Alcohol Consumption Pattern and Risky Behaviour: A Study of University Of Port Harcourt

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Abstract: Alcohol Consumption Pattern (ACP) which include alcohol expectancies, perception of risk, alcohol use and risk behaviour (RB) were examined. In line with existing research, alcohol expectancies were predicted to explain risky behaviour, and risk perceptions were hypothesized to predict alcohol use. Marlatt’s expectancy theory which relies heavily on behavioural explanations of drinking, and social influences such as family, peers, and modeling of alcohol use are purported to heavily impact school – related beliefs. The survey method was used in this study. This design has a suggestive character of pointing out relationship between ACP and RB. Factors analysis was used to explain both objective and subjective attributes; identify latent dimensions or constants that direct analysis may not. The study revealed that alcohol consumption pattern predicted alcohol use and risky behaviour, but risk perceptions were not significantly related to risky behaviour and marginally related to alcohol use. Again, the relationship between risk perception and alcohol use was stronger for males than females. The study, recommended that advertising that paints alcohol consumption as good for youths and promotions that promise and actually offer free drinks are banned on University campus; policy makers and brewers should reconsider the economic interest and rise to the global call for action against the rising alcohol-related problem, of which Nigeria is a major contributor.

Key Words: (1) Alcohol Consumption Pattern (ACP) (2) Risk Behaviour (RB) (3) Alcohol Expectancies, (4) Alcohol Use (5) Risk Perception (6) University.

I. Background

Serious and risky alcohol use among university students has become a serious public health issue in Nigeria. Current estimates of University students’ drinking patterns suggest that nearly 40% of University students have engaged in binge drinking (consuming at least 4 to 5 drinks in one sitting) during the past 2 weeks, with men tending to binge drink more frequently than women (Adewuya, 2005). Moreover, when drinking behaviour is assessed across a longer time period, research indicates that nearly 85% of University students have engaged in binge drinking in the previous 3 months (Adewuya, 1993). The frequency of such risky drinking has also increased in recent years. In 1993, 25% of University students reported being drunk on more than three different occasions during the past 30 days; by 2001, nearly 30% endorsed the same frequency of drunkenness, an increase of 20% in less than a decade (Adewuya, 2005). These researchers also found that a greater proportion of University students reported drinking alcohol to get drunk in 2001 (48.2%) than they did 8 years prior (39.9% in 1993). These heavy drinking episodes do not appear to be occasional or isolated occurrences for many students. In fact, 37% of University students in the country meet diagnostic criteria for either alcohol dependence or alcohol abuse (Obot, 2000; Chikere and Mayowa, 2011).

Heavy alcohol consumption in the University student population is associated with numerous negative consequences. Survey data indicate that over 696,000 University students in Nigeria are assaulted each year by another student who has been drinking, 599,000 sustain alcohol-related injuries each year, and 1,700 die annually as a result of such injuries (Adelekan, 1993; Adewuya, 2005). High rates of alcohol use are also associated with risky sexual behaviour among University students. Obot and Ihanga (2002) report that over 97,000 University students are victims of alcohol-related sexual assault or alcohol. Another 100,000 reported being too intoxicated to know whether or not they consented to having sex (Heap, 1998; Obot, 2000). Elevated rates of academic problems, such as missing class, poor performance on assignments and exams, and lower grades as well as cult related problems have also been linked with heavy alcohol use among university students (Adelekan 1993; Adewuya, Chikere and Mayowa; 2011, Rotimi, 2005) as have health problems (WHO, 2002) and suicide attempts (Presley, et al 1998). Drinking and driving is another serious problem, with over 2 million university students driving while under the influence of alcohol each year (Rotimi, 2005). Finally, vandalism (Jaja, 2002), property damage (Wechsler, et al 1995), and police involvement (e.g. arrests for public drunkenness or driving while intoxicated; Rotimi, 2005 are frequent among alcohol-intoxicated university students during matriculations or convocation ceremonies.
II. Conceptual Clarification And Theoretical Foundation

Worthy of note, is the fact that alcohol consumption pattern (ACP) can be categorized into (1) Alcohol expectancies (2) alcohol use and abuse. Although many of these correlates of substance abuse in young adults (e.g. drinking and driving, unprotected sex, vandalism, cultism etc) clearly qualify as risky, risky behaviour as a construct is often poorly operationalized in the literature. Dictionary definitions of risk involve the concept of exposure to injury, danger, or cost associated with engaging in behaviour, as well as notions of uncertainty and cost-benefit analysis (American Heritage, 2000; Merriam-Webster, 1999). However, as Leigh (1999) elucidates, being at risk does not necessarily include active risk-taking, and, for young people, there may be positive consequences associated with risky behaviour (e.g., social acceptance). Demographic and situational variables are also especially relevant in considering the definition of risky behaviour. It is unlikely that a 45 year old man, drinking with friends but not planning to drive, would be categorized as engaging in a risky behaviour, whereas a 15 year old girl who drinks at house party may be putting herself in danger of numerous negative outcomes. Although poorly defined in the existing literature, we define “risky behaviour” as a decision on the part of the individual to engage in behavior that is potentially dangerous or costly to the individual and/or those directly involved in his or her risk-taking behavior.

Risky behaviours among university students are not, however, confined to situations that involve drinking. For example, (Rotimi, 2005) in his study of university students’ risky behaviour indicated that nearly 30% of university students in Nigeria were current cigarette smokers and that fewer than 30% reported using a condom during their most recent instance of sexual intercourse in the previous three months (Willis, 2006). Risky behaviours such as drunken driving, unprotected sex, drug use, smoking, gambling and criminal behaviour are associated with myriad negative outcomes, and individuals who endorse high rates of participation in risky behaviours are more likely to incur such consequences as sexually transmitted diseases, pregnancy, health problems, injury, and death or cult related death. Over 70% of deaths for individuals ages 10-24 are accounted for by motor vehicle accidents (half of which involve alcohol), homicides, suicides, and other accidents (Rotimi, 2005). Indeed, risky behaviour is the leading cause of death in young people.

Research findings in this area do consistently demonstrate a relationship between alcohol use and behavioural risk taking. For example, physically risky behaviour (e.g., traveling to dangerous places, going on a blind date with a hardly-known person, hitchhiking, selling items door-to-door, etc) have been shown to be most prevalent among individuals who also endorse high rates of alcohol use (Dumbili, 2013), and risky behaviour participation is evident in substance dependence as well.

A wide variety of theories exist to explain alcohol consumption. These explanations focus on a number of factors that include the neurobiological underpinnings of alcoholism personality variables such as sensation seeking. (Cloninger et al 1988) and neuroticism, (Martin & Sher, 1994), the co-occurrence of problem-behaviours (Obot, 2000), motivation (Cooper, 1994), and personal beliefs, or expectations, about the effects of alcohol use (Obot, 2000). Alcohol expectancy theory in particular has been especially useful in helping explain alcohol use patterns, and will be the focus of the present study.

Alcohol expectancies refer to the anticipated behavioural, cognitive, and affective consequences of drinking. They are an individual’s expectations about the effects that alcohol consumption will have on him or her. Alcohol expectancy theory relies heavily on behavioural explanations of drinking, and social influences such as family, peers, and modeling of alcohol use are purported to heavily impacted alcohol related beliefs (Christiansen, et al, 1982). Expectancy theory was initially conceived by Marlatt, et al, (1973), who employed a balanced placebo design to demonstrate that alcoholics drank more, in a simulated social situation when they believed they were receiving alcohol than when they believed they were receiving tonic water. Social drinkers (those who drink with friends but rarely drink to excess), on the other hand, drank less when they thought they were receiving alcohol. These results demonstrate that one’s expectations of alcohol consumption play a significant role in actual patterns of use.

Subsequent research has demonstrated that alcohol expectancies influence drinking patterns across a number of populations, including children, adolescents, college students, and alcoholics. Expectancies about alcohol’s effects have been observed in children even before the onset of drinking. That is, a child’s beliefs about the effects of alcohol predict his or her consumption later in life (Dumbili, 2013). Children’s expectations of alcohol also seem to evolve with age, as alcohol’s effects (e.g. social disinhibition) are perceived in an increasingly favourable light as young people get older (Yu, 2003).

As measured by the Alcohol Expectancy Questionnaire (Brown et al, 1980), expectations about alcohol’s effects are conceptualized as falling into six distinct domains – alcohol acts as a global transformation agent, changing a wide variety of experiences in a positive way (domain 1), alcohol improves sexual experiences and enhances sexual arousal (2); alcohol enhances physical and social pleasures (3) alcohol creates positive and socially assertive personality changes (4) alcohol produces relaxation and reduces tension (5); and alcohol increases feelings of arousal and aggression (6). The literature indicates that expectancies related to alcohol’s ability to alter social behaviour, in particular, predict frequent drinking among students, and
expectations of alcohol’s ability to enhance cognitive and motor functioning predict problem drinking in this same population (Willis, 2006). These findings were significant even after controlling for the effects of such variables as parental drinking habits and attitudes, presence of an alcoholic family member, ethic-religious differences, age, and sex. Additionally, students who expect more social facilitation from alcohol (that is, they expect drinking to enhance their social interactions) tend to drink more frequently and heavily than students without social facilitation expectancies. This subsequent heavier drinking in turn strengthens students positive social alcohol expectancies above and beyond the influence of previous drinking experience (Smith, et al, 1995).

Other longitudinal research has similarly demonstrated the association between social facilitation expectancies and alcohol use patterns one year later in an adolescent population (Christiansen et al, 1989). Parallel expectancy endorsement patterns (i.e. higher positive expectancies in general and more social facilitation, behavioural, and cognitive expectancies in particular) have also been reported among alcohol abusers (Brown, et al, 1985; 1986).

Research on these alcohol related expectancies also indicates that, as they gather more experience with drinking, adolescents increasingly believe that alcohol improves social behaviour, increases arousal, and decreases tension (Yu, 2003). Moreover, as problem-drinking adolescents age, they believe that alcohol consumption improves cognitive and motor functioning as well. Alcoholic adult populations report similar expectancies for cognitive and motor improvement (Brown et al., 1985; Brown et al., 1987), suggesting that expectancies predictive of problematic alcohol use likely emerge in adolescence or earlier. Finally, research indicates that among cohorts of 3rd, 6th, 9th, and 12th graders, heavier drinking children and students are more likely to associate positive and arousing effects with alcohol-related stimuli, whereas lighter drinking and abstaining individuals in these age groups are more likely to associate undesirable effects with alcohol-related stimuli (Olorunfemi, 1984).

To this point, the bulk of research on alcohol expectancies and consumption patterns has been conducted with University of Port Harcourt students and consistently confirms that heavier drinkers endorse more positive alcohol expectancies. Put simply, heavy drinkers expect to experience more positive effects from drinking than do lighter drinkers (Biscaro, et. al, 1980; Rohsenow, 1983; Southwick et al., 1981).

Specific expectancies among alcoholic populations, such as those for sexual enhancement, mood elevation, sleep induction, and improved sociability, have been identified as strong predictors of multiple negative alcohol-related consequences (e.g. experiencing acute physical effects of alcohol, spending too much money on drugs and alcohol, drunken driving, legal problems as well cult related clashes on campus (Olukokoju, 1991). In addition to problems resulting directly from alcohol use, expectancy research has demonstrated that beliefs about alcohol’s ability to increase confidence in social situations and to relieve tension are associated with other such socio-emotional problems as depression, anxiety, family and other relationship difficulties, and negative feelings about oneself. Taken together, these findings suggest that more so than having generally positive perceptions about alcohol’s effects, having strong beliefs in alcohol’s potential to positively change one’s personality, bring about physical and social pleasure, and produce relaxation may be predictive of problematic alcohol use, even prior to the onset of identifiable alcohol misuse.

A broad body of research also indicates that men and women tend to have different expectations for the effects of drinking. Men endorse higher levels of positive alcohol expectancies than women (Brisibe, 2009), and heavier drinking appears to activate alcohol-related expectancies for men more quickly than for women (Akyeampong 1996). These gender differences are inconsistent across studies, however, and some research indicates that alcohol expectancy scores are more predictive of drinking patterns for women than for men (Mooney, et al, 1987, Wall et at, 1998). Other findings about gender-specific expectancies yield inconclusive results. Some research suggests that the best predictors of problem drinking in women are expectancies of arousal and power, social pleasure/enhancement, assertiveness, and tension reduction, while other research results demonstrate that many of the same expectancies (i.e. physical and social pleasure, stress reduction, arousal/aggression, sexual enhancement, and global changes) best predict drinking patterns for men (Brown et al., 1998). Given this ambiguity, overall patterns of expectancies as they relate to alcohol use and risk-taking behaviour for both men and women will be examined in the present study. It is especially important to control for gender differences in terms of alcohol use and risky behaviour because men and women tend to engage in these behaviours at different rates and for different reasons. Consequently, they may also respond to intervention efforts aimed at reducing behavioural risk-taking and alcohol use differently.

The direct relationship between alcohol consumption pattern and risky behaviour has received little research attention. Nevertheless, a link between these two constructs makes sense given the strong relationship between consumption pattern and alcohol use, and between use and risky behaviour. As summarized above, alcohol expectancies predict drinking patterns (Dumbili, 2013) with higher levels of positive expectancies associated with heavier patterns of alcohol consumption. Heavy drinking, in turn, places individuals at greater risk for participation in risky behaviours as a direct result of intoxication (Wechsler et al, 2002) and also more generally (Caces et al., 1991). The specific pattern of relationships among expectancies and risk suggest that the
problematic mechanism for some individuals may involve a more global distortion in expectations. That is, individuals who have high positive expectations for the effects of alcohol may likewise expect more positive outcomes for risky behaviour participation as well, thereby making them more likely to take behavioural risks.

With respect to the current study, holding unrealistic expectations for the effects of drinking is tantamount to perceiving the negative outcomes of risky behaviours as less likely or less serious than they actually are. The research suggests that there is great variability in perceptions of risks, and that some individuals consistently underestimate the probability that engaging in risky behaviours will have harmful ramifications (Obot, 2012). Those most likely to underestimate risks are in fact more likely to participate in dangerous behaviours. This tendency is commonly referred to as the “optimistic bias” (Weinstein, 1980), where one perceives him or herself less vulnerable to negative outcomes and at the same time overestimates the likelihood of positive events. The optimistic bias is particularly prevalent among adolescents (Odejide, 2006) and parallels the higher rates of risk-taking behaviour in this population.

Jessor & Jessor (1977) provide support for this hypothesis. Their Problem-Behaviour Theory proposes specific systems of psychosocial influence – Personality Perceived Environment, and Behaviour – which are thought to underlie and contribute to expression of problematic behaviours. A number of factors may account for the underlying propensity to underestimate risks in young people, including personality variables (Umunna, 1967) the role of peer groups Presley et al (1998) parenting (Maguen & Armistead, 2006), and media influences (Slater & Rasinski, 2005). Such underlying factors fall outside the scope of the current study and are not directly examined; rather, cognitive biases were selected as targets for investigation here because they may be particularly amenable to change efforts (Cohen, Scribner, & Farley, 2000). Jessor & Jessor’s overarching theory of proneness to engagement in problem behaviours supports the notion that overly optimistic expectations for the effects of alcohol may reliably predict risky behaviour as well.

The role Alcohol consumption pattern and risks perceptions in risky behaviour generally and in alcohol use specifically has important repercussions for research and treatment. Several studies indicate that interventions which focus on changing individuals expectations about alcohol are effective in reducing problematic alcohol use (Brown, et al, 2001), and that the resulting changes in expectancies are associated with meaningful reductions in alcohol consumption. These effects have been demonstrated across multiple drinking populations, including adolescents, University students, and alcoholics. In addition to reductions in alcohol consumption, Obot (2012) found a significantly reduced incidence of driving under the influence of alcohol and of riding with a drunk driver following alcohol expectancy-focused treatment. If alcohol expectancies are, in fact, associated with risky behaviour, then perhaps treatment efforts focused on changing expectancies would decrease not only problematic alcohol use but participation in risky behaviours as well. At the same time, more global misperceptions of risk may explain the relationship between alcohol expectancies and use, and intervention efforts might be better targeted at changing this broader cognitive optimistic bias. There is limited evidence that targeting these optimistic biases in adolescents can be an effective means of reducing risk-related behaviour. Expectancy and/or perception-related efforts may be particularly important for alcohol abuse and risky behaviour prevention attempts, especially given that alcohol expectancies have been identified in children prior to the onset of drink (Yu, 2003).

The primary aim of the present study, then, is to determine the extent to which university students’ alcohol consumption pattern and perceptions of risk influence the relationship between drinking and risky behaviour. Three main hypotheses about the relationship between expectancies and alcohol use, and risky behaviour will be tested.

1.2.1 Guiding Hypotheses
1. There is a positive relationship between optimistic alcohol users and pessimistic alcohol users.
2. There is a relationship between alcohol consumption pattern and risky behaviour.
3. Alcohol consumption pattern and risky behaviour is associated more with male than female users.

III. Methodology
The survey method is used in this study as well as factor analysis was used for statistical interpretation; it is intended to place in perspective alcohol consumption pattern and risky behaviour. The population of this study is made up of all the students in the Universities of Port Harcourt. This figure was derived from Academic Planning Unit of the Universities. Thus, the design is expected to reveal a relationship (if any) between alcohol consumption pattern (ACP) and risky behaviour (RB). These variables can be correlated because one is the cause of the other, or because both are the results of some others factor (Gupta and Gupta, 2006). Another usefulness of this design is that it permits the measurements of a great number of variables.

The population comprises students in the selected faculties. According to the academic planning unit, office of the vice-chancellor, University of Port Harcourt (1984/85 – 2006/2007 student population is 21556 (see Appendix A).
The selection of the students was done through balloting process where the names of the 7 faculties (Humanities, Social Sciences, Management Sciences, Education, Science, Engineering and College of Health Science) were wrapped and streamlined into categories or groups of 2, 2, 3 and placed in different polyethylene bags. However, the polyethylene bags were shaken thoroughly to allow for a clear mix up of all the pieces of paper. After shaking we deep hand into the first bag and picked out a piece. We confirmed and did same for the remaining sets. At the end of the selection process 3 faculties were randomly selected. Students in Faculty of Social Sciences, Humanities and Education were form the basis of population. The study population is the final year class which is given as 1152. (Source; Academic Planning Office, Uniport 2012).

Furthermore, the sample size was determined by employing the Taro Yamane method. The fomular is given thus:

\[
n = \frac{N}{1 + Ne^2}
\]

where;

- \(n\) = Sample sought
- \(N\) = total population
- \(e\) = level of significance at 0.05

Thus;

\[
n = \frac{1152}{1 + \frac{1152}{(0.05)^2}}
\]

It follows that the sample size of the study is (400) four hundred respondents.

Instrumentation involves the development of questionnaires, interview schedules and document analysis. Three questionnaires that were developed by the researchers for the study were bio-data of respondents, factor analysis on ACP and factor analysis on RB (expectancy questionnaire and risk perception questionnaire).

Again the SPSS on factor analysis gave 0.507 as Kaiser–Meyer – 0lkin (KMO) sampling adequacy which is satisfactory.

1.1.1 Analysis

The analysis isolated the underlying factors that explain the data using a matrix of association. Factor analysis is an interdependence technique. Factor analysis assumes that all the rating data on different attributes can be reduced down to a few important dimensions. This reduction is possible because the attributes relate. The rating given to any one attribute is partially the result of the influence of other attributes. The statistical algorithms demonstrate the rating (called a raw score) into its various components partial scores into underlying factors scores. The degree of correlation between the initial raw score and the final factor score is called a factor loading.

IV. Presentation, Analysis And Interpretation Of Results

Due to the large number of variables, associated with both dependent and independent variables, factor analysis becomes eminent since both objective and subjective attributes can be used provided the subjective attributes can be converted into scores; factor analysis can identify latent dimensions or constructs that direct analysis may not.

<table>
<thead>
<tr>
<th>Table 1: BIO-DATA OF RESPONDENTS</th>
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<tbody>
<tr>
<td>Age-Range</td>
</tr>
<tr>
<td>Under 21 years</td>
</tr>
<tr>
<td>21 – 30 years</td>
</tr>
<tr>
<td>31 – 40 years</td>
</tr>
<tr>
<td>41 years and above</td>
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<tr>
<td>Sex</td>
</tr>
<tr>
<td>Male</td>
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<tr>
<td>Female</td>
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36% and 31% of respondent are within the age bracket of under 21 – 30 years, cumulatively, having a population of 67%. It follows that the population of the study is relatively young.

Note: CRB = Cult related Problem
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DD = Drinking and Driving
SA = Suicide Attempts
HP = Health Problems
AP = Academic Problems
PD = Property Damage

**GRAPH 1: SCREEN PLOT**

The above graph is a graph e.g. eigenvalue against all the component number. CRB = 1, DD = 2, SA = 3, HP = 4, AP = 5, PD = 6. The curve begins to flatten between components 3 has an eigenvalue less than 1, so only two components have been retained.

**GRAPH 2: COMPONENT PLOTS IN ROTATED SPACE**

The graph above is aimed at reducing the number of factors which the variables under investigation have high loading. The interpretation is that we can see that CRB, DD, SA, HP and AP are substantially loaded on factor 2 while PD is substantially loaded on factor 1.

V. Discussion Of Findings

The demographic data were taken only on Age and sex. This was to enable the researchers place such variables as they shape alcohol consumption pattern. Three hypotheses were guiding the study. Due to the complex nature of the variables, alcohol users were categorized into optimistic alcohol users and pessimistic alcohol users; again the connection between ACP and RB was sorted, finally, ACP and RB were placed on the sex crucible of users.

From the findings, the study revealed that cult related behaviour in the University of Port Harcourt is tied to optimistic alcohol users. From the component plots in rotated space, cult related, behaviour, drinking and
driving, suicide attempts, health problem and academic problems are load on factor 2, which is risky behaviour while property damage is loaded on factor 1 (alcohol consumption pattern).

The implication is that there is a tendency which explain why participants who identify with alcohol’s positive effects were more likely to endorse higher alcohol use and behavioural risk-taking whereas judgements of behaviour as deleterious had little impact on behaviour.

Again, risk perception and alcohol use was stronger for males than females. In terms of specific hypotheses, alcohol expectancies were expected to significantly predict alcohol use. The data in our sample provide support for this hypothesis, with overall alcohol expectancy score uniquely predicting alcohol use. In line with this, pessimistic alcohol users and optimistic alcohol users had different score on the screen plot. Specifically, those that measured the belief that alcohol use would enhance social and physical pleasure, produce relaxation, and reduce tension would endorse significantly more alcohol use. Alcohol consumption pattern was also significantly associated with risk taking behaviour (as shown in Screen Plot 2). Component plot in rotated space; shared most cult related behaviour were heavy consumers of alcohol or optimist alcohol users”. Judgments about alcohol’s effects were significantly associated with risk taking behaviour, independent of alcohol user. The nature of the items in each of these questionnaires may have played a role in participants’ responses. The alcohol expectancy questionnaire is an assessment of alcohol as an agent for producing positive changes, such as becoming more socially vivacious, relaxed and sensuous. By contrast, the University students’ risk questionnaire (perception and pattern) is an assessment of the extent to which certain behaviours might be harmful. This study indicates that the positive consequences of behaviour are more salient to young people than negative consequences – that is, they are more inclined to attend to the benefits and disregard the costs of behaviour. This is in congruence with (Dumbili, 2013) findings. Finally, risky behaviour such as drunken driving, unprotected sex, drug use, smoking, gambling and criminal behaviour are associated with myriad negative outcomes, and students who endorse high rates of participation in risky behaviours are more likely to incure such consequences as sexually transmitted diseases, pregnancy, health problems, injury, cult-related problems and death.

VI. Policy Implication

- Drastic reduction in advertising of alcohol and its related materials.
- The sales of these alcoholic beverages should be curtailed on University campus.
- Strong legal framework to reduce the circulation of alcohol in the country.
- The social, psychological and physiological damages of alcohol abuse should be stressed.
- There should be increase in the age limit of alcohol consumption from 18 years to 21 years and above.
- All form of promotion, shows and invitation of artiste should be ban on University campus.
- Develop school curriculum and topics that treat alcohol and its negative consequences in our rudimentary schools.

References

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