

Self-Esteem, Health Locus of Control and Resilient Personality as Predictors of Substance Abuse among In-School Adolescents in Ibadan, Nigeria

Authors

¹ Okurame, David E., ¹Oladipo, Muyiwa, and ¹Uye, Emmanuel Etim*

Affiliations

¹Department of Psychology, University of Ibadan, Nigeria

*Corresponding author

Uye, Emmanuel Etim

E-mail: emmanuel.e.uye@gmail.com

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ABSTRACT

Substance abuse has become a recurring issue that affects the individual, family and the society with enormous costs. The issue is more disturbing as more in-school adolescents are getting into substance abuse that is threatening the social fabric of the society. Studies have investigated several predictors of substance abuse with varied results. Therefore, this study examined self-esteem, health locus of control and resilient personality as predictors of substance abuse among in-school adolescents in Ibadan, Nigeria. The study adopted a cross-sectional survey research design using purposive sampling technique to select six secondary schools in Ibadan metropolis. Data were collected from 309 participants using validated questionnaires. Data collected were analyzed using t-test for independent samples and multiple regression analysis. Results indicated that self-esteem [t

(307) = 7.24, $p < 0.05$], health locus of control [t (307) = 4.10, $p < 0.05$] and resilient personality [t (307) = 3.10, $p < 0.05$] significantly influenced substance abuse among in-school adolescents. Also, the results revealed that self-esteem, health locus of control and resilient personality jointly predicted substance abuse among study participants [$R^2 = 0.14$, $F(3, 299) = 9.37$, $p < 0.05$]. Finally, the results showed that health locus of control ($\beta = 0.31$, $p < 0.05$) and resilient personality ($\beta = 0.45$, $p < 0.05$) independently predicted substance abuse among in-school adolescents. The study concluded that self-esteem, health locus of control and resilient personality are strong predictors of substance abuse among in-school adolescents. The study recommended that government and other stakeholders should design and implement programmes that will help to improve self-esteem, health locus of control and resiliency among in-school adolescents to reduce attraction to substance abuse.

Keywords: *Health Locus of Control, In-School Adolescents, Resilient Personality, Self-esteem, Substance Abuse, Ibadan/Nigeria*

INTRODUCTION

Substance abuse is described as a pattern of harmful use of any substance for mood-altering purposes. Medline's Medical Encyclopedia (MME, 2023) online defines substance (drug) abuse as "the use of illicit drugs or the abuse of prescription or over-

the-counter drugs for purposes other than those for which they are indicated or in a manner or in quantities other than directed” (p. 3). It has also been defined as the “harmful or hazardous use of psychoactive substances, including alcohol and illicit drugs” (WHO, 2021). Psychoactive substance abuse leads to dependence syndrome which is a “cluster of behavioral, cognitive, and physiological problems that develop after repeated substance use”. This includes a “strong desire to take the drug, difficulties in controlling its use, persisting in its usage despite harmful consequences, a higher priority given to drug use than to other activities and obligations, increased tolerance, and sometimes a physical withdrawal state” (WHO, 2021). Substance abuse affects the individual, family, society, country and the world community.

One facet of substance abuse that has continued to call for a serious attention is the emerging and continuous involvement of youths especially in-school adolescents in substance abuse. Statistics available have put the population of in-school adolescents that are engaging in substance abuse at 53% globally (WHO, 2021). In sub-Saharan Africa, the prevalence of in-school adolescents’ involvement in substance abuse stood at 41.6% (Olawale-Isaac et al., 2018). In Nigeria, the prevalence of in-school adolescents involved in substance abuse is put at 11.7% (Oladeji et al., 2020) and this varies across the States of the federation (Onigbogi et al., 2023). This is worrisome

considering the individual, family, and societal costs of substance abuse.

Studies have identified some factors as predictors of substance abuse. This includes the “need to be accepted into the peer groups, unprecedented aggressive behavior, being shy in the classroom, lack of social coping skills, low academic performance, being a member of deviant groups, isolating oneself from peers group, and perception of drug use as a standard of behavior” (Oladeji et al., 2020; Onigbogi et al., 2023). One factor considered as a predictor of substance abuse is self-esteem which has been described as a way an individual evaluates oneself whether in low or high dimension (Keris, 2006). It is the degree to which an individual is judged to be competent in life domains or deemed important for every aspect of everyday human activities. How an individual evaluates self and how the individual perceives evaluation of others constitute the individual’s global self-esteem (Hepper, 2023). The overall feeling of self-worth that influences psychological functioning of individuals also constitutes an individual self-esteem construct. For example, in-school adolescents with high self-esteem would feel good about themselves, they would be able to cope effectively with the challenges of life and not affected by negative feedback, and more importantly, “they live in a social world in which they believe that people value and respect them” (Elyamany et al., 2020). In contrast, in-school adolescents who

have low self-esteem would see the world through a negative filter, they naturally dislike themselves and perceive everything around them negatively ((Hepper, 2023). Studies have produced contradicting results on self-esteem as predictor of substance abuse among in-school adolescents. For example, studies by Kitinisa (2019) and Hasan (2019) have found low self-esteem as a strong predictor of substance abuse among adolescents including in-school adolescents. Contrarily, Elyamany et al. (2020) found two-thirds of substance abusers in the samples scored high on self-esteem.

The second factor considered in this study is health locus of control (HLOC) which refers to individuals' beliefs regarding the relationships between their actions and outcomes (Kapteyn, 2021). Also, it is how individuals actively deal with difficult circumstances in their lives (Kapteyn, 2021). HLOC could be internal or external (Rotter, 1992). Individuals with internal HLOC mindset believe and expect that they are the ones that determine their own future health condition based on their own actions. Such individuals believe that they have control over what happens to them. However, individuals with external HLOC mindset believe that they do not have control over what happen to them and that future health situations are control by external forces including lucks, prayers, fates, or powerful others (John, 2021). The Social Learning Theory (Bandura, 1997) which posits that observed and imitated behaviors are either reinforced through rewards or extinguished

through punishments was used to explain health locus of control (Halpert & Hill, 2011). Also, studies investigating HLOC on substance abuse have produced conflicting results. Kurtović et al. (2018) found locus of control as a significant predictor of substance abuse among youths that would affect their health. But some studies (e.g., Kapteyn, 2021) did not find HLOC as a predictor of substance abuse among in-school adolescents.

The third factor considered in this study is resilient personality which has been described as the tendency of being exposed to adversity and the positive adjustment out of that adversity (Wu et al., 2013). Resilient personality is seen as a positive adaptation of an individual out of adversity. It implies the possession by individuals of the qualities that allows them to bounce back from whatever adversity that comes their way. A resilience individual tends to be calmed in the face of adversity and endure the phase of transition with equanimity of mind. Velleman and Templeton (2016) have stated that in order to prevent substance use and abuse among in-school adolescents, individuals should develop resilient personality for them to have knowledge on substance use, its management, parental modeling and how family members would seek help when substance abuse occurred. Studies have found that individuals who scored high in the resilient personality scale would overcome and resist involvement in substance abuse than those who scored low

in the resilient personality scale (Dallas et al., 2023; Konaszewski et al., 2021).

Extant study by Brook et al. (2006) has implicated self-esteem, health locus of control and resilient personality as predictors of substance abuse. The purpose of this study, therefore, was to empirically determine whether these factors would predict substance abuse among in-school adolescents in Ibadan, Oyo State, Nigeria. Individuals with high self-esteem and internal health locus of control having resilient personality would stay away from substance use and abuse.

Findings in this study would help to explain how self-esteem, health locus of control and resilient personality jointly and independently predict substance abuse among in-school adolescents in developing countries such as Nigeria. Second, the study findings would help various stakeholders to organize seminars and training to the vulnerable in-school adolescents on how to avoid, prevent and when they are already involved in substance abuse, how to manage them. Finally, the baseline data from this study would be used by other researchers for further studies on the danger of substance use and abuse.

The study raised and tested the following hypotheses:

H1: In-school adolescents with high levels of self-esteem would report lower substance abuse than those with low self-esteem.

H2: In-school adolescents with internal health locus of control would report lower substance abuse than those with external health locus of control.

H3: In-school adolescents with high levels of resilient personality would report lower substance abuse than those with low level of resilient personality.

H4: Self-esteem, health locus of control and resilient personality would jointly predict substance abuse among in-school adolescents in Ibadan, Nigeria.

METHODOLOGY

Cross-sectional survey research design was adopted while validated questionnaires were used to collect data from in-school adolescents purposively selected from six public secondary schools in Ibadan-North Local Government Area of Oyo State, Nigeria. Questionnaires were administered to the participants using convenience sampling criteria.

Data were collected using four instruments described below:

Chinese Drug Involvement Scale was used to assess the participants' involvement in "actual drug experiences, beliefs with regard to the consequences of drug taking, the degree of manifest commitment to abstinence from drugs, and the extent to which friends have drug related habits". The scale consisted of 12 items rated on a 5-point Likert's response format. Sample items include: "Using drugs will make me more confident" and "I will use drugs when I am unhappy". Higher score indicates a more extensive degree of drug involvement. The scale developers obtained Cronbach's alpha of 0.87 while in this study, Cronbach's alpha of 0.81 was obtained. Self-esteem was evaluated with a 10-item

scale by Rosenberg (1965). The scale evaluated individual feelings of self-worth when individual compares himself or herself to other. Response format ranges from 4-strongly agree to 1-strongly disagree. High score indicates high self-esteem, while low scores indicate low self-esteem. Examples of items are: "On the whole I am satisfied with my life" and "I take a positive attitude toward myself". The author obtained Cronbach's alpha of 0.88. In this study, Cronbach's alpha of 0.75 was obtained .

Health Locus of Control was determined using an 18-item scale by Wallston and Wallston (1978). The scale was presented in a 5-point Likert's format that ranges from 1- strongly disagree to 5-strongly agree. On this scale, high scores indicate internal health locus of control and low scores indicate external health locus of control. Sample items include: "No matter what I do, if I am going to get sick, I will get sick" and "Most things that affect my health happen to me by accident". The scale developers obtained Cronbach's alpha of 0.87. The current study obtained Cronbach's alpha of 0.83.

Resilient Personality was evaluated using a 25-item Resilience Scale by Wagnild and Young (1993). The scale measures the "degree of individual's resilience considered as a positive personality characteristic that enhances individual adaptation" The scale is presented on a 7-point Likert's format that ranges from 1-strongly disagree to 7- strongly agree. Sample items include:

"When I make plans, I follow through with them" and "I feel I can handle many things at a time". High score means high level of resiliency while low score signifies low level of resiliency. Wagnild and Young (1993) obtained Cronbach's alpha of 0.89 and in the present study, Cronbach's alpha of 0.81 was obtained.

The researchers obtained letter of introduction from the Department of Psychology, University of Ibadan, Nigeria and presented to the school authority. After confirming the relevance of the study and vetting the items in the questionnaires, an approval was granted to the researchers. Before the administration of the questionnaires, the in-school adolescents were addressed by the researchers explaining to them the purpose of the study. Potential participants were told that participation in the study was voluntary and that they were free to submit the questionnaires at any point they feel uncomfortable without any penalty. There was a section on the instructions for them to fill their consent to participate in the study. A total of 315 questionnaires were administered across the six schools and all were retrieved on the spot. When the questionnaires were screened, six questionnaires were not properly filled and were discarded, left with 309 used for the analysis.

ETHICAL ISSUES

Besides ensuring that permission was sought and obtained from the school authority and participants, the researchers ensured voluntary participation in the study and that no item was used to identify participants and the schools directly. The participants did not write their names or anything that would identify them. The researchers ensured that there was no known harm associated with the items in the questionnaires. The participants were not pressured to do anything against their will. A word of thanks was printed on the questionnaires and was also verbally given to all the participants after completing the questionnaires.

Data collected were analyzed using SPSS version 23. Both descriptive and inferential statistics were used to analyze the collected data. Hypotheses 1-3 were tested using t-test for independent samples, while hypothesis four was tested using multiple regression analysis. All hypotheses were accepted at a 0.05 level of significance.

RESULTS

Demographic data of the Participants

Descriptive statistics revealed that 55% of the in-school adolescents were males, while 45% were females with the average age of 15 years and 2 months ($SD = 14.54$). Religious distribution showed that 202 (58%) were Christians, while 107 (42%) were Muslims. The prevalence of substance abuse among the study participants based on the initial screening question: Did you take any non-prescribed drugs in the last

one week? The result was 19% for the male in-school adolescents and 8% for the female in-school adolescents. This was high enough to cause concern.

Testing the hypotheses

H1: In-school adolescents with high levels of self-esteem would report lower substance abuse than those with low self-esteem. T-test for independent samples was used to test the hypothesis and the result is presented in Table 1.

Table 1 presents self-esteem differences in substance abuse among in-school adolescents in Ibadan metropolis. The result revealed a significant difference in self-esteem between in-school adolescents with low and high substance abuse [$t(307) = 7.24, p < 0.05$]. Further, it was shown that in-school adolescents with low self-esteem reported higher levels of substance abuse ($M = 43.11, SD = 11.29$) compared to those with high self-esteem ($M = 39.09, SD = 11.29$). This confirmed the stated hypothesis.

H2: In-school adolescents with internal health locus of control would report lower substance abuse than their counterparts with external health locus of control. T-test of independent samples was used to test the hypothesis and the result is presented in Table 2.

Table 2 shows health locus of control differences in substance abuse among in-school adolescents in Ibadan metropolis. As

indicated in Table 2, there is a significant difference in health locus of control between in-school adolescents with internal health locus of control and external health locus of control [$t(307) = 4.10, p < .05$] such that those with external health locus of control reported higher on substance abuse ($M = 46.43, SD = 9.07$) compared to those with internal health locus of control ($M = 42.09, SD = 12.07$). This supported the stated hypothesis.

H3: In-school adolescents with low level of resilient personality would report higher substance abuse than those with high level of resilient personality. T-test of independent samples was used to test the hypothesis and the result is presented in Table 3.

Table 3 presents differences in resilient personality on substance abuse among in-school adolescents in Ibadan metropolis. The result showed a significant difference between low and high resilient personality and substance abuse [$t(307) = 3.10, p < 0.05$] such that in-school adolescents with low level of resilient personality reported higher substance abuse ($M = 43.55, SD = 11.32$) compared to those with high level of resilient personality ($M = 40.10, SD = 10.21$). This confirmed the stated hypothesis.

H4: Self-esteem, health locus of control and resilient personality would jointly and independently predict substance abuse among in-school adolescents in Ibadan metropolis. Multiple regression analysis was used to test the hypothesis and the result

is presented in Table 4.

Table 4 presents results of the multiple regressions analysis of self-esteem, health locus of control and resilient personality as joint and independent predictors of substance abuse. As indicated in Table 4, self-esteem, health locus of control and resilient personality jointly predicted substance abuse among in-school adolescents in Ibadan metropolis [$R^2 = 0.14, F(3, 299) = 9.37, p < 0.05$]. This means that 14% of the observed variance in substance abuse was accounted for by self-esteem, health locus of control and resilient personality. Furthermore, the result revealed that health locus of control ($\beta = 0.31, p < 0.05$) and resilient personality ($\beta = 0.45, p < 0.05$) independently predicted substance abuse among in-school adolescents. The hypothesis was partially supported.

DISCUSSION

The study was on self-esteem, health locus of control and resilient personality as predictors of substance abuse among in-school adolescents in Ibadan metropolis, Oyo State, Nigeria. Four hypotheses were generated and tested using t-test of independent samples and multiple regressions analysis. All hypotheses were accepted at a $p < 0.05$ level of significance.

The hypothesis that in-school adolescents with high levels of self-esteem would significantly report lower substance abuse than those with low self-esteem was supported. The result showed a significant

difference between in-school adolescents with low self-esteem and those with high self-esteem. Further results reveal that in-school adolescents with low self-esteem reported higher on substance abuse than those with high self-esteem. This finding supported Kitinisa's (2019) result that individuals with low self-esteem tend to engage in substance abuse more than those with high self-esteem. However, the result contradicted that of Elyamany et al. (2020) who found that the higher self-esteem, the higher individuals would engage in substance abuse. In-school adolescents who considered themselves as worthy would do everything possible to stay out of substance abuse compared to those who see themselves unworthy of many things in lives. They can easily be swayed into substance abuse to cover up for their low self-esteem.

The hypothesis that in-school adolescents having internal health locus of control would report lower substance abuse than counterparts having external health locus of control was confirmed. The result found a significant difference in health locus of control between in-school adolescents with internal health locus of control compared to having external health locus of control. In-school adolescents reported external health locus of control also reported higher substance abuse compared to counterparts having internal health locus of control. This result lent credence to finding by Farhadinasab et al. (2008) who found individuals with external health locus of

control reported higher levels of substance abuse than individuals with internal health locus of control. However, the result in the present study contradicts previous finding by Kapteyn (2021) that health locus of control did not predict substance abuse among in-school adolescents. This means that in-school adolescents with internal health locus of control believe that they are in charge of their lives, therefore, they would not be influenced to involve in substance abuse. This is not the case with in-school adolescents who have external health locus of control where they allow other people to influence them into substance abuse.

The hypothesis that in-school adolescents with low levels of resilient personality would report higher substance abuse than those with high levels of resilient personality was supported. In-school adolescents with low levels of resilient personality reported higher substance abuse compared to their colleagues who reported high on resilient personality scale. Resilient personality connotes toughness and principled driven lives. In-school adolescents with a highly resilient personality would not engage in substance abuse. In-school adolescents with low resilient personality would engage in substance abuse. The finding agreed with the result obtained by Velleman and Templeton (2005) that adolescents who scored low on the resilient personality scale wore more into substance abuse than those who scored high on substance abuse scale.

Finally, the hypothesis that self-esteem,

locus of control and resilient personality would jointly predict substance abuse among in-school adolescents in Ibadan metropolis was equally supported. These three factors explained 14% of variance in substance abuse among in-school adolescents in the study population. This result shows the importance of self-esteem, health locus of control and resilient personality in determining substance abuse among in-school adolescents. Also, health locus of control and resilient personality were found as independent predictors of substance abuse among in-school adolescents. This means that what determines in-school adolescents' behavior when it comes to substance abuse is whether they see themselves as being in control of their lives (i.e., internal locus of control) or whether significant others or chance (i.e., external locus of control) push them to engage in substance abuse. Also, the ability to endure unfavorable conditions that would have made them engage in substance abuse constituted their resilient personality. These results partially supported previous finding (Brook et al., 2006) that what contributes to individuals engaging in substance abuse are combinations of factors such as self-esteem, health locus of control and resilient personality. Also, the finding supported other findings that self-esteem, health locus of control and resilient personality are excellent predictors of substance abuse across different age groups (Dallas et al., 2023; Hasan, 2019; Kapteyn, 2021). What this means is that the combinations of self-esteem, health locus of

control and resilient personality contributes to in-school adolescents to engage in substance abuse.

Implications and Recommendations of the study

Since self-esteem, locus of control and resilient personality are implicated as joint predictors of substance abuse among in-school adolescents, the study recommended that concerned stakeholders such as secondary school authority should endeavor to maintain youth friendly centers where various recreational activities are provided for them to engage in creative activities. This would improve self-esteem, improve locus of control and resiliency in life.

Because the parents and guardians are the first role models for the adolescents before they move to the schools and the wider society, it is recommended that the parents should maintain cordial and strong relationships with their children and wards. This would boost their self-esteem, health locus of control and resilient personality.

Limitations and suggestions for further studies

The study has some limitations which need to be addressed in further studies. First, the study was a cross-sectional survey where data were collected from a defined population using validated questionnaires which did not rule out response bias. Further studies should use longitudinal design including focus group discussion and documentary records from the school counselors. This would help to triangulate data collected

from self-reported questionnaires. Second, only one local government area (LGA) was purposively sampled for this study. Further studies should include more LGAs to allow for generalization of findings. Finally, three psychological constructs were investigated in this study. Further studies should consider social support, personality traits and learned helplessness.

CONCLUSION

The following conclusion was deduced from this study: First, self-esteem, locus of control and resilient personality significantly differentiated in-school adolescents in terms of substance abuse in Ibadan metropolis. Second, self-esteem, locus of control and resilient personality jointly predicted substance abuse among in-school

adolescents in Ibadan metropolis. Finally, locus of control and resilient personality independently predicted substance abuse among in-school adolescents in Ibadan metropolis.

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CONFLICT OF INTEREST

The authors declare no conflict of interest.

TABLE 1

T-Test of Independent Means Showing Difference between Low and High Level of Self-Esteem on Substance Abuse among In-School Adolescents in Ibadan Metropolis

Self- esteem	N	M	SD	Df	t	p
Low	166	43.11	11.29			
Substance abuse	307	7.24	< 0.05			
High	143	39.09	10.29			

TABLE 2

T-Test of Independent Means Showing Difference between Internal and External Health Locus of Control on Substance Abuse among In-School Adolescents in Ibadan Metropolis

DV	Health locus of control	N	M	SD	df	t	p
External	160	46.43	9.07				
Substance of abuse	307	4.10	< 0.05				
Internal	149	42.09	12.07				

DV = Dependent variable

TABLE 3

T-Test Showing Differences between Low and High Resilient on Substance Abuse among In-School Adolescents in Ibadan Metropolis

Resilient Personality	N	M	SD	df	t	p
Low	162	43.55	11.32			
Substance of abuse	307	3.10	< 0.05			
High	147	40.10	10.21			

TABLE 4

Multiple regression analysis showing self-esteem, health locus of control and resilient personality as predictors of substance abuse among in-school adolescents in Ibadan metropolis

Predictors	β	t	Sig	R	R ²	F	p
Self esteem	-0.08	-0.65	> 0.46				
Locus of control	0.31	3.89	< 0.05	0.12	0.14	9.37	< 0.05
Resilient personality	0.45	6.45	< 0.05				

Criterion Variable: Substance Abuse

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