Nexus between Family Socioeconomic Status and Alcohol Consumption Moderated by Religiosity among Secondary School Adolescents in Uganda

Athanansio Bashaija[1]
abashaija@kiu.ac.ug
Kampala International University, Uganda.

Aloysius Rukundo[2]
arukundo@must.ac.ug
Mbarara University of Science & Technology, Uganda.

Abstract

This paper focuses on the relationship between family socioeconomic status and alcohol consumption. It further covers the moderation effect of religiosity on the relationship between family socioeconomic status and alcohol consumption among secondary school adolescents in Bushenyi Ishaka Municipality in Uganda. The study employed a cross-sectional survey with quantitative method of data collection and analysis. The schools for the study were selected through a stratified proportionate sampling method. Schools were categorised into two strata; government and private secondary schools from which 6 of them were sampled and simple random sampling techniques were used to arrive at the final sample study of 404 participants from six schools. Data was collected using a self-administered questionnaire with standardised scales. The instrument comprised biodata, SES scale, religiosity, spiritual scale for Youth, and AUDIT Test for Alcohol use. Responses were obtained from a total of 404 participants who included females as the majority (54.7%). The mean age of the students was 15.91. Results show that there was a significant relationship between family socioeconomic status (SES) and alcohol consumption. Religiosity had significant positive moderation effect on the relationship between family socioeconomic status and alcohol consumption among secondary school adolescents. Religiosity is a strong resilience and deters adolescents from consuming alcohol regardless of their family socioeconomic status.

Key words: Family socioeconomic status, Alcohol consumption, Religiosity, Secondary school adolescents.

Introduction

The consumption of alcohol among adolescents is a public health concern that has been studied extensively in many parts of the world. Collins, Malone, & Clifasefi (2012) posit that socioeconomic status (SES) is one of the significant factors influencing a person's alcohol consumption and related outcomes. It has been discovered that socioeconomic status influences the frequency of alcohol consumption among adolescents (Collins et al., 2012). In societies with low socio-economic level, where immigration and unemployment are intensive; factors such as harsh living conditions, familial conflict due to financial strain, coping ability of individuals and depression direct adolescents towards alcohol consumption (Goodman & Huang, 2002).

Although some researchers report that alcohol use is observed more frequently in societies with low socio-economic status, others report that substances such as alcohol and tobacco are obtained more easily and consumed commonly by those at high socioeconomic levels (Tot, Yazici, Yazici, Metin, Bal, & Erdem, 2004). Three cross-sectional studies showed that adolescents growing up in higher SES families were more likely to consume alcohol than those born in lower SES families (Blum et al., 2000; Humensky, 2010; Hanson & Chen, 2007). For high SES

adolescents, family income is a stronger predictor of alcohol use than family status (Hanson & Chen, 2007). Evidence from literature shows that the availability of financial resources is more influential on teen alcohol consumption than the social status associated with having parents with high education and good jobs. It is indicated that people with higher SES may consume similar or greater amounts of alcohol compared with people with lower SES, although the latter group seems to bear a disproportionate burden of negative alcohol-related consequences (Collins *et al,* 2012). Wills, Gibbons, Gerrard, Murry, & Brody (2003) assert that the education level of an individual's family influences alcohol consumption in adolescence. In the same vein, it is found that the educational level of parents is related to increased alcohol consumption and rate of getting drunk (O'Malley, Johnston, & Bachman, 1998). Considerable variation in the prevalence of alcohol use among adolescents exists between countries (Kokkevi, 2007); while alcohol consumption among adolescents tends to be higher among adolescents from the more developed countries (Benjet, 2007), though inadequate data from the less developed countries make comparisons difficult. The data available from less developed countries suggest that alcohol abuse among youth both in school and out of school is on the increase (Mndeme, 2003; Kaduri, 2008; Mbatia & Kilonzo, 1996).

Religiosity has been considered as an essential moderating and protective factor against alcohol consumption, preventing individuals from using drugs even if they live in perilous environments (Sanchez, Oliveira, & Nappo, 2008). The effects of individual religiosity on adolescent alcohol consumption and socioeconomic status are inconsistent among the extant research. Many researchers have confirmed that individual religiosity has an inverse or negative relationship with adolescent alcohol use (Wallace, Brown, Bachman, & LaVeist, 2003; Wallace et al., 2007; Vaughan, de Dios, Steinfeldt, & Kratz, 2011; Bahr & Hoffmann, 2008). However, others have argued that there are no deterrent effects of individual religiosity on adolescent alcohol use. Religiosity in the form of religious beliefs and practices is therefore viewed as a strong resilience and resistance factor against alcohol use: Praying helps people relax. It takes away any negative thinking. Even if someone thinks of using alcohol, praying would protect him against the consumption of alcohol. Young people who are more religiously engaged (e.g. attend church fellowships, religious services frequently) say religion is important are less likely to consume alcohol than less religiously engaged counterparts. In our argument, this may be that religion directly deters adolescents from engaging in risky behaviours by instilling moral values and self-control skills. Alternatively, religious participation may deter risky behaviours by helping adolescents develop social networks, which provide social support and reinforce conformity to widely-accepted social norms, thus limiting adolescents from consuming alcohol regardless of family socioeconomic status.

In Uganda, the gap exists that little consensuses regarding the relationship between Socio-Economic Status (SES) and alcohol use and there are no studies made on SES in correlation with alcohol use among secondary school adolescents most especially in Bushenyi Ishaka Municipality. It is against this background that this study sought to find out the relationship between SES and alcohol use moderated by religiosity in Bushenyi Ishaka Municipality of Uganda.

Research Questions and objectives of the study

Based on the above problem, the following questions were raised to guide the study;

1. What is the relationship between Family Socioeconomic Status and Alcohol consumption among Secondary School Adolescents?
2. What is the moderation effect of religiosity on the relationship between Family socioeconomic status and Alcohol Consumption?

The objectives are therefore to examine;

1. The relationship between Family Socioeconomic Status and Alcohol consumption among Secondary School Adolescents.
2. The Moderation Effect of Religiosity on the Relationship between Family socioeconomic Status and Alcohol Consumption.

Methodology

This study adopted a cross-sectional survey design. It is quantitative in nature and meaningfully describes the distribution of variables using standard procedures such as frequencies and percentage. Bushenyi- Ishaka Municipality has 13 secondary schools, 4 government and 9 privately owned. The schools for the study were selected through a stratified proportionate sampling method. Schools were categorized into two strata; government and private schools from which 6 of them were selected. Stratified, proportionate sampling was used to select six secondary schools taking a sample of three private schools and three public schools. This study considered a total sample of 404, drawn from a population of 3012 ordinary level adolescents in senior secondary schools, using simple random sampling. The study population consisted of all the students of both private schools which are owned by individuals and public secondary schools owned by the government of Uganda aged from 11 to 20. The instrument used for data collection was a structured, self-administered questionnaire

The scale for measuring the Socioeconomic Status of Family (Aggarwal, Bhasin, Sharma, Chhabra, Aggarwal, & Rajoura, 2005) was used to collect data on Family SES. It has 22 items scored from zero to a maximum of 10 points regarding the possessions of a family. The 22 items are based on three variables of income, education, and occupation of the family head. Religiosity and spiritual scale for Youth (Brittany & Hernandez, 2011) were used to collect data on religiosity. It has 37 items scored on a four-point Likert scale of 0=Never to 3=Always. AUDIT Test for Alcohol consumption (Saunders, Aasland, Babor, de la Fuente, & Grant, 2001) was used to collect data on alcohol consumption among adolescents. The alcohol use scale by has 10 items scored on a five-point Likert scale from 0=Never to 4 = Daily or Almost Daily. Data were analysed using SPSS software, version 20.0. The results are presented using Spearman's rank-order correlation for the relationships between SES and alcohol use and structural equation modelling using multiple linear regression with the Process plugin in SPSS by Hayes (2013) was used to find out moderation effect of religiosity on family socioeconomic status and alcohol consumption among secondary schools adolescents.

Results and Data Analysis

Table 1: Respondents Demographics

Class (N =404)	n(%)
Senior secondary one	96 (23.8)
Senior secondary two	119 (29.5)
Senor secondary three	64 (15.8)
Senior secondary four	125(30.9)
Total	404(100.0)

Age(N=404)	n (%)
11	4(1.0)
12	7(1.7)
13	25(6.2)
14	65(16.1)
15	75(18.6)
16	79(19.6)
17	69(17.1)
18	37(9.2)
19	23(5.7)
20	20(5.0)
Mean age	15.91
Standard deviation	1.93

Gender (N=404)	n(%)
Male	183(45.3)
Female	221(54.7)
Total	404(100.0)

Type of School(N=404)	n(%)
Government	291(72.0)
Private	113(28.0)

Nature of school(N=404)	n(%)
Day and boarding school	124(30.7)
Boarding school only	280(69.3)

School section(N=404)	n(%)
Boarding students	350(86.6)
Day students	54(13.4)

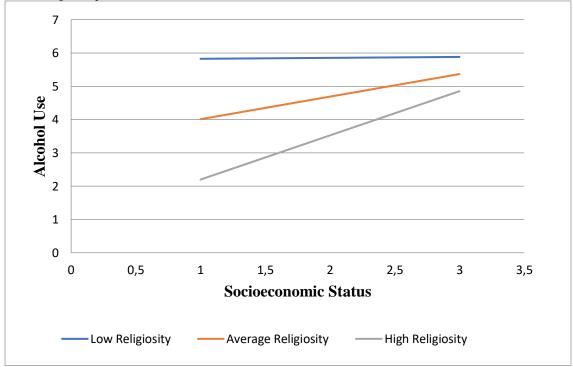| Religious Affiliation(N=404)	n(%)
Catholics	117(29.0)
Anglicans	175(43.3)
Moslems	34(8.4)
SDA	73(18.1)
Others	5(1.2)

Table 2: The relationship between family socioeconomic status and Alcohol consumption

Spearman's rho

Variables	Correlation Coefficient,	*P* Value
SES - Alcohol Use	0.143	.004

Table 3: *Moderation Effect of Religiosity on the Relationship between Family socioeconomic Status and Alcohol Consumption*

Predictor	Model 1			Model 2		
	B	**SE(B)**	**B**	**B**	**SE(B)**	**β**
SES	.056	.027	.103	.050	.027	.092
Religion	-.103	.027	-.183	-.093	.028	-.166
SESxReligion				.004	.002	.108
R^2	0.010			0.055		
Adjusted R^2	0.007			0.048		
F	3.981			7.700		
△F	3.981			9.476		
Sig. △F	.47			.000		
△R2	0.010			0.045		

A plot of the conditional effect that shows religiosity positively moderated the relationship between family socioeconomic status and alcohol use.

From the findings in Table 1, the majority of study participants were females (54.7%). Most of the respondents were boarding (86.6%). In addition, most of the students (69.3%) were attending Boarding schools while (30.7) were in Day and Boarding schools. It was further revealed that 28.0% of the study participants were from private schools while (72.0%) were from government schools. Majority of the study participants were from senior four (30.9%). Respondents' age showed (19.6%) sixteen years old as the majority. Concerning religious inclination, a total of (43.3%) were Anglicans as the majority. In Table 2, a Spearman's rank-order correlation was run to assess the relationship between family socioeconomic status and alcohol

consumption using a sample of 404 aged 11 to 20 year. Basing on statistically significant $p = .004$, we reject the null hypothesis that there is no significant relationship between socioeconomic status and alcohol use among secondary school adolescents. The findings show that there was a positive correlation between family socioeconomic status and alcohol consumption, although very weak, $r_s = .143$. Linear regression was run to see if the models were significant and if the amount of variance accounted for in Model 2 (with the interaction) is significantly more than Model 1 (without the interaction). Model 1 (without the interaction term) was significant $F(1, 402) = 3.981$, $p = 0.047$. Model 2 (with the interaction term) was also significant $F(2, 401) = 7.700$, $p = 0.000$. In this regression, model 2 which was the interaction between SES and Religiosity on Alcohol consumption accounted for significantly more variance than just SES and Alcohol use by themselves (model 1), R^2 change $= 0.045$, $p = .000$, indicating that there is potentially significant moderation between religiosity and SES on alcohol consumption. Multiple regression analysis (model 1) was run using the Process Plugin SPSS to confirm the effect of religiosity on the relationship.

Discussion of the Findings

The Relationship Between Family Socioeconomic Status and Alcohol consumption among Secondary School Adolescents

The findings show that there was a positive correlation between family socioeconomic status and alcohol consumption. This implies that a unit increase in ones SES will attract across ponding small increase and the reverse is true-a unit decrease in ones SES will lead to a small decrease in consuming alcohol. Although some researchers report that alcohol consumption is observed more frequently in societies with low socio-economic status, others report that substances such as alcohol can be obtained more easily and consumed more commonly by those at high socioeconomic levels (Tot et al., 2004). This concurs with three cross-sectional studies which showed that adolescents growing up in higher SES families were more likely to consume alcohol than those who were born in lower SES families (Blum et al., 2000; Humensky, 2010; Hanson & Chen, 2007). This is supported by Dias, Oliveira, & Lopes (2011) who posit that people from higher socioeconomic strata tend to drink more often while their counterparts in lower socio-economic strata tend to consume alcohol less. However, the findings refute other studies that lower SES is associated with increased incidence rates of alcohol (Sussman & Dent, 2002; Wichstrom & Pederson 2001; Geckova & van Dijk 2002). On addition, societies with low socio-economic level, where immigration and unemployment are intensive; factors such as harsh living conditions, familial conflict due to financial strain, coping ability of individuals and depression direct adolescents towards alcohol use (Goodman & Huang, 2002).

Moderation Effect of Religiosity on the Relationship between Family Socioeconomic Status and Alcohol Consumption

Basing on the results of moderation effect of religiosity on the relationship of family socioeconomic status and alcohol consumption with a plot of conditional effect, it means that at a low level of religiosity, there is generally high alcohol use whether SES is low or high. At a

moderate level of religiosity, there is generally lower alcohol use than at the low level of religiosity but increase in SES results in an increase in alcohol use. At a high level of religiosity, there is generally lower alcohol use than at low and moderate levels of religiosity but increase in SES results in a greater increase in alcohol use than at moderate religiosity. Therefore, young people who are more religiously engaged *(e.g.* attend church fellowships, religious services frequently) say religion is important are less likely to use alcohol than less religiously engaged counterparts. Religion directly deters adolescents from engaging in risky behaviours by instilling moral values and self-control skills. For instance, in Islamic Religion, the Quran prohibits drinking alcohol that God will not listen to your prayers for 40 nights if you drink alcohol. In line with the findings, religiosity has been considered by many studies as an important moderating and protective factor against alcohol consumption, preventing individuals from using alcohol even if they live in perilous environments (Sanchez, Oliveira, & Nappo, 2008). According to the study of Al-Kandari, Yacoub, and Omu (2001) religiosity is identified as protective, almost all the participants emphasised the role of religious beliefs and practices in protecting against risky behaviours including alcohol abuse. Such teachings help the adolescents to know that taking alcohol is lousy behaviour and tries to resist taking alcohol, whether they are of high, moderate or low socioeconomic status. Religiosity in the form of religious beliefs and practices is therefore viewed as a strong resilience and resistance factor against alcohol use. However, studies have confirmed that individual religiosity has an inverse or negative relationship with adolescent alcohol use (Sloane & Potvin, 1986; Wallace et al., 2007; Vaughan, de Dios, Steinfeldt, & Kratz, 2011; Bahr & Hoffmann, 2008). Others have argued that there are no deterrent effects of individual religiosity on adolescent alcohol use (Bahr, Hawks, & Wang, 1993; Marcos, Bahr, & Johnson, 1986).

Conclusion and Recommendations

This study confirms the existing body of information about Family socioeconomic status, religiosity, and alcohol consumption among secondary school adolescents in Bushenyi Ishaka Municipality. The findings show that there was a significant relationship between family socioeconomic status and alcohol consumption. In linear regression analysis, the findings showed that model 2 which was the interaction between SES and Religiosity on Alcohol consumption, accounted for significantly more variance than just SES and Alcohol consumption by themselves. Thus, religiosity has significant positive moderation effect on the relationship between family socioeconomic status and alcohol consumption among secondary school adolescents. From the findings, we therefore, conclude that religiosity is a strong resilience and deters adolescents from consuming alcohol regardless of their family socioeconomic status. Therefore, parents, teachers and other stakeholders who are involved in raising young stars should embrace the role of religion and its beliefs for the adolescents who say religion is vital by attending fellowships, cells and participate in religious services or chapel frequently are less likely to use alcohol than less religiously engaged counterparts.

Reference

Aggarwal, O. P., Bhasin, S.K., Sharma, A.K, Chhabra, P., Aggarwal, K, & Rajoura, O.P. (2005). A New Instrument (Scale) for Measuring the Socioeconomic Status of a Family. *Indian Journal of Community Medicine, 30* (4) 110-114.

Al-Kandari, F., Yacoub, K., & Omu, F. (2001). Initiation factors for substance abuse. *Journal of Advanced Nursing,* 34(1): 78–85.

Bahr, S. J., & Hoffmann, J. P. (2008). Religiosity, peers, and adolescent drug use. *Journal of Drug Issues, 38*, 743-769.

Benjet, C., Borges, G., Medina-Mora, M., Fleiz, C., Blanco, J., Zambrano, J., &, Ramirez, M. (2007). Prevalence and socio-demographic correlates of drug use among adolescents: Results from the Mexican. Adolescent Mental Health Survey. *Addiction, 102,* 1261-1268.

Blum, R.W., Beuhring, T., Shew, M.L., Bearinger, L.H., Sieving, R.E., and Resnick, M.D. (2000). The effects of race/ethnicity, income, and family structure on adolescent risk behaviours. *American Journal of Public Health, 90(12), 1879–1884.*

Brittany, C. H . & Hernandez (2011). The religiosity and spirituality scale for youth Development and Initial Validation. LSU Doctoral Dissertations. 2206. Validity. Thesis for the Degree of Doctor of Philosophy of Louisiana State University.

Collins, S.E., Malone, D.K., Clifasefi, S.L., et al. (2012). Project-based Housing First for chronically homeless individuals with alcohol problems: Within-subjects analyses of two-year alcohol trajectories. *American Journal of Public Health,* 102,511–519.

Geckova, A., van Dijk, J.P., Groothoff, J.W., & Post, D. (2002). Socio-economic differences in health risk behaviour and attitudes towards health risk behaviour among Slovak adolescents. *Social and Preventive Medicine,* 47, 233-239.

Goodman, E., & Huang, B. (2002). Socioeconomic status, depressive symptoms, and adolescent substance use. *Archives Pediatric Adolescent Med,* 156,448-453.

Hanson, M. D., & Chen, E. (2007). Socioeconomic status and substance abuse behaviours in adolescents: the role of family resources versus family social status. *Journal of Health Psychology*, 12(1), 32-35.

Humensky, J. L. (2010). Are adolescents with high socioeconomic status more likely to engage in alcohol and illicit drug use in early adulthood?. *Substance Abuse Treatment, Prevention, and Policy*, 5 (19), 1-10.

Kaduri, P. (2008). *Social Cognitive Determinants of Smoking Behavior Among Junior Secondary School Students, Kinondoni District, Dar as Salaam.* Unpublished masters dissertation, University of *Dar as Salaam.*

Koenig, H. G. (Ed.) (1998). *Handbook of religion and mental health*. San Diego: Academic.

Koenig, H. G., McCullough, M. E., & Larson, D. B. (2001). *Handbook of religion and health*. New York: Oxford University Press.

Kokkevi, A., Richardson, C., Florescu, S., Kuzman, M., & Stergar, E. (2007). Psychosocial correlates of substance use in adolescence: *A cross-national study in six European countries; Drug and Alcohol Dependence,* 86 (1), 67-74.

Mbatia, J. & Kilonzo, G. (1996). Drug abuse prevention. *A handbook for educators in Tanzania; 11-16.* Dar as Salaam: MEHATA publication.

Mndeme, E (2003). Parental factors associated with drug use among youth attending the psychiatric unit at Muhimbili National Hospital. Unpublished masters dissertation, Muhimbili University of Health and Allied Sciences.

O'Malley, P.M,, Johnston, L.D., & Bachman, J.G.(1998) Alcohol use among adolescents. *Alcohol Health Res World,* 22, 85-93.

Pargament, K. I. (1997). *The psychology of religion and coping: Theory, research, practice*. New York: Guilford.

Sanchez, Z., Oliveira L., & Nappo, S. (2008). Religiosity as a protective factor against the use of drugs. *Substance Use and Misuse, 43,* 1476–1486.

Saunders, J. B., Aasland, O. G., Babor, T. F. de la Fuente, J. R., & Grant, M. (2001). Development of the Alcohol Use Disorders Identification Test (AUDIT): WHO Collaborative Project on Early Detection of Persons with Harmful Alcohol Consumption—II. Addiction. 88:791–804.

Sloane, D., & Potvin, R. .H. (1986). "Religion and delinquency: Cutting through the Maze." *Social Forces,* 65, 87–105.

Sussman, S., & Dent, C.W. (2002). One-year prospective prediction of drug use from stress-related variables. *Substance use, & Misuse,* 35,717-735.

Tot, S.,Yazici, K., Yazici, A., Metin, O., Bal, N., & Erdem, P. (2004). Psychosocial correlates of substance use among adolescents in Mersin, Turkey. *Public Health,* 118, 588-593.

Vaughan, E. L., De Dios, M. A., Steinfeldt, J. A., & Kratz, L. M. (2011). Religiosity, alcohol use attitudes, and alcohol use in a national sample of adolescents. *Psychology of Addictive Behaviors,* 25, 547-553.

Wallace, J. M., Delva, J., O'Malley, P.M., Bachman, J.G., Schulenburg, E., Johnston, L.D., & Stewart, C. (2007). Race/Ethnicity, Religiosity and Adolescent Alcohol, Cigarette and Marijuana Use. *Social Work in Public Health.* 23, 193-213.

Wichstrom, L. & Pederson, W. (2001). Use of anabolic-androgenic steroids in adolescence: Winning, looking good or being bad? *Journal of Studies on Alcohol*, 62, 5-13.

Wills, T. A., Gibbons, F. X., Gerrard, M, Murry V. M., & Brody, G. H. (2003). Family communication and religiosity related to substance use and sexual behaviour in early adolescence: a test for pathways through self-control and prototype perceptions. *Psychol Addictive Behaviours,* 17:312-323.