



Global
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A SURVEY REPORT ON STUDENTS DRUG TESTING POLICY AND UNIVERSITY CLIMATE IN NIGERIA



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Preface

Drug testing, as a strategy in substance use prevention, treatment and recovery has been in place for more than half a century. Studies have attempted to evaluate its effectiveness, particularly among students in institutions of learnings with mixed findings. Hence, attention to students' drug testing (SDT) elsewhere has decreased for wants of sufficient evidence. However, in Nigeria, there have been growing demands for the introduction of SDT across institutions of learning.

As the country confronts the burden of substance use, which has become a threat to public health, national peace, security, and economic development, the call for the experimentation of different components of prevention interventions, including SDT, may not be totally out of place. However, such experimentation will require systematic evaluation in order to inform a more effective prevention strategy and policy. The current survey is an important step in this direction. Significant in the process is the evaluation of the school climate knowing that SDT policy does not exist in a vacuum. The school climate plays a substantial role in school policy development and implementation.

Findings in this survey are intended to enhance school-based substance use prevention programmes and guide policy makers towards informed and evidence-based substance use prevention policies. Findings from this preliminary survey, notwithstanding, additional research is needed to confirm the perceived efficacy of drug testing as a component of a whole school-based substance use prevention programme designed to improve or complement school climate.

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Acronyms and Abbreviations

DTP – Drug Testing Policy

GISA – Global Initiative on Substance Abuse

ILO – International Labour Organization

LASUTH – Lagos State University Teaching Hospital

NHREC – National Health Research Ethics Committee of Nigeria

NIDA – National Institute on Drug Abuse

PWUD – People Who Use Drugs

SDT – Students' Drug Testing

SSU – Students Substance Use

VONBS – Voice of Nigeria Broadcasting Service

Executive Summary

This survey examined students' attitudes toward SDT policy in universities in Nigeria and how such attitudes and substance-use patterns predict perceptions of policy effectiveness and fairness as well as students' perception of school climate amid the policy. This is the first survey to examine students' perception on drug testing policy in tertiary institutions of learning in Nigeria, even though they are the primary target of the policy.

The survey identified some strengths, weaknesses and suggested ways of improving drug testing policy. The strength of drug testing as identified by the respondents includes, its ability to prevent substance use and consequences on students; helps to promote health, safety and security among students and the school population; serves as a channel to initiate support and treatment interventions for people who use drugs (PWUD); serves as a conscious reminder of the laws guiding substance use, possession, trafficking and related issues thereby complementing law enforcement duties in curbing national threat of substance use.

The weaknesses include the cost implication; doubts about its actual effectiveness; gaps in drug testing administrative procedures including corruption and compromise; inconveniences associated with drug testing, the unhygienic and invasive nature of the process; demeaning to the adult population; limited span and quality of testing kits and concerns about subjecting the whole school population to regular drug testing for activities engaged by about a quarter of the school population.

Suggestions for improvement in the drug testing policy includes the need for improvement in the administrative procedures to address corrupt practices, compromises, unhygienic and invasive process; the need for confirmatory test, respect for confidentiality, human rights and fairness in the implementation of the drug testing policy; drug testing should be prevention and treatment intervention focused as against punishment; should be policy and research driven as against half-haphazard approach and should be as part of a comprehensive substance use prevention policy and not stand alone; provision of mordenised drug testing kits and procedures that are less stressful, more accurate and with instant test results; and that drug testing policy should be funded by the government.

Key findings

- The most reported substances used by university students, in order of prevalence, are alcohol, tobacco, shisha, cough syrup containing codeine

without a prescription, cannabis, tramadol without a prescription, colorado, amphetamine without a prescription, methamphetamine, diazepam and rohypnol without a prescription. The least commonly used, from the bottom are khat, heroin and solvent/inhalant.

- Majority of the students believed that drug testing policy would be effective in curbing substance use among their peers, are favourably disposed to the policy and endorsed continuation of the policy.
- Urine is the most common sample used for drug testing in the Universities.
- Mandatory, random testing and pre-admission testing are the most common types of drug testing policies in the Universities.
- The most common policy decisions on positive drug tests are warnings, suspension and referral for counselling/treatment.
- Access to substances was rated as very difficult with a very high level of disapproval of substance use.
- University climate was rated positively high.
- More than three quarters of respondents indicated that they were religious people, and the more religious people were less involved in substance use.
- Among PWUD, about 90% started using drugs prior to admission into the university and about a quarter reported that drug testing helped them to stop.
- Major barriers to drug testing policy are the use of chemicals/substances to dilute/neutralize drugs against positive test results, corrupt practices among the test administrators and the limited scope of testing kits to detect all substances that may have been taken, especially with the evolving new psychoactive substances or synthetics.

Background

There have been increasing calls for the introduction of drug testing as a policy measure to address the issue of substance use and abuse among students in higher institutions of learning in Nigeria (Kolade et al., 2024; Voice of Nigeria Broadcasting Service [VONBS], 2021). Such strategies have been applied in workplaces, sporting arenas, prisons and school settings elsewhere (Al-Asmari, 2024; DuPont et al., 2013; McNeil et al., 2023). This call is predicated on the high prevalence of substance use among students in higher institutions of learning in Nigeria, and in particular university students, which is estimated at between 35 and 75% (Adeyemo et al., 2016; Kolade et al., 2024; Njoku, 2021; Olanrewaju et al., 2022) while some studies reported above 75% lifetime prevalence (Okechukwu et al., 2021; Aguocha & Nwefoh, 2021). The high prevalence of substance use among university students has raised concerns over implications on public health, peace, security and economic development (Agwogie, 2018; 2022; Wada et al., 2021). Given the adverse effects of substance use among this age population, it is logical that schools are considered as important settings for preventing students' substance use (SSU) and providing drug-free school environments. In fact, substance use prevention and education programmes have been a long-standing component of health education in schools (Evans-Whipp et al., 2007; Hansen & Dusenbury, 2004; Patton et al., 2003) and some of these efforts have been met with success (Gottfredson & Wilson, 2003). The advocacy for drug testing is predicated on a belief in its efficacy in reducing drug-related harm, early intervention, as a profound message to potential users and to reassure stakeholders that efforts are being made to address the drug use problem (Gottfredson & Wilson, 2003; Lasco, 2023; Roche et al., 2009).

Drug Testing

Drug testing (or drug screening) is the process of obtaining samples of body fluids or tissues (e.g. urine, blood, hair, breath, nails) from people and conducting laboratory analyses to detect the presence of certain drugs and their metabolites (International Labour Organization [ILO], 1993). For decades, drug testing has played an important role in substance use prevention in the military, workplace, clinical and criminal justice settings (DuPont et al., 2013). In late 1960s and early 1970s, drug testing started in the United States military to reduce the heroin epidemic of the Vietnam War (DuPont et al., 2013; Macdonald & Wells, 1994). Later, treatment programmes used drug screening as part of the rehabilitation of people with

substance use disorders and in particular to confirm self-reported substances being used and those used unknowingly due to adulterations (National Institute on Drug Abuse [NIDA], 2023). The 1980s saw a massive increase in the use of drug testing programmes following the development of more reliable technology for testing and heightened awareness about the apparent high rates of drug use among adult working population in the United States (Axel, 1989; Macdonald & Wells, 1994). Workplace drug testing was later adopted in European countries, Canada, Australia, United Kingdom among other countries (Glass, 1992; Meririnne et al., 2007; Verstraete & Pierce, 2001). The perceived positive impacts of drug testing in the workplace led to the advocacy for drug testing in the school settings (DuPont et al., 2013) even though the primary objectives are different.

Despite the long history and widespread adoption of drug testing in different settings, it remains one of the most controversial drug prevention and management policies. It is argued that drug testing does not reveal patterns of use over time, the amount of drugs used, route of administration, risk factors for drug use or information about drug use disorders and associated impairments (NIDA, 2023; Roche et al., 2009), and limited scope of testing kits to detect all substances that may have been taken especially with the evolving new psychoactive substances (Al-Asmari, 2024; Gerona & French, 2022; McNeil et al., 2023). There are also concerns about the accuracy of drug tests (false positive and false negative results) (McNeil et al., 2023; O'Malley et al., 2022), intrusiveness and sometimes confrontations associated with sample collection, the possibility that passive exposure could lead to positive drug test results and exorbitant costs of drug testing (DuPont & Saylor, 2006; Lasco, 2023; Lewy, 1983; McNeil, et al., 2023). Studies have also reported the consistent efforts to beat drug tests with the use of adulteration products (Dasgupta, 2005; Embers et al., 2019; McKeganey, 2005) thereby threatening the reliability of drug testing (Al-Asmari, 2024; Franz et al., 2022; Fu, 2019; Mikkelsen & Ash, 1988). There is also the apprehension that goes with the outcomes of the test results which may be punitive (McNeil, et al., 2023) and that drug testing is not supported by significant scientific evidence, demeaning, embarrassing and does not encourage PWUD to get help (Anglin et al., 1989; Coombs & Ryan, 1990; Hanson, 1993). There are also concerns about the capacity of the school to enforce negative sanctions based on positive drug test outcomes considering the social context of the school setting (McKeganey, 2005). While studies reported that school drug testing programme should not be punitive or interrupt academic learning such as suspension or expulsion (DuPont et

al., 2013; Hawkins et al., 2002), other studies suggests that without a negative sanction (e.g., exclusion, punishment from parents), drug testing is unlikely to deter future use (McKeganey, 2005; Schaub, 2004).

Despite the drawbacks, concerns and limitations, drug testing provides evidence of recent drug use, valuable information that supplements the information found in self-reports with significant role in clinical setting (NIDA, 2023). The primary rationale for drug testing programmes in the school setting is the belief that it will prevent substance use among students; improve student's physical and psychological well-being; reduce truancy and behavioural problems; promote responsiveness, academic excellence and educational outcomes and to enable school authority to monitor policy compliance, identify students who might develop substance use problem and encourage them to seek early intervention (DuPont et al., 2013; Roche, et al., 2009). It is also argued that drug testing will help reduce cultism in schools (VONBS, 2021). Proponents argue that SDT programmes offer schools a more aggressive approach to drug prevention than common risk and resiliency-based programmes and that anecdotal evidence suggests that SDT leads to less overall drug use among students, thus reducing opportunities for drug-use and peer pressure effects (Lawler, 2000; Portner, 1999; Yamaguchi et al., 2003).

Drug Testing and School Climate

Beyond drug testing, a broader approach to substance use prevention that involves more than health education classes is the promotion of positive school climates (National School Climate Council, 2007). Studies conducted in secondary institutions have reported that the overall school climate such as clarity of school rules, teachers' ability to handle problems, respect among students and respect between teachers and students plays an important role in determining how SDT is received and whether it influences substance use among students (LaRusso et al., 2008; Sznitman et al., 2012). Thus, suggesting that drug testing in schools with unfavorable climates may be seen by students as a coercive attempt to alter their behaviour. But when implemented in a school with a positive climate, drug testing is seen as a more legitimate attempt to protect students from the harmful effects of drugs and their overall well-being and encourages participation (Ellis, 1991; Sznitman et al., 2012). When students feel respected, they are more likely to approve of the school's substance use prevention strategies and be persuaded by the embedded messages (LaRusso & Selman, 2003). Therefore, one would expect that the effects of drug testing would depend on a school's social climate. Positive school climates and

student drug testing have been separately proposed as strategies to reduce SSU (LaRusso et al., 2008), whereas the effects of drug testing programmes may depend on the favourability of school climates. While the drug testing policy is being advanced in tertiary institutions of learning in Nigeria, little or no attention seems to be paid to the school climate that may constitute risk or protective factors for drug use among students.

Objectives

The objectives of this survey were to:

- i. Examine students' experiences with and attitudes toward university drug testing policies
- ii. Examine students' perception of effectiveness of drug- testing programmes
- iii. Examine students' perception of their school climate
- iv. Identify barriers to students' drug testing policy
- v. Establish students' perception of harm to drug/substance use amid drug testing policy

Methodology

Study Design

This is a cross-sectional study aimed at examining the perceived impacts of drug testing in tertiary institutions in Nigeria, school climate and students' perception about drug testing policy. Ten Universities were randomly selected across the six geo-political zones in Nigeria. At least one university in each of the zones and ownership (federal, state and private). Once a university agreed to participate, convenience sampling was used to recruit participants across faculties and levels. Both quantitative and qualitative approaches were used. Two research assistants at each university assisted with recruitment and administration of the survey, which was completed online by participants. The survey was administered to students based on desire to participate. Eligibility criteria included being 16 years and above, attend any of the sampled universities and ticking the consent column. Students below the age of 16 years or are not students of any of the sampled universities were excluded from the analysis. Data cleaning, sorting and coding of open-ended responses on the survey was carried out weekly to check for completeness in order to ascertain good quality data. Simple percentage was used to compute quantitative data while qualitative data were coded and summarized into themes.

The research assistants recruited for each of the sampled universities were

trained to ensure understanding of the research study and the questionnaire. They were also trained to be consistent in the questionnaire administration process, provide prompts feedback and interaction with the respondents and make clarifications where required. Each research assistant was calibrated during the training to ensure inter-examiner reliability. A research support team headed by the author was set up. The team met on a bi-weekly basis to review the progress and achievement of milestones. Ethical approval were obtained from the Ethics Committee of the Lagos State University Teaching Hospital (LASUTH), Lagos State and the National Health Research Ethics Committee of Nigeria (NHREC), Federal Ministry of Health.

The research assistant received training with facilitators from the research support team. Sessions included obtaining informed consent and basics of substance use services. The researcher was responsible for detailed explanations of the purpose of the survey to the research assistants during the capacity building exercise. Delivery was through virtual PowerPoint presentations and group discussions. Pre and post-tests were conducted to assess the immediate outcome of the training. The online survey ensured that participants click on the consent column before being able to proceed. The questionnaire was first piloted for validity and reliability before it was fully administered.

Data Collection Process

The research assistants were responsible for supervision of the administration of the online survey. Before sharing the self-administered survey link, the research assistants started with a self-introduction and a brief description of the purpose of the research. The respondents were then asked if they fully understood or require further clarification. The link was thereafter shared with provision for consent before proceeding to the main instrument. Completed responses were automatically received via Google form. The data were cleaned and imported into the SPSS version 27 software for analysis.

Outcome Measures

Student Drug Use: Students were asked to specify the drugs/substances they had used from the following list: alcohol, tobacco (cigarettes), cannabis (igbo, weewee, weed, skunk, loud), colorado (spice, kolos), methamphetamines (ice, crystal meth), cocaine/crack cocaine, heroin, khat, solvents/ inhalants/ glue, shisha and any of these without a medical prescription or purpose: amphetamines, tramadol, diazepam/valium/lexotan/mogadon, Rohypnol, cough syrup containing codeine,

librium, morphine, pentazocine and to specify others. Response options were: *ever used*, *used in the past 12 months*, and *used in the past 30 days*. This tool has been used in previous studies in Nigeria (Agwogie et al., 2022).

Perceived Access to Substances: Questions on perceived access to substances used a list similar to the list students used to report on their own use. The one modification was related to alcohol, which read “small bottle of alcohol or sachet of dry gin or hot drinks.” Students were asked how difficult they thought it would be for them to get any of the drugs/substances around their school, if they wanted to. Response options were: 1 (*impossible*), 2 (*very difficult*), 3 (*fairly difficult*), 4 (*fairly easy*), and 5 (*very easy*), thus higher values reflected easier perceived access. This instrument was adapted from previous study in Nigeria (Agwogie et al., 2023).

Disapproval of Substance Use: Measurement of disapproval of substance use was adapted from previous studies in Nigeria (Agwogie et al., 2022, 2023). Similar to questions on perceived access, the list of substances was the same as the list students used to report on their own use. Students were asked to indicate how wrong they thought it was for students to use specific substances. Response options were: 1 (*not wrong at all*), 2 (*a little bit wrong*), 3 (*wrong*) and 4 (*very wrong*), thus higher values reflected greater disapproval of substance use.

Drug-Testing Policy in Universities: Items on drug testing were adapted from Yamaguchi et al. (2003) and Sznitman et al. (2012). Students were asked, “does your university ask students to participate in drug testing?” Options were *Yes* or *No*. If students responded with a “Yes” they were asked which types of drug testing applied. Response options were: *mandatory*, *non-mandatory*, *pre-admission testing*, *resumption testing (beginning of new semester, academic session or long holidays)*, *random testing*, *suspicious cause testing (e.g. due to drug induced related behaviours)*, *preschool events (e.g. extra-curricular activities, representation of the school at events etc.)*, *violence-related testing*, and *I don't know*. Students were asked to mark all that applied.

Sample used for Drug Testing: Students were asked if they had been tested for drug/substance use with options of *Yes* or *No* with a follow up question on sample taken for the drug test. Response options were: *urine*, *blood*, *hair*, *finger or toenails*, *saliva*, *sweat*, and *breath*. Students were asked to mark all that applied with a provision to specify others.

Frequency of Drug Testing: Students who had been tested for drug/substance use were asked to indicate the number of times they had been tested since admission into

the University. Response options included: *1, 2, 3, 4, 5 or more than 5 times*, with a follow-up request to indicate the date last tested.

University Policies on Positive Drug Tests: Generally, students were asked about the likely decisions for positive drug tests in their university with the following response options: *warning, suspension, referral for counselling/treatment within the university, referral for counselling/treatment outside the university, expulsion, referral to law enforcement for prosecution, and other (please specify)*. Students were asked to mark all that applied.

Students' Perceptions of Drug Testing: Students were asked, “what is your impression about the drug testing policy in your university?” Response options were: *very good, good, undecided, not good, not good at all, and not applicable*.

Students' Perceptions of the Effectiveness of Drug Testing in Preventing Substance Use: To measure perceptions of the effectiveness of university drug testing, two levels of questions were asked: general questions and questions specifically for PWUD. For the general questions, students were asked, “do you think that the university policy on drug testing helps to prevent students from using drugs/substances?” Response options were: *very well prevent, prevent, undecided, not prevent, and not prevent at all*. For questions specifically related to PWUD, questions were separated into two parts. The first questions focused on the timing of drug use. Questions were: “I started using drugs before my admission into the university” and “I started using drugs as a student despite the drug testing policy of the university”. Options were *Yes* or *No* for both questions. The second set of questions focused on the effects of drug policy on their drug use. For example, “I stopped using drugs because of the university drug policy” and “I stopped using drugs because of the disciplinary measures meted out to my friends/colleagues by my university for positive drug test”. Response options were *strongly agree, agree, undecided, disagree, strongly disagree*.

Barriers to Drug Testing Policy: Students were asked if they knew of students who used drugs but tested negative for drug use. Options were *Yes* or *No*. If a student answered yes, a follow-up question asked for the likely reason(s) for such a test result. Response options were: *the use of some chemicals/substances to dilute/neutralize the drug in their system, corrupt practices among the test administrators, quality of the test kits, I don't know, and other (please specify)*. Students were asked to mark all that applied.

Perceptions of University Climate and Connectedness: Eleven test items adapted

from LaRusso et al. (2008) and previously used in school surveys in Nigeria (Agwogie & Kliwer, 2024; Agwogie et al., 2022) were used to measure university climate/connectedness. Items included: “I feel close to people in this university”, “I am happy to be in this university”, “I feel like I am part of this university”, “I feel safe in my university”, “the lecturers and university administrators handle problems in the university effectively and treat students fairly”, “university rules are very clear, enforced consistently and fairly”, “my lecturers and university administrators care about me”, “my university courses are very important to me and have much effect on my future”, “students respect other students in my university”, “lecturers and university administrators respect students”, and “students respect lecturers and university administrators”. Response options were: 1 (*strongly disagree*), 2 (*disagree*), 3 (*undecided*), 4 (*agree*), and 5 (*strongly agree*).

Personal Characteristics: Sex, age, and perceived religiosity were personal characteristics used in the analyses. For religiosity, students were asked if they thought of themselves as a religious or spiritual person. Options were *Yes* or *No*.

Strengthening Drug Testing Policy: Students were asked whether the drug policy should continue. Options were *Yes* or *No* with open-ended questions to justify either of the choices. For example, if *Yes*, why and if *No*, why? with another follow up question such as, “*if drug testing should continue, how do you think it can be improved upon*”? Comments were entered into a Word document and analysed thematically using the five-step Framework Method for qualitative data (Gale et al., 2013; Pope et al., 2000). This approach was preferred for its utility in bringing programme theory to the surface. Analysis was grounded in the original accounts of the respondents but began deductively by drawing a priori on the study.

A conceptual framework was developed by the author to begin a content analysis process, bring the fractured data together into a coherent whole and to support understanding of the relationships between categories. As an initial step in the development of the framework, the author, who has had previous qualitative research experience, reviewed the responses to identify preliminary themes and coded the data. The coding was reviewed by two independent reviewers who are also experienced in qualitative research. To monitor the developing interpretations and constructions, reflective journaling was conducted throughout the process. Frequent interactive sessions were held by the author and independent reviewers which provided an excellent opportunity both to discuss the development of new themes and to question and confirm saturation of themes. Disagreements at every stage of the

process were resolved through meetings with the reviewers.

Results

Participants

Respondents were 2449 students sampled from 10 universities across the six geo-political zones in Nigeria (Male =44%; mean age 21years; SD 3.75) with over 60% in their first or second year in the university (Table 1). Students reported using a variety of substances in their lifetime, with the most commonly reported substances, and in their order of prevalence, being alcohol (46.5%), tobacco (36.6%), shisha (36.5%), cough syrup containing codeine without a prescription (35.3%), cannabis (33.3%), tramadol without prescription (33.1%), colorado (31.8%), amphetamines without prescription (31.4%), methamphetamines (31.3%), diazepam (31.2%) and rohypnol (30.7%) without prescription. While the least commonly used from the bottom are Khat (13.3%), heroin (19.2%) and solvent/inhalant (20.1%) (Fig. 1). Overall, students rated access to substances as very difficult ($M = 2.10$, $SD = .94$, $\alpha = 0.97$) (Table 2), expressed very high levels of disapproval of substance use ($M = 3.76$, $SD = 0.39$, $\alpha = 0.95$) (Table 3) and reported a moderately high positive University climate ($M = 3.83$, $SD = 0.99$, $\alpha = 0.92$) (Table 4).

Just over half of the students in the survey (51.70%) reported that their university conducts drug testing and 34.30% have been tested at least once (Table 5). Urine was reported as the most common sample collected for drug testing (Fig. 2). Types of drug testing policy include mandatory, random testing and pre-admission testing (Table 6). Among those who responded to the question on continuity of drug testing ($n=1535$), more than 90% reported that students drug testing should continue (Fig. 3). On the general drug testing policy, warning, referral for counselling or treatment and suspension were the most ticked options (Table 7). On barriers to drug testing, less than half of the respondents ($n=802$) provided responses to this question. Others left it either blank or ticked I don't know. Among those who responded, the use of some chemicals/substances to dilute/neutralize the drug in their system was identified as the major barrier to drug testing policy (43.14%), followed by corrupt practices among the test administrators (34.29%) (Fig. 4). On whether drug testing policy helps to prevent substance use and whether it is a good policy, close to half of the respondents reported that it helps prevent with about 20% stating otherwise (Table 8) and about 60% stating that it is a good policy (Table 9). More than three quarters of the respondents indicated they were religious people (Fig. 5). Among PWUD, about 90% reported that they started using drugs prior to admission into the university while

less than 10% reported that they started using drugs as a student despite the drug testing policy (Fig. 6). About 25% of those who use drugs indicated that they stopped using drugs due to the drug testing policy and the disciplinary measures meted out to friends/colleagues for of positive drug test (Fig. 7).

Table 1: Demographics

(N=2449)	M (or %)	SD
Sex (% male)	44%	
Age	21.20	3.75
University level	Frequency	%
100 level	957	39.08
200 level	568	23.19
300 level	429	17.51
400 level	335	13.68
500 level	52	2.12
600 level	15	0.61
Post Graduate	87	3.55
Other	6	0.26

Fig. 1. Substance use prevalence

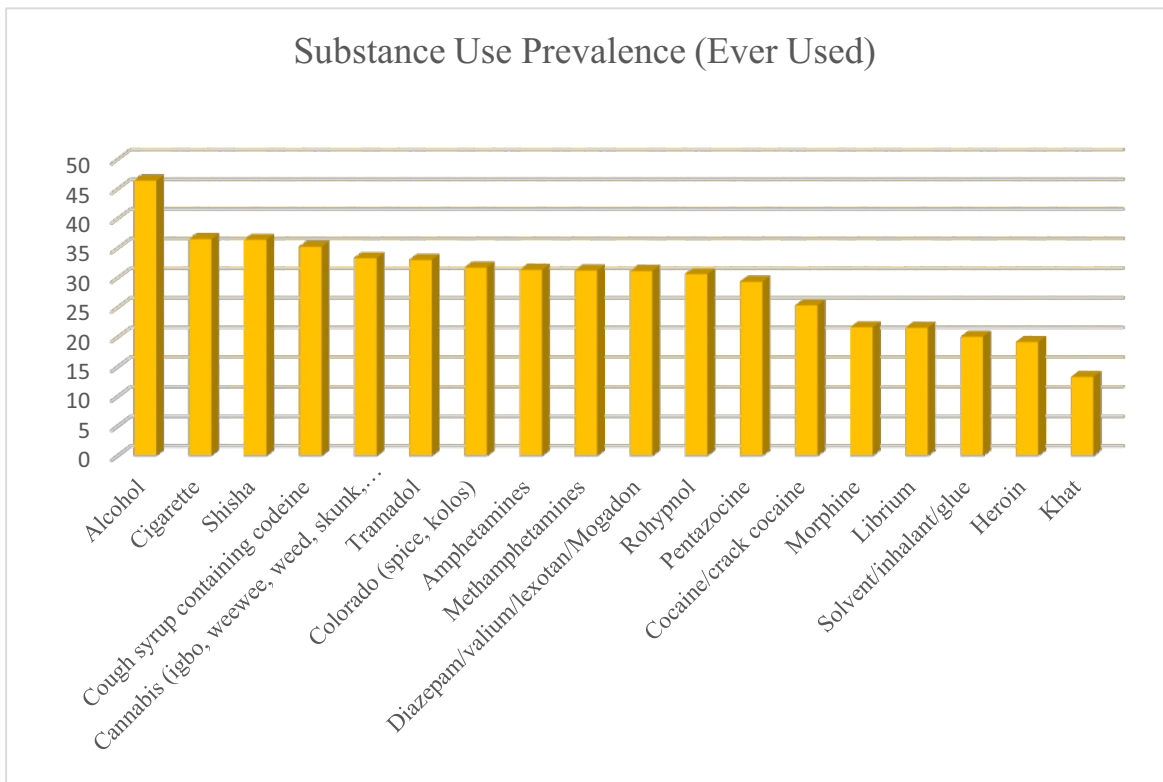


Table 2: Accessibility

N=2449 Rating Scale: 1=Impossible; 5=Very easy		Mean (SD)
How difficult do you think it would be for you to get each of the following drugs/substances around your school, if you wanted to?		
1: Small bottle of alcohol or sachet of dry gin or hot drinks		2.87 (1.50)
2: Cigarette		2.83 (1.52)
3: Cannabis (igbo, weewee, weed, skunk, loud)		2.24 (1.25)
4: Colorado (spice, kolos)		2.04 (1.14)
5: Methamphetamines		1.94 (1.04)
6: Cocaine/crack cocaine		1.82 (1.02)
7: Heroin		1.83 (1.01)
8: Khat		1.76 (0.95)
9: Solvent/inhalant/glue		1.97 (1.13)
10. Shisha		2.48 (1.40)
11: Amphetamines		1.89 (1.07)
12: Tramadol		2.23 (1.26)
13: Diazepam/valium/lexotan/Mogadon		1.91 (1.08)
14: Rohypnol		1.89 (1.07)
15: Cough syrup containing codeine		2.52 (1.37)
16: Librium		1.89 (1.05)
17: Morphine		1.92 (1.07)
18: Pentazocine		1.89 (1.07)
Overall scores ($M = 2.10$, $SD = 0.94$, $\alpha = 0.97$)		

Table 3: Approval of substance use (perception of harm)

N=2449 Rating Scale: 1=Not wrong at all; 4=Very wrong		Mean (SD)
How wrong is it to use any of the substances?		
1: Alcohol		3.20 (0.97)
2: Cigarette		3.71 (0.64)
3: Cannabis (igbo, weewee, weed, skunk, loud)		3.81 (0.53)
4: Colorado (spice, kolos)		3.88 (0.42)
5: Methamphetamines		3.83 (0.48)
6: Cocaine/crack cocaine		3.87 (0.43)
7: Heroin		3.87 (0.43)
8: Khat		3.87 (0.42)
9: Solvent/inhalant/glue		3.83 (0.50)
10. Shisha		3.57 (0.77)
And any of these without a doctor or medical prescription		
11: Amphetamines		3.80 (0.50)
12: Tramadol		3.72 (0.63)
13: Diazepam/valium/lexotan/Mogadon		3.8 (0.52)
14: Rohypnol		3.8 (0.47)
15: Cough syrup containing codeine		3.5 (0.83)
16: Librium		3.8 (0.49)
17: Morphine		3.8 (0.51)
18: Pentazocine		3.8 (0.51)
Overall scores ($M = 3.76$, $SD = 0.39$, $\alpha = 0.95$)		

Table 4. University climate

<i>N</i> =2449	Rating Scale: 1= Strongly disagree; 5= Strongly agree	Mean (SD)
University climate/relationship at the university		
1: I feel close to people in my university		3.50 (1.12)
2: I am happy to be in my university		3.94 (0.96)
3: I feel like I am part of my university		3.91 (0.96)
4: I feel safe in my university		3.85 (0.99)
5: The lecturers and University administrators handle problems in the university effectively and treat students fairly		3.93 (1.09)
6: University rules are very clear, enforced consistently and fairly		3.74 (0.95)
7: My lecturers and University administrators care about me		3.58 (1.03)
8: My university courses are very important to me and have much effect on my future		4.24 (0.84)
9: Students respect other students in my university		3.69 (1.03)
10. Lecturers and University administrators respect students		3.65 (1.05)
11: Students respect lecturers and University administrators		4.07 (0.87)
Overall scores (<i>M</i> = 3.83, <i>SD</i> = 0.99, α = 0.92)		

Table 5: Drug testing policy, testing and number of times

Drug testing policy in school (n=2176)	Frequency (%)
Yes	1125 (51.70)
No	1051 (48.30)
Have been tested for drug/substance use (n=1959)	
Yes	672 (34.30)
No	1287 (65.70)
Number of times tested (n=672)	
Once	506 (75.29)
Twice	108 (16.12)
Thrice or more times	58 (8.63)

Fig. 2. Samples for drug testing

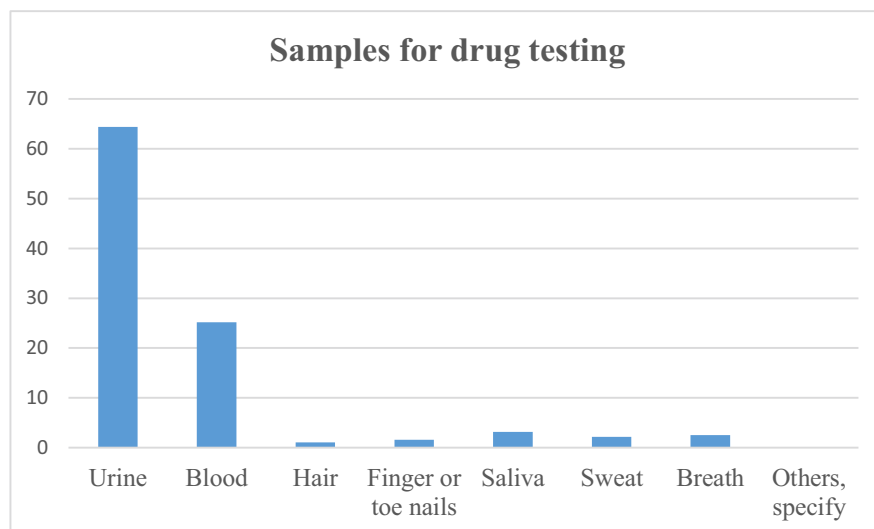


Table 6: Types of drug testing

Items	Frequency (%)
Mandatory	726 (19.66)
Pre-admission testing	574 (15.54)
Pre-resumption testing (beginning of new semester, academic session or long holidays)	480 (13.00)
Suspicious cause testing (e.g due to drug induced related behaviours)	397 (10.75)
Random testing	295 (7.99)
Pre school events, e.g extra-curricular activities, representation of the school at events etc	260 (7.04)
Violence related testing	239 (6.47)
Non-mandatory	161 (4.34)
I don't know	561 (15.19)

Note: This is a non-mutually exclusive response. Calculation is based on number of times mentioned.

Fig. 3. Endorsement of drug testing policy

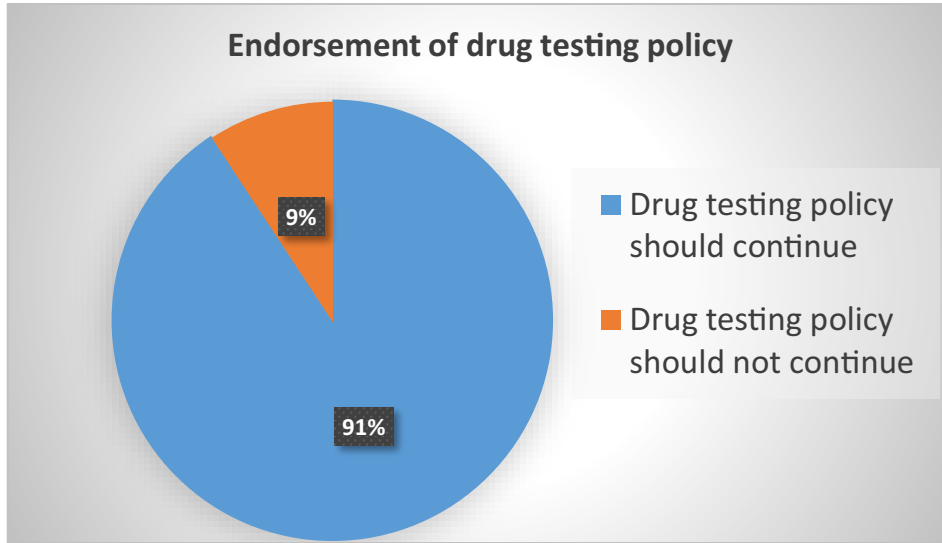


Table 7: School policy response to positive drug test

Items	Frequency (%)
Warning	496 (24.14)
Suspension	469 (22.82)
Referral for counselling/treatment within the school	460 (22.38)
Referral for counselling/treatment outside the school	249 (12.12)
Expulsion	247 (12.02)
Referral to law enforcement for prosecution	134 (6.52)
Others, please specify	0

Fig. 4. Barriers to drug testing

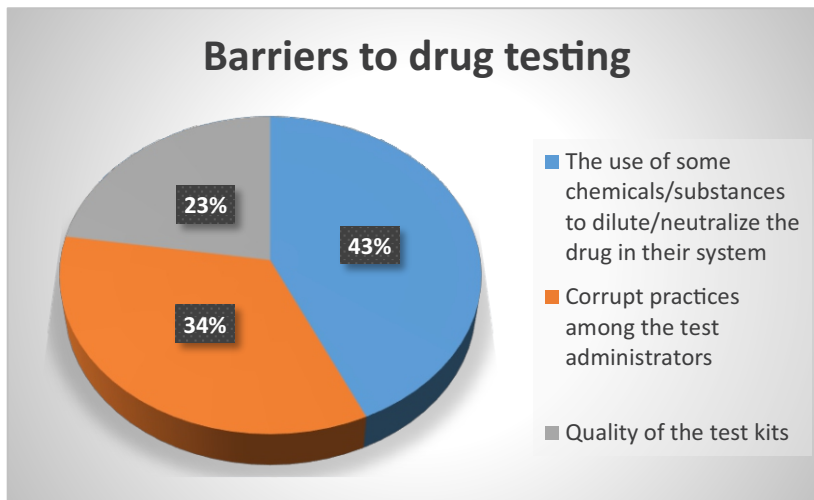


Table 8: Perception on drug testing policy on prevention of students' substance use

Options (n=1804)	Frequency (%)
Very well prevent	614 (30.04)
Prevents	281 (15.58)
Undecided	519 (28.77)
Does not prevent	266 (14.75)
Does not prevent at all	124 (6.87)

Table 9: Rating on students' drug testing policy

Options (n=1752)	Frequency (%)
Very good	693 (39.55)
Good	352 (20.09)
Undecided	448 (25.57)
Not good	59 (3.370)
Not good at all	79 (4.51)
Not applicable	121 (6.91)

Fig. 5. Religiosity

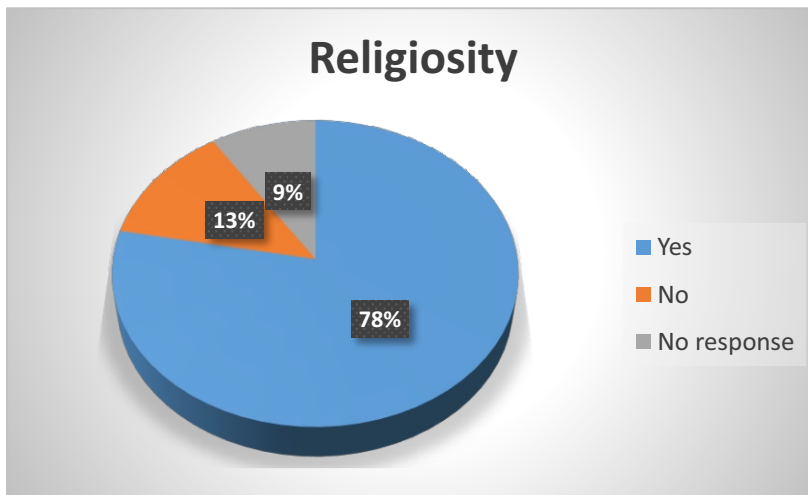


Fig. 6. Drug use initiation prior to admission and as a student

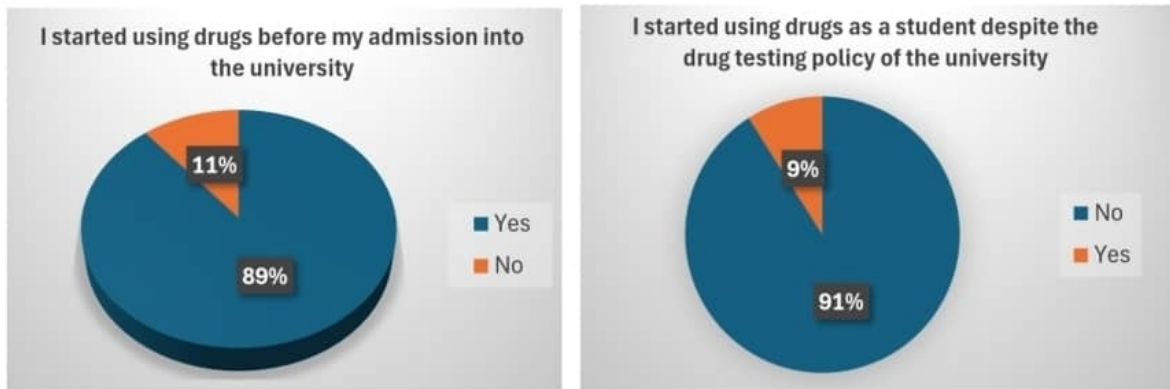
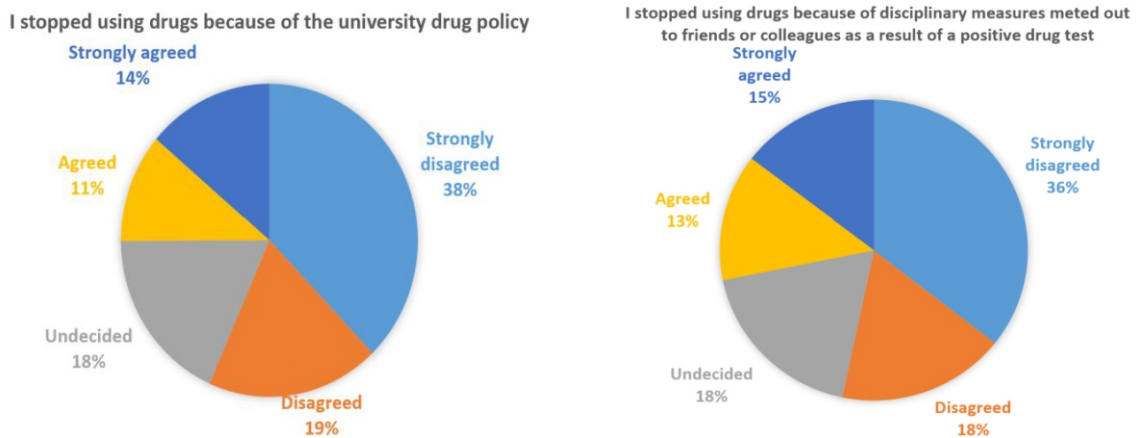


Fig. 7. Influence of drug testing policy on people who use drugs



Thematic Analysis

Out of the 2449 surveys completed, there were 778 responses to the questions posed, which were distributed accordingly Q1: Why should drug testing continue? (n=223); Q2: Why should drug testing not continue? (n=93); Q3: If drug testing should continue, how do you think it can be improved upon (n=462). After viewing the data set as a whole, comments were organised into three themes: Strength of Drug Testing, Weaknesses of Drug Testing and Improving Drug Testing. The following comments exemplify categories in each theme.

Theme 1: Strength of Drug Testing

This theme was broken down into four interrelated categories.

Prevention of substance use: Positive comments on drug testing as a prevention tool

align with the descriptive statistics (tables 8 and 9). Some of the comments are: “drug testing will help to prevent substance use initiation among students and prospective students and generally reduce the alarming rate of substance use in Nigeria”, “drug testing will reduce the rate of drug abuse drastically because many people think there are no consequences for using drug and do so freely”, “it will help students stay away from drugs”. Others wrote, “drug testing will help put students under check, scare them from using drugs, and regulate their behaviour towards drug use”, “drug testing will keep students on their toes and as they would not want to test positive” and “it will reduce drug use even if it's just 1%, that will be something”. Beyond preventing substance use on its own, some wrote, “drug testing will create opportunity for awareness against the consequences of substance use among students and drug related laws” and “drug testing will provide an avenue to enlighten students on the dangers of substance use and prevent them from further usage”.

Prevent the consequences of substance use on students, promote health, safety and security: Examples of consequences of substance use among students, which drug testing will help prevent, as listed by the respondents are, development of substance use disorders, psychotic illness/mental disorders, drug overdose, anti-social behaviours, student's immoral behaviours, physical ill-health, spiritual disconnect, academic challenges and general poor productivity, misconduct, violence in school, accidents, truancy, damage to the brain and body organs, jeopardizing the future and premature death. Other related comments under this theme are, “drug testing will improve the standard of education because drugs can cause a lot of damages in the field of education both to the school, the student and the society at large”. Some respondents feel that the use of substances among students rubs negatively on those who do not use. Hence drug testing will help to identify those who use as against generalization among students. In their words, “It helps weed out those who use drugs from the non-drug users”. Some of the comments here includes, “drug testing helps to protect the health, safety and security of students within the university environment and make the school environment peaceful for the students”, “it helps protect the school reputation and maintain campus security”, and “drug testing policies should continue to ensure safety, especially in environments where impaired judgment can cause harm”.

Initiate support and treatment interventions for people who use drugs: Comments related to this are, “drug testing provides opportunity to initiate both preventive and

treatment interventions”, “drug testing should continue so that it will be easier to identify students that need help and give them adequate care before addiction”, “helps the institution to analyze the drug status of students in the university and prevent possible negative effects that could result”, “so that they can easily be identified and provide counselling services for them”, “so as to know those that are into drug, why they are into drugs and proffer solution that would be beneficial to the victim and the school management”, and “to allow for early detection and support/treatment for individuals struggling with substance abuse”.

Complement law enforcement duties and curb national threat of substance use: Some of the comments related to this are, “drug pandemic amongst Nigerian youths is at an all time high, not good for socioeconomic development, therefore drug testing will help to reduce demand for these drugs particularly on campus”, “drug testing helps to remind students of the relevant laws on drug related issues and unacceptable usage”, “it will help to reduce drug circulation and abuse within and outside the campus, reduce patronage and discourage illicit drug dealings or business”, “it helps students to be more responsible individuals in the school, and the society, dropping the rates of drug use in the country as a whole”, “to ensure that the fight against drug abuse is won”, “drug testing will project school unacceptability of drug use and abuse and send a strong position of the school as a complement to drug laws” and “to ensure that students are sticking to the school rules and regulations and show that the school values discipline and students' well-being”.

Theme 2: Weaknesses of Drug Testing

This theme was broken down into 6 interrelated categories.

Cost implication: Comments related to this are, “we have to pay for the drug test and it is too expensive. I hate paying for the tests because I don't do drugs”, “it is another means through which the school is generating revenue or creating business for laboratories and test kits marketers”, “because they just use it as another source of income for the university rather than curb drug/substance use”, “it is too expensive and extra financial burden on our parents”, “because we have to pay for it ourselves if it was free, go ahead”, “because the school is using it as a means to collect a huge amount of money for drug test and we're still paying medicals that are compulsory to the hospital that doesn't do a good job”, “it should not continue because it costs too much and most of us are paying for a service we DO NOT need”.

Doubts about effectiveness of drug testing: In the words of the respondents, “we have

to pay for the drug test, I really don't even care about the money but if these students want to still do the drugs they will still do it without the school management knowing". Some students described it as a waste of time, energy and unnecessary. One wrote, "it is a waste of time because it won't stop students from using drugs". Another wrote, "it doesn't actually solve the problem of drug use, it just makes students more cautious about not getting caught, doesn't stop them", "even with the policy, drugs are still abused, it won't stop students who are addicted to drugs from taking it". Another one wrote, "I have encountered several students in the hostel despite drug testing policy, so clearly it doesn't work very well. They will stay clean for some weeks before the test", "many students continued taking drugs after the test have been carried out. They take drinks which can neutralize the drugs in them to test negative, and after the test results they continue taking it".

Inconveniencing, unhygienic and invasive: Comments related to this are, "I would say no to drug testing because in my school, drug testing is usually carried out within the first week of resumption, create so much inconveniences and delays in the registration process", "I don't get why someone that is not displaying any signs of sickness or weakness getting tested and made to go through such inconveniences", "as long as a person isn't displaying signs of sickness or weakness that's beyond normal then what're they getting tested for?", "drug testing causes so much stress and anxiety for students regardless of whether they use drugs or not". Some students raised concerns about the unhygienic process of sample collection. For example, some wrote, "they don't allow us to use water and wash up after peeing", "the pre-suspension screening is very uncomfortable as we pee in a bottle and are not even allowed any cleaning supplies afterwards" and "I don't like it, the process is invasive and carried out under poor health care facilities".

Not for adult population: Some feels that university students are matured enough to decide what they want and as such free to use drugs if they feel like doing so. Some wrote, "because we are adults, we should be free to do drugs if we want to", "adults should be free to do what they like, drug testing is unnecessary", "while drugs are bad, I think people should be left to make their decisions themselves and respect their human rights", "never stop people from doing what makes them happy, it is their lives and not yours to live" and "drug testing should be for those adults who may be exhibiting symptoms and upon suspicion".

Gaps in drug testing administrative procedures: Comments related to this are,

“people who truly use drugs won't attend the drug test”, “some students submit other people's urine for drug tests, which raises question about the effectiveness of the results”, “because there are manipulations/corruption in the system, so it's of no use if you can't identify students using drugs”, “the drug testing policy is being abused”. One wrote, “I have connections, so they did not do anything to me even with positive drug tests”, “most of them use their friends' urine without the knowledge of the school authorities since samples like urine are taken unsupervised”, “some use chemicals/substances to dilute/neutralize the drug in their system”, “some take a long break from it because of the coming test so it won't be detected”, “the outcome of test results are not fully implemented”, “in my school, drug testing is usually carried out within the first week of resumption and some of the students will stay back and resume after the period and will escape being tested” and “people who use drugs are stigmatized in the process”.

Limited span and quality of testing kits: Related comments to this are, “test kits does not account for substances used outside a certain timeline”, “drug kits are limited in identifying all the drugs of abuse” and “there are cases of false positive and false negative test results due to the quality of test kits”.

Theme 3: Improving Drug Testing.

Procedure and administration: Different suggestions were made on the procedures. Some wrote, “the drug testing should be consistent and not one off”, “it should be regular and impromptu”. Some respondents suggested every month, twice in a semester (at the beginning and end of the semester) and thrice in an academic session while some suggested when necessary. Others wrote, “drug testing should be mandatory and carried out as a pre-admission, pre-resumption and pre examination conditions so that no student can escape it”, “it should be carried out before starting exams as a mandatory and eligibility criteria for taking the exams”, “drug testing should be decentralized to faculty or departmental levels with instant test results to avoid compromise or altering of test results”, “sample collection and testing should be carried out at the school health care facilities”, “adopt different and unpredictably strategies at different times”, “random drug testing, better tests samples like blood or hair follicle should be considered to minimise compromise and urine swap”, “improve the hygiene sample collection process, make it easier and less of a hassles”, “close supervision of the sample collection process is recommended to prevent sample swap and compromise”, “confirmatory or serial testing should be conducted

against false positive or false negative test results before decisions are made”, “ensure fairness, supportive and privacy for those being tested and implement a more comprehensive testing protocols to cover a wider range of substances”, “drug testing should only be conducted for students based on suspicion arising from behaviours”, “test results must be kept strictly confidential and handled only by authorized personnel to protect students from stigma”, “drug testing should be less invasive and adopt other physical ways to assess the level of drugs or substance in the body”, “use only reliable laboratories and follow proper legal procedures”, “policy should be enforced effectively and use profiling to identify those who are suspected to be using drugs for drug testing”, “include enforcement duties to the drug testing policy by regular visit and monitoring of the pharmacies around the school, involve parents and guardians in a positive way, ensure proper communication between school and home for a better outcome” and “drug testing should be a whole school policy and should not just be for students alone but staff like the lecturers, shuttle drivers, marshals and the rest”. Others wrote, “those who want to get tested can get tested but those who don't shouldn't have to be forced to it”, “it can be improved by using people of integrity and avoid corruption”, “it should be added to school curriculum as a 100-level course with 0 unit course for student so it can be added to the attendance and get everyone to participate in the process and incentives given to students whose drug test is consistently negative”, “broader specification on tests and surprise testing but only a warning if positive since people go through things that they need help coping with, Nigeria is hard enough”, “destroy the corruption in the drug test process first”, and “there should be an informed consent before drug testing”.

Prevention and treatment intervention focused as against punishment: Comments relating to this are, “better compliance can be ensured through better education and awareness on the dangers of drug abuse”, “by constant counselling and seminars for the youth telling them the importance of abstaining from harmful substances, lectures on drug abuse, counselling, and other support programmes”, “shift focus from punishment to support. If a student should be positive, instead of expulsion or suspension, there should be counselling and rehabilitation programmes and guardians, because many students who use drugs are dealing with drug issue, struggling with stress, depression, peer pressure and other personal issues” and “instead of punishing or stigmatizing students, they should be given support or help”.

Policy and research focused: Comments related to this are, “students drug testing

should be based on sound/evidence-based policy, more research on any of the university that is getting it right and continue strategizing for continuous improvement”, “every institution should make drug testing as a policy, review from time to time for all students or suspicious students, action appropriately taken and policy effectively implemented”, “develop it as a national mandatory drug testing policy applicable to all institutions”, “drug testing is not enough, therefore should not be a stand-alone policy”, “drug testing can be improved upon by carrying out monthly research as this one and creating awareness”, “drug testing should align with relevant drug laws, possibly involve law enforcement in the process”, “stricter enforcement on the drug law and severe punishment for dealers to reduce availability of these substances in the school”, “the policy should not only check students but also help them make better and healthier choices” and “there should be proper and effective enforcement of the drug testing policy, appropriate disciplinary measures”.

Drug testing kits: Comments on this section relates to the descriptive data (Fig. 4). For example, “drug testing kits and equipment should be more functional and accurate, and results released instantly”, “acquire good quality kits, good quality equipment and certified doctors or technicians to ensure fairness and accuracy of results”, “by making testing more accurate, reliable and the use of more advanced testing methods to reduce false positives and false negatives results” and “better testing technology and proper confirmation tests should always be used before making decisions”.

Funding: Comments related to this are, “drug testing should be carried out through proper funding by the government”, “it should be done with lesser cost implication to students and parents”, “drug testing should only be done on people who are acting like they may be under the influence of drugs to reduce cost” and “the government should provide enough testing machines for the school authority and make it mandatory for students”.

Table 10: Summary of Themes

Key themes	Sub themes
Strength of drug testing	Prevention of substance use
	Prevent the consequences of substance use on students, promote health, safety and security
	Initiate support and treatment interventions for people who use drugs
	Complement law enforcement duties and curb national threat of substance use
Weaknesses of drug testing	Cost implication
	Doubts about effectiveness of drug testing
	Inconveniencing, unhygienic and invasive
	Not for adult population
	Gaps in drug testing administrative procedures
	Limited span and quality of testing kits
Improving drug testing	Procedure and administration
	Prevention and treatment intervention focused as against punishment
	Policy and research focused
	Drug testing kits
	Funding

Conclusion

This study explored the views of university students on students' drug testing policies in Nigeria. The study identified strengths, weaknesses/barriers and suggestions for improvement of the policies. The findings suggest that majority of students believed that drug testing policy would be effective in curbing substance use among their peers. Considering the positive response, drug testing may be one of the complementary strategies for effective substance use prevention among university students in Nigeria. The overall positive response notwithstanding, the weaknesses of drug testing should be carefully reviewed by universities, school administrators, policy makers and health professionals in developing drug testing policy and put into consideration the suggestions for improvement. For example, there are concerns over adulteration of specimens, corruption/compromise in the administrative process, limited capacity of the testing kits, accuracy of drug tests (false positive and false negative results), equitability of consequences to engender greater levels of confidence in the policy, intrusiveness and sometimes confrontations associated with sample collection, the exorbitant costs of drug testing, apprehension that goes with

the outcomes of the test results which may be punitive and the demeaning/embarrassing presentation of drug testing.

On administrative procedures, studies have raised concerns about the capacity of the school to diligently enforce negative sanctions based on positive drug tests considering the social context of the school setting. While studies reported that school drug testing programme should not be punitive or interrupt academic learning such as suspension or expulsion, other studies suggest that without a negative sanction (e.g., exclusion, punishment from parents), drug testing is unlikely to deter future use.

Basically, the rationale for drug testing programmes in the school setting is the belief that it will prevent substance use among students; improve student's physical and psychological well-being; reduce truancy, cultism and behavioural problems; promote responsiveness, academic excellence and educational outcomes and to enable school authority to monitor policy compliance, identify students who might develop substance use problem and encourage them to seek early intervention. Proponents of students' drug testing policy argue that it offers schools a more aggressive approach to substance use prevention than common risk and resiliency-based programmes.

Currently, Nigeria lacks specific legislation that addresses school drug testing. Explicit policies are the foundations of comprehensive substance use prevention or drug testing programmes. Such policies should include clearly written statements of goals, measurable objectives and operational procedures/protocols. For example, the goal is to create a school environment that is free of substance use and not disrupted by substance use and related issues; influence institutional and individual attitudes and values for actions to deter substance use. Measurable objectives include providing drug education, health literacy, safe medication practices and wellness programmes; establishing drug screening/detection programmes; and providing treatment, rehabilitation/support programmes. Protocol should include operating procedures, whom the programme covers (students alone or schoolwide, including lecturers and other staff) and their responsibilities; options under the policy including options for assistance, who operates the programme (including clear procedures on specimen handling, integrity of the process, confidentiality and documentation); roles of the institution; and the rights and protections of participants. While national drug testing policy is advocated, institutional drug-testing policies should be designed and developed contextually to reflect the needs, realities and constraints of

each university setting. This should be improved by using a combination of techniques as well as by updating the methods and databases to include emerging substances. The technical competence to develop this comprehensive model will require capacity building among university stakeholders in Nigeria.

Elsewhere, attention to SDT has decreased in recent years for want of sufficient evidence. However, in Nigeria and as the country grapples with the burden of substance use, particularly among the young population, it is crucial that research continues to examine different substance use prevention strategies as this can play a significant role in informing a more effective preventive strategy. The current study is an important step in this direction as it examined the direct and indirect relationship of two substance use prevention strategies among university students in Nigeria. From findings in this study, SDT policy may enhance school-based substance use prevention programmes when implemented according to set guidelines in the context of a positive school climate. Careful programme implementation and consistent monitoring to ensure adherence to recommended guidelines may promote the intended benefits of SDT.

The current research expands on previous findings indicating that school drug testing, in and of itself, may not deter SSU. Interventions that improve school climate may have much greater efficacy in reducing SSU. Thus, our findings indicate the need for SDT to be part of a comprehensive substance use prevention interventions in the school setting and not undertaken as a stand-alone substance use prevention effort and that improvements in school climate should be considered as part of the implementation strategies. Moreover, additional research is needed to confirm the perceived efficacy of drug testing as a component of a whole school prevention programme designed to improve school climate. In addition to effectiveness, other issues that were not addressed in this survey need to be considered, including cost effectiveness and SDT protocol.

Recommendations

- Subsequent studies should include data on lecturers and other school administrators on their views about drug testing policy and gather data besides self-report to increase the validity of findings.
- Drug testing should not be undertaken as a stand-alone substance use prevention effort but as part of comprehensive school-based prevention programmes.

- Improvements in school climate should be considered as part of the substance use prevention strategies.
- Additional research is needed to confirm the perceived efficacy of drug testing as a component of a whole school prevention programme designed to improve school climate.
- In addition to effectiveness, other issues that were not addressed in this paper need to be considered, including cost effectiveness and students drug testing protocol.
- Government should fund drug testing policy project as part of a national emergency response to substance use situation in Nigeria.
- The nation should pay particular attention to early substance use prevention interventions prior to university age.
- SDT programmes should address the negative perceptions of accuracy of testing, and equitability of consequences to engender greater levels of confidence and acceptance in SDT among students.
- The administrative gaps in the drug testing procedures including corruption and compromises should be adequately addressed.
- SDT policy may enhance school-based substance use prevention programmes when implemented according to set guidelines in the context of a positive school climate. Therefore, careful programme implementation and consistent monitoring to ensure adherence to recommended guidelines may promote the intended benefits of SDT.

Strengths and Limitations

This study was the first of its kind to assess the perceptions of students on SDT policy in universities in Nigeria and by extension Sub-Sahara Africa. In addition to the innovativeness of the study, the inclusion of participants from different universities across the six geopolitical zones in Nigeria was a strength. Strength also lies in the large sample size. While the study offers some valuable new findings on an important policy matter, the study has limitations; one of which is the inability of the researchers to generalize the findings of this study to the entire universities in Nigeria, since the study was limited to 10 universities. The researcher recommends that this study be replicated in most universities in Nigeria with larger sample. Data collection was self-reporting, and the validity and reliability of such report is often questioned especially with behaviours or feelings that could be judged to be wrong.

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References

Adeyemo, F., Ohaeri, B., Okpala, P. U. & Oghale, O. (2016). Prevalence of Drug Abuse Amongst University Students in Benin City, Nigeria. *Public Health Res.* 6(2):31–7.

Agwogie, M. O., & Kliewer, W. (2024). Parenting and other potential protective factors associated with polysubstance use among public school students in Lagos, Nigeria. *International journal of psychology : Journal internationale de psychologie*, 59(3), 432–440. doi: 10.1002/ijop.13122.

Agwogie, M. O., Kliewer, W., & Ibrahim, M. B. (2023). Predictors of substance use disorder symptoms among women in Katsina State, Nigeria. *Drug and alcohol dependence*, 247, 109866. doi: 10.1016/j.drugalcdep.2023.109866

Agwogie, M. O., Kliewer, W., Mattfeld, M., Somoye, O. A., Olatunde, I. A. & Ola, B. A. (2022). Parenting and School Context Differentiate Nigerian Adolescents' Profiles of Substance Use. *International Perspectives in Psychology: Research, Practice, Consultation*. <https://doi.org/10.1027/2157-3891/a000060>

Agwogie, M. O. (2022). Addressing Drug Challenges in Health and Humanitarian Crises: Settings in Need of Care for A Comprehensive Drug Use Prevention in Nigeria. A paper presented at the commemoration of the 2022 International Day Against Drug Abuse & Illicit Trafficking State House Conference Centre, Abuja, June 27, 2022. <https://gisainitiative.org/addressing-drug-challenges-in-health-and-humanitarian-crises-settings-in-need-of-care-for-a-comprehensive-drug-use-prevention-in-nigeria/>

Agwogie, M. O. (2018). Clandestine drug laboratory: emerging threat to health and national security. Global Initiative on Substance Abuse. [Accessed 20 November 2025]. Available from: <https://gisainitiative.org/clandestine-drug-laboratory-emerging-threat-to-health-and-national-security/>

Aguocha, C. M., & Nwefoh, E. (2021). Prevalence and correlates of substance use among undergraduates in a developing country. *African health sciences*, 21(2), 875–883. DOI: [10.4314/ahs.v21i2.49](https://doi.org/10.4314/ahs.v21i2.49)

Al-Asmari A. I. (2024). A critical review of workplace drug testing methods for old and new psychoactive substances: Gaps, advances, and perspectives. *Saudi pharmaceutical journal: SPJ: the official publication of the Saudi Pharmaceutical Society*, 32(5), 102065. DOI:[10.1016/j.jsps.2024.102065](https://doi.org/10.1016/j.jsps.2024.102065)

Anglin, M. D. & Westland, C. A. (1989). Drug monitoring in the workplace: results from the California Commercial Laboratory Drug Testing Project. In *Drugs in the workplace: research and evaluation data*. Rockville, Maryland, National Institute on Drug Abuse, P. 81-96. (National Institute on Drug Abuse Research Monograph Series, No. 91).

Axel, H. (1989). Characteristics of firms with drugs testing programs, in: *Drugs in the Workplace: Research and Evaluation Data*, NIDA Research Monograph, no. 91, U.S. Government Printing Office, Washington, DC.

Coombs, R. H., & Ryan, F. J. (1990). Drug testing effectiveness in identifying and preventing drug use. *The American journal of drug and alcohol abuse*, 16(3-4), 173–184. DOI: [10.3109/00952999009001582](https://doi.org/10.3109/00952999009001582)

Dasgupta, A. (2005). Adulteration of Drugs-of-Abuse Specimens. In: Wong, R.C., Tse, H.Y. (eds) *Drugs of Abuse. Forensic Science and Medicine*. Humana Press. https://doi.org/10.1007/978-1-59259-951-6_13

DuPont, R. L., Merlo, L. J., Arria, A. M., & Shea, C. L. (2013). Random student drug testing as a school-based drug prevention strategy. *Addiction (Abingdon, England)*, 108(5), 839–845. DOI: [10.1111/j.1360-0443.2012.03978.x](https://doi.org/10.1111/j.1360-0443.2012.03978.x)

DuPont, R. L., Saylor, K. E. (2006). Drug Tests in Prevention Research. In: Sloboda, Z., Bukoski, W.J. (eds) Handbook of Drug Abuse Prevention. Handbooks of Sociology and Social Research. Springer, Boston, MA. https://doi.org/10.1007/0-387-35408-5_10

Ellis, R. R. (1991). Voluntary drug testing for high school students. *MLO: medical laboratory observer*, 23(3), 29–32.

Embers, D. M., Ravishankar, D. A., Din, A., & Sethi, R. (2019). Synthetic Urines in a Buprenorphine Clinic. *Kansas journal of medicine*, 12(4), 146–147. <https://doi.org/10.17161/kjm.v12i4.13263>

Evans-Whipp, T. J., Bond, L., Toumbourou, J. W., & Catalano, R. F. (2007). School, parent, and student perspectives of school drug policies. *The Journal of school health*, 77(3), 138–154. DOI: [10.1111/j.1746-1561.2007.00183.x](https://doi.org/10.1111/j.1746-1561.2007.00183.x)

Franz, S., Skopp, G., & Musshoff, F. (2022). The effect of creatine ingestion on urinary creatinine concentration: Does supplementation mask a heavy dilution?. *Drug testing and analysis*, 14(1), 162–168. DOI: [10.1002/dta.3165](https://doi.org/10.1002/dta.3165)

Fu, S., (2019). How do people try to beat drugs test? Effects of synthetic urine, substituted urine, diluted urine, and in vitro urinary adulterants on drugs of abuse testing. In Crit. Issues Alcohol. Drugs Abuse Test.

Gale, N. K., Heath, G., Cameron, E., Rashid, S., & Redwood, S. (2013). Using the framework method for the analysis of qualitative data in multi-disciplinary health research. *BMC Medical Research Methodology*, 13(1), 1-8.

Gerona, R. R., & French, D. (2022). Drug testing in the era of new psychoactive substances. *Advances in clinical chemistry*, 111, 217–263. DOI: [10.1016/bs.acc.2022.08.001](https://doi.org/10.1016/bs.acc.2022.08.001)

Glass, J. (1992). USCG puts drug testing on hold. *London, Lloyds List*.

Gottfredson, D. C., & Wilson, D. B. (2003). Characteristics of effective school-based substance abuse prevention. *Prevention science : the official journal of the Society for Prevention Research*, 4(1), 27–38. DOI: [10.1023/a:1021782710278](https://doi.org/10.1023/a:1021782710278)

Hansen, W., & Dusenbury, L. (2004). Alcohol use and misuse: Prevention strategies with minors. Washington, DC: The National Academies Press.

Hanson M. (1993). Overview on drug and alcohol testing in the workplace. *Bulletin on narcotics*, 45(2), 3–44.

Hawkins, J. D., Catalano, R. F., & Arthur, M. W. (2002). Promoting science-based prevention in communities. *Addictive behaviors*, 27(6), 951–976. DOI: [10.1016/s0306-4603\(02\)00298-8](https://doi.org/10.1016/s0306-4603(02)00298-8)

International Labour Organization (1993). “Drugs and Alcohol in the Maritime Industry: Report of the ILO Inter- Regional Meeting of Experts, Geneva, 29 September - 2 October 1992 . ” In Geneva : I L O . http://www.ilo.org/public/libdoc/ilo/1993/93B09_90_engl.pdf.

Kolade, A. A., Ogedengb, T. J., Fagbenle, A. O. & Iyun, M. O. (2024). Prevalence and Pattern of Drug Abuse among Public Tertiary Institutions Students in Osun State. *FUOYE Journal of Criminology and Security Studies (IJCSS)*. Vol-3, Issue-1, June 2024.

LaRusso, M. D., & Selman, R. L. (2003). The influence of development and school atmosphere on adolescents' perceptions of risk and prevention: Cynicism and skepticism. In D. Romer (Ed.), *Reducing adolescent risk: Toward an integrated strategy* (pp. 113–122). Thousand Oaks: Sage Publications.

LaRusso, M. D., Romer, D., & Selman, R. L. (2008). Teachers as builders of respectful school climates: Implications for adolescent drug use norms and depressive symptoms in high school. *Journal of Youth Adolescent*, 37(4), 386–398.

Lasco, G. (2023). Drug testing in Philippine schools: Historical overview and implications for drug policy. *The International journal on drug policy*, 113, 103961. DOI: [10.1016/j.drugpo.2023.103961](https://doi.org/10.1016/j.drugpo.2023.103961)

Lawler, J. (2000). Drug Testing in Schools: A Pro/con Issue. Berkeley Heights, NJ: Enslow Publishers; 2000.

Lewy, R. (1983). Pre-employment qualitative urine toxicology screening. *journal of occupational medicine* (Baltimore) 25:5:579-580.

Macdonald, S., & Wells, S. (1994). The Impact and Effectiveness of Drug Testing Programs in the Workplace. In: Macdonald, S., Roman, P. (eds) Drug Testing in the Workplace. Research Advances in Alcohol and Drug Problems, vol 11. Springer, Boston, MA. https://doi.org/10.1007/978-1-4615-2399-4_6

McKeganey, N. (2005). Random drug testing of school children. York, U K: Joseph Rowntree Foundation.

McNeil, S. E., Chen, R. J., & Cogburn, M. (2023). Drug Testing. In *StatPearls*. StatPearls Publishing.

Meririnne, E., Mykkänen, S., Lillsunde, P., Kuoppasalmi, K., Lerssi, R., Laaksonen, I., Lehtomäki, K., & Henriksson, M. (2007). Workplace drug testing in a military organization: results and experiences from the testing program in the Finnish Defence Forces. *Forensic science international*, 170(2-3), 171–174. DOI: [10.1016/j.forsciint.2007.03.031](https://doi.org/10.1016/j.forsciint.2007.03.031)

Mikkelsen, S. L., & Ash, K. O. (1988). Adulterants causing false negatives in illicit drug testing. *Clinical chemistry*, 34(11), 2333–2336. <https://doi.org/10.1093/clinchem/34.11.2333>

National Institute on Drug Abuse (2023). Drug Testing. <https://nida.nih.gov/research-topics/drug-testing>. Accessed Nov. 2. 2025.

National School Climate Council (2007). The School Climate Challenge: Narrowing the Gap Between School Climate Research and School Climate Policy, Practice Guidelines and Teacher Education Policy. Available online at: <http://nscc.csee.net/> or <http://www.ecs.org/school-climate>

Njoku, C. (2021). Determination of the Prevalence of Substance Abuse among Students in University of Port Harcourt's Host Communities. *Saudi J Med*. 6(6):165–8.

Okechukwu, C., Abolo, S. A., Ogo, R. N. & Okorie, O. U. (2021). The Pattern of Psychoactive Substance Use among Undergraduates in the University of Port Harcourt, Rivers State, Nigeria. *INDJ*. 15(3):11–9.

Olanrewaju, J. A., Hamzat, E. O., Enya, J. I., Udekwu, M. O., Osuoya, Q., Bamidele, R., Feyisike Johnson, O., Johnson, B. S., Olanrewaju, I., & Owolabi, J. O. (2022). An assessment of drug and substance abuse prevalence: a cross-sectional study among undergraduates in selected southwestern universities in Nigeria. *The Journal of international medical research*, 50(10), 3000605221130039. DOI: [10.1177/03000605221130039](https://doi.org/10.1177/03000605221130039)

O'Malley, G. F., O'Malley, R. & Birnbaumer, D. M. (2022). Drug Testin. Merck Manual Professional Version
<https://www.merckmanuals.com/professional/special-subjects/illicit-drugs-and-intoxicants/drug-testing>

Patton, G., Bond, L., Butler, H., & Glover, S. (2003). Changing schools, changing health? Design and implementation of the Gatehouse Project. *The Journal of adolescent health : official publication of the Society for Adolescent Medicine*, 33(4), 231–239. DOI: [10.1016/s1054-139x\(03\)00204-0](https://doi.org/10.1016/s1054-139x(03)00204-0)

Pope, C., Ziedland, S., & Mays, N. (2000). Qualitative research in health care: Analysing qualitative data. 320. *BMJ*, 8(320), 7227

Portner, J. (1999). Drug testing latest tactic in prevention. *Educ Week*, 18(30):1, 16-17.

Roche, A. M., Bywood, P., Pidd, K., Freeman, T., & Steenson, T. (2009). Drug testing in Australian schools: policy implications and considerations of punitive, deterrence and/or prevention measures. *The International journal on drug policy*, 20(6), 521–528. DOI: [10.1016/j.drugpo.2009.04.002](https://doi.org/10.1016/j.drugpo.2009.04.002)

Schaub Jr., G. (2004). Deterrence, compellence, and prospect theory. *Pol. Psychol.* 25 (3), 389–411

Sznitman, S. R., Dunlop, S. M., Nalkur, P., Khurana, A., & Romer, D. (2012). Student drug testing in the context of positive and negative school climates: results from a national survey. *Journal of youth and adolescence*, 41(2), 146–155. DOI: [10.1007/s10964-011-9658-2](https://doi.org/10.1007/s10964-011-9658-2)

Verstraete, A. G., & Pierce, A. (2001). Workplace drug testing in Europe. *Forensic science international*, 121(1-2), 2–6. DOI: [10.1016/s0379-0738\(01\)00445-5](https://doi.org/10.1016/s0379-0738(01)00445-5)

Voice of Nigeria Broadcasting Service. (2021). NDLEA To Introduce Drug Integrity Test Initiative.

<https://von.gov.ng/ndlea-to-introduce-drug-integrity-test-initiative/>

Wada, Y. H., Khalid, G. M., Shitu, Z., & Ibrahim, U. I. (2021). Prevalence and Impacts of Psychoactive Substance Abuse amongst Undergraduate University Students in Katsina State, Nigeria. *Addiction & health*, 13(4), 221–231. <https://doi.org/10.22122/ahj.v13i4.1197>

Yamaguchi, R., Johnston, L. D., & O'Malley, P. M. (2003). Relationship between student illicit drug use and school drug-testing policies. *The Journal of school health*, 73(4), 159–164. DOI: [10.1111/j.1746-1561.2003.tb03596.x](https://doi.org/10.1111/j.1746-1561.2003.tb03596.x)



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