

Experimental Substance Use Among Rural And Urban Teenagers In Zimbabwe

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ABSTRACT

A total of 2000 randomly selected teenagers of both sexes from 40 urban and rural schools responded to questionnaire items which assessed attitudes, influence and experience with alcohol, mbanje (marijuana), inhalants and other drugs.

The differences in behaviour attitude and experience between rural and urban teenagers were determined through the use of the chi-square and t-tests. Initial results showed that 93% of the 2000 respondents had had some experience with substance use. Frequencies of experience with the more sophisticated drugs and western-style alcoholic drinks were consistently higher among urban teenagers than among rural teenagers, but no differences in attitude, behaviour and experience with substance were observed at the 0, 05 level between the two groups. A follow-up study with a substance education package designed for prevention and/or intervention of substance use was administered two months later to 50 per cent of the same teenagers, while the other 50 per cent acted as controls.

Re-administration of the questionnaire after six months again showed no significant change in attitude, behaviour and experience despite the fact that 50% of the pupils had received a substance education programme. Implications for identifying adolescents "at risk" and the tailoring of stronger prevention/intervention efforts are addressed.

Background

As long ago as 1604 a pamphlet circulated by the British Health Education Authority (BHEA) criticized the smoking of tobacco, yet nearly 400 years later, the habit continues. Tobacco was first introduced in Europe when Christopher Columbus returned to Spain with the plant which he had seen

the Mayans of Central America chewing and smoking. In 1550, Jean Nicot, a Frenchman discovered the addictive substance in the leaves (nicotine is named after him) and the harmful effects of tobacco smoking were then exposed for the first time. In the same BHEA pamphlet, the dangers of excessive alcohol consumption were also exposed.

Diseases and health problems caused or complicated by smoking include cancer, emphysema, bronchitis, laryngitis, diabetes and ulcers. Tobacco smoke contains nicotine, carbon monoxide, ammonia, formaldehyde and hydrogen cyanide, and all are suspected or known to be carcinogens (cancer causing substances).

Tobacco smoking and the consumption of western-type alcoholic drinks such as whisky, gin and brandy are believed to have been introduced to Zimbabweans in the 1890s by colonial settlers who exchanged these substances for land and mineral rights. Since then, Zimbabwe has become one of the world's leading exporters of tobacco after the settlers discovered that the country had suitable climatic conditions for growing tobacco. While tobacco and alcohol are still the two most popular types of substance used (or abused) in Zimbabwe other types have also found their way into the commercial market from within the country or from outside. These include (i) 'mbanje', sometimes referred to as 'dagga' or 'marijuana' and is marketed illegally; (ii) inhalants - such as petrol, glue, amyl-nitrate or thinners and are not viewed as illegal substances, (iii) mandrax and (iv) amphetamine sulphate-both found in tablet, or powder form and are said to provide increased energy and mental activity.

Other drugs which have found their way into Zimbabwe on a rather small scale include crack, cocaine, LSD and heroine. These are illegal, expensive and difficult to obtain. Substance users sometimes end up abusing alternatives through the irresponsible use of doctors' prescriptions.

As western-type alcoholic drinks become more and more expensive each year other illicit brews such as 'Kachasu' are increasingly becoming popular among both urban and rural folk in Zimbabwe. The extent to which experience, attitude and behaviour related to substance use is prevalent among Zimbabwean teenagers is investigated in this paper.

Contemporary Theories And Research On Substance Use/abuse

Popular theories of adolescent substance use include Kandel's three-stage progression of involvement which purports various antecedents associated with each stage of substance involvement.

Psychosocial explanations of substance use such as cultural factors, environmental factors, individual needs and motivation have received favourable support in the literature (Jessor and Jessor, 1977; Murry and Perry, 1985). Generally, the psychosocial perspective views substance use and a number of other behavioural correlates as a manifestation of development.

According to Erikson (1968) the process of identity formation entails an integration of past identifications, present competency, and future aspirations; resulting in a sense of experience and identification with significant others. Erikson views the individual in this state as having reached the fifth stage of development: role confusion versus identity achievement.

However, modern psychosocial theorists view substance use/abuse as being caused by social, environmental and intrapersonal antecedents which in turn influence behaviour.

In Zimbabwe studies by the Ministry of Health (1990) and (1991) revealed that there was a marked increase in the use of substance use among teenagers. Reasons given for such use/abuse ranged from poverty, unemployment, boredom to lack of self discipline and peer influence.

The survey also revealed that it was expected that some teenagers would transcend the substance use from licit (eg alcohol and tobacco) to illicit (eg marijuana, kachasu and mandrax) once such has become habitual behaviour. In another study on the use of drugs involving 2 700 Zimbabwean secondary school students, Acuda, Eide and Gudyanga (1990) found that 38% of the students had tried alcohol. Twenty percent admitted to smoking tobacco and use of inhalants was reported by about 12 percent.

In an attempt to assess the Zimbabwean average male's and female's definition of the normal non-problem use of alcohol, researchers McMaster, Kageler and Williams (1991) designed a structured questionnaire and administered it to 40 male and female University of Zimbabwe students doing fourth and fifth year medical studies. The study showed that female students indicated that it was normal to drink between once and twice a week; suffer hangovers infrequently; get drunk between once and twice a year and spend about 5 to 10 percent of their income on alcohol.

Male students also indicated that it was normal to drink a quarter to half a bottle of wine; about four to five pints of beer; and about one tot to one eighth of a bottle of spirits once a week.

Studies on the use of drugs have also been carried out in a number of countries in Africa. For example, Haworth (1982) found that 57% of secondary school boys in Lusaka had used alcohol. In Swaziland about half of the high school students were found to drink beer (Myeni, 1985). In Lesotho, Morojele and Meursing (1985) found that about half of the students (54% of the boys and 42% of girls) had drunk alcohol at some point in their lives. In summarising research on peer and family influences on drug use by young people, Glynn (1981) concludes that adolescent drug using behaviour is, at any point in time, influenced by peers and family. There does not seem to be any point where the young person is fully influenced by one or the other. The influences are not always the same, however, and there are situations where the balance shifts more in one direction than the other. Glynn says that when the purpose of drug use is immediate satisfaction of curiosity or experimentation, peer influence is primary. On the other hand, when drugs are used to deal with underlying psychological or emotional problems, there are usually identifiable family factors involved.

The Study

This study was centred around three basic questions:

1. To what extent is substance being used/abused in Zimbabwe?
2. To what extent is substance use/abuse influenced by urban or rural

- environmental factors?
3. How effective are the substance education programmes being implemented in Zimbabwe?

Methods

(i) Sampling And Data Collection

A total of 2000 randomly selected pupils of both sexes and ages aged between 13 and 16 and from 20 urban and 20 rural secondary schools was used as a representative sample for the study. By personally distributing a pre-tested questionnaire to the selected pupils the data related to substance use or abuse was collected on two separate occasions, first before a substance education package was administered and then after it was administered to 50% of the respondents.

(ii) Measurement

The questionnaire contained three demographic questions and 15 times designed to elicit information regarding substance experience, attitude towards substance use, and behaviour patterns related to substance use. The substance education package consisted of a video film, a lecture and a drama group all based on the harmful effects of substance use.

(iii) Analysis And Results

(a) The First Phase

In the first phase of the survey, responses from pupils in the five education provinces of Zimbabwe namely Masvingo, Matabeleland, Midlands, Mashonaland and Manicaland were analyzed and assessed for substance-related knowledge and attitudes towards substance use.

Questionnaire responses revealed that 1862 (about 93%) of the 2000 pupils surveyed, had had some experience with alcohol and/or cigarettes. Only 131 (about 6%) mostly female claimed that they had never smoked cigarettes or drunk alcohol while 86 (about 4%) admitted to having tried out the harder drugs such as mbanje, mandrax or some inhalants.

The use of roll-up tobacco, and home-brewed alcohol such as 'Kachasu', 'Masese' and 'Seven days' was found to be more prevalent among rural pupils while most urban pupils preferred or had easier access to western type substances such as bottled spirits, packed cigarettes, glue, mandrax and clear beer. (See Table 1 for detailed analysis). The results also showed that substance use is largely a male-dominated activity with alcohol and tobacco as the most frequently used substances.

(b) The Second Phase

After the analysis of questionnaire responses, a campaign against the irresponsible use of alcohol and drugs which included a lecture and a video film was administered to 50 per cent of both rural and urban pupils from the same schools originally used for questionnaire responses. By choosing every other class used two months earlier and leaving the remainder acting as controls it was hoped that significant differences in both knowledge and attitudes towards substance use would be noticed between the experimental and control groups.

(c) The Third Phase

Readministration of the same questionnaire six months later revealed more or less the same responses with 92% of the pupils having had experience with alcohol and cigarettes and 2% having admitted to have taken the hard drugs. Minor discrepancies in the findings are attributed to the fact that 8 pupils from the original survey were missing (either through absenteeism or having left the school altogether) when the questionnaire was readministered.

A t-test was applied, first to test the differences between the experimental groups attitudes towards substance use and that of the control group, and, secondly, to find out if there was any significant difference in attitude and experience with substance between rural and urban pupils. In both cases no significant differences were detected. ($t = 1.01, p > 0,05$) ($t = 1.23, p > 0,05$). Chi-square results also failed to determine significance on behaviour patterns between rural and urban pupils ($X^2 = 3.16, p > 0,05$) with 15 d.f.

(iv) Reliability And Validity Of Instrument

Split-half reliability techniques were applied to determine the robustness of the instrument used. A co-efficient value of 0.78 was obtained and according to Gourevitch (1965) and Guildford (1956) this is a sufficiently high reliability analysis and it also suggests a high validity level (Guildford, 1956).

A factor analysis was also carried out to place the data into three main categories viz-a-viz

- (i) experience with substance,
- (ii) behavioural patterns influenced through substance and
- (iii) attitude towards substance use/abuse.

Only those items with factor loadings of 0.5 and above in these three categories were retained while the rest were discarded. This exercise also determined the robustness of the instrument.

The Questionnaire Items

1. Are you male or female?
2. What is your present age?
3. Is your school situated in an urban or rural area?
4. Have you ever drunk alcohol or smoked cigarettes?
5. How old were you when you had your first alcoholic drink?
6. Who gave you your first alcoholic drink?
7. What is your most important reason for drinking alcohol?

¹Factor Analysis tables, Reliability Analysis and Final Item Statistics are available from the author upon request.

8. Have you ever tried out other drugs besides alcohol and cigarettes?

If yes, state which ones you have tried among these

9. Which ones of the drinks listed below have you ever tasted?

Whisky
Brandy/Gin
Wine
Kachasu
7 Days
Zambezi
Lion Lager
Castle Lager
None

10. Do your parents or those who look after you allow you to drink alcohol?
11. Have you ever been involved in a fight or argument which started as a result of taking drugs or alcohol?
12. Have you or your friends ever been in trouble with the police for drug abuse?
13. How often do you drink?
- Once a week
Once a month
Daily
Only on occasions
Not at all
Other (eg,
Weekends only or whenever
drink is available)

14. Do you think that alcohol or drugs affect one's performance in school negatively?

15. Have you ever tried to stop drinking or smoking and failed?

16. What do you think are the advantages of taking drugs or alcohol?

Give one more confidence

Make one wiser

Put one in a good mood

Make one forget problems

No advantage at all

Other (eg, a nice way of socialize)

17. In what ways do you think drug taking or alcoholism can be stopped?

Reduced amount of pocket money

Charge high prices

Imprison all who abuse drugs

Educate people about its dangers

It can't be stopped

Other (eg, sell by prescription, no under 18s, legalize mbanje, provide nicorrets and tobacco substitutes)

18. Among the following types of cigarettes which ones have you

smoked?

Newbury

Kingsgate

Berkeley

Roll-up Tobacco

Chew Tobacco

Other brands (state them)

Table 1
Questionnaire Responses
percentages And Frequencies Depicting The Relationship
Between Urban And Rural Pupils Aged Between
12 And 17 Years N= 2000

Item No.	Item	Urban(f)	(%)	Rural(f)	(%)
1.	Male	501	25.0	521	26.0
2.	Female	526	26.0	452	23.0
3.	No. of pupils	1 027	51.0	937	49.0
4.	Drunk Alcohol				
	smoked	938	47.0	924	46.0
	never drunk or smoked	39	0.02	92	0.05
5	first exper-ience with alcohol:				
	below 10 yrs	7	0.004	4	0.002
	10 - 12 yrs	100	0.5	58	0.03
	13 - 14 yrs	206	10.0	161	0.8
	over 14 yrs	893	45.6	433	21.7
6.	Who gave first drink?				
	Friend	443	22.15	322	16.1
	Brother	59	2.95	69	3.45
	Parent	297	14.85	304	15.2
	Relative	130	6.5	85	4.25
	Other	92	4.6	61	3.05

7.	Most important reason for drinking				
	to get high	582	29.1	440	22.0
	to forget problems	170	8.5	209	10.45
	to relax	100	0.5	25	1.25
	other!	235	11.75	101	5.05
8.	Other drugs tried				
	inhalants	12	0.05	2	0.001
	mbanje	39	0.20	23	0.001
	cocaine	0	0.0	0	0.0
	mandrax	10	0.05	0	0.0
	amphctamine	0	0.0	0	0.0
9.	Drinks tasted:				
	whisky	203	10.0	66	3.0
	brandy or gin	316	16.0	115	6.0
	wine	219	11.0	87	4.0
	kachasu	17	0.08	427	21.0
	7 days	23	1.0	568	28.0
	zambezi	433	22.0	116	6.0
	lion lager	275	14.0	128	7.0
	castle lager	428	21.0	265	13.0
	none at all	39	2.0	92	0.05
10.	Do parents allow drink?				
	yes	179	9.0	162	8.0
	no	765	38.0	756	37.0
12.	Ever been in trouble with police?				
	yes	19	1.0	0	0.0
	no	1 000	50.0	981	49.0
13.	How often do you drink?				
	once a week	389	19.0	264	13.0

once a month	199	10.0	302	15.0
daily	46	2.0	27	1.0
on specific occasions	68	3.0	43	2.0
not at all	39	2.0	92	5.0
other	269	13.0	262	13.0
15. Attempted to				
stop drinking	305	15.0	295	14.5
never attempted	634	30.0	635	31.5
16. Advantages of drug use?				
Give more confidence	100	5.0	73	3.65
Makes one wiser	16	0.008	21	1.05
Puts you in a good mood	121	6.05	101	5.05
Makes you forget problems	269	13.45	200	10.0
No advantage at all	422	20.1	202	10.0
Other	112	5.6	363	18.15
17. How do we stop substance abuse?				
Reduce pocket money	83	4.15	80	4.0
Charge high price	410	20.5	416	20.8
Imprison all drug abusers	199	10.0	170	8.5
Education	256	12.8	221	11.05
Cannot be stopped	18	1.0	20	1.0
Other	200	10.0	53	2.65
18. Which cigarettes smoked				
Kingsgate	965	48.1	236	12.0
Berkeley	723	36.0	198	10.0
Newbury	442	22.1	84	4.15
Roll up Tobacco	52	3.0	468	23.0
Chew Tobacco	5	0.025	121	6.0
Other	219	11.0	28	1.2

Summary And Discussion

At face value, the data in this research provides insight into the high frequency rate of adolescents aged between 13 and 16 who reported wide-spread substance use both in rural and urban areas. The majority of these teenagers (93%) use alcohol and cigarettes. Only a small portion use 'mbanje' or other more sophisticated drugs on a regular basis. The majority of users are male teenagers. Most of those who admitted to drinking reported that their first experience of alcohol was either with peers (38%) or with their own parents (30%). This seems to support Glynn's (1981) findings and other psychosocial theories of substance use. For instance Erickson (1968) suggests that "the process of identity formation entails an integration of past identifications, present competency, and future aspiration, resulting in a sense of self-founded in perceptions of experience and identification with significant others". Most teenagers see peers and parents as the most important people in their lives and inevitably it is these who are most ~~are~~ most likely to influence their behaviour patterns and experience. Eight percent of urban teenagers said that their parents allowed them to drink alcohol, suggesting that they either drank with their parents or that their parents turned a blind eye to their children's drinking habits. The majority of pupils who admitted to drinking (66%) reported that they had first drink around the age of fifteen. At this age, in African culture, many parents start to view adolescent children as grown up, especially boys, and in many cases they are given adult roles to play. This probably explains why alcohol use is tolerated by some parents at this stage.

The data in this research also seems to suggest that youth culture is the same in both rural and urban areas. The environment antecedent which act as one of the factors which influences behaviour propounded by Kendal (1984) does not seem to have vindicated as the only differences observed between rural and urban teenagers' behaviour is in the quantities and types of substances used.

For instance frequencies of experience with the more sophisticated drugs and western-type expensive alcohol drinks such as gin, brandy and cigarettes, again, western-type and more and more expensive brands such as Kingsgate and Berkely were the most popular among urban teenagers while roll-up tobacco was more prevalent among rural teenagers. The answer to this probably lies in the levels of accessibility of each substance type within a given environment, or perhaps in the fact that urban

teenagers have more access to pocket money than to their rural counterparts because of the better economic factors in urban environments.

Despite the substance education programme given to 50% of the total number of pupils surveyed, there were no significant differences in behaviour or attitudes observed when the survey was conducted again six months later perhaps because the education package was just a "one off" and pupils had forgotten all about it, or because it simply was not effective at all. However, some modest and beneficial influences on substance related knowledge and behaviour were found to exist among slightly more individuals in the third phase of the study than in the first as evidenced by the way they suggested how substance abuse may be prevented or stopped.

It goes without saying that use contributes to slow information processing in the brain which may result in accidents, poor performance in school or other psychological deficiencies such as anxiety, depression, distress or even suicidal tendencies. A number of health professionals have argued that raising the price of alcohol would be one of the most useful means of reducing the number of teenagers using it, but this has yet to be proved especially among those who are already addicted.

One consolation about these findings is that although the hard sophisticated drugs such as cocaine, crack, mandrax and amphetamine injectors are slowly finding their way into Zimbabwe, only a handful of the youths surveyed have either heard about them or have attempted to use them. From the foregoing, one can deduce that if authorities adhered to:-

- (i) no under eighteen drinking policy
- (ii) a more comprehensive and regular substance education package; and
- (iii) awareness of individual pupil needs with a view to identifying those at risk, pupils would exercise more self-control and reduce or stop substance use/abuse.

The selling of illegal substance such as mbanje or mandrax is often done by criminals, it is therefore unfortunate that users of illegal substance end up being associated with criminals although most of them use it for psycho-social reasons. When the legitimate methods of obtaining money to buy substance dry up especially among those addicted to it, entry into

criminal subculture such as shoplifting, theft and pick pocketing begins in order to fund the habit. There is obviously an agent need to continue research into this seemingly unending epidemic.

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