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Swedish high-school pupils' attitudes towards drugs in relation to drug usage, impulsiveness and other risk factors

Background: Illicit drug use influences people's lives and elicits unwanted behaviour. Current research shows that there is an increase in young people's drug use in Sweden. Therefore, this study aimed at investigating high-school students' attitudes, impulsiveness and gender differences linked to drug use. Also risk and protective factors relative to drug use were in focus of interest. **Method:** High school pupils (n = 146), aged 17- 21 years, responded to the Adolescent Health and Development Inventory, Barratt Impulsiveness Scale (BIS-11) and Knowledge, and the Attitudes and Beliefs (KAB). Direct logistic, multiple regression analyses, and Multivariate Analysis of Variance were used to analyse the data. **Results:** Positive Attitudes towards drugs was predicted by risk factors, odds ratio = 37.31. Risk factors, odds ratio = 46.89, and positive attitudes towards drugs, odds ratio = 4.63, predicted drug usage. Family, friends and individual as risk factors was positively related to impulsiveness among drug users. Moreover, although males reported using drugs to a greater extent, but female expressed more positive attitude towards drugs and even reported more impulsiveness than male students. **Conclusion:** Positive attitudes towards drugs among adolescents seem to be part of a vicious circle including risk factors, such as friendly drug environments (e.g., friends who use drugs) and unsupportive family environments, and impulsiveness. Even pro-drug attitudes were interpreted as a sign of a social change defined as altered norms, values and symbols of the society. This study reinforces the idea that research must focus on gender differences relative to pro-drug attitudes along with testing for differences in the predictors of girls' and boys' delinquency and impulsiveness.

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A drug abuser denotes an individual who has lost control over his/her life to psychoactive substances (Fraser & Moore, 2008). This condition produces altered neurological functions, changed perceptions, moods, consciousness and energy levels (King, 2008). The user turns into an‘abuser’ when a drug impacts his/her normal functioning and well-being (Johnston & O'Malley, 1986). Abuse covers inappropriate use of any substance, especially those that alter consciousness (e.g., alcohol, cocaine methamphetamines) and generates significant distress and function impairment (Medical dictionary, 2013). Drug abuse links to society's disapproval but may involve illegal use of drugs for recreational purposes. Mind-altering substances may be used to relieve medical problems without a health care practitioner's recommendation (Merck Manual, 2009).

The global annual prevalence of illicit drug users was estimated to be 3.30–6.10% in people aged 15–64 years in 2009 (United Nation Office on Drugs and Crime, 2011). Cannabis is the most frequently used drug with a projected global annual prevalence rate of 2.80–4.50%, 10.70% in North America and 6.80% in Europe (European Monitoring Centre for Drugs and Drug Addiction, 2010). In Sweden, 2.3 % of 16–84 years old individuals used Cannabis for recreational purposes (National Institute of Public Health [NIPH] 2011). In Sweden the focal point in substance research has switched from interests in problems stemming from use of alcohol and drugs, to the very experience of substance usage (Van Greiff, 2008). According to the NIPH (2009/10) school children’s drug use has increased slightly in recent years. Drug availability is considerably enhanced and links to positive attitudes to try alcohol and other drugs. Additionally, Central Association for Information on Alcohol and Drugs (Henriksson, & Leifman, 2012) shows that 15% of girls and 20 % of boys have used drugs at one time or another. Among girls, the proportion of drug usage seems to have levelled off, while in boys it rose from 16-17% in 2004-2008 to 21% in 2010 and about 20% for both genders in 2011 and 2012. TNS Sifo (2012) surveyed all high-school students in Stockholm, including the high schools targeted

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in the present study, and showed that 27% of the boys and 15% of the girls had tried drugs during the year 2012. The presently relevant high school had a drug-user increase from 16% to 21%.

An attitude is defined as a psychological tendency expressed by an approval or a disapproval of the assessment of a particular device (Augustsson, 2005). Attitudes or 'mind-sets' consist of the following aspects: *cognitions,* e.g. negative, positive, or neutral thoughts towards an attitude object; *affections,* that is, the individual emotions relative to an attitude object; and *behaviour* involves open acts towards the attitude object but also the individual's intentions. Augustsson implies that an individual seeks an environment with attitudes consistent with his own. 'Mind-sets' facilitate an individual's judgment for goal achievements, determination of consequences or conveyance of attitudes to other individuals. Changes in an attitude may be perceived as an attempt to balance the social environment (Helkama, Myllyniemi & Liebkind, 2004) for several reasons including peer conformity (Aronson, Wilson, & Akert, 2005). Nevertheless, Rytterbro (2006), Rödner, Hansson and Olsson (2007) revealed an ongoing general liberalization of attitudes towards drugs among young people. Drug users attribute to drugs, more so than to alcohol, positive effects to play down their negative effects—some believe that cannabis is less harmful than other drugs and that drug use perhaps may not be as harmful as alcohol.

Parental knowledge concerning teenage activity and residence are also important predictors of drug abuse. However, it is not the parents' active questioning or monitoring *per se*, but the teenager's own narrative that constitutes an important basis for our understand (Kakihara et al., 2010; Keijsers et al., 2010; Kerr, Stattin, & Burk, 2010). The likelihood that a young person ends up as a drug user and abuser is increased through peer pressure, at an age when familiarity with negative abuse effects is limited. Furthermore, young people do not grasp whether or not their friends are using drugs (Andersson, 1991). Moreover, male adolescents are, more so than females, initially exposed to intoxicating substances (Van Etten & Anthony, 2001)

and males have a greater liability for lifetime prevalence of exposure to substances (Aarnoudse, Dieleman, & Stricker, 2007; Gray, 2007). It appears that the pattern in female drug usage is related to some extent to intimate relationships, while the male model links to independence and freedom (Trulsson, 2006).

Risk factors and protective aspects relative to drug abuse

Environmental risk factors for drug use comprise uninvolved parents, peer pressure, hostility towards the child and harsh punishments, poor school or academic achievements, low socioeconomic status and availability of drugs (Hawkins, Catalano, & Miller, 1992; Merline *et al*., 2004; Schuster *et al*., 2001). Additionally, attention deficit and hyperactivity, personality traits such as lack of empathy and (i.e., low communal values or cooperativeness), impulsiveness (i.e., low agency or self-directedness), poor school or academic achievement, non-attendance in local environmental issues, fearlessness, thrill-seeking and lack of emotion regulation constitute individual-specific risk factors in drug abuse (Andershed & Andershed, 2005; Loeber & Farrington, 1998).

Conversely, protective factors lower the risk for substance abuse, that is, closeness, cohesion and care from the family (Duncan SC, Duncan TE, & Strycker, 2003; Hill *et al.,* 2005; Pires & Jenkins, 2007; Sale *et al.,* 2005). Stattin and Kerr (2000) found that parents with rules for their teens decreased the risks for antisocial behaviour (Kakihara *et al.,* 2010). On the other hand, parents who communicate with their teens convey a better understanding by supporting and guiding them. The teenagers who have a good and respectful relationship with their parents are more likely to imitate their parents' attitudes, which may affect their use of alcohol and drugs (Keijsers *et al*., 2010; McNeely & Barber, 2010). Close relationships promote transparency and reduce the risk that the teenager would engage in antisocial behaviour (Vieno *et al.,* 2009). Drug abusers often create identities and subcultures. Furthermore, the drug is used to express feelings and to facilitate interactions in social situations (Johansson & Wibring, 2005). At the personal

level, a human being's level of vulnerability constitutes an individual-specific risk factor, which puts the person at danger for developing antisocial and aggressive behaviour. This becomes especially relevant if the person lacks the ability to interact socially. Lack of emotional control expresses itself in a difficulty to inhibit responses to specific stimuli (Gross, 2007). Poor emotional regulation results when an offended person, instead of using cognitive strategies, uses physical violence to retaliate (Kåver & Nilsonne, 2002). Empirically, negative emotions have been associated with aggressive behaviours (Deater-Deckard *et al*., 2010). Males tend to engage in more aggressive behaviours than females (Crick & Grotpeter, 1995) and are also less able to regulate their behavioural responses to emotional hints than women (Knight *et al*., 2002).

Women are known to use on average less drugs than men (Van Etten & Anthony, 2001). In some research (Kloos *et al*., 2009) argued that social and cultural norms explain gender differences in substance abuse. Traditionally, females fear to lose control in a social context; consequently fewer women succumb to drug misuse whereas drug consumption may serve a purpose in regulating emotions, especially anger and impulsiveness. It is believed that at the individual level, personality traits such as aggressiveness and impulsiveness contribute to the risk of drug consumption and a positive attitude towards drugs increases risky behaviour also (Hawkins *et al.,* 1992).

The present study

The purpose of the present study was to investigate high-school student attitudes towards drugs, impulsiveness and other risk factors relative to their use of drugs for non-medical, casual reasons. Due to the widespread and complex aspect of the problem, only three specific questions were examined in the present analysis:

1. Which factors contribute to high-school students' positive attitude towards drug usage?
2. Which factors contribute to high-school students' drug usage?

3. Which factors contribute to drug users' impulsiveness?

Method

Participants and procedure

Altogether 15 high-schools principals in Stockholm, Sweden, were approached until a principal for a high school agreed to participate in the present study. The staff of the schools that declined to participate did so due lack of time or found the drug issue to be thin-skinned. At the participating high school, a total of 160 questionnaires were handed out to students aged 17- 21. In this part of Sweden, drug issues are a known problem (CAN, 2012; NIPH, 2009/10 & TNS Sifo, 2012). Fourteen (9%) of the students refused to participate or did not complete the forms accurately and were thus excluded from the study. Accordingly, the sample comprised 146 (91%) students who attended a 3-year Natural Science or Social Science secondary school. The male respondents (47.3 0%) were on average 18.20 (*SD* = 0.65) years and female students (51.40 %) on average 18.03 (*SD* = 0.57) years. Their parents' had educational levels ranging from: no education (1.40 %), high school (8.9 0%), upper secondary school (17.1 0%), vocational education (1.4 0%) to university (52.6 0%) and no answer was given for 15.1 0%. The majority of the participants were Swedes (*n* = 143), 1 from Russia, 1 from Georgia and 1 from Iran. The students were asked to complete the questionnaire anonymously during a 45-minute lecture in English and were informed of the purpose of the present study and that their participation was voluntary and that they were free to discontinue the completion of the form whenever they wanted without any justification.

The survey was conducted at the school during an English lecture at high-school C level. The researcher delivered the questionnaire to the school principal. The questionnaire (127 questions) comprised a number of instruments for measurement of impulsiveness, attitudes about drugs, protective and risk factors for students' drug use, and some background variables, which were merged into a single designed questionnaire. Furthermore, before handing out the

questionnaires the researcher received a written assent letter signed by the principal. Then in turn, the principal informed every C- level English teacher that they would ensure that the students participated in the survey and completed the questionnaires during the English teaching. The students could seal the completed survey in an envelope that was provided to the teacher. The teacher's task was to verify the student's presence and to collect the questionnaires. Data collection took place from mid-November 2012 to January 2013.

Statistical treatment

By means of linear and logistic regression analyses as well as Multivariate Analysis of Variance (MANOVA) students' use or non-use of drugs and attitudes towards drugs were the dependent variable, while gender, age, level of impulsiveness, risk and protective factors constituted the independent variables. To avoid a too small sample, 146 questionnaires (x 127 questions) were collected which well exceeded the requirement of at least 15 individuals per predictor in regression analysis (Pallant, 2001). This sample size also reduced the occurrence of false significances in MANOVA.

Measures

Participants' background, The background instrument comprised 5 items about socio-demographic data including the respondent's age, gender, home country, place of upbringing and level of parent's education.

Drug use. This part of the form contained a total of 3 items. Participants were asked to indicate if they have used drugs for non- medical reason (*Yes, No*) the type of drugs the respondent had used, his/her age at the first use of various drugs and the frequency of drug use.

Attitudes towards drugs. The Knowledge, Attitudes and Beliefs (KAB) inventory (Bryan *et al.,* 2000), was modified for this study and consisted of 21 items in which participants answer the questions regarding their attitudes to drug use *(e.g.. "Our society is too tolerant towards drug users", "Occasional use of cannabis is not really dangerous", "It is normal that young people*

will try drugs at least once", "Reports about the extent of drug usage amongst young people are exaggerated by the media"). The items were answered using a 7-point Likert scale *(1= Disagree strongly. 2= Don't agree. 3 = Agree strongly. 4 = Agree moderately. 5 = Agree slightly. 6 = Don't know. 7 = I don't care)*. For the purpose of the present study, and as recommended by Bryan and colleagues, the response options were collapsed into two categories (Agree, and Disagree). In the current study, the Cronbach's alpha coefficient was .72

Risk and protective factors. The Adolescent Health and Development (AHD) (Jessor, Turbin, & Costa, 1998b) and the Communities That Care (Hawkins & Catalano, 1992) questionnaires assess a variety of behaviours as well as a range of risk and protective factors in five domains of a total of 68 items (3-4 items for each domain) using a 4-point Likert scale *(1 = Almost always, 4 = Almost never)*. The domains included individual factors: beliefs, values, lack of commitment to societal values or norms as well as family factors, e.g. living arrangements, poor attachments, family conflict, emotional support, pro-social and normative expectations. Also peer-group factors such as favourable peer attitudes toward drugs and gambling, peer substance use, affiliation of close friends who are not drug users and positive bonding. Furthermore, school-related factors such as academic failure, lack of commitment to school, social support networks, high social and academic expectation along with neighbourhood or community factors in the form of characteristics of the community availability of substances, community laws/norms favouring drug use and gambling, community sponsored activities and activities based on religion. The scores of questions that measure the same risk or protective factors were pooled together which means and a higher score indicates more of the factor. The reliability by Cronbach's alpha for risk factors with 32 items was .83 and for protective factors with 14 items . 84.

Impulsiveness. The Barratt Impulsiveness Scale, (BIS-11; Patton, Stanford, & Barratt, 1995) contains a total of 30 items, each of which is answered on a 4-point Likert scale *(1 =*

Rarely/never. 4 = Almost always/always). The level of impulsiveness is calculated by summing up the scores for each item, the higher the score, the more impulsiveness. The constructors of Barratt impulsiveness scale suggest that a score of 75 or higher is likely to indicate an impulse-control disorder, while those with pathological impulsiveness often score between 70 and 75 points. According to Stanford et al., (2009) BIS-11 total scores between 52 and 71 should be thought of as within normal limits for impulsiveness. Scores lower than 52 usually are representative of an individual that is either extremely over-controlled or who has not honestly completed the questionnaire. The Cronbach's alpha for 29 items, after factor analysis, was .84.

Results

Respondent characteristics as well as the means and standard deviations for different measurements performed are given in the supplemental material (Table S1). The results showed that male students used more drugs (male 41 % and female 21 %).

Female students reported more impulsiveness (Mean=61.98, *SD* = 10.53) compared to male students (Mean=58.25, *SD* = 9.63) and even expressed more positive pro-drug attitudes (Mean=82.54, *SD* = 14.98) compared to male students (Mean=79.96, *SD* = 11.50). By independent t-test also results between gender and between drug-user high-school students versus non-drug user, respectively, are presented. For a computed total sum of scores for the variables, the numbers of included items as well as the value of Cronbach's alpha are indicated (See Appendix 1,Table S1).

Attitude towards drugs

Direct logistic regression was performed to assess the impact of a number of factors on the likelihood that respondents would report that they would exhibit a positive attitude towards drugs. The model contained four independent variables (gender, age, impulsiveness, total sum of risk factors and total sum of protective factors). The full model containing all predictors was statistically significant (χ^2 (5, N = 117) = 30.27 p < .0001), indicating that the model was able to

distinguish between respondents who reported containing a positive attitude towards drugs and those who did not. The model as a whole explained between 22.80% (Cox and Snell R square) and 30.7% (Nagelkerke R squared) of the variance in attitudes towards drugs, and correctly classified 76.1 % of cases. As shown in Table 1, two of the independent variables made a unique statistically significant contribution to the model, gender and the total sum of risk factors. The strongest predictor of reporting positive attitudes towards drugs constituted of the total sum of risk factor with an odds ratio of 37.31. This indicated that respondents who live in more risk-factor prone environments were over 37 times more likely to report a positive attitude towards drugs than those who did not live under risk factors, controlling for all other factors in the model.

Table 1 should be here

Drug usage

Direct logistic regression was performed to assess the impact of number of factors on the likelihood that the respondents would report that they had used drugs. The model contained 6 independent variables (age, gender, totals sums of risk factors, protective factors, impulsiveness, and attitudes towards drugs). The full model containing all predictors was significant (X^2 (6, N = 117) = 49.41, p = 0.0001), indicating that the model was able to distinguish between respondents who reported and did not report that they had used drugs. The model as a whole explained between 34.4% (Cox and Snell R square) and 48.1% (Nagelkerke R squared) of the variance in drug use and correctly classified 84.6% of the cases. As shown in Table 2, three of the independents variables made unique statistically significant contribution to the model (totals sums of risk factors, impulsiveness and attitudes towards drugs). The strongest predictor of respondents reporting drug use was risk factors, recording an odds ratio of 46.89. This indicated that the respondents who had risk factors were over 47 times more likely to report drug use (see

Table 2 for the details). Attitudes towards drugs also predicted the likelihood of being a drug user with an odds ratio of 4.63, even more so than impulsiveness with an odds ratio of 1.11.

Table 2 should be here

Risk factors contributing to drug user's impulsiveness

A MANOVA was performed to investigate impact of age groups, gender and drug use as independent variables. As dependent variables were 'Family as a risk factor for impulsiveness', 'Community as a risk factor for impulsiveness', 'Friends as a risk factor for impulsiveness' as well as 'Individual risk factors for impulsiveness' used. Preliminary assumption testing was conducted to check for normality, linearity, univariate and multivariate outliers, homogeneity of variance-covariance matrices, and multicollinearity, with no serious violations noted. There was a statistically significant difference between drug users and non-users on the combined dependent variables (F (4,116) = 7.14, p = 0.0001; *Wilks' Lambda* = 0.80; *partial eta squared* = 0.19). When the results for the dependent variables were considered separately, the only difference to reach statistical significance, using a Bonferroni adjusted alpha level of 0.02, was Family as risk factor for impulsiveness (F (1, 119) = 8.10, p = 0.005, *partial eta squared* = 0.06). Friends as a risk factor for impulsiveness was also significant (F (1, 119) = 16.38, p = 0.0001, partial eta squared = 0.12) together with Individual risk factor for impulsiveness (F (1, 119) = 14.91, p = 0.0001, partial eta squared = 0.11). An interaction between the independents age groups and drug use was found to impact significantly Family as risk factor for impulsiveness (F (1, 119) = 5.59, p = 0.02, partial eta squared = 0.05). See Table 3 for the details.

Table 3 should be here

To sum up: Individual's positive attitude towards drugs is impacted by the total sum of risk factors and his/her impulsiveness. Then again, risk factors for impulsiveness comprise family, friends and individual's personality trait.

Discussion

The purpose of this study was to investigate high-school students' attitudes towards drugs, impulsiveness and other risk factors relative to their use of drugs for non-medical reasons in Stockholm where drugs were known to be a problem (CAN, 2012; NIPH, 2009/10 & TNS Sifo, 2012).

It was observed that gender and the total sum of risk factor scores predicted positive attitudes toward drug use. The risk factors involve absentee parents, peer-group pressure, hostility towards the child and harsh punishments, poor school or academic achievements, low socioeconomic status as well as the availability of drugs. However, the formation of attitudes is suggested as dependent upon a generalized open-mindedness towards drugs that impacts young people (Rytterbro, 2006 & Rödner *et al.,* 2007). According to Augustsson (2005), attitudes are part of an existing general social discourse and at the present time young people spend more time outside their family and are more influenced by friends and surroundings than by own family (Kakihara *et al*., 2010; Keijsers *et al*., 2010; Kerr *et al*., 2010; Stattin & Kerr, 2000; Vieno *et al*., 2009). Thus, the development of positive attitudes towards drugs seem to be a combination of risk factors allowing the exposure of the adolescents to a general social discourse. Indeed, teens seek out friends with similar interests and attitudes. In this context, social and cultural norms might elucidate gender differences in substance abuse (Kloos *et al*., 2009) and normally young males are often exposed initially to abuse substances (Van Etten & Anthony 2001). Consequently, the present study revealed that more males 'tried' drugs despite more females maintaining positive attitudes towards drugs; this observation may imply changes in attitudes in a desire to

achieve a balance with the social environment (Helkama *et al*., 2004). In other words, girls might adjust to the "norm" out of fear for exclusion from their peer group (Aronson *et al*., 2005).

In regard to drug usage, as most studies, impulsiveness was the mayor predictor of drug usage. It is important to first notice, however, that female participants expressed more impulsiveness than male participants, which may be due to the social values and the demands of each individual in different contexts and which are dissimilar for their gender. The present results, taken together with previous studies, show that there are differences between men and women in drug usage by reason that most drug abuse can be seen as a kind of matching part to an expected gender role (Trulsson, 2006; Van Etten & Anthony 2001) and women fear, more so than men, losing control in the social context (Kloos *et al*., 2009). Moreover, attitudes towards drugs did predict drug usage. Together with the results suggesting that risk factors lead to positive attitudes towards drugs, it reveals a vicious circle leading to drug usage, which in turn might lead to more risk factors (e.g., exposure to drug environments).

Finally, friends and family constituted threats that contributed most to a teenager's impulsiveness and drug use thereby implying individual vulnerability combined with a propensity for antisocial and aggressive behaviour (see Gross, 2007). Indeed, parental guidance combined with support and consequential relationship may be preventative for drug use among teenagers (Keijsers *et al*., 2010; McNeely & Barber, 2010; Stattin & kerr, 2000). Parental monitoring and attention facilitates caution in teenagers for choice of peer-association and involvement in risky activities (Vieno *et al*., 2009). Teenagers' peers constitute risk factors when young people have difficulties in setting limits for themselves and find it difficult to distinguish between right from wrong (Andersson, 1991).

Limitations of the study

The findings from the current study were based on cross-sectional data; therefore no causal direction may be specified. For example, do the expressions of impulsiveness imply risky behaviour or some alteration of reward circuits or an epigenetic predisposition? Moreover, the sample taken from a single school may not be representative of schools across the Sweden, or for that matter a region, despite the school being known for drug problems. Additionally, self-assessments are subjective measures and may be affected by both personality traits and dishonest responding (Watson, Clark & Tellegen, 1988). Although the questionnaire was composed of 127 items, but the data offer just a limited portion of information regarding substance use and substance use problems experienced by high-school students in Sweden. Self-reported drug use may have been restricted due to fears of discovery since the survey was completed during an English lecture. Nevertheless, the instruments used here are well-validated and reliable. The questionnaires were in English, which implies that all the statements retained their original meaning, and put all students, also those from other countries, at the same level of understanding.

Future research

An individual's vulnerability for addiction is modulated through several domains including emotional, social, cognitive and a variety of genetic and epigenetic factors (Andershed & Andershed, 2005; King, 2008; Merline *et al*., 2004; Schuster *et al*., 2001). Female high-school students exhibited a positive attitude towards the 'normality of drug use' reflecting a liberal outlook (Rytterbro, 2006; Rödner *et al*., 2007). Future studies can focus on external generalization and long-term trends from samples to different populations. This study reinforces the idea that research must focus on gender differences relative to pro-drug attitudes along with testing for differences in the predictors of girls' and boys' delinquency and impulsiveness.

Conclusion

An increase in drug use among high-school students was reported with both family and friends as risk factors as well as individual factors such as impulsiveness. Male students reported using more drugs, but female students expressed more positive pro-drug attitudes. Further, female students had increased their use of drugs compared to earlier findings. This fact was hypothesized to constitute a sign of a social change defined as a change of norms, values, cultural products and symbols of the society. The students' conduct could also be interpreted as an attempt to fit into the "normal" peer group as well as an effort to achieve a balance between individual structures and the social environments. Parental involvement and close relationships promote transparency and reduce the risk that the teenager engages in antisocial behaviour. Importantly, positive attitudes towards drugs among adolescents seem to be part of a vicious circle including risk factors, such as friendly drug environments (e.g., friends who use drugs) and unsupportive family environments, and impulsiveness. All of which contribute to drug usage (see Figure 1).

Figure 1 should be here

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448 Appendix 1, table S 1 should be here

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Figure 1

A vicious circle towards drug usage

Figure 1. A vicious circle including positive attitude towards drugs, risk factors such as friendly drug environments (e.g., friends who use drugs) and unsupportive family environments, impulsiveness. All increasing the risk of using drugs.

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Table 1 (on next page)

Table 1. Logistic regression analysis predicting respondents' attitude towards drugs

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	B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B)	
							Lower	Upper
Gender	-1.15	0.44	6.84	1	0.009	0.32	0.13	0.75
Age	0.27	0.33	0.65	1	0.419	1.31	0.68	2.52
Impulsiveness	-0.00	0.03	0.03	1	0.872	0.99	0.95	1.05
Risk factors	3.62	0.98	13.54	1	0.000	37.31	5.43	256.43
Protective factors	-1.38	0.75	3.37	1	0.066	0.25	0.06	1.10
Constant	-9.27	6.07	2.33	1	0.127	0.00		

Table 2(on next page)

Table 2. Logistic regression analysis for likelihood that that the respondents would report that they had used drugs

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Vaiable	B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B) Lower	Upper
Gender	-0.38	0.55	0.47	1	0.495	0.69	0.23	2.03
Age	-0.21	0.41	0.27	1	0.604	0.81	0.37	1.79
Risk factors	3.85	1.26	9.28	1	0.002	46.89	3.94	557.95
Protective factors	-1.63	0.95	2.95	1	0.086	0.20	0.03	1.26
Impulsiveness	0.11	0.03	10.08	1	0.002	1.11	1.04	1.19
Atittudes towards drugs	1.53	0.55	7.68	1	0.006	4.63	1.57	13.68
Constant	-9.19	7.43	1.53	1	0.216	0.00		

Table 3(on next page)

Table 3. Significant family, community, friends and individual characteristics as risk factors for drug user's impulsiveness as indicated by MANOVA

R Squared = 0.10 (Adjusted R Squared = 0.05); b. R Squared = 0,07 (Adjusted R Squared = 0.02); c. R Squared = 0.20 (Adjusted R Squared = 0.16); d. R Squared = 0.21 (Adjusted R Squared = 0.16); * Bongferroni corrected: p= 0.02 *Note: FRFI (Family as a risk factor for impulsiveness), CRFI (Community as a risk factor for impulsiveness), FrRFI (Friends as a risk factor for impulsiveness), IRFI (Individual risk factor for impulsiveness)*

Source	Tests of Between-Subjects Effects **Dependent Variable**	Type III Sum of Squares	*df*	*Mean Square*	*F*	*Sig.*	*Partial Eta Squared*
Age groups	FRFI	311.22	1	311.22	3.27	0.073	0.03
	CRFI	32.60	1	32.60	2.09	0.151	0.02
	FrRFI	0.00	1	0.002	0.00	0.965	0.00
	IRFI	4.40	1	4.40	0.89	0.348	0.01
Drug use	FRFI	771.42	1	771.42	8.10	0.005*	0.06
	CRFI	18.48	1	18.48	1.18	0.279	0.01
	FrRFI	15.24	1	15.24	14.92	0.000*	0.11
	IRFI	81.04	1	81.04	16.38	0.000*	0.12
Age groups * Drug use	FRFI	532.93	1	532.93	5.59	0.020	0.05
	CRFI	8.81	1	8.81	0.56	0.454	0.01
	FrRFI	0.15	1	0.15	0.15	0.700	0.00
	IRFI	3.00	1	3.00	0.61	0.438	0.01