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RESEARCH ARTICLE

## RELATIONSHIP BETWEEN SELF-CONCEPT AND HEALTH COMPROMISING BEHAVIOURS AMONG ADOLESCENTS IN ADABRAKA, ACCRA GHANA

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### ABSTRACT

The aim of this study was to investigate the influence of self-concept on health compromising behaviours among adolescents in Adabraka, Accra. Cluster sampling technique was used to select 120 adolescent students from All Saints Anglican Junior High School and Calvary "1" Methodist Junior High School. Data was collected using self-reported scale which consisted of the Adapted Robson Self Concept Questionnaire (Robson, 1989), Adapted Adolescent Alcohol and Drug Involvement Scale (Moberg, 2000), and Sexual Risk Survey (Turchik&Garske, 2009). Data was analyzed using descriptive statistics, correlational and independent sample t-test, and SPSS (23.0) to explore patterns of association among variables. Results showed that self-concept did not have any correlation with smoking. Results also revealed that self-concept did not correlate significantly with alcohol consumption though the relationship was negative. It was also found that self-concept did not correlate significantly with risky sexual behaviour though the relationship was negative. It could be concluded that, modeling may play an important role in adolescent engagement in health compromising behaviours such as alcoholism, smoking and risky sexual behaviour. It is, therefore, recommended that parents, teachers, guardians and caregivers should regulate and educate adolescents on the implications of health compromising behaviours and also discourage adolescents from observing and imitating wrongly influential social models (live or symbolic) who engage in any health compromising behaviour, in addition to assertiveness training to achieve the 'Ideal Self.'

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## INTRODUCTION

Adolescence describes the developmental stage between childhood and adulthood (Sawyer and Patton, 2011). Adolescence is a growth process in which physical, emotional, psychological and socio-cultural changes occur in an individual. An adolescent is, therefore, identified by the World Health Organization (WHO), variously as people 10-19 years old, 15-24 year old and 10-24 year old (WHO, 2015; Blum and Nelson-Nmari, 2004). According to Smetana, Champion-Bar and Metzgar (2006), it is a stage characterized by multiple changes that take place within the individual such as cognitive advance, puberty, and identity exploration and in the individual's context like peer, family, and school. The physical and cognitive changes are vital characteristics since they lead and foreshadow the psychological and social challenges. These challenges will antagonize adolescents to compromise the foundation of diverse means for them to respond. It is, therefore, vital for the adolescent to develop emotionally, physically, and socially (Lerner, Castellino, Terry, Villarruel and McKinney, 1995).

**Self-Concept:** The self-concept is "the person's own values, including the characteristics of the person and who and what the personality is (Baumeister, 1999). Rogers (1952) explained that "one's own conception influences how one looks at one's environment as well as oneself". Rogers (1959) described three components of self-concept. These include: 1. Self-image, "the view you have of yourself, how we see ourselves, which is important to good psychological health." (Rogers, 1959). 2. Self-esteem or self-worth, how much importance

you put on yourself, self-esteem refers to how much we like acknowledging or approving of ourselves or how much we respect ourselves. 3. Ideal self, what you really wish you were; this is the person who we would like to be. Self-esteem is a positive or negative attitude to oneself (Kounenou, 2012), an ultimate measure of one's worth. Negative factors may also have an impact on anti-social and wellness habits that are detrimental impacts of friends and peers (Alamain and Paradis, 2009). The self-concept has been related to problem behaviour, abnormal behaviour, and behaviour that jeopardizes health including smoking, the use of alcohol, and risky sex. Some researchers have found that high self-esteem is distinct from low-self-esteem individuals, and thus increases the well-being that jeopardizes lifestyle.

**Health Compromising Behaviours:** These are behaviours and habits that damage or affect current or potential well-being through individuals (Taylor, 2015). Most health-conscious behaviours include alcohol, are destructive and find changing patterns quite complicated. On the other side, even the most intractable wellness patterns can be improved with effective approach (es). If a person manages to change bad health, he or she will also alter certain healthy lifestyles. The end result is a reduction in risk and the likelihood of medium-to old-age disease-free (Taylor, 2015). The phenomenon of adolescents' health compromising behaviours has existed since time immemorial and it's assuming a wider global dimension. Indeed, it has become a big challenge to the global community for which the Adabraka community in Accra, Ghana is no exception. Studies conducted by Coley, Votruba-Drzal and Schinder (2009), and Kincaid, Jones, Strerrett and McKeec (2012) have shown that behaviours exhibited

during the period of adolescence are triggered by psychological factors. Many health compromising behaviours, such as unsafe sexual practices, use of tobacco, alcohol and other psychoactive substances that take place in adolescence have profound consequences for adolescents health for example, incidence of adult chronic systemic states which might comprise stroke, cancer, liver disease, cardiovascular disease, sexually transmitted infections such as (HIV/AIDs), severe psychotic disorder, or even death and long term well-being (WHO 2005 and 2012; Kelley, Schochet and Landry, 2004; Thomas, 2011).

**Statement of the Problem:** With the emergence of independence, new physical and cognitive abilities, adolescents are characterized as experimentation and risk taking, sometime with behaviours that can also derail current and future health and well-being. Many health compromising behaviours, namely unsafe sexual practices, tobacco use, use of alcohol and other psychoactive drugs that takes place during adolescence have profound consequences for adolescent's health, development and long term wellbeing (WHO, 2012; Kelley, Schochet, & Landry, 2004; Thomas, 2011). In 2005, the WHO reported that 70 percent of early deaths among adults are due to activities that endanger safety, including smoking, illicit drug use, and adolescent-initiated reckless driving. GHS et al. (2012) found that 19 % of adolescents use tobacco and 5% smoke cigarettes in Ghana. WHO (2014) estimated that 23. 3% of Ghanaians who are age 15 years old and above consume alcohol. A study conducted in Ghana by Hormenu et al. (2018) revealed 63% of school going adolescents initiated sexual intercourse in the Junior High School (JHS) at age 14 – 15 years. It points to the fact that the involvement of health compromising behaviours (such as smoking, alcohol consumption, and risky sexual behaviours) is an issue for most adolescent in Ghana. Self-concept with much emphasis on low self-esteem present in the equation can actually make health compromising behaviours among adolescents even more complex. In a related study, McGee and Williams (2000) posit that level of global self-esteem significantly predicted adolescent reporting of eating problems, suicidal ideation, and multiple behaviours that compromise health. In a similar study by Park, Kim, Park, Suh and Lee (2016) found that in multivariate regression analysis suicidal ideation and peer relationship satisfaction is significantly associated with self-esteem.

Notwithstanding the acknowledgement of its significance, the influence of self-concept and health compromising behaviours (smoking, alcohol consumption, and risky sexual behaviour) has been less studied than that of studies on other areas (problem eating, suicidal ideation and so on) particularly in the Ghanaian context. No concrete conclusion has been drawn on what are good indicators for self-concept on health compromising behaviours and how the indicators are independently affect adolescents' health compromising behaviours. The sight of adolescent smoking, drinking alcohol, engaging in risk sexual behaviour, the rampant cases of rape and teenage pregnancies, sexual transmitted infections like (HIV/ AIDs), stroke, cancer, liver diseases, cardiovascular diseases, car accident and so on are hints that such people are living reckless or uncontrolled lives because of their level of self-concept. In spite of various attempts made to curb the problems of adolescents engaging in health compromising behaviours and the problem still persists. For this reason, a study that investigates the influence of self-concept on health compromising behaviours (smoking, alcohol consumption, and risky sexual behaviour) among adolescents is essential and this is what this study intends to grapple with.

**Theoretical Framework:** The study was underpinned by the following theoretical frameworks as explained below:

**Self Concept Theory (SCT):** In accordance with Carl Rogers the self is the view point of phenomenological experience. Phenomenological experience is one viewpoint of our understanding of the world, is the one that meets our cognizant experience also is the experience of ourselves, or self (Cervone & Pervin, 2011). From the point of view of Rogers, the self is the essential component of human personality and personal adaptation. Rogers who introduced a whole support

system built around self-importance. He described the self as a development of a social product and an interpersonal relationship striving for consistency. The concept of self can be understood as a perception that each human has of himself or herself. It is a component of the development of personality and indicates who we are, and how we fit into the world. Machargo (1991) perceives self-conception as a collection of expectations or reference points that the subject has about himself, a set of characteristics, features, virtues and shortcomings, capacities and weaknesses, beliefs and relationships that the person knows to be self-descriptive and perceives as identity data. This research focused on the self-esteem aspect of the three self-concepts. For the study, respondents were assessed on their self-esteem by examining their levels of self-esteem. McGee and Williams (2000) posit that levels of global self-worth significant forecasted adolescents account of problem eating, suicidal ideation, and multiple health compromising behaviour. Previous stages of self-worth were unconnected to later substance use and early sexual activity. The self-concept theory is linked to the study because the self-esteem component of the theory believes that how much value a person or an adolescent student places on him or herself may or may not influence him or her to engage in health compromising behaviours. This theory will serve as a guide throughout the study and it would be expected that if a person places much value on himself or herself that person will not involve in health compromising behaviours and vice versa.

**The Theory of Planned Behaviour:** The Theory of Planned Behaviour (TPB) is a well-established social – cognitive mode; for predicting a variety of human behaviours (Ajzen, 2011). His theory believes that health behaviour is the direct result of a behavioural intention. Ajzen, (1991) believed that the behavioural intentions are themselves made up of three components: attitudes, perceived norms and perceived control directly influence behavioural intentions, which in turn, affect behaviour. The theory tries to associate health beliefs diametrically to behaviour (Ajzen & Madden, 1986; Fishbein & Ajzen, 1975). For instance, “a smoker who believes that smoking is the reason for serious health results, who also believes that other people think they should stop smoking, who are inspired to agree with those normative beliefs, who believes that they are able to quitting smoking, and who develop a particular purpose to do so will be more probable to quit smoking than people who do not embrace these beliefs”. According to McEchan, Conner, Taylor and Lawton, (2011) the theory of planned behaviour forecasts comprehensive collection of health behaviours. The theory attempt to link health beliefs directly to behaviour, hence the theory of planned behaviour relates to this topic of study in that it predicts how self-concept influences health compromising behaviours. This model is linked to the study, as it helps to understand that a number of factors influence self-concept and health compromising behaviour.

**Problem Behaviour Theory (PBT):** The theory of problem behaviour is a social-psychological framework that helps explain the nature and development of alcohol abuse, drug abuse and other problem behaviours (Jessor, 1986). PBT supports the view that problem behaviour relationships are multidimensional in nature. According to Jessor and Jessor (1977), the theory is a psychosocial model that attempts to explain behavioural outcomes such as substance use, deviation, and risky sexual behaviour. The multidimensional theory presumes that certain health-related activities appear to aggregate among adolescents and adults in a number of different trends. Raitakari, Leino, Rakkonen, Porkka, Taimela, Rasanen and Viikari (1995), for instance, that a bad diet, smoking, physical motionlessness and a lot of alcohol consumption concentrated in younger adults. For example, Raitakari et al., (1995) found a poor diet, smoking, physical inactivity and excessive alcohol consumption to be concentrated in young adults, while Neumark-Sztainer, Story, French, & Resnick, (1996) found correlations between various health-causing activities, including unhealthy weight loss, substance abuse, suicide risk, delinquency and sexual activity. This theory will act as a guide throughout the study and it helps to explain how the three fundamental systems especially the personality system influence self-concept and health compromising behaviours.

This theory is linked to the study, as it helps to understand that a number of factors influence self-concept and health compromising behaviour.

**Health Belief Model :** The fourth theoretical reason for this study depends on the health belief model proposed by social psychologists, Leventhal, Kegeles, Hochbaum, and Rosenstock during the 1950s. The motivation behind the theory was to show signs of improvement comprehension of the disappointment of the individual procedures for disease prevention strategies and screening for identification of disease (Sheeran & Abraham, 1996). The model is commonly founded on the theory that a person's inclination to change their health practices is the consequence of two variables: "perceived susceptibility" and "perceived severity" (Boskey, 2019). The perceived susceptibility deals with the way that individuals do not change beneficiary behaviours towards health until they experience danger (Sheeran & Abraham, 1996). The perceived severity indicates the likelihood that a person will change his behaviour towards health to avoid danger, it relies on how the degree of sickness is affecting their livelihood (Boskey, 2019). This model is linked to the study, as it will help in understanding number of factors that influence self-concept and health compromising behaviour.

**Social Learning Theory:** Albert Bandura in his theory explains that people learn through observation, imitation, and modeling of others behaviour. As children grow and turn adolescent, they select role model for their life. They observe, imitate and model certain behaviours from these role models and other significant people within society. Sergeant and Heatherton (2009) posited that even watching people smoke in movie and on television contribute to high rate of adolescent smoking. Which other health compromising behaviours are no exception. This is because in today's Ghana, films and television programmes depicting smoking, alcohol use, risky s because it will help in understanding if social role models do contribute to health compromising behaviour can take place by observing a role model without reward.

### Statement of Hypothesis

The following hypotheses were tested in relation to the study objectives;

1. A significant negative correlation will exist between self-concept and smoking
2. A significant negative correlation will exist between self-concept and alcohol consumption.
3. A significant negative correlation will exist between self-concept and risky sexual behaviour

## METHODOLOGY

**Research Design:** The research adopted a cross-sectional design in collecting the data. A cross-sectional design is an observational study that assesses concurrently the exposure and health result in a given population and in a given environment or area at a certain time. It is also a research design that permits the investigator to analyze data in a row and column form together at a particular point in time. This design was chosen because the data was gathered only once from the same respondents. It was also appropriate because the period for the research would not have been adequate enough to carry a longitudinal study.

**Population:** The target population of the study was made up of adolescent students of the All Saints Anglican JHS and Calvary 1 Methodist JHS in Adabraka, Accra who were between the ages of 12-17 years. The adolescent students selected from both schools were from JHS1 to JHS3. The people of Adabraka, Accra have a fair representation of Adolescent with health compromising behaviours with various backgrounds and demographic characteristics. This includes students from JHS 1 to JHS3 within the various schools. The average class size was estimated to be thirty (30) students. In all the

total population was 180 adolescent students which 120 was selected for the study, indicating 66.7% of the entire population.

**Sample Size and Sampling Techniques:** The sample size was 120 adolescent students who were made up of sixty (60) males and sixty (60) females. This can be justified an adequate sample for the research using the Tabachnick and Fidell (2007) formula  $n > 50 + 8m$ . They were ranging between twelve (12) to (17) seventeen years of age, as mentioned earlier. The cluster sampling technique was used for the study. With this technique, the two schools and respondents used for the study were randomly selected. This method was chosen because it was economical and practical for such a widely dispersed and large population.

**Dat Collection Instruments:** The following instruments listed below were used for the study.

**Adapted Self Concept Questionnaire (SCQ; Robson, 1989):** This instrument was designed and standardized by Robson was used for the research study. The SCQ is a self-reported instrument measuring self-esteem (Robson, 1989). It comprises of 30 questions or items (example: "I have control over my life," "I feel emotionally mature," "I can like myself even if others don't"). The 30 questions or items are focused on seven aspects of self-esteem, in accordance to theoretical and empirical records reviewed by Robson (1988). The scoring is completed on an eight-point scale, varying from "completely disagree" to "completely agree". An individual is asked to show how much he or she agrees or disagrees with each statement, according to how he or she usually feels. The answers are scored on a scale of (0-7) and a complete rating is calculated. Greater score represent high self-esteem, with one hundred and forty (140) being regarded the normal mean with a trendy deviation of 20 (Romans, Martin, & Mullen, 1996; Robson, 1989). This measure correlates quite with Rosenberg's (1965) measure of self-esteem (Robson, 1989). The SCQ has been proven to have precise reliability (Cronbach's  $\alpha$  of .89) and right validity (clinical validity of .70; i.e.).

**Adapted Adolescent Alcohol and Drug Involvement Scale (AADIS) – Smoking:** This scale was developed by Moberg (2000). The measure is a screening test for adolescent substance abuse. The AADIS is 14-item multiple response questionnaire that was tailored with consent from Mayer and Filstead (1979) "adolescent alcohol involvement scale", estimates of inner consistency vary from 0.55 in a scientific pattern to 0.76 in a universal sample (Moberg, 1983), and Moberg and Hahn (1991) "adolescent drug involvement scale" indicate acceptable internal consistency ( $\alpha = .85$ ). According to Winters, Botzet, Anderson, Bellehumeur and Egan (2001) the "Adolescent Alcohol and Involvement Scale" has a total consistency level of .94. Some items within the questionnaire were changed to suit what the researcher intended to measure before administering it on the adolescent students of both schools (for example: "How often do [did] you use alcohol or other drugs (such as weed or rock)" to "How often do you smoke? (such as cigarette and wee)").

**Adapted Adolescent Alcohol and Drug Involvement Scale (AADIS) – Alcohol**

**Consumption:** The scale is a screening device for adolescent alcohol and other drug problem. The measure was created by Moberg (2000). The instrument consist of 14-item multiple response questionnaire that was tailored with authorization from Mayer and Filstead (1979) "adolescent alcohol involvement scale", indicate reliable internal consistency range from .55 - .76 for clinical and general sample respectively (Moberg, 1983), Moberg and Hahn (1991) "adolescent drug involvement scale" indicate acceptable internal consistency ( $\alpha = .85$ ). According to Winters et al. (2001) the "Adolescent Alcohol and Involvement Scale" has a total consistency level of .94. Some items within the questionnaire were changed to suit what the researcher intended to measure before administering it on the adolescent students of both schools (for example: "How often do [did] you use alcohol or other drugs (such as weed or rock)" to "how often do you use alcohol (such as beer, wine, and akpeteshie)").

**Adapted Sexual Risk Survey (SRS; Turchik, & Garske, 2009):** The SRS measures risky sexual behaviour and was created by Turchik and Garske (2009). This instrument is made up of 23 items on a 6 point likert scale that ranged from 0 (never) to 5+ (five times or more). In all, the SRS has a total internal reliability of 0.88. It has five(5) subscales which include Sexual Risk Taking with Uncommitted Partners, Risky Sex Acts, Impulsive Sexual Behaviours, Intent to Engage in Risky Sexual Behaviour, and Risky Anal Sex Acts. In all, the SRS has a total internal reliability of 0.88. An alpha level of .88, .80, .78, .89, and .61 for the subscales respectively. Test-retest reliability for the total Sexual Risk Survey = .93. Items example: “How many partners have you engaged in sexual behaviour with but not had sex with.”

**Method of Data Analysis:** The statistical package used for the analysis was the Statistical Product and Services Solution (SPSS v 23.0). The analysis involved both descriptive and inferential statistics.

## ANALYSIS OF RESULTS

**Table 2. Summary of Descriptive Statistics of main Variables in the Study**

Variable	Frequency Percentage (%)	Mean	Std. D
Self-Concept			
Low self-concept	18 15.0	2.11	.6324
Normal self-concept	71 59.2		
High self-concept	31 25.8		
Health Compromising Behaviours			
Smoking			
Never smoked	68 56.7	1.50	.6220
Smoking present	44 36.7		
Serious smoking present	8 6.7		
Alcohol Consumption			
Never consumed alcohol	66 55.0	1.53	.6350
Alcohol consumption present	45 37.5		
Serious alcohol consumption present	9 7.5		
Risky Sexual Behaviour			
No sexual behaviour involvement	59 49.2	1.58	.6170
Sexual behaviour involvement	53 44.0		
Serious sexual behaviour involvement	8 6.7		

[Source: Field data (2019)]

Table 2. Showed that 18(15.0%) of the adolescent students have low self-concept, 71(59.2%) have normal self-concept and 31(25.8%) have high self-concept. With respect to smoking, 68(56.7%) of the adolescent students have never smoked, 44(36.7%) had smoking present and 8(6.7%) had serious smoking present. 66(55.0%) of the adolescent students have never consumed alcohol, 45(37.5%) had alcohol consumption present, and 9(7.5%) had serious alcohol consumption present. 59(49.2%) indicated risky no sexual behaviour involvement, 53(44%) responded risky sexual behaviour involvement, and 8(6.7%) indicated serious risky sexual behaviour involvement. Again, table 2: Indicated the mean and standard deviation of self-concept (M=2.11, SD=.6324), smoking (M=1.50, SD=.6220), alcohol consumption (M=1.53, SD=.6350), and risky sexual behaviour (M=1.58, SD=.6170).

### Testing of Hypotheses

**Hypothesis One:** States that “a significant negative correlation will exist between self-concept and smoking”. The finding on the hypothesis is shown in Table 4.

**Table 3. Pearson Product Moment Correlation between Self-concept and Smoking**

	Coefficient	P-value
Pearson correlation	.00	.997

[Source: Field data (2019)] \*p is significant @ .05 alpha levels

Table 3, showed that the relationship between adolescents self-concept and their smoking level was investigated was found between the two variables [ $r_{(118)} = .00, p > .05$ ]. This implies no direct relationship exist between adolescents’ self-concept and smoking. In other words, it can be said that no matter how high or low an individual’s self-concept is; it will not influence him or her to smoke more or less.

**Hypothesis Two:** States that “a significant negative correlation will exist between self-concept and alcohol consumption”. The finding on the hypothesis is shown in Table 5.

**Table 4. Pearson Product Moment Correlation between Self-concept and Alcohol**

Consumption		
	Coefficient	P-value
Pearson correlation	-.106	.251

[Source: Field data (2019)] \*p is significant @ .05 alpha levels

Table 4: The relationship between adolescents self-concept and their alcohol consumption level was investigated using Pearson correlation coefficient and results depicted that self-concept did not correlate significantly with alcohol consumption though the relation was negative [ $r_{(118)} = -.106, p > .05$ ]. So the hypothesis is supported. It can also be seen from the table above that the relationship between the two variables was negatively weak though the significant value was higher than .05. The negative relationship found in the results implies that the greater a person’s self-concept, the lesser he or she may engage in alcohol consumption. Based on the negative coefficient found in the results, it can also be said that adolescent students who did well on the self-concept measure also did not do well on the alcohol consumption measure. In other words, the result implied that if an adolescent student has a high self-concept; it will reduce his or her level of alcohol consumption. On the strength of this finding, the hypothesis was accepted.

**Hypothesis Three:** States that “a significant negative correlation will exist between self-concept and risky sexual behaviour”. The finding on the hypothesis is presented in Table 6.

**Table 5. Pearson Product Moment Correlation between Self-concept and Risky**

Sexual Behaviour		
	Coefficient	P-value
Pearson correlation	-.097	.292

[Source: Field data (2019)] \*p is significant @ .05 alpha levels

Table 5 illustrated that the relationship between adolescents self-concept and their risky sexual behaviour was investigated using Pearson correlation coefficient and results revealed that self-concept did not correlate significantly with risky sexual behaviour though the relationship was negative [ $r_{(118)} = -.097, p > .05$ ]. It can also be seen from table 5, that the relationship between the two variables was negatively weak though the p-value was greater than .05. The negative relationship found in the results implied that, the higher the person’s self-concept, the less he or she will engage in risky sexual behaviour. Based on the negative coefficient found in the results, it can also be said that those who scored high on the self-concept measure, also scored low on the risky sexual behaviour measure. Hence, the hypothesis was accepted.

### Miscellaneous Findings

**Table 6. Summary of Independent Sample T-Test Result of Gender (Male and Female) on Self-Concept**

Gender	Self-Concept Scores					
	Sample Size	Mean	Std D	df	t-value	p-value
Males	60	18.50	3.42	118	1.20	.81
Females	60	17.75	3.41			

[Source: Field data (2019)] \*p is significant @ .05 alpha levels

Table 6: Result indicated the Mean total score of males was 18.50 with a Standard Deviation of 3.42. Mean total score of females on the other hand was 17.75 with a Standard Deviation of 3.41. These means were subjected to independent sample t-test and results revealed that there is no statistically significant difference between gender (male and female) and their self-concept scores [ $t_{(118)} = 1.20$ ,  $p > .05$ ]. The impact of gender on smoking was also assessed. The finding on the result is presented in Table 8.

**Table 7. Summary of Independent Sample T- Test Result of Gender (Male and Female) on Smoking**

Gender	Sample size	Smoking Scores		df	t-value	p-value
		Mean	Std D			
Males	60	11.53	14.16	118	1.511	.197
Females	60	7.80	12.88			

[Source: Field data (2019)] \*p is significant @ .05 alpha levels

Table 7: Result indicated the Mean total score of males was 11.53 with a Standard Deviation of 14.16. Mean total score of females on the other hand was 7.80 with a Standard Deviation of 12.88. These means were subjected to independent sample t-test and results revealed that there was no statistically significant difference between gender (male and female) and their smoking scores [ $t_{(118)} = 1.51$ ,  $p > .05$ ].

## DISCUSSION OF FINDINGS

**Self-Concept and Smoking:** The first results of hypotheses tested, stated that "a significant negative correlation will exist between self-concept and smoking". The result from the first hypothesis revealed that there is no correlation between self-concept and smoking. In other words, there was no direct relationship between self-concept and smoking. This finding supports that of Kavas (2009), who investigated the relationship between self-esteem, health risk behaviours and use of cigarette, alcohol and drugs. His results stated that there was no significant relationship between self-esteem and smoking of cigarette. This implies that no matter how much value a person or an adolescent student place on him or herself may not influence him or her to engage more or less in smoking. The current finding is also similar to the work of Mohammadpoorasl, Fakhari and Rostami (2010) that assessed twice in a longitudinal research in Iran. They randomly sampled 1785 students, with an interval of 12 months. They revealed that the effect of self-esteem on smoking stages was not significant. Again, Glendinning and Inglis (1999) also found no evidence in support of the relationship between self-esteem and regular smoking. A research by Winefield, Winefield and Tiggemann (1992) stated that no relationship was found between self-esteem and smoking initiating. Kim (2005) who examined the prevalence of smoking behaviour among Korean adolescents, assessed factors affecting their smoking behaviour, and identified the relationship between smoking behaviour and psychological variables. He postulated that self-esteem was significantly related with smoking behaviour. Sherina et al. (2008) also measured the mean self-esteem value and calculated how self-esteem is related to age, sex, races, ethnicity, sibling position, family structure, marital status and puberty, ages 12 to 20 years. Sherina et al. (2008) analyzed the rank of siblings and teenagers. She concluded that the connection between average self-esteem and smoking is statistically significant. This finding cannot be explained by the theory of planned behaviour neither problem behaviour theory but rather the social learning theory by Albert Bandura. The social learning theory explains that people learn through observation, imitation, and modeling of others behaviour. As children grow and turn adolescent, they select role models for their life. They observe, imitate and model certain health behaviour (good or bad) from these role models and other significant people within society. It can be said that watching role models such as parents, teachers, peers, friends and other people of high status smoke contribute to adolescent smoking behaviour.

Sergeant and Heatherston (2009) postulated that even watching people smoke in movie and on television contribute to high rate of adolescent smoking. Another reason could also be that cultural factor may play a vital role. This is because it is culturally wrong to see or hear that an adolescent smokes as compared to older people or adults. Hence adolescents may feel uncomfortable or shy to freely express their views considering their age with respect to the subject matter.

**Self-Concept and Alcohol Consumption:** The second hypothesis stated that "a significant negative correlation will exist between self-concept and alcohol consumption". In trying to find the significant negative correlation between self-concept and alcohol consumption, it was revealed that self-concept did not correlate significantly with alcohol consumption though the relationship was negative. This finding supported that of Gonzalez, Lopez Garcia and López-Torrecillas (2018) who conducted a study in America. The researchers sampled 5404 Latino adolescents from a relation of eight (8) selected studies. They concluded that self-esteem was related negatively and significantly to alcohol consumption. This means that an increase in Latino adolescent self-esteem may bring about a decrease in their alcohol consumption levels and vice versa. The current finding also supported that of Kavas (2009) who investigated the relationship between self-esteem, health risk behaviours and use of cigarette, alcohol and drugs. He revealed that self-esteem was negatively related with alcohol use. This implies that as a person's self-esteem increases, his or her alcohol use decreases and as self-esteem decreases, then alcohol use increases, as the current finding is in support to that of (Kavas, 2009). In a different vine, Pedersen, Hsu, Neighbors, Paves and Larimer, (2013)'s finding indicated that global self-esteem was positively associated with drinking behaviour. This implies that as self-esteem increases, drinking behaviour also increases. In other words, the higher one self-esteem, the higher one will involve in drinking behaviour, as it contradicts with the current finding at hand.

**Self-Concept and Risky Sexual Behaviour:** The third hypothesis stated that "a significant negative correlation will exist between self-concept and risky sexual behaviour". Findings from the analysis revealed that self-concept did not correlate significantly with risky sexual behaviour though the relationship was negative. In other words, the relationship between self-concept and risky sexual behaviour was a negative one though it was not significant. This hypothesis was supported as the main idea of the study was to find a negative relationship and not necessary its significance. This is because the study is a health issue and it is more similar to clinical research, which for that matter lays much importance on the relationship between the two variables thus the negative relation between self-concept and risky sexual behaviour rather than its significance and it is accepted in clinical work or research. Also, the relationship between the two variables help to target appropriate interventions or programmes to address the matter. The current finding is in line with Kerpelman et al. (2016) who found that self-esteem was also negatively related to risky sexual behaviour. This implies that adolescents, who have more self-esteem, engage less in risky sexual behaviour and those who have less self-esteem may engage more in risky sexual behaviour. In the same way, Mercy and Peter in 2014 postulated that self-esteem has negative relationship with participants' risky sexual behaviours. In other words, an increase in self-esteem will bring a decrease in risky sexual behaviour and vice versa. In a different study, Sanchez, Alvarez, Sanchez and Casal (2013) found a positive relationship between self-esteem and risky sexual behaviour. This implies that as self-esteem increases then adolescent risky sexual behaviour also increases, which the current finding did not support the findings of (Sanchez, Alvarez, Sanchez & Casal, 2013). Ugoji (2014) conducted a similar study in Nigeria, where he used 300 secondary school students from ten (10) secondary schools within Asaba metropolis. He postulated that the relationship between self-esteem and risky sexual behaviour was negative and significant, as the current finding supports that of (Ugoji, 2014). It not being significant could probably be that the one hundred and twenty (120) adolescent students as a sample size were too small to provide enough statistical evidence. Maybe if the number (sample

size) were increased by about fifty (50) more respondents there would have been a significant negative correlation between the two variables. Again, it could also be that the scales or measures used in the study were not culturally friendly based on the fact that the scales or measures adopted and used for the study were foreign and for that reason were not conducive for the local adolescent students. It could also be that the adolescents were under pressure and also afraid, for that reason they were answering the questionnaire anyhow. This is because they had some of their teachers present to help coordinate the activity. It could also be that cultural or moral factor may play an essential role. This is because it is culturally or morally wrong to see adolescent engaging or sharing view on sexual behaviour or sexual activity as compared to older people; hence adolescents may feel uncomfortable or shy to express their view considering their age even though the relationship between the two variables is direct.

## DISCUSSION OF MISCELLANEOUS FINDINGS

**Gender and Self-Concept:** Findings from the analysis also revealed that no significant difference exists between self-concept scores attained by male adolescents and their female counterparts. These results are in line with Jain and Dixit's (2014) findings that examine specific causal events in Indian young people's lives and indicate that there is no significant gender difference in individual participants' self-esteem rates. In the same way, Hale et al. (2015) also observed no difference between males and females with high self-esteem while as Zhai et al. (2015) postulated that there were no gender differences in the relationship between self-esteem which also supports the current findings at hand. In another way Bhamani, Jamil and Mohsin (2014) who used Pakistan's adolescent for their study revealed that there is a significant gender difference on the variable of self-esteem of that chosen adolescents, as the current findings of this study debunk the assertion of (Bhamani, Jamil & Mohsin, 2014).

**Gender and Smoking:** The results from the data analysis revealed that there was no significant difference between gender (male and female) and smoking scores. In a similar study by Saari, Kentata and Mattila (2015) conducted in Finland. They found no statistically significant gender differences in smoking. Cui, Zhu, Lou, Gao, Cheng, Zabin and Emerson (2018)'s finding contradicts the current findings in a way that they stated a significant gender difference in smoking.

## CONCLUSION

The objectives of the study which focused on investigating the relationship between self-concept and smoking, self-concept and alcohol consumption, self-concept and risky sexual behaviour; gender differences that exist in self-concept scores; the effect of gender on health compromising behaviours. Was fulfilled based on the conclusion that; gender and self-concept did not correlate significantly with health compromising behaviours (smoking, alcohol consumption, risky sexual behaviour) though the relationship was negative for alcohol consumption and risky sexual behaviour

**Recommendations:** Based on the conclusion above, the following recommendations are suggested

1. It is recommended that parents, teachers, counselors, and psychologists should help adolescents improve their levels of self-concept as high self-concept limit the involvement or engagement in the health compromising behaviours by providing them with self-esteem and assertiveness training.
2. Health promoters should include negative effects of health compromising behaviours such as smoking, alcohol consumption, and risky sexual behaviour in their health messages when sensitizing adolescent on harmful effects of the above health issues, especially alcohol consumption, and risky sexual behaviour to help promote good health behaviour.

3. Policy makers and stakeholder should help in the development and implementation of self-esteem training programmes in our basic schools.
4. Parents, teachers, guardians and caregivers should be careful of what their adolescent children observe and model from them and other significant people whether live or symbolic within the environment.
5. In treatment, mostly health compromising behaviours are being treated using the approach of cognitive behaviour therapy (CBT). CBT may include monitoring health compromising behaviour, modifying the environmental stimuli that control the behaviour, gaining control over the behaviour process, and reinforcing new behaviour.

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