ethiopia: A cross-sectional study.
- Teferra, T. B., Erena, A. N., &Kebede, A. (2015). Prevalence of premarital sexual practice and associated factors among undergraduate health science students of Madawalabu University, Bale Goba, South East Ethiopia: institution based cross sectional study. *Pan African medical journal*, 20(1).
- Tesfaye, Y., Negash, A., Gebrehiwot, T. T., Tessema, W., Anand, S., Ahmed, G., & Alemu, D. (2019). Is there an association between risky sexual behaviors and depression symptoms among youth? A case of Jimma University Students, Ethiopia. *Psychiatry Journal*, 2019.
- Thompson, S. C., Nanni, C., & Levine, A. (1996). The stressors and stress of being HIV-positive, AIDS Care, 8(1), 5-14.

- Utami, F. P., & Matahari, R. (2019). HIV/AIDS Acceptance and Access to Health Care Services on Female Sex Workers, 77-80. Atlantis Press.
- Vagi, K. J., Olsen, E. O. M., Basile, K. C., & Vivolo-Kantor, A. M. (2015). Teen dating violence (physical and sexual) among US high school students: Findings from the 2013 National Youth Risk Behavior Survey. *JAMA pediatrics*, 169(5), 474-482.
- Walker, A., Schlozman, S., & Alpert, J. (Eds.). (2021). *Introduction to Psychiatry: Preclinical Foundations and Clinical Essentials*. Cambridge University Press
- Wangeri, T., Kimni, E., &Mutweleli, S. M. (2012). Transitional challenges facing university first year students in Kenyan public universities: A Case of Kenyatta University.

 Interdisciplinary Review of Economics and Management, *1*(2), 43-50.
- Weiss, N. H., Walsh, K., DiLillo, D. D., Messman-Moore, T. L., & Gratz, K. L. (2019). A longitudinal examination of posttraumatic stress disorder symptoms and risky sexual behavior: Evaluating emotion dysregulation dimensions as mediators. *Archives of sexual behavior*, 48(3), 975-986.
- World Health Organization. (2011). The sexual and reproductive health of younger adolescents in developing countries: research issues in developing countries: background paper for consultation.
- Wu, M., Yang, Y., Zhang, D., Zhao, X., Sun, Y., Xie, H., & Li, Y. (2018). Association between social support and health-related quality of life among Chinese rural elders in nursing homes: the mediating role of resilience. *Quality of Life Research*, 27(3), 783-792.

Zaleski, E. H., Levey-Thors, C., &Schiaffino, K. M. (1998). Coping mechanisms, stress, social support and health problems in college students. *Applied Developmental Science*, 2(3), 127-137.

Appendix I: Questionnaire

Dear respondent,

We are students at Makerere University, school of psychology. We are conducting a research study regarding risky sexual behavior, stress and health related quality of life among Makerere university students. All information given will be used for only academic purposes and will be kept confidential. In case you are interested and willing to participate in this study, please answer the following questions. Please fill in the blanks or tick where applicable?

SECTION A: B	Sio data		
Date		College	
Program		Year of Study	
Gender	Male	Age	
	Female		
Marital Status	Single		
	Married		
	Divorced/Separated		
	Widowed		
Are you sexu	ually active?		
YES	NO		
2. When did you	last to have sexual intercourse?		
	1 to 2 weeks ago		
	About a month ago		
	2 – 3 months		
	4 – 6 months		
	6 months to a year		
	Longer than a year		

SECTION B: PSS

INSTRUCTIONS:

The questions in this scale ask you about your feelings and thoughts during THE LAST MONTH. In each case, please indicate your response by placing an "X" over the circle representing HOW OFTEN you felt or thought a certain way.

		Never	Almost Never	Sometime	Fairly Often	Very Often
1.	In the last month, how often have you been upset because of something that happened unexpectedly	Never (0)	Almost Never (1)	Sometime (2)	Fairly Often (3)	Very Often (4)
2.	In the last month, how often have you felt that you were unable to control the important things in your life	Never (0)	Almost Never (1)	Sometime (2)	Fairly Often (3)	Very Often (4)
3.	In the last month, how often have you felt nervous and stressed	Never (0)	Almost Never (1)	Sometime (2)	Fairly Often (3)	Very Often (4)
4.	In the last month, how often have you felt confident about your ability to handle your personal problems	Never (0)	Almost Never (1)	Sometime (2)	Fairly Often (3)	Very Often (4)
5.	In the last month, how often have you felt that things were going your way	Never (0)	Almost Never (1)	Sometime (2)	Fairly Often (3)	Very Often (4)
6.	In the last month, how often have you found that you could not cope with all the things that you had to do	Never (0)	Almost Never (1)	Sometime (2)	Fairly Often (3)	Very Often (4)
7.	In the last month, how often have you been able to control irritation in your life	Never (0)	Almost Never (1)	Sometime (2)	Fairly Often (3)	Very Often (4)
8.	In the last month, how often have you often have you felt that you were on top of things	Never (0)	Almost Never (1)	Sometime (2)	Fairly Often (3)	Very Often (4)
9.	In the last month, how often have you been angered because of things that you could not overcome them	Never (0)	Almost Never (1)	Sometime (2)	Fairly Often (3)	Very Often (4)
10.	In the last month, how often have you felt difficulties were piling up so high that you could not overcome them	Never (0)	Almost Never (1)	Sometime (2)	Fairly Often (3)	Very Often (4)

SECTION C: RSB SCALE Please indicate the extent to which the following statements apply to you

		Never	Rarely	Sometimes	Often	Very often
1	How often have you had vaginal sex without a condom?	Never (0)	Rarely (1)	Sometimes (2)	Often (3)	Very often (4)
2	How often have you had anal sex without a condom?	Never (0)	Rarely (1)	Sometimes (2)	Often (3)	Very often (4)
3	How often have you performed oral sex without protection [condom or dental dam]?	Never (0)	Rarely (1)	Sometimes (2)	Often (3)	Very often (4)
4	How often have you had sex under the influence of alcohol [i.e. drunk]?	Never (0)	Rarely (1)	Sometimes (2)	Often (3)	Very often (4)
5	How often have you had sex while under the influence of drugs or substances?	Never (0)	Rarely (1)	Sometimes (2)	Often (3)	Very often (4)
6	How often have you had sex without a condom with someone you have just met?	Never (0)	Rarely (1)	Sometimes (2)	Often (3)	Very often (4)

SECTION D: WHOQOL-BREF (PHYSICAL DOMAIN)

Please indicate the extent to which the following questions apply to you

1	To what extent do you feel that physical pain prevents you from doing what you want to do?	Not at all (1)	A little (2)	A moderate amount (3)	Very much (4)	An extreme amount (5)
2	How much do you need any medical treatment to function in your daily life?	Not at all (1)	A little (2)	A moderate amount (3)	Very much (4)	An extreme amount (5)
3	Do you have enough energy for everyday life?	Not at all (1)	A little (2)	Moderately (3)	Mostly (4)	Completely (5)
4	How well are you able to get around?	Very poor (1)	Poor (2)	Neither poor nor well (3)	Well (4)	Very well (5)
5	How satisfied are you with your sleep?	Very dissatisfied (1)	Dissatisfied (2)	Neither satisfied nor dissatisfied (3)	Satisfied (4)	Very satisfied (5)
6	How satisfied are you with your ability to perform your daily living activities?	Very dissatisfied (1)	Dissatisfied (2)	Neither satisfied nor dissatisfied (3)	Satisfied (4)	Very satisfied (5)
7	How satisfied are you with your capacity for work?	Very dissatisfied (1)	Dissatisfied (2)	Neither satisfied nor dissatisfied (3)	Satisfied (4)	Very satisfied (5)