DEVELOPMENT OF AN "ALCOHOL EDUCATION" PROGRAMME FOR VEHICLE DRIVERS IN ENUGU STATE: TOWARDS SAFE TRANSPORTATION.

BY

MARY NGOZI NNAMANI (Ph. D.)
DEPARTMENT OF HEALTH AND PHYSICAL EDUCATION
FACULTY OF EDUCATION,
ENUGU STATE UNIVERSITY OF SCIENCE AND TECHNOLOGY
(ESUT)

Abstract
The study focussed on using a cognition-based set of data to design a functional programme of alcohol education for vehicle drivers in Enugu State. The programme that emerged at the end of the study is meant for peer education among vehicle drivers in Enugu State. The study involved 50 officers of the Federal Road Safety Corps, Enugu State Command. The study instrument was a 15 - item Alcohol Intervention Programme Evaluation Questionnaire (AIPEQ).

Introduction:

Recent events have shown an increase in number of substance available, acceptable and consumed in form of medication or social drugs, by a majority of the population. Among such substances is alcohol. Alcohol is a psychoactive drug, differing from other drugs, only in that its moderate use is both legally and socially acceptable to the majority of the population. Beer, wine, hard liquors, and other alcoholic beverages have essentially the same effect on the human body, differing only in the amount of alcohol each contains. It is uncertain when man discovered the use and abuse of alcohol. However, historical and religious books dating back to several centuries have evidence of consumption of alcohol. Hence, alcohol is found in all cultures past and present, being used as an integral part of significant social functions. Alcohol in different forms and combinations has been man's friend during leisure, in sickness and in health. Significantly, alcohol has been depicted in advertorials as an aid to acquiring perfection in sports and in driving skills. Some researchers have also reported that moderate intake of alcohol has positive effects on the prevention of cardiac related disorders (Payne and Hahn, 1986).

However, Carol and Miller (1986) have contended among other things that alcohol is a significant factor in personal and social disorganization disease and immorality. Kay and Ksir (1987) opined that the abuse of alcohol places a greet burden on society in terms of economic

loss of creativity, productivity, death from automobile accidents, juvenile delinquency and broken homes. Excessive consumption of alcohol causes illnesses such as stomach ulcer, cancer and cirrhosis of the liver (Aka and Gemmanial, 1997). Alcohol is a factor in half of all fatal automobile accidents due to drunk drivers and pedestrians (Awopetu, 2003).

Alcohol is an important factor in motor vehicle crashes worldwide (Odero and Zwi, 1997). Accordingly, Ross (1993) noted that alcohol is a contributing factor in almost a third of all death from motor vehicles' accidents. Many industrialized countries have reported varied proportions of intoxicated driver fatalities, ranging from 18% in United Kingdom (UK) to 38% in South Australia. (Petridou, Skalkidou, Lescohier and Tricopoulos, 1998). They further reported that automobile crashes involved are the most common cause of unintentional injury in the United States (U.S.). In Kenya, Odero (1998) reported that approximately 38% of all the crashes where a driver had consumed any amount of alcohol, and that nearly 90% of the crashes involving drivers with high blood alcohol concentration (BAC) can be directly attributed to alcohol consumption. In Nigeria motor vehicle accidents continue to claim more lives each year than any other type of accident (Ogunsanwo and Okechukwu, 1997). Incidentally, a study by Dagona (1992), involving both commercial and private drivers who were accident victims revealed that drugs (including alcohol) was found to be a third recorded cause of accidents. Alcohol related accidents increase emotional trauma and the monetary costs of lost work, medical bills and higher insurance premiums can

be staggering (Payne and Hahn, 1998).

Although the alcohol-influenced driver or pedestrian can be of any age, Payne and Hahn (1998) noted that it is particularly the late adolescent or young adult male that is more likely to be involved in alcohol related accidents.

Thus motor vehicle crashes and collisions are said to be the leading cause of death among adolescents and young adults and are the most important cause of all unintentional injuries worldwide (Braucht, 1983). On the influence of age and level of knowledge Nnamani (2001) found that age was not a significant factor, and that there was a low level of knowledge of the physical, mental, social and economic effects of alcohol, among the commercial vehicle drivers in Enugu Urban.

In an attempt to reduce untimely deaths and destruction of properties resulting form accidents, the Federal Government of Nigeria formally approved the establishment of the Federal Road Safety commission in 1988 (FRSC, 1997). One of the cardinal objectives of FRSC is the enforcement of traffic laws and regulation. The commission has been emboldened in exercising its functions by Decree 45 of 1985, and later amended as Decree 35 of 1992. This later legislative instrument enlarged the scope of the responsibility of the commission (now corp) to include among others, the sanctioning of drivers who commit offences including... (iv) driving under the influence of alcohol... (Bassey, 2002). Consequently, inclusion of education on the health effects of alcohol becomes imperative to facilitate the regular training programmes organized by the corp for vehicle drivers and other road users (Nnamani, 2001).

In line with the advocacy of authorities in

sexually transmitted diseases (STDs) and Acquired Immune Deficiency Syndrome AIDS studies including WHO (1992), that intervention programmes should be based on empirical data relevant to the concerned population, the researcher attempted to design an Alcohol education package for vehicle drivers in Enugu State based on earlier study conducted by Nnamani (2001). The need for such intervention package was to educate vehicle drivers on the role of alcohol on accidents on our roads. This also finds support in the assertion of Adegbite (2002) that drivers should be educated on the danger of using drug and alcohol to maintain mental alertness as drug and alcohol impair judgment and reaction, and tends to promote reckless driving.

Purpose of the Study
The purpose of the study was to design an alcohol education programme for vehicle drivers in Enugu State. Specifically the study intended to:-
1.   formulate a behaviour based objective of alcohol education package for drivers in Enugu State
2.   design a body of alcohol education for drivers in Enugu State based on the patterns of behaviour.

Research Method
The instrumentation research design was adopted for the study. This design has been described by the International Centre for Educational Evaluation (ICEE,1987) as involving the formulation of new or modified contents, procedures, technologies or instruments of educational practice, that can lead to a perceptible improvement in the education of students. The successful application of this design by Nworgu (1990), Ezeudu (1991) and Ezedum (2000) in related studies informed its present use in this study. The population for the study consisted of all the officers of the FRSC in Enugu State command. A representative sample of 50 FRSC officers was purposively drawn using a simple random sampling technique. The study instrument was a 15 item alcohol intervention programme evaluation questionnaire referred to as AIPEQ. This was made up of sections A and B, and a preamble. The preamble was devoted to introduction of the questionnaire plus a list of 13 major findings made by Nnamani (2001) on the cognition of effects of alcohol among commercial vehicle drivers in Enugu State. It was on the basics of these listed findings that the respondents were asked to rate the items in sections A and B. The section A contained 6 items while section B contained 9 items. Each of the 15 questionnaire items was assigned three response options of "very appropriate "appropriate" and "not appropriate".

The first draft of the AIPEQ was presented, along-side a summary of Nnamani's (2001) major findings (the summary is herein presented as Appendix1) to three experts in Health and Physical Education Department of ESUT for face and content validation. The items adjudged appropriate based on Nnamani (2001) findings, by two of the experts, were used to design the final copy of the AIPEQ. All the items on the draft qualified for inclusion in the final copy. The reliability of the AIPEQ was determined by administering copies of the questionnaire on twenty (20) officers of the FRSC in Anambra State. The scores for the twenty (20) FRSC officers

were collated and used to calculate the internal consistency using the Cronbach Alpha statistic. The result showed a positive reliability of 0.78 and was considered high enough for the study. Data collection with the AIPEQ was effected with the help of five research assistants. Fifty copies of the AIPEC were distributed and all the copies of the questionnaire were filled out and returned giving a 100 per cent return rate. Data sourced with the AIPEQ were analyzed using mean scores. Responses to the items were weighed as follows: 3 points for "Very appropriate" 2 points for appropriate" and 1 point for "not appropriate". The criteria mean of 2 points was adopted for establishing the appropriateness of the items.

Results

Table 1 Objectives of the Alcohol Intervention Programme for vehicle drivers in Enugu State. (n = 50)

	Objectives	$\overline{x}$	Decision
1	To enable vehicle drivers acquire basic knowledge of the following aspects of alcohol		
	(a) Concept	2.3	A
	(b) Types of alcoholic beverages	2.2	A
	(d) Causes/Reasons for alcohol consumption	2.5	A
	(e) Effect	2.8	A
2	To encourage the vehicle drivers who do not drink alcoholic beverages to continue to abstain	2.7	A
3	To encourage those who already drink alcoholic beverages . not to drive if drunk.	2.8	A
4	To encourage those who feel they must drink alcoholic beverages to measure their consumption	2.8	A
5	To enable vehicle drivers appreciate the severity of excessive consumption of alcohol	2.3	A
6	To enable vehicle drivers appreciate their vulnerability to consuming excess alcohol	2.2	A

Key A = Appropriate

Results from Table 1 show that all the major objectives and sub-objectives proposed for the alcohol intervention programme were considered appropriate, by having attracted mean responses greater than the criterion mean of 2.00.

Table 2 Contents of the Alcohol Intervention Programme for Vehicle Drivers in Enugu State. (n = 50)

	Objectives	X̄	Decision
1	The concept of alcohol consumption	2.8	A
2	The concept of alcoholism	2.8	A
3	Alcoholic beverages commonly available and easily abused	2.3	A
4	Causes/reasons for alcohol use/abuse		A
	(a) physiological	2.5	A
	(b) psychological	2.8	A
	(c) sociological	2.8	A
	(d) genetic example	2.3	A
	(e) emotional pressure	2.5	A
	(f) peer group influence	2.8	A
5	Effect of alcohol:		
	(a) physical effect	2.8	A
	(b) mental effect	2.5	A
	(c) social effect	2.8	A
	(d) economic effect	2.8	A
6	Abstain from drinking alcoholic beverage: say "no thanks" to alcohol; the pressure to have a drink is in your imagination	2.2	A
7	Precautionary measures for those that drink alcohol: If you think you may drive after drinking:		
	(a) do not drink on an empty stomach	2.8	A
	(b) do not consume more than one drink per hour	2.5	A
	(c) do not depend on caffeine to counteract the effects of alcohol	2.7	A
	(d) do not mix alcohol with marijuana or other drugs	2.8	A
	(e) do not drive if you have gotten drunk, not even the next morning	2.5	A
8	Measure your alcohol consumption:		
	(a) five ounces of wine, twelve ounces of beer, or one and a half ounces of spirits is the maximum that a 160 pound man should consume within an hour and a half to two hours.	2.5	A
	(b) A lighter person should drink less than a heavier person	2.8	A
9	Vulnerability to consuming excess alcohol:		
	(a) If the drink vanishes before the time is up, switch to a juice or soft drink.	2.5	A
	(b) At a restaurant, order food first, not a cocktail. That way you will probably have time for only one drink	2.3	A

Key A = Appropriate

Data in table 2 show that all the proposed content of the alcohol intervention programme education attracted responses greater than the criterion mean of 2.0. Hence, the proposed content the programme were adjudged appropriate.

Discussion

The study showed that a fifteen programme of objectives and was appropriate for intervening on excessive consumption of alcohol among vehicle drivers in Enugu State (Table 1 and 2). Hence, the six objectives based on the findings of Nnamani (2001) on the cognition of effects of alcohol among commercial vehicle drivers, were adjudged appropriate for the programme. The very idea of making objectives part of the programme was quite thoughtful. The thoughtfulness of the idea is better appreciated when viewed in the light of the counsel of Carlson, Deppe and Maclean (1966) that every valid programme must have a set of valid objectives. The approved content areas of the programme include the concept of alcohol, alcoholism and alcoholic beverages commonly available and easily abused; causes/reasons and effects of alcohol. Others are how to abstain from drinking alcohol; precautionary measures for those drivers who already drink alcohol, and vulnerability of vehicle drivers to alcohol consumption.

The programme designed was for use by peer educators. The idea of using peer educators to execute the programme was hinged on the observation by WHO (1992) that it succeeds more than education from outside the peer group. Peer education, according to them, consists of education in which a person who enjoys the trust of his or her peers brings prevention messages and skills to them. The programme met the requirements of WHO (1992) for ensuring positive change in behaviours, which include information and education, backed up by health and social services, and a supportive environment. Thus, the content of the alcohol intervention programme is adjudged to have adequately met the above first requirement. The content of the programme goes beyond giving information on causes/reasons, and effects of a alcohol, to elaborate on practical steps to abstain from drinking alcoholic beverages, and or to take precautionary measures, if they feel they must drink alcohol. The second and third key elements in safety in transportation effort are expected to come from the Enugu State Government. These include provision of good roads and judicious enforcement of the traffic rules and regulations by the appropriate government authorities.

The alcohol intervention programmes content was very thoughtful of the programme designer and validators. These were based on two socio-cognitive models: the health belief model and the health action process model. Galli (1978)Philips (1991) cited in Ezedum (2000) have severally indicated that education and information per se could lead to the acquisition of knowledge, but the knowledge may not always translate to change in behaviour. Following from this, they advocated the conduction of such education and information based on some socio-cognitive models, a requirement adequately met by the present programme of intervention. The evolution of the intervention programme from an empirical study was in line with

the suggestion of WHO (1992) that such programmes be based on knowledge of the behaviours to be changed. T h e alcohol education package herein presented need not be only implemented by the officers of the FRSC. The Implementation should be left for the enlightened members of the commercial drivers, under the supervision of the FRSC officers. This finds support in the advocacy of WHO, (19).2) and WHO (1993) that peer education succeeds more than teacher education especially on matters of behaviour change.

Conclusion
It is hoped that a successful implementation of this intervention programme for vehicle drivers in Enugu State will promote the physical, mental, social and economic health of the target population, as well as facilitate safety in transportation.

Recommendations
Consequently, it is recommended that:
1. Government and non-government organizations should by emphasis o n t h e objectives of an alcohol education programme as identified by their study
2. The FRSC and other groups changed with maintaining safety on our roads should liase with vehicle/transportation unions whereby the later would serve as "peer educations" towards the education of the vehicle drivers in Enugu State

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Appendix I

Findings from Nnamani (2001) survey of the cognition of the effect of alcohol among commercial vehicle drivers in Enugu urban, include that:-

1. Majority of the drivers (40.2%) recognized that "the need to belong" is often a strong force (peers influence) in alcohol consumption.
2. Majority (63.2%) however, were cognizant that drivers from home where parents drink are more likely than others to consume illegal alcohol.
3. The highest proportion (51.2%) did not recognize that using alcohol may be positively associated with broken homes.
4. Majority of the drivers (60.8%) recognized that drivers use alcohol to relieve emotional problem such as stress, anxiety and depression.
5. Majority (58.2%) of the drivers recognized that the influence of alcohol may cause road injuries and death.
6. A high proportion (87.3%) did not recognize that consumption of alcohol can cause a tremor of the hands, tongue, and eyelids.

7. Most of the drivers (60.4%) did not recognize that consumption of alcohol impairs motor skills.

8. A high proportion (55.5%) did not show cognition of the fact that excess intake of alcohol leads to chronic brain damage.
9. Majority of the drivers (45.4%) did not recognize that alcohol consumption diminishes ability to distinguish between sounds
10. A high proportion of the drivers (52.4%/1) recognized that alcohol is associated with serious criminal behaviours.
11. Majority of the drivers (40.6%) did not recognize that alcohol consumption can cause dirty appearance.
12. There were significant differences between the young and old commercial vehicle drivers on the physical and mental effects of alcohol consumption.
13. There was however, no significant difference between the old and young commercial vehicle drivers on the social and economic effects of alcohol consumption.