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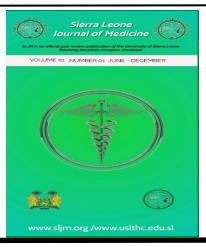

Risk Perception and Prevalence of Risky Behaviours Among In-School Adolescents in Ijesa-Land, South Western Nigeria

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ABSTRACT

Background: Risky behaviours contribute to adolescents' morbidity and mortality and constitute a leading public health concern. Therefore, this study sets out to determine the prevalence of risky behaviours and the perceived susceptibility to these behaviours.

Methods: A total of 465 in-school adolescents were sampled for a descriptive cross-sectional study using a multistage sampling technique. Data were collected via a facilitated self-administered semi-structured questionnaire adapted from the Youth Risk Behaviour Survey and analysed using IBM SPSS v23.0

Results: Of the 465 recruited for this study, 63% were females and 37% were males and the larger percentage was in the age group 14-16 years. Over a fifth of the respondents perceived they were at moderate to great risk regarding partaking in risky sexual behaviour (23.7%), violence and unsafe practices (23%), suicidal ideation, plans or attempts (21.5). The most prevalent risky behaviour was however risky dietary behaviours (69.2%), followed by unsafe practices and violence (25.2%) and risky sexual behaviour (18.9%).. Respondents who did not have friends and family members involved in at least one risky behaviour are about one and a half times less likely to be at moderate/great risk of getting involved in risky behaviours.

Conclusions: Risky behaviours are prevalent among in-school adolescents with those having friends and family members involved in at least one risky behaviour at greater risk of involvement. The pattern of risky behaviour shows that there is a need to pay attention to hitherto unfancied risky behaviours. A double-edged educational intervention for adolescents and parents/family members is needed to curb risky behaviours among adolescents.

Key words: Adolescents, Prevalence, Risk perception, Risky Behaviours, Youths.

1. INTRODUCTION

An adolescent as defined by World Health Organization (WHO) is a person aged 10–19 years. Adolescence is a period of transition from total socioeconomic dependence to relative independence[1]. It is a stage in life characterized by rapid growth and changes in the physical, cognitive and socio-emotional domains, with all these changes associated with increasing self-decision-making abilities[2]. This period is associated with a lot of experimentation which is related to adolescents' low self-regulation related to their tendency to engage in risky behaviours[3] which may become established and continue into adulthood [4,5].

Risky behaviour can be defined as action that entails some chance of a loss to the extent that they represent conscious actions, they reflect choices among alternative courses of action The risk behaviours include the use of alcohol, tobacco and other drugs; unhealthy dietary habits, inadequate physical activity, unsafe sexual practices leading to sexually transmitted infections or unintended pregnancy, choices which contribute to unintentional injuries and violence, non-compliance with safe driving principles[6], online risky behaviour[3] and homicidal and suicidal behaviours amongst others[7].

Table 1: Risky Behaviour and their Classifications Based on Pertinent Questions

Risky Behaviour	Pertinent Questions Asked to Determine the ir Level of Risk	Classification of Risk Level
Involvement in Unsafe Practices and Violence	In the past 30 days*, how many times did you ride in a car or motorcycle driven by someone who had been drinking alcohol? In the past 30 days*, how many times did you drive a car or motorcycle when you had been drinking alcohol? In the past 30 days*, how many days did you text or make/ receive a call while driving a car or motorcycle? During the past 30 days*, how many times did you carry a weapon such as a knife on school premises? During the past 30 days*, how many times were you in a physical fight at school?	Never/ none or zero (frequency) responses were scored as zero, others scored as 1 and each individual question was summed up, those with zero were taken as not being involved in unsafe or violent practices while those with 1 and above were classified as involved.
Involvement in Risky Dietary Behaviours	During the past 7 days, how many times did you eat fruits? During the past 7 days, how many times did you eat vegetables? During the past 7 days, how many times did you eat junk / fast food (flour-rich foods- doughnuts, cakes, biscuits etc?	Those who took fruits/vegetables at least once a day were scored 0, those who did not were scored 1. Those who ate junk at least once a day were scored 1 while those who did not were scored 0 and each individual question summed up, those with zero were taken as not being involved in risky dietary behaviour while those with ≥1 were involved.
Involvement in Risky Sexual Behaviour (RSB)	Did you drink alcohol or use drugs/ stimulants before you had sexual intercourse the last time? The last time you had sexual intercourse, did you or your partner use a condom? Do you always use a condom whenever you have sex, i.e. 100% of the time Have you ever had more than one sexual partner concurrently, i.e. at the same time.	Anyone involved in at least one of- usage of alcohol/ drugs before sex, having concurrent multiple sexual partners. Inconsistent use of condoms (did not use it at all or 100% of the time) were scored "1" while those not involved were scored "0" and the variables were summed up. Those that had 1 and above were considered to be involved in RSB and those that had 0 were uninvolved in RSB.
Involvement in Tobacco and Other Drugs	During the past 30 days*, on how many days did you drink codeine-containing substances e.g., cough syrup or other similar liquid substances to make you feel cool? During the past 30 days*, how many days did you smoke cigars/ cigarettes, Indian Hemp or Marijuana? During the past 30 days*, on how many days did you sniff tobacco or any other substance (e.g. glue)?	Those who took any substance at least once during the past thirty days were scored one, those who did not were scored 0 and each individual question summed up, those with zero were taken as not being involved in the usage of tobacco/ other substances while those with 1 and above were involved.
Involvement in Alcohol Usage	During the past 30 days*, on how many days did you have more than one drink/ serving of alcohol?	Those who chose 1 or more days were classified as being involved in risky usage of alcohol, while those who chose zero days were classified as uninvolved.
Involvement in Risky Mental Behaviour/ Suicide	Have you ever considered (thought of) attempting suicide? Did you make a plan to commit suicide? Did you ever attempt to commit suicide?	Anyone who said yes to any of these questions was classified as being involved in risky mental behaviour, while those who said no were classified as uninvolved.

*N.B: * For the asterisked variables, the duration for measuring the risky behaviour was "in the past 30 days," while for dietary behaviour it was in the last seven days. There was no specific time limit for involvement in risky sexual behaviour or risky mental behaviour/suicide. Therefore, no uniform criteria were used in terms of duration. The interpretation of the results must take this into account, and this limitation must be recognized.*

Risky behaviours have been proven to contribute to youths and adolescents' morbidity and mortality [6,8]. The perceived active risk-reward system determines adolescents' actions when it comes to making risky decisions or getting involved in risky behaviours [3]. Adolescents who take risks perceive fewer risks associated with the behaviour than those who refrain from risk-taking [9]. In a previous study, it was reported that 80.3% of adolescents were engaged in about one to three risky behaviours, 0.5% were engaged in six to eight while 10.4% reported none[6]. According to the Health Belief Model, the likelihood for an individual to take a preventive health action is influenced by the individual's perceived susceptibility to disease[10]. Some studies have shown that risk-taking behaviours among adolescents were associated with risk perception and sensation seeking[11], while others were influenced by emotional and social factors like peers[12], with hormonal balance, psychological stress, gender and some other factors such as maturity, responsibility, self-reliance, perspective, anxiety and one's sensitivity to reward also playing their parts[13].

A study has shown that there is often discrepancies between perceived risk and actual risk-taking behaviour among adolescents: the phenomenon "risk perception-behaviour gap," which suggests that even when adolescents are aware of potential risks, they may still engage in risky behaviours[11]. Factors contributing to this may include, optimism bias, when adolescents underestimate personal vulnerability by believing they are less likely to experience adverse consequences compared to their peers, reward sensitivity and temporal discounting when immediate rewards is prioritized over long-term consequences[11]. Observing others' risk behaviours influences adolescents' decision making in the context of risk taking, e.g., peer influence, social norms and rewards and vicarious learning[14]. The relationship between risk perception and risk taking is moderated by emotional states such heightened emotional

arousal, self-efficacy, cultural context and past experience[13].

While many studies have examined the prevalence of adolescent risk behaviour in similar settings, there appears to be little research on how adolescents perceive their own susceptibility to engaging in risky behaviours.. It is imperative to know what adolescents feel regarding their level of perceived risk and the factors associated with it. Hence this study is designed to assess the prevalence of risky behaviours and the perceived susceptibility to these behaviours among the in-school adolescents in Ijesa-Land, Osun state, Southwestern Nigeria.

2. METHODOLOGY

2.1 Study Area and Size

Using Cochran's formula for sample size determination of a population >10,000,15 a total of 465 in-school adolescents was estimated and recruited for a descriptive cross-sectional study carried out in secondary schools in Ijesa-land, Osun state, Nigeria in 2020. Study respondents were identified using a multi-stage sampling technique; at the first stage, one of the six main zones in Osun State (Ijesa-land) was selected through simple random sampling via balloting. In the second stage, two local government areas (LGAs) from the six LGAs present in Ijesa-land were selected through simple random sampling via balloting (Obokun LGA and Ilesa East LGA). In the third stage, two schools, one public and one private were selected from each of the LGAs via balloting. Using proportionate allocation, the number of required participants from each school was defined based on their population and the study sample size, and systematic sampling was used to select the study participants across the three levels of Senior Secondary School (SSS) classes.

2.2 Ethical Considerations

Ethical permission was sought and obtained from the Health Research Ethical Committee, College of Health Sciences, Osun State University (UNIOSUNHREC 2020/006B). Permission was obtained from the Permanent Secretary of the Osun State Ministry of Education, and the Principal/ Head of school of each selected school. Individual assent was sought and obtained after parents had given their consent for their children/ wards to participate.

2.3 Study Instruments and Recoded Measures

A facilitated self-administered semi-structured questionnaire adapted from the CDC's Youth Risky Behaviour Survey was used for data collection[16]. The six risky behaviours that were studied are behaviours that contribute to unintentional injuries and violence; behaviours related to sexual risk-taking; alcohol usage; usage of tobacco and other substances; unhealthy dietary behaviours and Suicidal ideation, plan or attempt.

Risk perception was determined for each of the risky behaviours via a single direct question: "Concerning this behaviour (each of the six was listed in turn), how much risk do you think you are at? With four possible options listed as "I am at great (or moderate or little or no) risk of being influenced to adopt the behaviour". This was later grouped into two as those who considered themselves at little or no risk and those who were at moderate or great risk of being influenced. The overall perceived level of risk for all six risky behaviours was determined by scoring those who considered themselves at little or no risk "0" and those who considered themselves at moderate or great risk "1" for each of the six behaviours. This was later summed up together with a possible range of scores ranging from 0 to 6. Those who had a score of 0 on the cumulative score were classified as having "no or low level of overall perceived risk" while those who scored 1 and above were classified as having "moderate or great level of overall perceived risk".[17] While this categorization may look imbalanced on the surface, it took into consideration that the "overall perceived level of risk" was a composite variable containing six risky behaviours that have earlier been segregated into those who considered themselves at "little or no risk" and "at moderate or great risk", for each individual behaviour, before they were computed (added up) into the composite variable. The theoretical underpinning or assumption here is that if someone considers himself at moderate to great risk of one particular behaviour, he is probably at moderate to great risk of risky behaviours in general, as most of these risky behaviours are interrelated. However, if a person considers himself at "little or no risk" for all six behaviours, then it is plausible and feasible to assume that he is at "little or no risk" for risky behaviours in general.

Concerning friends and family involved in risky behaviours, the question "Do you have friends and/or family members who engage/ used to engage in these behaviours?" All six behaviours were listed with options to choose "No" scored as "0" and "Yes" scored as "1" These were summed up, with those whose cumulative score was 0 classified as "Do not have friends and family involved in risky behaviours while those who scored 1 and above were classified as "Have friends and family involved in risky behaviours"

Risky behaviour was determined for each of the six risky behaviours as shown in Table 1.

2.4 Data Analysis

IBM SPSS Statistics version 23.0 was used to analyse collected data and relevant univariate, bivariate and multivariate analyses were generated and presented in simple frequency tables and/ or charts. Bivariate analysis (Chi-square) was done to determine the relevant association between categorical variables with p-value <0.05 taken as statistically relevant. Only the variables that were significant at the bivariate level were subjected to further analysis by logistic regression to identify predictors of risky sexual behaviours.

2.5 Data Availability Statement

The data for the study is available on the osf repository at https://osf.io/p9q67/? view_only=e9fe2796c38446ea8f52bd53071ee142. The access to this file is private, meaning only authorized individuals can access it.

3. RESULTS

A total of 465 students took part in the study. The response rate was 85%, that is, respondents whose parents or guardians consented to their children/ wards participating and out of this proportion, with all of the consenting students actually participating in the study.

A larger proportion of the respondents were females (63%), in mid-adolescence (60%), from monogamous families (76.3%) and the Yoruba tribe (96.8%) and have parents with high educational status as shown in Table 2.

In Figure 1, the level of perceived risk of respondents towards various risky behaviours was shown. Over a fifth of respondents perceived they were at moderate to great risk regarding partaking in risky sexual behaviours (23.7%), violence and unsafe practices

Table 2: Socio-Demographic Characteristics of Respondents

Variable and Their Categories		Frequency n=465	Percentage
Sex	Male	172	37.0
	Female	293	63.0
Age Group	Early Adolescence (10-13 years)	109	23.4
	Mid-Adolescence (14-16 years)	279	60.0
	Late Adolescence (17-19 years)	77	16.6
Family Type	Monogamous	355	76.3
	Polygamous	110	23.7
Ethnicity	Yoruba	450	96.8
	Others	15	3.2
Class/level Of Respondents	Senior Secondary School (SSS) 1	201	43.2
	SSS 2	237	51.0
	SSS 3	27	5.8
Father's Educational Status. †	Low Educational Status	160	34.4
	High Educational Status	234	50.3
	Unknown Educational Status	71	15.3
Mother's Educational Status. †	Low Educational Status	170	36.6
	High Educational Status.	227	48.8
	Unknown Educational Status	68	14.6

†- Low educational status- none to the secondary school level. High educational status- post-secondary education

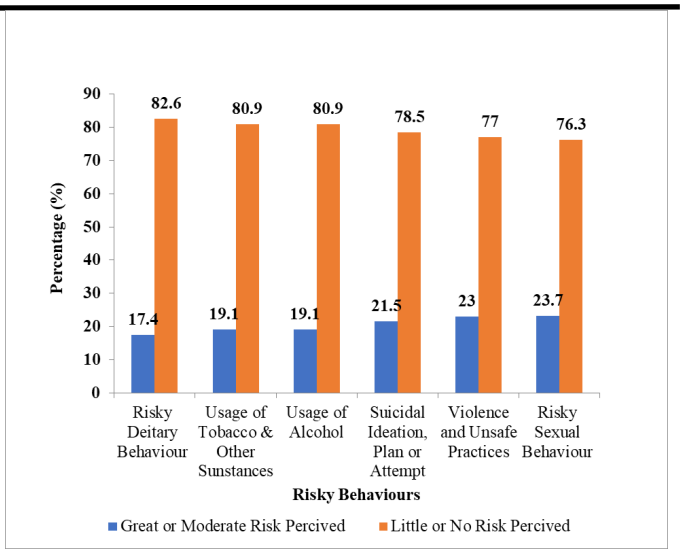

Figure 1: Level of Perceived Risk of Respondents Towards Various Risky Behaviours

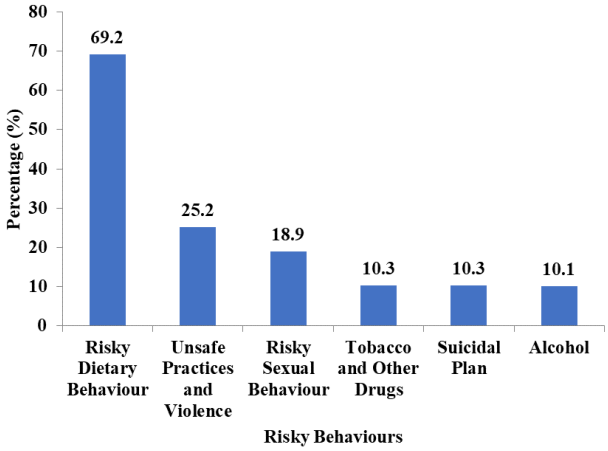

Figure 2: The Prevalence of Risky Behaviours Among Study Respondents

(23%) and suicidal ideations, plans or attempts (21.5%) while less than a fifth perceived they were at great or moderate risk regarding usage of alcohol, tobacco and other substances as well as risky dietary behaviours.

Figure 2 shows the prevalence of risky behaviours among study respondents. Risky dietary behaviour was the most prevalent (69.2%), unsafe practices and violence (25.2%), risky sexual behaviour (18.9%), tobacco and other substances (10.3%) and having a suicidal plan (10.3%) while only 10.1% was alcohol consumption.

Table 3 shows the level of perceived risk towards and actual involvement in six specific risky behaviours. Out of those who considered themselves at great or moderate risk of being influenced to partake in risky sexual behaviours, 25.5% were actually involved in risky sexual behaviour compared to 16.9% who considered themselves to be at little or no risk. Similarly, out of those who considered themselves at great or moderate risk of being influenced to partake in suicidal ideations, plans or attempts, 16% have actually been involved by previously having had a suicidal plan, compared to 8.8% of those who considered themselves to be at little or no risk. However, with regards to alcohol usage, out of those who considered themselves at great or moderate risk of being influenced to partake in the usage of alcohol, 18.0% had actually been involved in taking alcohol in the last 30 days. For risky sexual behaviour, alcohol usage and suicidal plans, there were statistically significant differences between those who considered themselves at moderate/great risk compared to those at little/no risk.

In Table 4, respondents' socio-demographic factors were related to the overall perceived level of risk towards all risky behaviours. Although a higher proportion of males (35.5%), early adolescents (33.0%), those from polygamous homes (37.3%) and Senior Secondary Class 1 (33.8%) as well as those whose parents had high educational status perceived themselves to be at great/ moderate risk of undertaking risky behaviours compared to their counterparts, this was not statistically significant at the bivariate level.

Table 5 shows the relationship between friends, family and other factors related to the overall perceived level of risk towards all risky behaviours. Friends or family engaged in at least one risky behaviour was statistically significant. Almost two-fifths (38.5%) of the respondents who had friends or family members who were engaged or involved in at least one risky behaviour considered themselves at moderate or great risk of being lured into risky behaviours compared to 28.2% of those who do not have such relations.

Over two-fifths (42.0%) of the respondents who had a large group of friends with no real close friends are at moderate or great risk of being lured into risky behaviours compared to 25.6% of the respondents who have a small group of close friends. Almost half (45.3%) of the respondents who managed to get along with their

Table 3: Respondents' Perceived Level Of Risk Towards And Actual Involvement In Specific Risky Behaviours

Risky Behaviour	Perceived Level Of Risk Towards Specific Risky Behaviour	Actual Involvement In Risky Behaviour		Statistics
		Uninvolved (%)	Involved (%)	χ^2, p
Risky Sexual Behaviour	Moderate/ Great risk	82 (74.5)	28 (25.5)	$\chi2=4.004$
	No/ Low Level of risk	295 (83.1)	60 (16.9)	**p=0.045‡**
Risky Behaviours Involving Violence And Unsafe Practices	Moderate/ Great risk	80 (74.8)	27 (25.2)	$\chi2=0.00$
	No/ Low Level of risk	268 (74.9)	90 (25.1)	p=0.984
Alcohol Usage	Moderate/ Great risk	73 (82.0)	16 (18.0)	$\chi2=7.503$
	No/ Low level of Risk	345 (91.8)	31 (8.2)	**p=0.006‡**
Usage of Tobacco And Substances	Moderate/ Great Risk	75 (84.3)	14 (15.7)	$\chi2=3.447$
	No/ Low level of Risk	342 (91.0)	34 (9.0)	p=0.062
Suicidal Ideations, Plans or Attempt	Moderate/ Great Risk	84 (84.0)	16 (16.0)	$\chi2=4.436$
	No/ Low level of Risk	333 (91.2)	32 (8.8)	**p=0.035‡**
Dietary Risky Behaviours	Moderate/ Great Risk	24 (29.6)	57 (70.4)	$\chi2=0.058$
	No/ Low level of Risk	119 (31.0)	265 (69.0)	p=0.810

‡ Statistically significant at P< 0.05

mum are at moderate or great risk of being lured into risky behaviour compared to 29.6% of the respondents who had a cordial relationship with their mum. Half (50.0%) of the respondents who had a terrible/bad relationship with their dad are at moderate or great risk of being lured into risky behaviours compared to 29.1% of the respondents who had a cordial relationship with their dad. Over 40% of the respondents whose mothers do not give enough time to moral/religious instructions are at moderate or great risk of being lured into risky behaviours compared to 30.4% of the respondents whose mothers gave enough time to moral/religious instructions.

Relationship with friends, the degree of relationship of the respondents with their mothers and fathers as well as mothers giving enough time to them on moral/religious instruction were all statistically significant while other variables in the table were not.

Being deeply religious, family functioning, degree of relationship between parents and enough time given by father on moral/religious instruction were not statistically associated with the overall perceived level of risk towards all risky behaviours.

In Table 6, a logistic regression model consisting of five variables that were significant at the bivariate level is shown. The only statistically significant variable was friends or family involved in at least one risky behaviour. Respondents who did not have friends and family members involved in at least one risky behaviour are about one and a half times less likely to be at moderate/great risk of getting involved in risky behaviours. The omnibus test of p=0.02 indicates that the model is significantly better at predicting the outcome. The pseudo-R-Square values for Cox & Snell (0.048) and Nagelkerke (0.067) indicate that the model explains between 4.8% and 6.7% of the variance in the dependent variable. This suggests a modest level of explanatory power. The Hosmer and Lemeshow test was not significant (p=0.755) and the x2=4.215 was low this shows that the model is good-fit for the observed data. Taken together, these results indicate a statistically significant model with adequate fit

4. DISCUSSION

This study assessed "risk perception and prevalence of risky behaviours among in-school adolescents in Ijesa-land, southwestern Nigeria". More than three-fifths of the respondents in this study

Table 4: Respondents' Socio-Demographic Factors Related to Overall Perceived Level of Risk Towards All Risky Behaviours

Variable and their Categories		Respondents' Perceived Level of Risk		Statistics
		No/ Low Level of Risk	Moderate/ Great Risk n= 147 (%)	
Sex	Male	111 (64.5)	61 (35.5)	χ^2= 1.874
	Female	207(70.6)	86(29.4)	p= 0.171
Age Group	Early Adolescence	73 (67.0)	36 (33.0)	χ^2 =0.207
	Mid Adolescence	193 (69.2)	86 (30.8)	p=0.902
	Late Adolescence	52 (67.5)	25 (32.5)	
Family Type	Monogamous	249 (70.1)	106 (29.9)	χ^2=2.135
	Polygamous	69 (62.9)	41 (37.3)	p= 0.144
Class/level of Respondents	SSS 1	133 (66.2)	68 (33.8)	χ^2=5.729
	SSS 2	161 (67.9)	76 (32.1)	p= 0.057
	SSS 3	24 (88.9)	3 (11.1)	
Father's Educational Status. § n=394	Low Educ. Status	112 (70.0)	48 (30.0)	χ^2 = 1.093
	High Educ. Status	152 (65.0)	82(35.0)	p= 0.296
Mother's Educational Status. § n=397	Low Educ. Status	123 (72.4)	47 (27.6)	χ^2 = 3.509
	High Educ. Status.	144 (63.4)	83 (36.6)	p= 0.061

§ Pupils who don't know their parents' educational status were excluded.

Table 5: Respondents' Friends, Family And Other Factors Related To The Overall Perceived Level Of Risk Towards All Risky Behaviours

Variable and their Categories		Respondents' Perceived Level of Risk		
		No/Low Level n=318 (%)	Moderate/Great n=147 (%)	Statistics
Friends or Family Engaged in At Least One Risky Behaviour	No	222(71.8)	87 (28.2)	χ^2=5.093
	Yes	96 (61.5)	60 (38.5)	p=**0.024¶**
I Consider Myself a Deeply Religious Person-	No	71(67.6)	34(32.4)	χ^2=0.037
	Yes	247(68.6)	113(31.4)	p=0.847
My Relationship With Friends (My Social Group)	I Have No Real Close Friends	71(61.2)	45(38.8)	
	I Have A Small Group Of Close Friends	177(74.4)	61(25.6)	χ^2=9.241 **p=0.026¶**
	I Have A Large Group Of Friends With A Few Close Friends	41(67.2)	20(32.8)	
	I Have A Large Group Of Friends With No Real Close Friends	29(58.0)	21(42.0)	
Family Functioning	Severely Dysfunctional Families	15(65.2)	8(34.8)	χ^2=0.274
	Moderately Dysfunctional Families	264(68.2)	123(31.8)	p=0.872
	Highly Functional Families	38(70.9)	16(29.1)	
Degree of Relationship Between my Parents (n= 442)	Cordial	243(69.8)	105(30.2)	χ^2=2.827#
	They Manage To Get Along or Are Indifferent	50(61.0)	32(39.0)	p= 0.243
	Terrible/Bad (Always Fighting)	7(58.3)	5(41.7)	
Degree of Relationship Between My Mum and I (n= 457)	Cordial	271(70.4)	114(29.6)	χ^2=6.121#
	We Manage To Get Along Or Are Just Indifferent	35(54.7)	29(45.3)	p=**0.047***
	Terrible/Bad (Always Fighting)	6(75.0)	2(25.0)	
Degree Of Relationship Between My Dad and I (n= 450)	Cordial	248(70.9)	102(29.1)	χ^2=6.942#
	We Manage To Get Along or Are Just Indifferent	50(58.1)	36(41.9)	p=**0.031¶**
	Terrible/bad (Always Fighting)	7(50.0)	7(50.0)	
My Father Gives Me Enough Time for Moral/ Religious Instruction (n= 451)	No	43(66.2)	22(33.8)	χ^2= 0.100
	Yes	263(68.1)	123(31.9)	p= 0.752
My Mother Gives Me Enough Time for Moral/ Religious Instruction (n= 454)	No	21(53.8)	18(46.2)	χ^2= 4.105
	Yes	289(69.6)	126(30.4)	p=**0.043¶**

|| *Respondents who did not have a particular parent or who chose not to answer the particular question were excluded. ¶ Statistically significant at P< 0.05 # Likelihood ratio used. (i.e. table is >2x2 and at least one cell has expected counts <5)*

were female, a demographic distribution that aligns closely with a related study where 60.6% of the surveyed secondary school adolescents were female[18]. This gender distribution is significant, highlighting the representation of female adolescents in both studies and allowing for comparisons in behaviour and outcomes between genders. Most of the respondents in this study are in mid-adolescence, which typically ranges from 14 to 16 years, and is a critical developmental stage marked by significant cognitive, emotional, and social changes. This period is characterized by heightened vulnerability to social-emotional disorders, which can profoundly impact adolescents' well-being. This period represents a time of increasing independence as adolescents are being "weaned" from parental control or influence which is still prominent in their early adolescent years. Adolescents in this age group are known to experience heightened emotional sensitivity and a stronger desire for social acceptance, which can lead to increased engagement in risky behaviours[19]. Secondary schools, which predominantly cater to this age group, serve as a vital environment for observing these developmental changes. In our study, the majority of respondents were within the mid-adolescent age range of 14-16 years, reflecting the typical demographic of secondary school students.

Family structure, specifically the type of family an adolescent belongs to, plays a crucial role in their development and behaviour. Our results show that two-thirds of the respondents reported coming from monogamous families. This finding is almost consistent with the results of another study where 81.7% of adolescents reported being from monogamous family backgrounds[18]. The prevalence of monogamous family types in both studies underscores the potential influence of family structure on adolescent behaviour and risk perception. The high representation of monogamous families might suggest stable family structures, which could influence adolescents' behaviour and risk perception. However, even within these seemingly stable demographics, the prevalence of risky behaviours in this and other studies indicates that other factors, such as peer pressure may play significant roles. Also, the consistency in these findings suggests that family type could be a significant factor in understanding and addressing adolescent risk behaviours. The similarities in gender distribution and family structure provide valuable insights into the factors influencing adolescent development. It thus reinforces the need for tailored interventions that consider the unique developmental challenges and family backgrounds of adolescents to effectively address risk behaviours and promote healthy social-emotional development.

This study revealed that less than a quarter of the respondents perceived themselves to be at moderate or great risk of risky sexual behaviours (RSB), while the rest considered themselves at little or no risk. This could possibly be attributed to their personal experiences such as direct or indirect experience of different forms of risky sexual behaviour such as unprotected sex, concurrent multi-

Table 6: Binary Logistic Regression of Perceived Level of Risk Towards Risky Behaviours and its Predictors

Variables	Categories	Odds Ratio	P -Value	95% Confidence Interval	
				Lower	Upper
Friends Or Family Engaged In At Least One Risky Behaviour	Yes	1			
	No	0.636	**0.041**	0.412	0.982
My Relationship With Friends (My Social Group).	I have a large group of friends with no real close friends	1			
	I have no real close friends	0.991	0.980	0.486	2.020
	I have a small group of close friends	0.518	0.052	0.267	1.006
	I have a large group of friends with a few close friends	0.637	0.280	0.281	1.443
Degree Of Relationship Between My Mum and I	Terrible/bad/always fighting	1	0.335		
	Cordial	2.199	0.527	0.191	25.361
	We manage to get along or are just indifferent	3.323	0.342	0.279	39.581
The Degree Of Relationship Between My Dad And I	Terrible/bad/always fighting	1			
	Cordial	0.570	0.356	0.173	1.880
	We manage to get along or are just indifferent	0.898	0.865	0.258	3.127
My Mother Gives Me Enough Time For Moral/ Religious Instruction	Yes	1			
	No	1.650	0.181	0.792	3.437

Omnibus test p=0.02, Cox & Snell R^2=0.048, Nagelkerke R^2= 0.067; -2 Log Likelihood 557.353, Hosmer & Lemeshow χ^2= 4.215, p=0.755.
NB; The total number of respondents for the logistic regression table was 436 because those who did not have the particular parent (mum or dad) for the last three questions or who chose not to answer the particular question were excluded.

ple partners etc. Indirect experiences may include respondents witnessing what others (e.g. families and friends) do in terms of RSB, and possibly assuming that to be a norm.[20] Although sociodemographic factors did not have any association with the overall perceived level of risk in this study, other factors that had been shown to affect RSB among adolescents include parental supervision[21]. Over a fifth of the adolescents that participated in this study perceived themselves to be at moderate or great risk of violence and unsafe practices, this could be as a result of peer influence as adolescents are highly influenced by their peers. If they have friends who have experienced or engaged in unsafe behaviour, they may perceive themselves as being at risk due to the influence of their social circle[22]. In terms of suicidal ideation plans or attempts, approximately one-fifth perceived themselves to be at great or moderate risk. This is a hugely significant number, translating to the fact that one out of every five persons in this study considered themselves at risk of suicide. This may not be unconnected with the increasing prevalence of suicidal attempts and actual suicide among young people, and many of them may now see it as a way out of their problems. Suicidal ideations or actual attempts among young people could be caused by many factors including underlying mental health conditions, previous attempts, substance abuse, disappointment in any form, bullying experience, trauma, abuse or social isolation etc.,[23] and it is not impossible that these respondents are faced with some of these challenges. Further study may look into the correlation of the perceived risk of suicidal ideation and the experience of bullying, trauma or abuse. Surprisingly, less than one-fifth of the respondents perceived themselves to be at great or moderate risk of risky dietary behaviours and usage of alcohol, tobacco and other substances, perhaps because they do not really see them as being risky. This finding aligns with the notion that adolescents often underestimate the risks associated with substance use compared to other behaviours. This underestimation could be due to a lack of awareness or the normalization of such behaviours in their social milieu[24]. The higher perception of risks associated with sexual behaviours and violence indicates some awareness, possibly influenced by cultural or educational interventions that highlight these dangers. Despite this awareness, the engagement in these behaviours suggests that risk perception alone does not deter adolescents from participating in risky activities.[20] In this regard, just over a sixth of respondents perceived themselves to be at great-moderate risk of risky dietary behaviour, meanwhile, it turned out to have the highest proportion of actual risky behaviours practised. Adolescents' nutrition is influenced by their peers and they are susceptible to pressures that may contribute to the adoption of risky dietary behaviours.[25]

When assessing the actual prevalence of different risky behaviours, seven out of ten respondents were found to have risky dietary behaviour, this high prevalence of risky dietary behaviours is concerning and reflects global trends where adolescents' eating habits are influenced by convenience, peer pressure, and media[26]. Risky dietary behaviours may range from ingestion of unhealthy foods or inadequate intake of healthy foods or even deliberate dieting to prevent weight gain.[27] About a quarter of adolescents in this study were found to have unsafe and violent practices which is similar to what was obtainable in other parts of the world [28–30]. The prevalence of violence and unsafe practices corroborates findings from other regions, indicating a pervasive issue that requires targeted interventions.[24] These behaviours can lead to immediate and long-term health consequences, underscoring the need for comprehensive health education and behavioural interventions in schools. Just less than a fifth of respondents in this study were involved in RSB which is lower compared to a Ghanaian study where 65.5% did not use condom at their last sexual intercourse and 37.2% had multiple sexual partners.[10] However, the evidence that one out of every five adolescents was involved in RSB is deeply concerning as RSB may come with negative outcomes that can jeopardise their future. Reasons adduced for RSB among adolescents include peer pressure, curiosity or exploration and lack of

comprehensive sex education or negative media influence[21,22,31], and such needs to be tackled holistically and can be the subject of other studies.

The study revealed statistically significant differences in perceived risk and actual involvement in RSB, alcohol usage, and suicidal ideations. For instance, a quarter of those perceiving themselves at moderate/great risk of engaging in RSB were involved in it, compared to a sixth who perceived low/no risk. Similarly, almost a fifth of those perceiving moderate/great risk of alcohol use were involved in alcohol usage, compared to almost 10% who perceived low/no risk. Almost similar figures were obtained for suicidal ideation. These results emphasized the disconnect between risk perception and actual behaviour. Adolescents who perceive high risk are still likely to engage in risky behaviours, suggesting that awareness alone is insufficient to deter such actions[22]. This highlights the need for comprehensive strategies that not only educate but also provide support systems and alternative coping mechanisms. Interventions that focus on building life skills, resilience, and healthy peer relationships are crucial in addressing this disconnect[21].

This study showed a statistically significant association between having friends or family involved in at least one risky behaviour and the heightened risk posed to adolescents. Almost two-fifths of the respondents who had friends or family members who were engaged or involved in at least one risky behaviour considered themselves to be at moderate or great risk of being lured into risky behaviours. This can be supported by a prior study that identified a correlation between adolescents consuming alcohol and the presence of friends or family members who also engage in alcohol consumption [32]. This correlation suggests that the behaviours of adolescents regarding alcohol use are often shaped by the modelling and social dynamics within their immediate circles because they are susceptible to the influence of peer groups and family members [14,22], Another study involving school-attending adolescents in Ota, Ogun State Nigeria identified parent and peer alcohol use as a notable predictor of adolescent alcohol consumption or abuse[33].

Significant associations were found between perceived risk and having friends or family engaged in risky behaviours, relationships with friends, and relationships with parents. Adolescents with friends or family members involved in risky behaviours were more likely to perceive themselves at risk. Additionally, those with strained relationships with their parents or without close friends perceived higher risks. These findings highlight the critical role of social relationships in shaping adolescents' perceptions and behaviours. Peer influence is a well-documented factor in adolescent risk behaviours [23], and the quality of parental relationships can significantly impact adolescents' resilience against engaging in risky behaviours[21]. Positive parental engagement and supportive friendships can serve as protective factors, reducing the likelihood of adolescents engaging in harmful activities [20]. The logistic regression analysis identified having friends or family engaged in risky behaviours as the only statistically significant predictor of perceived risk. This reinforces the critical influence of the social environment on adolescents' risk perceptions and behaviours. The strong influence of social circles on adolescents' behaviours underscores the need for interventions targeting peer groups and family units, promoting healthy behaviours, and providing support for at-risk adolescents [21]. Programs that engage families and peer groups in preventive efforts can be more effective in fostering long-term behavioural change. This comprehensive approach can bridge the gap between risk perception and actual behaviour, fostering a safer and healthier adolescent population[20]. Comprehensive risk education in the school curricula to equip adolescents with decision-making skills to navigate potential risks becomes imperative and when complemented with parental and other stakeholders' involvement can go a long way to reduce adolescent risky behaviours.

4.1 Study Limitations

A possible limitation to this study was that the data on risky behaviours was collected through self-reports. As in all such studies where self-reporting is used, both inadvertent and deliberate misreporting is a major concern. It is not impossible that certain information given by respondents might have been exaggerated or withheld. However, they were encouraged to give true responses prior to data collection. Another possible limitation was the fact that only a sixth of the respondents were in late adolescence, possibly because SS3 students were having terminal exams and so were not available in most of the schools used. Although this might not have changed the findings of this study, it would still have been better to have all classes well represented. The fact that the instrument (YRBSS) used in measuring the various risky behaviours had varying durations- e.g. In the last 7 days, In the past 30 days, the last time experiences etc. had earlier been mentioned too.

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Conflicts of Interest

The authors declare no conflicts of interest

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