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## ERRATUM

### Religiosity, Spirituality and Adolescent Substance Use in North-Central Nigeria

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## ABSTRACT

Religiosity and spirituality promote good mental health and prevent mental illness but can sometimes become risk factors for substance abuse. This study aimed to assess the associations between religiosity, spirituality and psychoactive substance use among in-school adolescents in Ilorin. The data collection tools used includes a proforma test, WHO students drug use survey and the religiosity and spirituality index. A total of 2001 participants were included in the study using a proforma test, WHO students drug use survey and the Religiosity and Spirituality index, with 1083 being males between the ages of 15 - 19. Among them, 53% were Christians, 46.6% were Muslims, 0.2% practiced Traditional African Religion while three students had no religion. It was discovered that alcohol and analgesic use were more common among Christians, while organic solvent use was more prevalent among Muslims, with one of the four Traditional African Religion students also reporting organic solvent use. Our findings highlighted the impact of religiosity and spirituality in the prevalence and patterns of adolescent substance use.

**Keywords:** adolescent substance use, religiosity, spirituality, mental health

## INTRODUCTION

The relationship between religiosity and substance use is complex and varied, with religiosity serving as a protective factor in certain contexts but not always. Religiosity and spirituality promote good mental health and prevent mental illness and other negative psychosocial outcomes. However, this is not always the case and there are instances where religiosity and spirituality are risk factors for substance use <sup>1</sup>.

Religiosity is traditionally defined as the measure of connectedness to one's religion and it comprises religious affiliation, religious conviction and religious participation <sup>2</sup>. Religion connotes a communal experience of worship and so, religiosity is a collective concept that weighs the degree to which an individual is ingrained in the beliefs and practices of their religion.

Spirituality on the other hand is understood as an interaction with God, nature or the universe in which a person achieves harmony with positive feelings of love, hope and compassion, and gains a sense of meaning and purpose in life <sup>3</sup>. While religiosity views a person through the lens of an organized system of reflections and rituals, spirituality is a rather personal experience through which an individual draws their own interpretation of life's meaning. Furthermore, spirituality may be embraced by religious and non-religious people alike. From the operational definition, atheists who have a deep connection with nature may be described as spiritual.

Religion and religious integration may have a role to play in the initiation, continuation and treatment of psychoactive substance use. An inverse relationship between religiosity and substance use has been severally documented <sup>4,5</sup>. On the other hand, a restrictive religious orientation and restrictive religious parenting may lead to negative religious coping contributing to an increase in substance usage and poor psychological adjustment <sup>6</sup>.

Spirituality could be a risk factor for substance use. There is a component of spirituality referred to as the spirituality of "seeking", which may be positively associated with substance use. It has been explained as a desire to find purpose in life

or truth in the universe, and this may be found in a personal belief in God, or in an entirely secular context. The spirituality of "seeking" may also involve a personal definition of morality and so may not lead to conformity to social standards <sup>4</sup>. Hence, Bazargan suggested that spirituality may not always be protective against substance use <sup>7</sup>. The combined effect of religion and spirituality may be the strongest predictor of non-abuse.

In addition to the linear albeit multidirectional interactions between religiosity and substance use, religiosity also mediates associations between certain risk factors and adolescent substance use. Religiosity buffers adolescents against risky behavior, including substance use <sup>8</sup>. The advantage of religiosity lies in its propensity for fostering positive social bonds with peers and mentors.

There are two pathways by which religiosity offers protection against adolescent substance use: social control theory <sup>9</sup>, and self-control theory <sup>10</sup>. While the former emphasizes the pro-social bonds in religious settings, the latter explains voluntary restraint from externalizing behaviors (such as substance use) due to religious beliefs.

The role of religion in adolescent substance use has been noted in high-income countries in the global West and East <sup>4,9</sup>. Africa is highly religious and conversations about adolescent substance use will be incomplete without considerations of religiosity and spirituality. This has been investigated in Nigeria among adolescents in the school, hospital and informal religious settings <sup>11-13</sup>. We aimed to assess the associations between religiosity, spirituality and psychoactive substance use among in-school adolescents in Ilorin.

## MATERIALS AND METHODS

The study was carried out in Ilorin East Local Government of Kwara State. Ilorin is the capital of Kwara State, a state which is located in North Central Nigeria, lying between latitude 08°30'N and longitude 040 33'E. <sup>14</sup> It has an area of 486 km<sup>2</sup> and a population of 204,310 as at the 2006 census <sup>14</sup>.

There are 37 junior secondary schools and 26 senior secondary schools in Ilorin East. The

junior secondary schools are made up of 7,138 male students and 5,870 female students, giving a total of 13,008 junior secondary school students. The senior secondary school students consist of 5,840 males and 4,635 females, giving a total of 10,475 students. The total student population is 23,483 <sup>15</sup>. The inclusion criterion was all secondary school students of Ilorin East, while the exclusion criterion was any illness severe enough to interfere with the participants' ability to communicate.

Sample size estimation was done using 10% of the sampling frame <sup>16</sup>. A sample size between 2,000 - 3,000 students (irrespective of the population size) produces a reliable assessment in substance surveys <sup>17</sup>. Two thousand one hundred and sixty-eight secondary students were interviewed with a response rate of 92.3%, leaving 2001 questionnaires in the final analysis. A total of eight schools were surveyed – four junior secondary schools, and four, senior (Table 1).

Multistage sampling technique was used, thus: With simple random technique by balloting, 4 of the 12 wards were selected. From each of the four selected wards, a senior secondary school and a junior secondary school were picked by simple random technique. Calculating the total number of students needed was done by proportionate stratification where the sample size of each stratum is proportionate to the population size of the stratum <sup>18</sup>, using the following equation:

$$n_h = \frac{N_h}{N} \times n$$

where  $n_h$  is the sample size for stratum  $h$ ,  $N_h$  is the population size for stratum  $h$ ,  $N$  is total population size, and  $n$  is total sample size.

### *Instruments*

#### 1. Pro forma

This provided the biodata, as well as information on religiosity. The level of religiosity was graded into three categories: “not religious”, “just religious” and “very religious”, as reported by each respondent.

#### 2. The World Health Organization (WHO) Students Drug Use Survey Questionnaire <sup>16</sup>.

It is a semi-structured self-report questionnaire with three sections, addressing socio-demographic variables; prevalence/pattern of substance use, and substance use by others, respectively.

#### 3. Religiosity and spirituality index

The concept of religiosity was further expanded, with a view towards objective assessment. The specific indices introduced were the Religiosity Index and Spirituality Index. This was developed by Allen <sup>4</sup>. While the Religiosity Index focuses on group activities carried out with other members of the same faith, the Spirituality Index measured the individual sense of meaning in life, and reflected personal activities related to God or a higher power.

Respondents with scores equal to or less than one standard deviation below the mean were classified as having low levels of religiosity or spirituality. Those within one standard deviation above or below the mean were classified as having moderate levels, while respondents with scores equal to or greater than one standard deviation above the mean were classified as having high levels of religiosity or spirituality.

### *Ethical Consideration*

Ethical approval was obtained from the Ethical Review Board of the University of Ilorin Teaching Hospital (Assigned Number: NHREC/02/05/2010), and permission was gotten from the State Ministry of Education and also from the school principals of the schools surveyed. Assent/consent was obtained from participants.

### *Data analysis*

The data was analyzed with the Statistical Package for Social Sciences (SPSS) version 25 <sup>19</sup> and the level of statistical significance was set at 5% confidence limit. Frequency tables were generated. Chi square statistics determined the relationship between socio-demographic variables and substance use. Binary logistic regression was used to determine independent factors associated with substance use.

## RESULTS

A total of 2001 participants were included in the study, and they were mostly males (n=1083, 54.1%). The respondents were adolescents, mostly between 15 and 19 years (53.9%, n= 1078) and 898 (44.9%) were in the senior secondary class. One thousand and sixty-one (53.0%) of the students were Christians, while 933 (46.6%) were Muslims. Only four of the respondents (0.2%) were practicing Traditional African Religion while three students had no religion.

The overall mean age at first use of any substance was  $13.45 \pm 1.49$ . Users of hallucinogen and opioids started around 14 years of age, while most organic solvent users started at about age 10. Other substance users began around 13 years. This is shown in Table 1.

**Table 1:** Mean age at first use of substance

Substance	Age at first use (mean $\pm$ SD)
Cigarette	$13.83 \pm 0.91$
Cannabis	$13.93 \pm 0.84$
Alcohol	$13.73 \pm 1.39$
Mild stimulants	$13.46 \pm 1.93$
Sedatives	$13.56 \pm 1.57$
Analgesics	$13.20 \pm 2.09$
Antibiotic	$13.28 \pm 1.94$
Opioids	$14.03 \pm 0.77$
Cocaine	$13.99 \pm 0.73$
Hallucinogen	$14.05 \pm 0.72$
Organic solvents	$10.94 \pm 3.46$

Measures on the Religiosity Index revealed respondents who were “not religious” (n=914, 45.7%), “moderately religious” (n= 992, 49.6%) and “highly religious” (n= 95, 4.7%).

Most students reported that they were moderately spiritual (n= 992, 49.6%). Many students reported that they were not spiritual (n= 914, 45.7%), while only 95 (4.7%) reported high levels of spirituality.

**Table 2:** Religiosity and Spirituality Index

Variable	Frequency (N = 2001)	Percent
<b>Religiosity Index</b>		
Not religious	914	45.7
Moderately religious	992	49.6
Highly religious	95	4.7
<b>Spirituality Index</b>		
Not spiritual	914	45.7
Moderately spiritual	992	49.6
Highly spiritual	95	4.7

## Religion

Christian students were the most prevalent current alcohol ( $\chi^2= 15.746$ ,  $p= 0.001$ ) and analgesic users ( $\chi^2= 17.110$ ,  $p= 0.001$ ), while organic solvent use was commonest among the Traditional African Religion students and Muslim students ( $\chi^2= 12.942$ ,  $p= 0.005$ ).

Traditional African Religion students had only one respondent that was a current user of organic solvents, one respondent reporting stimulant use, and three respondents who were currently using non-prescription antibiotics, while respondents who had no religion at all had only three current users, all of whom used antibiotics only (Table 3).

## Level of religiosity

Religiosity was assessed in two ways, the first being the reported level of religiosity based on a single direct question “How religious are you?”, and the second being the reported level of religiosity derived from specific measures on the Religiosity Index. Religiosity as assessed from the single direct question did not show any relationship between the reported level of

religiosity and current substance use, except for antibiotics which appeared to be prevalent among students who claimed to be very religious ( $\chi^2= 18.020$ ,  $p < 0.001$ ) (Table 4).

Religiosity assessed with the Religiosity Index, on the other hand, showed that there was an inverse relationship between high religiosity and

current use of mild stimulants ( $\chi^2= 27.784$ ,  $p$  Value $<0.001$ ), sedatives ( $\chi^2= 21.771$ ,  $p$  Value $<0.001$ ) and analgesics ( $\chi^2= 37.681$ ,  $p$  Value $<0.001$ ). Similarly, low levels of religiosity were associated with current solvent use ( $\chi^2= 13.975$ ,  $p$  Value $<0.001$ ) (Table 5).

**Table 3:** Association between Respondents' Religion and Current Use of Substances

Variable	Religion				$\chi^2$	$p$ Value
	Christianity n (%)	Islam n (%)	Traditional n (%)	No religion n (%)		
<b>Cigarette</b>						
Yes	10 (71.4)	4 (28.6)	0 (0.0)	0 (0.0)	1.936	0.586
No	1051 (52.9)	929 (46.8)	4 (0.2)	3 (0.2)		
<b>Cannabis</b>						
Yes	8 (66.7)	4 (33.3)	0 (0.0)	0 (0.0)	0.924	0.820
No	1053 (52.9)	929 (46.7)	4 (0.2)	3 (0.2)		
<b>Alcohol</b>						
Yes	54 (76.1)	17 (23.9)	0 (0.0)	0 (0.0)	15.746	0.001*
No	1007 (52.2)	916 (47.5)	4 (0.2)	3 (0.2)		
<b>Mild stimulants</b>						
Yes	63 (44.4)	78 (54.9)	1 (0.7)	0 (0.0)	6.594	0.086
No	998 (53.7)	855 (46.0)	3 (0.2)	3 (0.2)		
<b>Sedatives</b>						
Yes	35 (52.2)	32 (47.8)	0 (0.0)	0 (0.0)	0.270	0.966
No	1026 (53.1)	901 (46.6)	4 (0.2)	3 (0.2)		
<b>Analgesics</b>						
Yes	201 (63.4)	116 (36.6)	0 (0.0)	0 (0.0)	17.110	0.001*
No	860 (51.1)	817 (48.5)	4 (0.2)	3 (0.2)		
<b>Antibiotics</b>						
Yes	571 (52.7)	524 (46.7)	3 (0.3)	3 (0.3)	2.991	0.393
No	470 (53.4)	409 (46.5)	1 (0.1)	0 (0.0)		
<b>Opioids</b>						
Yes	4 (50.0)	4 (50.0)	0 (0.0)	0 (0.0)	0.062	0.996
No	1057 (53.0)	929 (46.6)	4 (0.2)	3 (0.2)		
<b>Cocaine</b>						
Yes	1 (25.0)	3 (75.0)	0 (0.0)	0 (0.0)	1.300	0.729
No	1060 (53.1)	930 (46.6)	4 (0.2)	3 (0.2)		
<b>Hallucinogen</b>						
Yes	2 (40.0)	3 (60.0)	0 (0.0)	0 (0.0)	0.370	0.946
No	1059 (53.1)	930 (46.6)	4 (0.2)	3 (0.2)		
<b>Organic solvents</b>						
Yes	26 (2.5)	44 (4.7)	1 (25.0)	0 (0.0)	12.942	0.005*
No	1035 (97.5)	889 (95.3)	3 (75.0)	3 (100.0)		

$\chi^2$ : Chi square; \*: Statistically significant (i.e.  $p$  value  $< 0.05$ )

**Table 4:** Association between Religiosity and Current Substance Use

Variable	Very religious n (%)	Religiosity Just religious n (%)	Not religious n (%)	$\chi^2$	p Value
<b>Cigarette</b>					
Yes	12 (85.7)	2 (14.3)	0 (0.0)	0.504	0.777
No	1604 (80.7)	322 (16.2)	61 (3.1)		
<b>Cannabis</b>					
Yes	11 (91.7)	1 (8.3)	0 (0.0)	1.006	0.605
No	1605 (80.7)	323 (16.2)	61 (3.1)		
<b>Alcohol</b>					
Yes	52 (73.2)	18 (25.4)	1 (1.4)	4.980	0.083
No	1564 (81.0)	306 (15.9)	60 (3.1)		
<b>Mild stimulants</b>					
Yes	114 (80.3)	28 (19.7)	0 (0.0)	5.838	0.054
No	1502 (80.0)	296 (15.9)	61 (3.3)		
<b>Sedatives</b>					
Yes	54 (80.6)	13 (19.4)	0 (0.0)	2.555	0.279
No	1562 (80.8)	311 (16.1)	61 (3.2)		
<b>Analgesics</b>					
Yes	254 (80.1)	54 (17.0)	9 (2.8)	0.238	0.888
No	1362 (80.1)	270 (16.0)	52 (3.1)		
<b>Antibiotics</b>					
Yes	879 (78.4)	193 (17.2)	49 (4.4)	18.020	<0.001*
No	737 (83.8)	131 (14.9)	12 (1.4)		
<b>Opioids</b>					
Yes	7 (87.5)	1 (12.5)	0 (0.0)	0.358	0.836
No	1609 (80.7)	323 (16.2)	61 (3.1)		
<b>Cocaine</b>					
Yes	3 (75.0)	1 (25.0)	0 (0.0)	0.331	0.848
No	1613 (80.8)	323 (16.2)	61 (3.1)		
<b>Hallucinogen</b>					
Yes	4 (80.0)	1 (20.0)	0 (0.0)	0.198	0.906
No	1612 (80.8)	323 (16.2)	61 (3.1)		
<b>Organic solvents</b>					
Yes	57 (3.5)	12 (3.7)	2 (3.3)	0.038	0.981
No	1559 (96.5)	312 (96.3)	59 (96.7)		

Table 5: Association between Religiosity (Using a Religiosity Index) and Current Substance Use

	Religiosity				X <sup>2</sup>	P value
	Low	Moderate	High	Total		
	n (%)	n (%)	n (%)	n (%)		
<b>Cigarette</b>						
Yes	6(42.9)	8(57.1)	0(0.0)	14(100.0)	0.857	0.652
No	908(45.7)	984(49.5)	95(4.8)	1987(100.0)		
<b>Cannabis</b>						
Yes	8(66.7)	4(33.3)	0(0.0)	12(100.0)	2.380	0.304
No	906(45.6)	988(49.7)	95(4.8)	1989(100.0)		
<b>Alcohol</b>						
Yes	25(35.2)	41(57.7)	5(7.0)	71(100.0)	3.573	0.168
No	889(46.1)	951(49.3)	90(4.7)	1930(100.0)		
<b>Mild stimulants</b>						
Yes	37(26.1)	91(64.1)	14(9.9)	142(100.0)	27.784	<0.001
No	887(47.2)	901(48.5)	81(4.4)	1859(100.0)		
<b>Sedatives</b>						
Yes	12(17.9)	51(76.1)	4(6.0)	67(100.0)	21.771	<0.001
No	902(46.6)	941(48.7)	91(4.7)	1934(100.0)		
<b>Analgesics</b>						
Yes	95(30.0)	201(63.4)	21(6.6)	317(100.0)	37.681	<0.001
No	819(48.6)	791(47.0)	74(4.4)	1684(100.0)		
<b>Antibiotics</b>						
Yes	515(45.9)	556(49.6)	50(4.5)	1121(100.0)	0.482	0.786
No	399(45.3)	436(49.5)	45(5.1)	880(100.0)		
<b>Opioids</b>						
Yes	7(87.5)	1(12.5)	0(0.0)	8(100.0)	5.684	0.058
No	907(45.5)	991(49.7)	95(4.8)	1993(100.0)		

**Cocaine**

Yes	4(100.0)	0(0.0)	0(0.0)	4(100.0)	4.767	0.092
No	910(45.6)	992(49.7)	95(4.8)	1997(100.0)		

**Hallucinogen**

Yes	5(100.0)	0(0.0)	0(0.0)	5(100.0)	5.961	0.051
No	909(45.5)	992(49.7)	95(4.8)	1996(100.0)		

**Organic solvents**

Yes	47(66.2)	24(33.8)	0(0.0)	71(100.0)	13.975	<0.001
No	867(44.9)	968(50.2)	95(4.9)	1930(100.0)		

$\chi^2$ : Chi square; \*: Statistically significant (i.e. p value < 0.05)

**Spirituality**

The level of spirituality was assessed with a Spirituality Index. There was an inverse relationship between a high level of spirituality and the current use of mild stimulants ( $\chi^2= 19.432$ ,  $p$  Value<0.001), sedatives ( $\chi^2= 9.151$ ,  $p$  Value = 0.010), analgesics ( $\chi^2= 22.825$ ,  $p$  Value<0.001), antibiotics ( $\chi^2= 36.876$ ,  $p$  Value<0.001), and organic solvents ( $\chi^2= 24.298$ ,  $p$  Value<0.001).

**Table 6:** Association between Spirituality and Current Substance Use

	Spirituality			Total n(%)	X <sup>2</sup>	P value
	Low n(%)	Moderate n(%)	High n(%)			
<b>Cigarette</b>						
Yes	8(57.1)	6(42.9)	0(0.0)	14(100.0)	1.556	0.459
No	914(46.0)	909(45.7)	164(8.3)	1987(100.0)		
<b>Cannabis</b>						
Yes	5(41.7)	7(58.3)	0(0.0)	12(100.0)	1.460	0.482
No	917(46.1)	908(45.7)	164(8.2)	1989(100.0)		
<b>Alcohol</b>						
Yes	30(42.3)	33(46.5)	8(11.3)	71(100.0)	1.090	0.580
No	892(46.2)	882(45.7)	156(8.1)	1930(100.0)		
<b>Mild stimulants</b>						
Yes	41(28.9)	89(62.7)	12(8.5)	142(100.0)	19.432	<0.001



No	881(47.4)	826(44.4)	152(8.2)	1859(100.0)		
<b>Sedatives</b>						
Yes	25(37.3)	30(44.8)	12(17.9)	67(100.0)	9.151	0.010
No	897(46.4)	885(45.8)	152(7.9)	1934(100.0)		
<b>Analgesics</b>						
Yes	108(34.1)	173(54.6)	36(11.4)	317(100.0)	22.825	<0.001
No	814(48.3)	742(44.1)	128(7.6)	1684(100.0)		
<b>Antibiotics</b>						
Yes	583(52.0)	451(40.2)	87(7.8)	1121(100.0)	36.876	<0.001
No	339(38.5)	464(52.7)	77(8.8)	880(100.0)		
<b>Opioids</b>						
Yes	5(62.5)	3(37.5)	0(0.0)	8(100.0)	1.247	0.536
No	917(46.0)	912(45.8)	164(8.2)	1993(100.0)		
<b>Cocaine</b>						
Yes	4(100.0)	0(0.0)	0(0.0)	4(100.0)	4.691	0.096
No	918(46.0)	915(45.8)	164(8.2)	1997(100.0)		
<b>Hallucinogen</b>						
Yes	5(100.0)	0(0.0)	0(0.0)	5(100.0)	5.866	0.053
No	917(45.9)	915(45.8)	164(8.2)	1996(100.0)		
<b>Organic solvents</b>						
Yes	53(74.6)	16(22.5)	29(2.8)	71(100.0)	24.298	<0.001
No	869(45.0)	899(46.6)	162(8.4)	1930(100.0)		

## DISCUSSION

Alcohol use was commoner among Christians. This is unsurprising as the prohibition of alcohol by Muslims may be associated with stiffer sanctions resulting in lower rates of use among them. Other authors who observed the reported low prevalence of alcohol use among Muslims in northern Nigeria also attributed it to the religious restrictions on alcohol use in that environment <sup>20</sup>. Some researchers such as Obiirefu have suggested that most Nigerian

churches do not frown at moderate alcohol intake and only forbid excessive intake and intoxication, therefore more Christians than Muslims may take alcohol <sup>21</sup>.

The present study showed an association between religion and the use of some substances. Alcohol and analgesic use were commoner among Christians, while organic solvents were more prevalent among Muslims, with one of the four Traditional African Religion students also reporting organic solvent use. The respondents

who practiced either the Traditional African Religion or had no religion at all were rather few. Further studies among these groups may be needful in order to determine the pattern of substance use among them.

Religiosity has been said to confer a protective proclivity against substance use<sup>4</sup>. The reported level of religiosity using the simple question “How religious are you?” showed no association with the current use of most substances, except for antibiotic use, which was most prevalent among those who claimed to be very religious. This could be reflective of perspectives in the general population, where antibiotic abuse could be viewed as acceptable, unlike adolescent substance use. Furthermore, the use of prescription drugs for social rather than prescribed medical reasons has been on the rise among Nigerian youths. There is also a gradual shift from the traditional psychoactive substances to abuse of prescription drugs generally in the community<sup>22</sup>.

Using the Religiosity Index, a more objective measure of religiosity, religiosity was more clearly associated with psychoactive substance use, underscoring the importance of standard measures. The Religiosity Index in this study showed that there was an inverse relationship between high religiosity and current use of mild stimulants, sedatives and analgesics. Thus, the general observation that religiosity is inversely associated with substance use was replicated in the present study. This finding may be related to the fact that highly religious people may likely be more conformist to societal leanings and may therefore be less prone to indiscriminate use of medicines and drugs such as analgesics and sedatives. Makanjuola *et al*<sup>23</sup>, found that undergraduate medical students who are religious are less likely than those who were not to engage in drug abuse.

Also, we found in this study that low levels of religiosity were associated with current solvent use. The reasons for this may be that the use of volatile solvents recreationally may be frowned upon in most religious settings as it is considered unacceptable socially and morally and therefore highly religious individuals who seek to

conform to strict religious codes may find imbibing in such unattractive. Furthermore, an earlier researcher opined that religious commitment, dispositional religious coping, religious attendance and private praying predicted less drug use in young people<sup>24</sup>.

In the same vein, the Spirituality Index showed that substance use was associated with a low degree of spirituality. This highlights the protective quality of spirituality against adolescent substance use. This is congruent with recent observations<sup>25</sup>. Adolescent substance use often has a profound effect on parental relationships and child-parent relationships. Many parents cope through their spirituality<sup>26</sup>. Further studies are required to establish the role of spirituality among parents and its impact on adolescent substance use in the study setting.

Our findings exemplify the relevance of religiosity and spirituality in the prevalence and patterns of adolescent substance use. Advocacy against substance abuse can maximize existent religious structures, such as school fellowships and religious houses in communities. Interventional drug studies could be enriched by incorporating religiosity and spirituality. Mental health literacy training among clergy and religious faithfuls could bolster different levels of prevention against substance use. A national school mental health policy should be drafted by the Federal Ministry of Education, with the positive aspects of spirituality encouraged.

### Limitations

Use of questionnaire-based method to assess substance use may be associated with non-disclosure about substance use/ limited false responses. Some findings may not be generalizable as there may be other mediating factors like family /social support.

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