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Full Length Research Paper

Relationship between reinforcers and self-control measures over smoking and alcohol consumption

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The study investigated the relationship between reinforcers and Self-control measures over smoking and alcohol consumption. A total of 260 men who indulge in smoking and alcohol consumption were selected from rural and urban areas by purposive sampling technique. Four research questions and three null hypotheses were formulated for the study. The instrument used for data collection was questionnaire titled QRSSAC. Mean scores and Pearson Product Moment correlation Co-efficient were used to answer the research questions, while t-test statistics was adopted in testing the null hypotheses at 0.05 level of significance. Result showed high level of reinforcers to smoking and alcohol consumption among rural dwellers. Significant differences existed in the mean scores between the reinforcers to smoking and the self-control measures, as well as between the mean scores of the reinforcers to smoking and alcohol consumption. The findings also revealed similar self-control measures for both smoking and alcohol consumption. Recommendation were given based on the findings from the study.

Keywords: Reinforcers, Self-Control Measures, Smoking, Alcohol consumption

INTRODUCTION

Self-Control is a set of behaviours which is under one's control and power to direct and orchestrate with no need for interference or manipulation from others (Messina and Messina, 2007). Self-control gives the individual a sense of personal mastery, autonomy and competency over one's own life; it is the foundation for healthy coping, and contributes to one accepting personal responsibility for one's life. It keeps one's life in moderation and helps one to avoid extremes in any direction, and eliminates the need for one to be manipulated, intimidated and over dependent on others (Messina and Messina, 2007).

Self-control is a control issue because it keeps the "Locus of Control" internal, and removes the "Locus of

Control" from externals in one's life.

Santrock (2000) opined that self-control issues tend to arise in such personal life arenas like dieting, compulsive and/or addictive behaviours. Inclusive in such compulsive and addictive behaviours that pose self-control problems are eating behaviour, alcohol intake and smoking (Fieldman, 1999; Santrock, 2000; Greene, 2003). It is of no doubt that these compulsive and addictive behaviours are mental problems. Cornwell (2003) has it that dieting, compulsive and addictive behaviours constitute high risk factors to such health conditions like arteriosclerosis, artheroclerosis, raised blood pressure, stroke and even death.

According to Cornwell (2003) addictive and compulsive behaviours such as smoking and alcoholism no doubt are influenced by reinforcers that tend to overcome any attempt by the victims to introduce punishers as self-control measures over their unhealthy habits.

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Alcohols and cigarettes are inclusive in "Club drugs". "Club drugs" are a group of drugs used in night clubs and by groups of people as recreational drugs. These drugs are primarily synthetic and have gained a false reputation that they are less addictive than mainstream drugs such as heroin. DEA (2000) reports that Drug Abuse Warning Network (DAWN) indicates that the use of club drugs steadily rose from 1994 to 1998.

Studies reveal that young adults (both men and women) who are full time undergraduates tend to drink heavily (APA, 2000). Studies also indicate that heavy alcohol use is associated with alcohol dependence which is characterized by increased tolerance, withdrawal symptoms when alcohol is not used, unsuccessful efforts to cut down on alcohol use and interference with everyday life (APA, 2000). The survey found that the rate of alcohol dependence for persons between 18 and 25 years of age was higher than for persons between 12 and 17 years of age, and that both heavy drinking and alcohol dependence peaked at 21 years of age (APA, 2000).

According to Cornwell (2003), alcohol often has been referred to as a "gateway" drug that eventually opens the door to illicit drug use.

The general believe is that positive actions or behaviours could be used as punishers to regain self-control over some compulsive behaviours; but the issue at stake is thus: can punishers, especially when delayed effect self-control over the compulsive behaviours of smoking and alcoholism? The problem this study addresses is the relationship between reinforcers to smoking and alcoholism, and the positive self-control measures taken to forestall such compulsive/addictive behaviours.

Research Questions

- . What is the extent of reinforcers to smoking among rural and urban dwellers?
- . What is the extent of reinforcers to alcohol consumption among rural and urban dwellers?
- . What is the relationship between the reinforcers to alcohol consumption and the self-control measures taken?
- . What is the relationship between the reinforcers to cigarette smoking and the self-control measures taken?

Hypotheses

- . Significant difference does not exist between the mean scores of reinforcers to smoking and the self-control measures taken.

. There is no significant difference between the mean scores of the reinforcers to alcohol consumption and the self-control measures taken.

. There is no significant difference between the mean scores of the reinforcers to smoking and the reinforcers to alcohol consumption.

MATERIALS AND METHODS

The study was a survey. A sample 260 men who indulge in both smoking and alcohol consumption were selected by purposive sampling technique from Onitsha and Anam Communities in Anambra State of Nigeria. Ethical approval and the respondents' consent were obtained prior to the study. Men with only single indulgence (that is either smoking or alcohol consumption) were excluded from the study.

The instrument used for data collection was questionnaire titled questionnaire on Reinforcers and Self-Control to Smoking and Alcohol Consumption (QRSSAC) which was made up of three subsections. Section A of the instrument elicited information on reinforcers to smoking (eg social influence, personal reasons like counteracting boredom, anxiety, depression, and other emotional problems, to keep awake and concentrate during studies, etc), section B elicited information on reinforcers to alcohol consumption (eg personal reasons like desire to feel happy, sexual arousal, to increase work-output and suppress emotional upset, etc, socio-cultural factors like cultural approvals to consume alcohol, retaining associations, chieftaincy celebrations and other cultural ceremonies and celebrations), while section C of the instrument elicited information on the self-control measures taken to forestall smoking and alcohol consumption (eg stress reduction and relaxation measures, joining self-help groups, reading self-help books, sublimating the urge to drinks, eat and smoke, avoiding settings that arouse negative emotions, etc). The questionnaire was designed by the researchers in 4 – point scale ranging from 1 to 4 with strongly disagree having 1 point, Disagree 2 points, Agree 3 points and Strongly agree 4 points. The instrument was subjected to reliability test by collecting data from twenty smokers and alcohol consumers in Ogbaru Local Government Area of Anambra State of Nigeria. The aggregate scores were calculated, and then crumbach alpha was employed to determine the internal consistency of the items. The result showed reliability coefficient score of 0.75.

The researchers used direct approach method in the data collection so as to facilitate the work. Research assistants were also used. Mean scores, standard deviation and Pearson Product Moment Correlation Co-efficient were used to answer the research questions,

Table 1. Mean Scores of the extent of reinforcers to smoking among urban and rural dwellers

Variable	Residential location	N	X	SD
Reinforcers	Urban	131	2.3155	0.48786
To smoking	Rural	129	2.3876	0.45267

Table 2. Mean Scores of the extent of reinforcers to alcohol consumption among urban and rural dwellers

Variable	Residential location	N	X	SD
Reinforcers	Urban	131	2.5708	0.43008
to alcohol consumption	Rural	129	2.5860	0.37595

Table 3. Relationship between Reinforcers to Alcohol Consumption and the Self control measures

Variable	N	X	SD	Correlational value	Level of significance
Reinforcers to Alcohol Consumption	260	2.5783	0.40343	0.246	0.01
Self-Control Measures to Alcohol Consumption	260	2.8277	0.60442		

Table 4. Relationship between Reinforcers to Smoking and the Self-Control Measures

Variables	N	X	SD	Correlational value	Level of Significance
Reinforcers to Smoking	260	2.3513	0.47121	0.197	0.01
Self-Control Measures to Smoking	260	2.8277	0.60442		

Table 5. t-test comparison of the mean scores of Reinforcers to smoking and self-control measures

Variables	N	X	SD	Df	t-cal	t-crit	Probability
Reinforcers to smoking	260	2.3513	0.4712	258	4.154	0.222	P<0.05
Self-Control Measure	260	2.8277	0.60442				

while t-test was employed in testing the null hypotheses at 0.05 level of significance.

RESULT

Table 1 above shows that rural dwellers had higher mean score of 2.3876 with standard deviation of 0.45267 while urban dwellers had mean score of 2.3155 and standard deviation of 0.48786 with regard to the reinforcers to smoking.

In the table 2, the reinforcers to alcohol consumption was higher among rural dwellers with mean score of 2.5860 and standard deviation of 0.37595 while urban dwellers had mean score of 2.5708 with standard deviation of 0.43008.

In table 3, the mean score of reinforcers to alcohol consumption was 2.5783 with a standard deviation of

0.40343. For self-control measures over alcohol consumption, the mean score was 2.8277 while the standard deviation was 0.60442. The result showed correlational value of 0.246 at 0.01 level of significance.

Table 4 shows that for reinforcers to smoking, the mean score was 2.3513 with a standard deviation of 0.4712. For self-control measures over smoking, the mean score was 2.8277 while the standard deviation was 0.60442. The correlational value between the two variables was 0.197, and it was significant at 0.01 level.

In the table 5 above, it is observed that at 0.05 level of significance and 258 degree of freedom, the calculated t-value of 4.154 was greater than the critical t-value of 0.222. Therefore the first null hypothesis is rejected.

Table 6 shows that the calculated t-value of 3.223 was more than the t-crit of 0.766 at 0.05 level of significance. Therefore the null hypothesis which states that there is no significant relationship between the reinforcers to

Table 6. t-test comparison of the mean score of Reinforcers to alcohol consumption and the Self-Control Measures

Variable	N	X	SD	Df	t-cal	t-crit	Probability
Reinforcers to alcohol consumption	260	2.5783	0.40343				
Self-control measures	260	2.8277	0.60442	258	3.223	0.766	P<0.05

Table 7. t-test comparison of the mean scores of Reinforcers to smoking and the reinforcers to Alcohol consumption

Variable	N	X	SD	Df	t-cal	t-crit	Probability
Reinforcers to smoking	260	2.3513	0.4712				
Reinforcers to Alcohol Consumption	260	2.5783	0.40343	258	1.537	0.98	P<0.05

alcohol consumption and the self-control measures taken is rejected

In the above table 7, the calculated t-value of 1.537 was more than the critical value of 0.98 at 0.05 level of significance. Therefore the third null hypothesis is rejected.

DISCUSSION

The result of the study showed higher mean scores for reinforcers to smoking and alcohol consumption among rural dwellers (tables 1 and 2). This finding could be related to cultural festivals that take place mainly in the rural settings, and the celebrations that go along with such festivals. Cornwell (2003) asserts that alcohol intake and smoking may produce pleasant physical responses and desired social consequences.

The findings show similar self-control measures for both smoking and alcohol consumption which on the average tend to equal the reinforcers to such habits (tables 3 and 4). Also the findings show low correlational values between the reinforcers to smoking/alcohol consumption and the self-control measures taken against the two habits (tables 3 and 4). This finding supports the fact that alcohol and cigarette are habit – forming agents. Santrock (2000) opined that inclusive in compulsive and addictive behaviours that pose self-control problems are alcohol intake and smoking. Compulsive behaviours like smoking and alcohol intake have immediate positive consequences because of the pleasurable feelings experienced by the consumers (Santrock, 2000). Although their potential delayed consequences are negative, their immediate consequences are difficult to override. When the delayed consequences of behaviour are punishing, and the immediate consequences are reinforcing, the immediate consequences usually win

even when the immediate consequences are small reinforcers and the delayed consequences are major punishers. Smoking and drinking follow a similar pattern. The immediate consequences of smoking are reinforcing for most smokers. Cornwell (2003) asserts that alcohol intake and smoking initially may produce pleasant physical responses, desired social consequences, increased feelings of self-confidence, energy boost, and relief from tension or anxiety. Unfortunately these consequences reinforce further indulgence in smoking and alcohol consumption with resultant compulsive and addictive behaviours and loss of self-control among the users of such drugs. The punishing (aversive or negative) aspects of smoking are primarily long-term, including shortness of breath, sore throat, coughing, emphysema, heart disease, lung cancer and other cancers. The immediate pleasurable consequences of drinking override the delayed consequences of a hangover or even alcoholism (Santrock, 2000).

The result showed significant difference in the mean scores of reinforcers to smoking and the self-control measures (table 5). Findings in table 6 also indicated significant difference in the mean scores of reinforcers to alcohol consumption and the self-control measures. The self-control measures for both habits are higher (tables 5 and 6). But Cornwell (2003) stated that addictives and compulsive behaviours such as smoking and alcoholism are influenced by reinforcers that tend to overcome any attempt by the victim to introduce punishers as self-control measures over such unhealthy habits.

The significant difference observed between the mean scores of reinforcers to smoking and the reinforcers to alcohol consumption (table 7) supports the findings of APA (2000) that young adults tend to drink heavily, and that such dangerous habit is associated with alcohol dependence.

CONCLUSIONS AND RECOMMENDATIONS

The findings of the study indicate that smoking and alcohol consumption, being addictive and compulsive behaviours, pose problem to self-control measures. This calls for the need for people to avoid indulgence in such habits that constitute high risk factors to health conditions like cardiovascular disorders and possible untimely death.

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