

Personality Traits as Predictors of Risky Sexual Behaviours among Undergraduates at Nnamdi Azikiwe University Awka

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Abstract

This study examined personality traits predictors of risky sexual behaviors among undergraduates. A total of Fifty (50) undergraduates who are currently studying in Nnamdi Azikiwe University, Awka participated in the study. They comprised of 27 (twenty-seven) males and 23 (twenty-three) females, whose age ranged from 20 to 51, with the mean age of 31.12 and standard deviation of 6.31. Big Five Personality Inventory and Sexual Risk Survey Questionnaire were adopted as the instruments for the study. The study is a survey, it employed cross sectional design and linear regression was used for the hypothesis testing. One hypothesis which guided the study and states that personality traits will predict risky sexual behaviours among the undergraduates was rejected. The findings showed that personality traits (Openness, Conscientiousness, Extraversion, Agreeableness and Emotionally Stability) did not predict risky sexual behaviors among undergraduates at $t (.668)$, $p < .508$; $t (-.593)$, $p < .556$; $t (.107)$, $p < .915$; $t (-.195)$, $p < .847$ and $t (-.681)$, $p < .500$ respectively. Based on the findings, it was recommended that concerned stakeholders should enlighten the youths more on sexual health education as majority of them are involved in risky sexual behaviors. This can be promoted through counseling and education programmes as well as suggested that other variables should be explored in research to identify the variables or factors that predict risky sexual behaviours among the undergraduates.

Keywords: Personality Traits, Risky Sexual Behaviours, Undergraduates

Background to the Study

Countries across the globe strive to create safer and healthier environments where individuals can thrive without disruptions like infections, diseases, drug abuse, family breakdowns, or mental health issues. Daily, there are calls for societies where people can function at their best, free from illness and psychological instability. The rise in sexually transmitted diseases (STDs), abortions, and unintended pregnancies points to an increase in risky sexual behavior, highlighting the need to explore the impact of personality traits on such behaviors among students, to achieve optimal health and functioning, people must adopt conscientious and careful lifestyles. One major health threat is HIV/AIDS, a sexually transmitted infection (STI) that can devastate a person's life, career, relationships, and potentially lead to death. Other STIs like gonorrhoea, syphilis, and chlamydia have also proven deadly. Engaging in risky sexual behavior puts individuals at risk for these infections (Douek, Roederer & Koup, 2012). Risky sexual behaviors include actions that make one vulnerable to STDs, unwanted pregnancies, and psychological issues. These behaviors may involve having multiple sexual partners, unprotected sex, drug use (like sex enhancers), or becoming sexually active at an early age (Osman, Cochran & Martin, 2014). In modern society, moral values seem to be declining, with many, especially teenagers, disregarding social norms. The increasing exposure of young people to STDs is likely a result of unchecked risky sexual behavior. This issue spans across different populations, but this study focuses on undergraduate students. In Nigeria, 40% of the population is under 15, and young people account for over 30% of HIV cases (Medlink, 2012). Adolescents and young adults are among the most sexually active age groups, making them highly susceptible to STDs, including AIDS. However, they are often the least likely to take precautions. A study in Benin City (Chikezie et al., 2012), found that young girls were more concerned about pregnancy than contracting HIV. Misunderstandings about STDs and their transmission are common, even among those aware of protective measures. Some young people mistakenly believe that STDs only affect certain types of people, or that they can judge someone's risk based on appearance (Cochran & Mays, 2009). Young people frequently engage in health risk behaviors that lead to negative outcomes. Data from the CDC shows that between 2011 and 2021, protective sexual behaviors, like condom use and STD testing, worsened. In 2020, 20% of new HIV diagnoses were among those aged 13–24, and more than half of the 20 million new STDs were in individuals aged 15–24. Abstinence is the only foolproof way to avoid STDs, though consistent condom use can reduce risks. However, condoms are not 100% effective, and many young people continue to take risks.

It is common for young people to avoid discussing their sexual history with new partners until after intimacy. This lack of communication, especially for those with a history of promiscuity or compulsory sex, often results in late

discovery of risk. Research shows that a significant number of young people lie about their sexual past to new partners (Cochran & Mays, 2009). In Nigeria, teenagers have been found to engage in unprotected sex more than adults, likely due to limited awareness of the risks. Many young adults prefer "bareback" sex (without condoms) and engage in oral sex, both of which increase their exposure to STDs. In a 2014 survey by Medlinks, 48% of respondents favored sex without condoms, and 20% were aged 15-20. Additionally, 33% reported enjoying oral sex as a means of achieving sexual climax, further exposing them to STDs.

The consequences of risky sexual behaviors extend beyond individual health to societal concerns. High rates of teenage pregnancies, deaths from childbirth or unsafe abortions, and children born to unprepared teenage mothers all contribute to social problems (Zeitsch et al., 2012). Psychological effects, such as depression, stress, and trauma, are also common among young people engaging in risky sexual activities. Many turn to substances like drugs or alcohol, leading to addiction and further health risks (Martin et al., 2012). The internet has played a significant role in shaping teenagers' sexual behavior. Social media platforms and websites filled with sexual content influence young people's attitudes and lifestyles. Exposure to such content can lead to the adoption of risky sexual practices, with social media amplifying peer influence on sexual norms and behaviors.

Statement of the Problem

Every society strives to establish a robust and well-functioning system—one that is free from avoidable illnesses, infections, family instability, and substance abuse. In such environments, individuals thrive optimally, contributing to strong social cohesion and overall societal well-being. Unfortunately, this ideal does not reflect the current reality within academic settings. Among undergraduates, there has been a notable rise in risky sexual behaviors, which undermines both their health and the broader societal fabric. Students often engage in behaviors such as maintaining multiple sexual partners, practicing unprotected sex, undergoing abortions, and excessively using contraceptives. Alarming, young individuals account for over 30% of HIV cases (Medlink, 2012), with females aged 15-24 facing nearly three times the prevalence rate of males, underscoring the pervasiveness of risky sexual conduct in this demographic (UNAIDS, 2010).

Medical records from Nnamdi Azikiwe University Medical Center, Awka, further highlight the issue, revealing that of 1,474 individuals tested in 2012, 21 were HIV positive. These statistics demonstrate the heightened vulnerability of young people, particularly undergraduates, to sexually transmitted diseases (STDs) as a direct consequence of risky sexual behavior. Numerous governmental and non-governmental organizations regularly engage in sensitizing the youth through seminars and awareness campaigns, aiming to educate them on the dangers of risky sexual behavior and preventive measures. Some organizations even provide free HIV testing and distribute condoms to promote safer sexual practices. Despite these efforts, risky sexual behaviors persist. However, these interventions often lack empirical investigation into how personality traits might influence such behaviors among undergraduates. While previous research has sought to address this issue, much of it has concentrated on the transmission of HIV and other STDs, with limited attention given to the underlying causes and prevention of risky sexual behaviors, which are the primary drivers of these diseases. Consequently, this study aims to explore whether personality traits can predict risky sexual behaviors among university undergraduates. More so, the study seeks to close the research gap in Eastern part Nigeria. Finally, the study provides both empirical and theoretical data for further studies due to the dearth of research in this area.

Purpose of the Study

The primary purpose of this study is to identify if personality traits (Big Five Personality Traits) will predict risky sexual behaviors among undergraduates.

Research Questions

Do personality traits (Big Five Personality Traits) predict risky sexual behaviors among undergraduates?

Relevance of the study

This work provides informative knowledge of risky sexual behaviors, its prevalence among young people (students) and the harmful consequences that come with these behaviors. This study also creates more awareness on sexually transmitted diseases and ways by which they penetrate and possible ways of preventing their spread. Finally, the study serves as a resource material for academics to draw information for further research on this subject matter.

Theoretical Framework

Five-Factor Model/Theory of Personality

The Five-Factor Model (FFM) of personality, developed by McCrae and Costa (1986), is widely recognized for explaining various health-related behaviors. This model, also known as the Five-Factor Theory (Costa & McCrae, 1992), organizes all personality traits into five broad categories: openness, conscientiousness, extraversion, agreeableness, and neuroticism. It portrays human behaviour as a result of the interaction of these universal traits,

which function as part of a dynamic personality system. The model asserts that these five dimensions represent the core of an individual's personality system. According to McCrae and Costa, personality is composed of both stable traits and dynamic processes that show how these traits interrelate. Additionally, behavior can be understood by examining three central components of personality: basic tendencies, characteristic adaptations, and self-concept (McCrae & Costa, 2008). Basic tendencies include inherent personality traits that may be inherited or shaped by early experiences. These tendencies are consistent across time and are rooted in biological factors. Specifically, the five major traits—neuroticism, extraversion, openness, agreeableness, and conscientiousness—are considered fundamental elements of personality that influence behavior across different situations, and it is well fitted to explain the dynamics of sexual risky behaviours among undergraduates.

Alexandra et al. (2017) studied the connection between personality traits and sexual risk behaviors among adolescents, considering gender differences. Using SPSS Statistics v22 for multiple linear regressions, their results indicated a weak but significant relationship between sexual risk and personality traits. Adolescents with higher levels of extraversion, conscientiousness, agreeableness, and lower emotional stability were more likely to engage in risky sexual behaviors, leading to outcomes like STIs and unplanned pregnancies. Boys showed increased sexual risk linked to sociability, openness, and perfectionism, while girls showed higher risk related to agreeableness and emotional sensitivity. These findings underline the importance of gender in developing sexual health interventions.

Fanna et al. (2017) explored risky sexual behaviors and their predictors among private college students in Mekelle City. Using both quantitative and qualitative research methods, they gathered data from 627 students through surveys and focus group discussions. The study revealed that 29.1% of respondents had engaged in sexual activity, with 30.5% reporting multiple partners and only 39% using condoms consistently. The findings from both quantitative and qualitative data showed a high prevalence of risky sexual behaviors, such as multiple partners and substance use, highlighting the need for targeted sexual health programs in colleges.

Victor et al. (2020) investigated the influence of demographic factors like gender and religiosity on risky sexual behaviors among university students in South-East Nigeria. The study adopted a correlational research design, analyzing data from 1,200 students using Pearson correlation and multiple regression analysis via SPSS version 23. Results revealed that gender positively correlated with risky sexual behaviors, while religiosity negatively correlated with two dimensions of risky sexual behavior—random sexual activity and disregard for protection. Their findings emphasized the significant role that gender and religiosity play in predicting sexual risk-taking among university students.

Tedla (2020) conducted research on the relationship between personality traits, substance use, and risky sexual behaviors among university students in Ethiopia. Through a cross-sectional study involving 2,620 participants, the results showed that 72.18% of respondents had used substances at some point, and 46.3% reported current substance use. The study also found a high prevalence of risky sexual behaviors, such as multiple partners and substance-induced sex. Personality traits such as conscientiousness and agreeableness negatively predicted these behaviors, while extraversion and neuroticism were positive predictors. Substance use also mediated the impact of personality on risky sexual behaviors.

Henry et al. (2021) examined how self-esteem, locus of control, and academic courses influenced sexting behaviors among undergraduates at Ambrose Alli University, Ekpoma. The study, which applied Rotter's social learning theory, revealed that individuals with low self-esteem and an external locus of control were more likely to engage in sexting. The researchers recommended raising awareness about self-esteem and promoting internal locus of control to reduce sexting among students, encouraging open discussions about the consequences of such behaviors.

Ibrahim, Akorga, Abubakar, and Danladi (2021) assessed the knowledge and practices related to sexual risk behavior among students of a Federal College of Education in Gombe. Using a cross-sectional study, the researchers found that 77.3% of participants had engaged in sexual activity, with the majority demonstrating poor knowledge and risky sexual practices. Factors such as age, sex, and living conditions significantly influenced these behaviors, leading to a call for targeted behavior change interventions to address the prevalent risky sexual behaviors among students.

Akinlolu et al. (2022) explored factors associated with risky sexual behaviors among undergraduates in Osun State. In a descriptive cross-sectional study of 550 students, the researchers found that 69.9% of respondents were sexually active, with 65.8% engaging in risky behaviors such as multiple partners and inconsistent condom use. The study highlighted the influence of factors like gender, substance use, and relationships with family on sexual

risk-taking, calling for behavior change communication strategies to curb these behaviors among university students.

Hypothesis

Personality traits (Big Five Personality Traits) will not significantly predict risky sexual behaviors among undergraduates.

Methods

Participants:

A total of fifty (50) undergraduate students were randomly selected from various faculties at Nnamdi Azikiwe University, Awka, employing a simple random sampling technique. The participants comprise 27 males and 23 females representing 54 and 46 percents respectively with the mean age of 31.12 and standard deviation of 6.31.

Instruments:

1. Sexual Risk Survey (SRS) Questionnaire for evaluating risky sexual behaviors.
2. The Big Five Personality Inventory for assessing personality traits

Reliability: Reliability refers to the consistency of a measurement, producing similar results across different studies or trials (Creswell, 2012). The reliability of the structured questionnaire will be evaluated using Cronbach's alpha coefficient, developed by Lee Cronbach in 1951. This coefficient, ranging from 0 to 1, will measure the internal consistency of the questionnaire items to ensure they effectively capture the intended constructs.

Validity: Validity determines the extent to which a research instrument accurately measures what it is designed to measure (Creswell, 2012). Like reliability, validity is rooted in the positivist paradigm and must be contextualized within the framework of qualitative research. Content validity will be established through a comprehensive review of the questions to ensure they capture the required data. Subject-matter experts will examine the instrument to confirm that it aligns with the research objectives and covers the essential information. Construct validity will further verify that the instruments accurately represent the anticipated attitudes, views, and perceptions related to the subject matter. The validity of the questionnaire will be affirmed through expert evaluations from university lecturers at Nnamdi Azikiwe University. Moreover, the questions will be sequenced from the simplest to the most complex to facilitate coherence.

The Ten item of personality Inventory (TIPI)

The Brief measure of personality questionnaires was developed by Gosling et al. (2003) measures Big Five Personality traits through ten questions about each trait. These personality traits are Extroversion, Agreeableness, Conscientiousness, Neuroticism, and Openness. The instrument consists of 10 items such as Extraverted, Enthusiastic, Critical, Quarrelsome, Dependable, self-disciplined which measures the five basic personality traits. It also employs a responses pattern such as Disagree strongly=1, disagree moderately=2, disagree a little=3, neither agree nor disagree=4, agree a little=5, agree moderately=6 and agree strongly=7.

In the instrument, Five (5) items are reversed (items 2, 4, 6, 8, and 10) and are reversed during scoring.

Scoring of TIPI

1. Recode the reverse scored items.
2. Take the average of the two items (the standard item and the recoded reversed-scored item) that make up each trait.

For instance; using extraversion scale: a participant has scores of 5 on item 1 (extraverted, enthusiastic) and 2 on item 6 (reserved, quiet). First, recode the reverse-scored item (i.e item 6) replacing the 2 with a 6. Second, take the average of the score for item 1 and the recorded score for item 6. So the TIPI extraversion scale would be $(5+6)/2 = 5.5$.

Each of the personality traits has a norm score for interpretation of the score obtained from the data. The norm value for male and female vary according to age. The reliability coefficients reported by Gosling et al (2003) are: Cronbach alpha internal consistent .92, and convergent validity .411. However, the instrument was validated in Nigeria by Umeaku et al (2021). Cronbach Alpha and split-half reliabilities were adopted as the standard tools for testing the hypotheses. The results indicated that TIPI has construct validity at 627^{**} ($p < .001$) significant level. On concurrent validity, the five domains of TIPI concurred with the five domains of the forty-four-item Big-Five Personality Inventory at 271^{**} , $.419^{**}$, $.436^{**}$, $.163^{**}$ and $.251^{**}$ ($p < .001$) significant level. On discriminant validity, the five domains of TIPI discriminated with Neuroticism domain of the SCL 90 except the Emotional Stability domain at $-.428^{**}$, $-.243^{**}$, $-.047$, $.447^{**}$ and $-.505^{**}$ ($p < 0.01$) significant level. Finally, on reliability, TIPI is reliable within the acceptable protocol with Cronbach Alpha of 0.71 and Split-Half of 0.76, as validated for use in Nigeria (Umeaku et al, 2021).

Procedure

The researchers engaged undergraduate students from various faculties in small group settings, where the study was introduced. Following this introduction, those who indicated interest served as the participants due to their willingness to take part, a simple random sampling method was employed to determine the final sample who

participated in the study; this process involved using folded slips of paper labeled "YES" or "NO," placed in a bowl. Each participant drew a slip, and those who pick "YES" were given/administered with copies of questionnaire which they filled/completed. The data from the validly completed copies of questionnaire were collected and analyzed for the study.

Design and Statistics:

The study is a survey, with cross sectional design and multiple regression was used for the hypotheses testing.

Results

Table 1:

Summary of descriptive statistics, mean and standard deviation

SRS	Mean	N	Std. Deviation
GENDER			
Males	2.347826086956622	27	.724526189862428
Females	2.551984877126754	23	.592737565352371
Total	2.441739130434882	50	.668466123348838

Table 2:

Regression Analysis for Study Variables: personality traits as predictors of Risky Sexual Behaviours

Model	Coefficients ^a					
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
	(Constant)	2.713	.535		5.072	.000
1	OP	.070	.106	.107	.668	.508
	CO	-.063	.106	-.118	-.593	.556
	EX	.008	.073	.018	.107	.915
	AG	-.018	.094	-.039	-.195	.847
	ES	-.062	.091	-.120	-.681	.500

a. Dependent Variable: SRS

Discussion

This study investigated personality traits as predictors of risky sexual behaviors among undergraduates. The hypothesis which stated that personality traits will predict risky sexual behaviours among undergraduates was rejected. It is in dissonance with the study by Tedla (2020) conducted research on the relationship between personality traits, substance use, and risky sexual behaviors among university students in Ethiopia. Through a cross-sectional study involving 2,620 participants, the results showed that 72.18% of respondents had used substances at some point, and 46.3% reported current substance use. The study also found a high prevalence of risky sexual behaviors, such as multiple partners and substance-induced sex. Personality traits such as conscientiousness and agreeableness negatively predicted these behaviors, while extraversion and neuroticism were positive predictors. Substance use also mediated the impact of personality on risky sexual behaviors.

Furthermore, it is in disagreement with the work of Alexandra et al. (2017) studied the connection between personality traits and sexual risk behaviors among adolescents, considering gender differences. Using SPSS Statistics v22 for multiple linear regressions, their results indicated a weak but significant relationship between sexual risk and personality traits. Adolescents with higher levels of extraversion, conscientiousness, agreeableness, and lower emotional stability were more likely to engage in risky sexual behaviors, leading to outcomes like STIs and unplanned pregnancies. Boys showed increased sexual risk linked to sociability, openness, and perfectionism, while girls showed higher risk related to agreeableness and emotional sensitivity. These findings underline the importance of gender in developing sexual health interventions.

Implications of the Study

The conceptual and theoretical model enabled the researchers to assess the impact of personality traits (predictor variables) on risky sexual behaviors (dependent variable). The analysis confirmed that personality traits are inversely related to risky sexual behaviors, meaning that as personality traits do not enhance the engagement in risky sexual behaviors decreases.

Limitations of the Study

A key limitation of this study was the reliance on self-reported data. Participants completed a single survey to measure several constructs with multiple dimensions. Using self-assessment for both predictor and dependent variables can introduce common method bias, which may influence the variance in the relationships being studied.

Recommendations

Based on the study's findings, the following recommendations are made:

Parents should be actively involved in providing moral guidance on risky sexual behaviors, starting from childhood, and not waiting until their children are university students. This should include sexual health education at home. Relevant stakeholders should increase awareness of sexual health education for young people, many of whom engage in risky sexual behaviors. This can be achieved through counseling and educational programs. Religious organizations should go beyond instilling fear and taboos regarding sex and instead focus on educating undergraduates about the biomedical risks of risky sexual behaviors, along with the spiritual implications. Universities should offer self-efficacy training to help undergraduates resist social and physical pressures that lead to irrational decisions.

Suggestions for Further Studies

Further research should explore the mediating and moderating factors that influence undergraduates' involvement in risky sexual behaviors, which were not examined in this study. Additionally, future studies should expand the research to other universities beyond Nnamdi Azikiwe University, Awka.

Conclusion

This study investigated personality traits as predictors of risky sexual behaviors among undergraduates using descriptive statistics and regression analysis. The findings from the regression analysis revealed that personality traits did not significantly predict risky sexual behaviours among undergraduates.

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