Abstract

Purpose: This study explores risk and protective factors for alcohol use among school-going adolescents in Montevideo (Uruguay).

Design: A self-report survey was administered to 331 school-going adolescents in Montevideo (Uruguay) (M_{age}= 13; SD = .05), using (i) the alcohol screening instrument of the Uruguayan National Drug Board to assess adolescents' alcohol use(yes/no), (ii) a screening instrument for psychopathology and resilience (the Adolescent Self Report), and (iii) a socio-demographic questionnaire.

Findings: Logistic regression analyses identified antisocial behavior, substance use and negative emotionality (F2), disruptive and dysregulated behavior (F8), higher age and recent death of a close relative as risk factors, while the number of close friends was identified as a protective factor for past year alcohol use (yes/no). No straightforward relationship was found between schools and the risk for the past year alcohol use. In addition, Age, F2, F8, and recent death of a close relative appeared to be the most robust predictors.

Research implications/limitations: The study was the first in Uruguay to relate adolescents' alcohol use to risk and protective factors. Given the cross-sectional nature of the study, causal relationships could not be determined.

Originality/value: The study provides preliminary recommendations for policy makers and other stakeholders involved in youth affairs on core elements to focus on school-, community- and family-based alcohol prevention programs for adolescents.

Keywords: Adolescents, Alcohol use, Psychopathology, Protective Factors, Risk Factors

Article classification: Research paper.

1. Purpose

Alcohol is one of the most frequently consumed substances by adolescents worldwide. In Latin-America, Uruguay is the country with the highest life time prevalence of alcohol consumption among 15- to 65-year-olds, and with the lowest risk perception (ONUDD, 2009; OEA, 2015).Over the past years, the age of onset for alcohol use has decreased accompanied by an increased incidence in binge drinking (JND, 2011; 2012). In Uruguay the legal age restriction for buying alcohol is 18 years old. As a first exploration of adolescent alcohol use in Uruguay, the current study focuses on alcohol use among school-going adolescents, including age of onset, lifetime, last year and last month prevalence (yes/no) but no indicators of problem use or addictive behaviour.

Several studies have focused on the negative impact of early and frequent alcohol use on adolescents' mental health, social situation and academic performance (Fergusson, Boden & Horwood, 2013; Hemphill et al., 2014; Liang & Chikritzhs, 2015).Early onset of alcohol use has repeatedly been identified as a predictor for the development of future problematic substance use (Liang & Chikritzhs, 2015), as well as other mental health problems. In addition, it appeared to impact youngsters' social situation negatively (e.g., family relationships, school performance, giving up leisure activities). Moreover, early adolescent alcohol use, frequent use of alcohol and heavy episodic drinking have been shown to have negative effects on youngsters' school performance (e.g., dropout, truancy, school suspension, low commitment, academic failure; Hemphill et al., 2014).

Peer-related variables (e.g., peer deviance, peer alcohol use, peer influence, (experienced) peer norms and peer popularity) appear to be prominent factors in explaining drinking intentions and occasions and alcohol use (Beullens et al., 2014; Jones & Magee, 2014; Liu et al., 2014; Cooke et al., 2015; Lee et al., 2015; Tomczyk et al., 2015). For example, adolescents who believe that a higher number of friends use alcohol and that alcohol use is socially acceptable (normative beliefs), demonstrate increased intentions to drink (Beullens et al., 2014).The particular importance of peers is related with the developmental period of adolescence, when peers (compared to parents) become increasingly important and influential (Berk, 2006). Also, poor school performance, lack of commitment at school, low risk perception, previous delinquent behaviour and family history of problem behaviour and substance use have been identified as important risk factors of problematic alcohol use among adolescents (Birhanu, Bisetengn, & Woldeyohannes 2014; Wongtongkam, Ward,

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Day, & Winefield, 2014). A 21-year follow-up study by Salom and colleagues (2014) showed that several aspects of early socio-economic disadvantage (low family income, low maternal education, family unemployment) are associated with alcohol use and mental health disorders in young people. Moreover, epidemiological studies indicate a high concurrent prevalence of externalizing and internalizing mental health problems in adolescence (Miettunen et al., 2013; Birhanu, Bisetengn & Woldeyohannes, 2014; Liang & Chikritzhs, 2015). High comorbidity between substance use and other psychiatric disorders is reported in adults as well as adolescents (Goodman, 2010; Fergusson et al., 2013).

Recently, the role of protective factors in preventing substance use has received increased attention (Nargiso et. al. 2015; Wongtongkom, et al. 2015). Protective factors can be defined as "characteristics or conditions within the individual, family, school or community that increase the likelihood of positive health behaviours or outcomes, or moderate and discourage behaviours that might lead to negative health outcomes" (Birhanu, Bisetengn & Woldeyohannes, 2014, p.3). Protective factors refer to adolescents' subjective perception of well-being and quality of life, and resilience; the extent to which they perceive their life as favourable and satisfying, (Mac Phee et. al., 2015). Protective factors that have been associated with alcohol use in adolescents are: social and communication skills, positive self-concept, moral beliefs, positive peer and parenting role models, participation in religious activities, good school performance, social involvement and high educational level of parents (Birhanu, Bisetengn & Woldeyohannes 2014; Wongtongkam, Ward, Day & Winefield, 2014). Some of the above-mentioned peer-related variables (e.g., peer norms and peer influence) appear to have a protective function towards drinking intentions and alcohol use (Liu et al., 2014; Lee et al., 2015).

In Latin-American countries, particularly in developing countries like Uruguay, there are few studies on adolescent alcohol use in relation to mental health status and risk and protective factors (ONUDD, 2009; OEA, 2015). The few studies including data from developing countries in South America and the Caribbean highlight the relationship between child and adolescent maltreatment and increased risk of alcohol use (Longman, González, Meléndez, García & Gómez, 2011; 2013). Other studies in South Africa and a review including 11 developing countries, stress the importance of research on personal and family factors related to alcohol use in adolescents in developing countries (Atilola et al., 2014), and on the association between psychopathology and alcohol use (Saban &Flisher, 2010).

The current study was designed to contribute to by exploring (i) age of onset, lifetime, past year and past month prevalence (yes/no) of alcohol use; and (ii) risk and protective factors of past year alcohol use (yes/no)in a sample of school-going adolescents in Montevideo (Uruguay).

2. Design

The sample (not probabilistic) was recruited in six private high schools, located at the outskirts of Montevideo (Uruguay) between September- October 2013, including boys and girls between 12 to15 years old from different socio-economic strata. In order to be eligible for this study, students had to meet the following criteria: (I) good Spanish language skills; (II) basic reading comprehension to understand and complete the questionnaires. The sample consisted of 331 adolescents, 61.4 % girls and 38.6 % boys (see Table 1); 80.8% belonged to the middle class, while 10.6% came from lower social classes and 8.6% from upper class families (according to the socio-economic multi-criteria index, INSE (Llambi & Piñeiro 2012). Uruguay has the largest proportion of middle class in the region. Since 2012, the middle class has grown and now comprises 80% of the population (Carbajal & Rovner, 2014). The proportion of sample participants from middle class background is proportionate to the last study of the United Nations Programme (PNUD) (80%) by Carbajal & Rovner 2014, which using data from the national household surveys, taking into account per capita and per household income, educational level and labour market and housing conditions. About two thirds of the sample (64.3%) lived in households in which two persons receive an income, 14.8% came from a household where only one person has an income and15.1% was from a household with three people receive an income (see Table 1).

2.1 Procedure

Respondents completed the questionnaire using paper and pencil in one single session at the schools; teachers were not present during administration. The design of the study, as well as the informed consent forms and instruments were approved by the Ethical Board of the Catholic University of Uruguay. All participants provided written informed consent, in addition to the formal consent given by the school and by parents. The questionnaires were anonymized and kept confidential in sealed envelopes in a locked cupboard. Neither the participants nor the schools received any kind of monetary compensation.

2.2   Instruments

Socio-demographic characteristics. A socio-demographic survey was used consisting of 41 items regarding individual, family, school and environmental characteristics.

Psychopathology and resilience. The Adolescent Self Report (ADA) (Daset, et. al. 2015). Consists of 118 items and is scored using a 5-point likert scale. Positive factors and resilience includes: strengths, life planning, coping skills, and social desirability. Psychopathological symptoms includes: emotional and behavioural problems. The ADA is the first screening instrument that integrates psychopathological aspects, and protective factors, designed for youngsters considering local expressions and culture. It is based on the empirical taxonomies and studies of Achenbach and Edelbrock (1978), Lemos, Fidalgo, Calvo and Menendez (1992) and Lopez-Soler et al., (1998).

Factor analyses have indicated the following clusters of items, resulting from the ADA (Daset et al. 2015):

F1 Problems to fit in (6 items; e.g. "I am a lonely person, and this does not affect me");

F2 Antisocial behaviour, substance use and negative emotionality (8 items; e.g. "I've stolen things or money outside my home");

F3 Obsessive-compulsive symptoms (14 items; e.g. "I repeat certain actions very often (touch my hair, wash my hands) because this makes me feel at ease");

F4 Resilience (18 items; e.g. "I think that good things will happen to me");

F5 Depression, self-harm and somatic complaints (20 items; e.g. "I think about taking my life");

F6 Social desirability (5 items; e.g. "If I commit a mistake I am willing to accept it");

F7 Fear and harassment (9 items; e.g. "I receive insults and jokes from peers, and I cannot take more"); and

F8 Disruptive and dysregulated behaviour (12 items; e.g. "If I start insulting I cannot stop").

Alcohol use. The survey (JND, 2011) assessed: (i) lifetime prevalence of alcohol use (yes/no), (ii) prevalence of alcohol use during the last 12 months (yes/no); (iii) prevalence of alcohol use during the last 30 days (yes/no); and (iv) the age of first alcohol use. We conceptualized alcohol use as the first

use of alcohol in any context, not considering the number of drinks. A lower percentage of lifetime prevalence of alcohol use was observed compared to past year prevalence. This is explained because more students answered the question regarding substance use in the "last 12 months" than the question regarding "lifetime use". In other words, many students that answered affirmative the question "last 12 months" did not answer the "lifetime" question. Based on the limited available information from the survey and as a first exploration, the present article focuses on adolescents' alcohol use, not on problematic use or addictive behavior.

2.3   Statistical analysis

Descriptive statistics regarding demographic characteristics, risk and protective factors and the prevalence of alcohol use were calculated. We performed a binary logistic regression analysis to predict the probability of alcohol consumption in the last 12 months. The independent variables included: age (as dummies), sex, socioeconomic status (SES), school institution (as dummies), number of close friends, academic performance, loss of a close relative (due to death), and the ADA psychopathology and resilience factors. As a robustness check of the previous model, we performed a binary logistic regression analysis excluding the dummy variables representing school institutions and including age as a continuous variable. We wanted to check if the results were robust (same sign and significance as in the previous model) to these changes in the model. Again, the dependent variable was alcohol use in the last 12 months. As independent variables, we only included the two ADA factors that were the most robust in the first regression model (i.e., F2: antisocial behavior, substance use and negative emotionality, and F8: disruptive and dysregulated behavior), as well as gender, SES, age (as a continuous variable), number of close friends, and loss of a close relative (due to death). In both logistic regression analyses, all independent variables were included simultaneously. To explore the direction and size of the significant effects, we considered the odds ratios (OR). For the second model, the pseudo R^2 was stated, indicating the amount of variance in the dependent variable that could be explained by the predictors in the model. Statistical analyses were performed using SPSS 20 (Statistical Package for the Social Sciences).A p-value of 0.05 was used in all analyses, as the standard for statistical significance.

3. Findings

Table 2 shows the prevalence of alcohol use in boys and girls from 12 to 15 years old. The prevalence of alcohol use in the last 12 months was 71%.The highest proportion of first use is observed in the age category of 12 to13 years old (60%).The average age of first alcohol use is 12.8 years old.

Table 3 describes the distribution of risk and protective factors, showing the percentage of cases that are located at the extreme ends of the distribution, meaning at least two standard deviations from the mean of each ADA factor. With regard to the ADA psychopathology factors (i.e., F1-3, F5 and F7-8), between 18 and 21% of the adolescents had higher scores (i.e., more than two standard deviations above the mean). Regarding protective ADA factors (i.e., F4 Resilience and F6 Social desirability) 6% of the cases scored higher (i.e., more than two standard deviations above the mean).

Table 4 shows the resulting logistic regression model with alcohol consumption in the past 12 months as dependent variable. ADA F2 (antisocial behavior, substance use, and negative emotionality) and F8 (disruptive and dysregulated behavior) stand out as highly significant risk factors for alcohol use in the past year ($p < 0.01$).The recent death of a close relative also appears as a significant risk factor for alcohol use in the past year ($p<0.01$), while having many close friends appears as an important protective factor ($p<0.05$). Moreover, youngsters of 13, 14 and 15 years old appear to be more at risk for alcohol use in comparison with 12-year-old pupils (reference category = age 12) ($p <0.01$). Also, in schools 2 and 5, pupils were more likely to have used alcohol in the past year, compared to the reference category (institution 6) ($p<0.01$). In the institutions 4 ($p<0.01$) and institution 3 ($p<0.05$), the risk of past year alcohol use was significantly lower compared with institution 6.

Table 5 presents the results from the second logistic regression analysis. Symptoms of antisocial behavior, substance use and negative emotionality (F2) and disruptive and dysregulated behavior (F8) were significantly associated with an increased risk of alcohol use in the past year. The odds that an adolescent consumed alcohol in the past year were1.06 times higher for adolescents displaying disruptive and dysregulated behavior (per increase of ADA score with 1 point) ($p<0.01$). For every increase in antisocial behavior, substance use and negative emotionality with one point, the odds of alcohol consumption were 1.16 times higher ($p<0.01$). Also, every increase in having experienced a traumatic event or difficult circumstance with one point, such as the death of a close relative,

increased the odds for alcohol use in the past year with 3.35 (p<0.01). In addition, age was associated with an increased risk of alcohol use in the past year (p<0.01).

4.   Discussion

We explored the use of alcohol in a sample of school-going boys and girls in Montevideo, and its relationship with risk and protective factors. The relatively high prevalence rates of alcohol use in the last 12 months among 12- to 15-year-olds converge with the results of the most recent National Drug Survey in Uruguay (JND, 2015). First alcohol use was likely to occur at the average age of 12.8 years. These results are in line with the findings of the national drug study, demonstrating the younger age of first alcohol use (12.8 years old) and warranting a national public health strategy on the use of this substance among adolescents from 12 to 17 years old (JND, 2015).

4.1.   Risk factors associated with alcohol use in the last 12 months

Similar to previous research in Chile, Finland and South Africa (Mason-Jones & Cabieses, 2015, Miettunen et al. 2014, Saban et al., 2010), a significant relationship between adolescents' mental health state and alcohol use was found. Last year alcohol use appears to be significantly associated with two psychopathological patterns: ADA factors 2 (antisocial behaviour, substance use and negative emotionality), and 8 (disruptive and dysregulated behaviour). Although our findings are based on cross-sectional and limited to alcohol use (not abuse), one recent longitudinal study indicated that externalizing behaviour and subsequent criminal behaviour are important predictors of later alcohol abuse among adolescents (Lian & Chikritzhs, 2015).

In line with prior work (Longman, González, Meléndez, García & Gómez, 2011; 2013,), our findings show that adolescents who reported recent death of a close relative are at higher risk of using alcohol in the past 12 months. The longitudinal study by Arpawong and colleagues (2015), (which focused on alcohol abuse) indicated that higher levels of post-traumatic growth (PTG: defined by the authors as "a positive psychosocial adjustment to a particular life altering stressor"; p. 484) were associated with lower risks of last year alcohol abuse. Providing mental health support to adolescents who experienced traumatic events might serve as an important way to prevent them from seeking consolation or distraction in alcohol use (Liang & Chikritzhs, 2015).

We found that 13- to 15-year-olds are at greater risk for alcohol consumption compared to 12-year-olds.This result converges with findings from other studies in Australia, the US, South Africa, India, and China (Freitas-Rosa, Goncalves & Antunez, 2015, Olumide et al. 2014; Arpawong et al., 2015). These findings indicate the importance of early intervention and prevention of alcohol use from young age on. Again, it should be noted that our findings are limited to alcohol use (not abuse). However, prior work indicated that early age of onset of alcohol use is associated with increased risk of problematic substance use and deviant behaviour at later age (Ryzin & Dishion, 2014). Also, other studies found that early age of onset of alcohol use was associated with later frequent substance use and problems with emotional regulation (Atilola et al. 2014).

Besides prevention and early intervention, legal restrictions are important means to control and reduce substance use (Babor & Caetano, 2005). The legal age for youngsters to purchase alcohol in Uruguay is 18 years, but enforcement of the legal drinking age is weak. Also, alcohol is cheap to purchase and widely available. Consequently, prevention and early intervention initiatives should be accompanied by initiatives to restrict the availability of alcohol for youngsters (e.g. ID controls, price increases, alcohol selling restrictions) and reduce its attraction (e.g. advertisement bans, warning signs, higher taxation).

A last risk factor in relation to last year alcohol was the location of the school. In institutions 2 and 5 adolescents showed significantly higher risk of past year alcohol use than their counterparts. The longitudinal study by Wang and colleagues (2014) identified some neighbourhood factors (e.g., high risk neighbourhoods, low adult monitoring and high risk peers) that predicted young adolescents' involvement in risk behaviours. Unfortunately, we had little detailed information about the context of the educational institutions that participated in the study to explain these between school differences. Further research should include school characteristics in order to clarify which contextual factors contribute/ to or refrain from substance use.

4.2. Protective factors associated with alcohol use in the last 12 months

The number of close friends appeared as a protective factor for past year alcohol use. Given the direction of this association, it is likely that it concerns close relationships with prosocial peers, which

is in line with prior findings that positive peer influence and pro-social peer norms buffer against drinking intentions and alcohol use (Liu et al., 2014; Lee et al., 2015).In addition, the study of Birhanu and colleagues (2014) found that adolescents with good social skills were less likely to use alcohol. These findings emphasize the importance of the development and maintenance of prosocial skills and of a stable, broad and prosocial network. Contrary to our findings, Freitas-Rosa and colleagues (2015) indicated that adolescents who were more satisfied about their intimate relationships were at increased risk of alcohol consumption. Here, it is likely that it concerned satisfaction with deviant peer relationships. Therefore, relationships with peers who display deviant behaviour may increase the pressure to follow the group norms and to be favourable toward substance use, which in turn raises the likelihood of early alcohol use (Birhanu et al., 2014, Ryzin & Dishion, 2014; Wang et al., 2014). While stimulating the development and maintenance of prosocial skills and social networks, prevention and intervention programs need to be aware of potential negative peer interactions or detrimental influences of social networks (Freitas-Rosa et al., 2015).

Adolescents in school institutions 3 and 4 were at lower risk of alcohol use. Further school characteristics should be explored to gain a better understanding of these identified differences. The academic program, ethos of the school, neighbourhood characteristics and parental attitudes could provide evidence on how schools can influence the relationship between substance abuse and academic performance (Andrade, 2014).

5.   Clinical and policy implications and value

The present study provides useful information about risk and protective factors for alcohol use in adolescents, contributing to the scarce amount of research on this topic in developing countries. The results might be helpful to parents and teachers, and to policy and program developers and trainers in the fields of education, psychology, substance use and public health. Findings and insights resulting from this study can be useful when planning alcohol prevention and early intervention programs. Our results suggest that it would be useful to develop specific prevention initiatives for specific at risk groups (Mason-Jones & Cabieses, 2015).

Given the association between mental health and alcohol use in our sample, we recommend an integrated approach when dealing with adolescents who use alcohol and display problems in emotional and/or behavioural regulation (Ryzin et al., 2014, Monahan et. al., 2014.

In line with prior work (Monahan et al., 2014), our findings suggest to develop community, school and family programmes that are not exclusively focused on risk factors (such as mental health problems), but also address protective factors for alcohol use. For example, stimulating youngsters to build a stable and prosocial network of close friends and promote better communication and bonding between adolescents and families, as well as healthy social activities among adolescents (Jones & Magee, 2014; Tomczyk et al. 2015). Educational programs that enhance academic performance and prosocial peer relationships have proven to be helpful to prevent adolescents' substance use/abuse (Andrade, 2014; Wongtongkam et al. 2014; Tomczyk et al. 2015).

6.   Research limitations and recommendations

First, the generalizations of the study results are limited to the schools and levels examined here. Future studies should be based on probabilistic sampling methods and include schools nationwide. Second, given the cross-sectional nature of the study, we could not determine causal relationships between the variables of interest and we could not explore the evolution of risk and protective factors over time. Longitudinal research is needed to examine whether the identified risk and protective factors indeed influence youngsters' future alcohol use and how these factors change throughout adolescents' life. Third, information was obtained using self-report questionnaires. Future studies should also include information from significant others (i.e.: teachers, parents). A multi-informant approach is likely to yield additional insights, as adolescents themselves may not be aware of some risks or tend to minimize specific problems. Fourth, the survey included only information about alcohol use. It is recommended for further studies to also addressing problem drinking/addiction and use of other substances. Fifth, the risk and protective factors included in the current study could only explain a relatively small part of the variance in adolescents' past year alcohol use (pseudo R2 = 0,2044). Various other correlate than the ones included in this study may play an important role in adolescents' alcohol consumption. We suggest future studies to address other plausible risk and protective factors, including adolescents' religiosity (Birhanu, Bisetengn, & Woldeyohannes, 2014; Wongtongkam, Ward, Day, & Winefield, 2014), quality of life (De Maeyer et al, 2011; Colpaert et al., 2013), school-related

variables and variables related to one's cultural, social and environmental context (THE WHOQOL GROUP, 1998).

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Appendix

Table 1. Socio-demographic characteristics of the study (n=331)

Variables	N	%
Gender	128	38.6
Male	203	61.4
Female		
Frequency of age		
12	63	19.1
13	124	37.7
14	89	27.1
15	53	16.1
Socioeconomic status		
High	28	8.6
Medium	268	80.8
Low	35	10.6
Household income		
1 person	49	14.8
2 persons	213	64.3
3 persons	50	15.1
Mean age	13	

Table 2. Alcohol use prevalence among school going adolescents in Montevideo

Variable	N	%
Alcohol use once in lifetime: yes (versus no)	182	55
Alcohol use last 12 months : yes (versus no)	235	71
Alcohol use last 30 days: yes (versus no)	50	15
Onset of alcohol use at ages		
10 years old	5	4.3
11	13	11.1
12	35	30
13	35	30
14	25	22
15	4	2.6
Mean age of first alcohol use	12.8	

Table 3. Distribution of risk and protective factors. Percentage of cases with score higher than mean plus two standard deviations for each ADA factor.

ADA 8 Factors		N	%
F1 Problems To fit in	F1>mean+2sd	70	21.1%
F2 Antisocial behaviour, substance use and negative emotionality	F2>mean+2sd	68	20.5%
F3 Obsessive-compulsive	F3>mean+2sd	61	18.4%
F4 Resilience	F4>mean+2sd	21	6.3%
F5 Depression, self harm, somatic complaint	F5>mean+2sd	66	19.9%
F6 Social desirability	f6>mean +2sd	19	5.7%
F7 Fear and hassarment	F7>mean+2sd	61	18.4%
F8 Disrupted and dysregulated behaviour	F8>mean+2sd	63	19.0%

Table 4. Logistic regression model predicting Alcohol use (last 12 months).

Variables	Coef.	dy/dx
F2 antisocial behavior, substance use and negative emotionality	0.184***	0.0304926
	(0.0399)	
F8 disruptive and dysregulated behavior	0.0521***	0.0086413
	(0.0186)	
Socioeconomic status	0.205	0.034048
	(0.149)	
Sex	0.0658	0.0109233
	(0.147)	
Number of close friends	-0.000792**	-0.0001313
	(0.000315)	
Death close relative	1.078***	0.1788748
	(0.333)	
age13	0.956***	0.1585222
	(0.342)	
age14	1.698***	0.2817435
	(0.289)	
age15	2.679***	0.4443862
	(0.863)	

High school1	0.354	0.0588093
	(0.470)	
High school 2	0.695***	0.1153515
	(0.144)	
High school 3	-0.410**	-0.0679894
	(0.161)	
High school 4	-1.706***	-0.2829705
	(0.326)	
High school 5	0.729***	0.1209045
	(0.0899)	
Constant	-4.598***	
	(0.772)	

Log likelihood	-109.6

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 5. Logistic regression model predicting alcohol use (last 12 months). Robustness check

Variables	Odds Ratio	Robust Std. Err.	z	P>z	[95% Conf.	Interval]
F2	1.158	0.035	4.89	0.000	1.092	1.228
F8	1.057	0.019	3.08	0.002	1.020	1.095
INSE	1.042	0.165	0.26	0.793	0.764	1.422
Sex	0.841	0.255	-0.57	0.568	0.464	1.523
Number close friends	1.000	0.001	-0.28	0.779	0.999	1.001
Death close relative	3.348	0.951	4.25	0.000	1.918	5.844
Age	2.347	0.596	3.36	0.001	1.426	3.861
Pseudo R2=0.2044						