JRH
www.jrh.ir

Self-derogation and peer approval of drug abuse amongst male secondary school students

Parvaneh Taymoori[1], Haidar Nadrian[2], Arezoo Fallahi[3], Bijan Nouri[4]

Journal of Research & Health
Social Development & Health Promotion Research Center
Vol. 6, No. 2, May & Jun 2016
Pages: 222- 229
Original Article

1. **Correspondence to:** Social Determinants of Health Research Center, Department of Public Health, School of Health, Kurdistan University of Medical Sciences, Sanandaj, Iran
Email: parvaneh.tay@gmail.com
2. Department of Health Education and Promotion, School of Health, Tabriz University of Medical Sciences, Tabriz, Iran
3. Department of Public Health, School of Health, Kurdistan University of Medical Sciences, Sanandaj, Iran
4. Social Determinants of Health Research Center, Kurdistan University of Medical Sciences, Sanandaj, Iran

Received: 20 Oct 2015
Accepted: 11 Jan 2016

How to cite this article: Taymoori P, Nadrian H, Fallahi A, Nouri B. Self-derogation and peer approval of drug abuse amongst male secondary school students. *J Research & Health2016*; 6(2): 222-229.

Abstract

Substance use among teenagers appears to be more a function of peer approval and peer drug use. This study examined the relationship between adolescents' self-derogation and their responses to Peers' Approval of Drug Abuse (PADA) among male secondary school students. In this study, 3000 students 7th to the 9th grade secondary schools completed a self-report questionnaire consisting of self-derogation/rejection and peer drug abuse approval measure. About 86% of students announced, most of their peers disapproved of the people using drugs, the higher the grade levels of the respondents, the higher their level of self-derogation and approval of drug abuse. The relationships were found between grade level and self-derogation, and also PADA. Grade of the students and their responses to Approval of Drug Abuse had statistically significant effects on the sense of self-derogation among the students. Our findings supported the higher the level of self-derogation amongst the students by grade level, the higher the level of their positive response to PADA. Significant differences were found in the student's self-derogation by PADA suggest that and self-derogation and PADA are two factors that might precede drug dependency among this sample of male students.

Keywords: Adolescents, Drug Abuse, Peer Approval, Self-Derogation

Introduction

Drug abuse during teen years has been a continuous concern in recent years in Iran [1]. Goodarzi's study reported that the mean age duration of drug abuse is 12.3±8.7 years [2]; another study has shown that the rate of drug abuse was 6.9% in secondary school students in Tehran, and 16.9% smoked cigarettes and used alcohol, opium, and marijuana which were also the most frequent drugs abused [3].

Many theories have been put forward to assemble the different pieces of this puzzle into more coherent images of Experimental Drug Abuse (EDA). For instance, Kaplan and colleagues have defined a theory in which generalized self-esteem is the crucial part in the puzzle of EDA and the key to EDA avoidance [4]. Self-derogation theory (SDT) claims if youths constantly take negative evaluations

from others or they sense a lack in socially favorable attributes, they will experience low self-esteem and recurrent self-derogation [5,6]. Self-Derogation express the person's poor self-image, inefficacy expectations, and submissiveness toward others generally seem friendly, neutral and hostile [7]. Self-derogating feeling rejected or deficient in conventionally respected ways might (a) become separated from conventional role models, (b) feel driven to rebel symbolically against conventional standards, and (c) consider that their self-respect can be promoted by engaging in alternatives to conventional behaviors. Some studies in the literature have investigated the relationship between self-derogation and drug abuse were investigated by Thoma RJ [8], and Roman S, Shin H, Ybrandt H, Mcknight L [9-12]. Moreover, it was found that teens having low self-esteem engaged in aggressive behavior had a greater chance of externalizing problems like antisocial behavior and delinquency [13].

A large body of related literature is documented the links between self-derogation, relationship with deviant peers and adolescent substance use [5,7,14]. More specifically, Kaplan and Johnson [15] have posited that relationships with deviant peers provide a source of social support, make less the effects of internalized social control methods and likely reward for taking deviant behaviors. In another study, Taylor showed self-derogation and peer approval of substance use independently could predict drug dependence.

The patterns of interaction drug use and social factors have also developed as a framework to explaining drug use among students. Peer pressure to abuse drugs [1,2], group messages related to the approval of abuse, parental approval of smoking, drinking, or using drugs [16,17]. Furthermore, definite temperament traits [18-20], such as low self-esteem [21,22] or living in single-parent families [23,24] are reported as influential factors in student drug abuse.

To our knowledge, no prior study has examined the interrelationships between self- derogation and response to peer approval drug abuse among Iranian culture. Therefore, exploring the interrelationships that might result in different patterns around social norms for Iranian males remains unclear. Thus, addressing a gap in the related literature would help not only for male Iranian adolescents but also for similar cultural and immigrant groups that have been neglected to date in the drug abuse literature. This study investigated the proportion of self-derogation and Peers' Approval of Drug Abuse (PADA) and the effect of PADA and grade of the students on the sense of self-derogation among the students was tested.

Method

A cross-sectional study was conducted in 2014. Participants were selected using a cluster randomized sampling method. Based on the results of our pilot study and using a 0.95 confidence level, it was concluded that a sample size of 2970 would reach to 0.90 power for statistical tests. Adolescents were recruited from 35 out of 133 secondary schools (also known as orientation cycle, goes from the 7th to the 9th grade of the K-12 education in Iran) in Sanandaj, Iran. At each secondary school, three classes from each grade of 1 to 3 were selected for inclusion. All respondents were told about the confidentiality of the results. The study was approved by the educational authorities and by the institutional human participants committee. The study investigator sent a written information sheet and consent form for the parents and participants to sign.

Prior to participation, investigators sent a written information sheet and consent form for the students to sign. The Ethical Committee of Kurdistan University of Medical Sciences approved the study.

Self-derogation/rejection and peer drug abuse approval were measured by a scale based on Taylor's instrument. To ensure content validity, we used strategies for translation and cultural adaptation of scales recommended by the World Health Organization [25]. This method involves several steps. In the first stage, an English version of the self-derogation/ rejection and peer drug abuse approval were

given two professional translators to translate into Farsi independently. Then, two bilinguals converted the translated instrument into the original language (English) to assure retention of the original meaning. Four bilingual Iranians comprising a psychologist, health behavior, health education, and instrument development experts were asked to evaluate the pilot instrument for appropriateness and relevance of the items. This step was done to make sure face validity. These experts were asked to review the translated items for each scale and to evaluate the items' relevance to Iranian culture, appropriateness for Iranian use, and clarity as the measures of Context Validity Index (CVI) [26]. Experts were asked to evaluate each item from the scale on a four-point scale: 4= very relevant, 3= relevant with some adjustment as to phrasing, 2= only relevant if phrasing is profoundly adjusted and 1= irrelevant. For each item, experts could propose improvements in wording. The CVI calculated by counting the number of experts that rated an item as three and four, and then divide the obtained number of experts. The CVI scale's score of greater than 0.79 was considered to confirm the content validity of the scale [27]. The instruments were then revised and modified. The questionnaire was pilot-tested using 85 male participants who were students from randomly selected secondary schools in Sanandaj, Iran (age range: 12 to 15 years). This was a separate pool of participants from those who participated in the larger study and the data from these participants were not included in the analyses. Revisions in wording and presentation were made based on empirical findings and recommendations from pilot study participants. Questionnaires were administered to students in their classrooms and took 20 minutes. The investigator remained in the room during questionnaire administration and answered any questions. The measure used to assess self-derogation was an 11-item scale with 4 possible answers (e.g., I don't like myself as much as I used to). A 4-point Likert-type scaling was used (1= Not true at all; 2=Not very true; 3= Pretty true; and 4= Very True) as the possible answers.

PADA was measured on a 4-item scale with a 4-point Likert scale ranging from 1, Disapprove a lot; 2, Disapprove a little; 3, Approve a little; and 4, Approve a lot. As marijuana and cocaine are not used prevalently in Iran, questions 2 and 3 were excluded (which are about these two drugs) from the scale and instead they were replaced with a question on hookah. Therefore, the number of items for this scale in the present study was reduced to three (e.g., How do you think your close friends feel about people who Smoke cigarettes?).

In order to examine the utility of the scales and to identify the benefits/problems related to the design, a pilot study was conducted. The questionnaire was pilot-tested using 50 students. The data were used to estimate the internal consistency of the scales, using Cronbach's coefficient alpha. The reliability coefficients for self-derogation scale and PADA were 0.89 and 0.78, respectively. Collected demographic data relating to the students included age, grade in secondary school.

Statistical Package for Social Sciences (SPSS-22) was used for data analysis. Descriptive statistics, X^2 analyses were conducted to describe the relationship between self-derogation and (PADA). The scores self-derogation and peer approval dichotomized into low and high level (below and above the mean score respectively). Logistic regression analysis was then conducted to study the effect of grade level and (PADA) on self-derogation simultaneously. The responses to specific self-derogation items were dichotomized into agree or disagree, and approve or disapprove for peer approval of drug abuse.

Results

The adolescents' mean age was 13.79 (± 1.10) years and age range: 12 to 16 years. The findings of the present study showed that from all respondents, 953 (31.8%), 1107 (36.9%) and 940 (31.3%) students were in the first, second and third grades,

respectively. In addition, 1326 students (44.2%) were studying in schools located in the city center, 572 students (19%) were in suburban area schools, and 1102 students (36.8%) were studying in areas with favorable economic conditions.

Table1 *Distribution of peer approval of substance use across possible answer*

How do you think your close friends feel about people who:	Disapprove a lot	Disapprove a little	Approve a little	Approve a lot
	N (%)	N (%)	N (%)	N (%)
1. Smoke cigarette?	2334 (78.6)	496 (16.7)	77 (2.6)	62 (2.1)
2. Smoke hookah?	1835 (61.8)	826 (27.8)	196 (6.6)	113 (3.8)
3. Drink beer, wine, or liquor?	2079 (70.0)	499 (16.8)	214 (7.2)	146 (4.9)

The distribution of peer approval of substance use across possible answers displayed in Table 1 Of this sample of students, about 86%announced, most of their peers disapproved of the people using drugs (including cigarette, hookah and alcohol. Table 2 shows the higher the grade levels of the respondents, the higher their level of self-derogation and PADA.

Table 2 *Distribution of PADA and self-derogation across grade level*

	PADA*		Self-Derogation	
Grade	Low N (%)	High N (%)	Low N (%)	High N (%)
1st	746(78.28)	207(21.72)	566(59.39)	387(40.61)
2nd	793(71.64)	314(28.36)	603(54.47)	504(45.53)
3rd	595(63.30)	345(36.70)	484(51.49)	456(48.51)

*Peers' approval of drug abuse

Statistically significant relationship were also found between grade level and self-derogation ($p<0.01$, df=2, $X^2=12.22$), and also PADA ($p<0.01$, df=2, $X^2=51.93$) Table 3. Finally, in order to fit a logistic regression we define two dummy variables for second and third grade student and put the first grade as reference group.

Table 3 *Distribution of peer approval and self-derogation*

	Self-derogation		Total
PADA	Low N (%)	High N (%)	N (%)
Low	1243(58.25)	891(41.75)	2134(100)
High	410(47.34)	456(52.66)	866(100)

Table 4 displays the odds ratio, standard errors and confidence intervals for the fitted model. The odds ratio PADA on having self- derogation was 1.50 ($p<0.01$), and the odds ratio in 2nd and 3rd grade student compared to 1st grades for having self-derogation were (OR=1.19, CI: 0.99-1.42) and (OR=1.29, CI: 1.08-1.56), respectively. As shown contrary to the second grade students, the odds to have PADA in third grade students is significantly more than first grade students.

Table 4 *Effect of PADA and grade level on self-derogation*

	OR*	SE**	CI*** (95%)
PADA	1.50	0.12	(1.28-1.76)
2nd grade	1.19	0.10	(0.99-1.42)
3rd grade	1.29	0.12	(1.08-1.56)

*Odds ratio, **Standard error, ***Confidence Interval
The ORs for comparisons and CIs are for a one-unit increment in the PADA and grade level on having self- derogation.

Discussion

The aim of this study was to examine the prevalence of self-derogation and PADA among male secondary school students in Sanandaj, Iran. The relationship between adolescents' self-derogation and their responses to PADA was also investigated. The results of the present study illustrated that the higher the level of self-derogation in students, the higher the level of PADA amongst them. Donnelly also found that males and females having lower home self-esteem scores were more likely to be current abusers of smokeless tobacco than those who were not current abusers [28]. Other Iranian studies have shown similar findings [29,30]. These results confirm the idea noted in Kaplan's self-derogation Theory: the relationship between antecedent level of (and increases in) self-derogation and subsequent adoption of deviant responses [31].

Our findings demonstrated that the higher the grade levels of the students, the higher the level of self-derogation. This finding, however, is not consistent with those found in previous studies reporting that self-esteem increased gradually by age or grade level of the students in adolescence [32,33]. In addition to those health disorders expected to occur for an adolescent, there are some special cultural challenges for Iranian adolescents along with getting older like high expectations for success in academic achievement [1] to enter university, particularly in late secondary and high schools, because families place much value on university acceptance. Strong parental connections have been shown to raise levels of self-esteem in adolescents and reduce risk of low self-esteem. Adolescents in secondary and junior high schools are also attached to school, so there is a need to explore the relationship between area specific homes and school self-esteem and adolescent drug abuse [28] in a cultural context where family bonding is still emphasized. In line with the findings of Lee [32], the results of the present study showed that the level of self-derogation amongst students was more than moderate. However, analysis of its items showed that the ratio of true answers (pretty true and very true) for "I wish I could have more respect for myself" and "I feel I do not have much to be proud of" was 64.5 and 53.4%, respectively. These results showed that although the level of self-derogation amongst students was more than moderate, there were some domains of self-esteem which should be considered in the interventions.

In terms of the students' responses to their PADA, it was found that about 86% disapproved of smoking cigarettes and hookah, and drinking alcohol. However, paying more attention to their answers, it is considerable that the students' approval of drinking alcohol among their peers is more than smoking hookah and cigarettes, respectively; also, their approval of smoking hookah is more than smoking cigarettes. Previous Iranian research studies have also reported drinking alcohol as the most prevalent form of illicit drug abuse among Iranian secondary school students [1, 34]. The results of a study amongst adolescent males in Tehran, Iran illustrated that alcohol and drug abuse are associated with sexual behavior [35] and other risk-taking behaviors in Iranian adolescents [36]. It is surprising that despite a ban on alcohol consumption for all age groups in Iran, its use by adolescents could not be prevented. The findings related to students' approval of smoking hookah and cigarette is apparently related to cultural tolerance for smoking hookah. Therefore, planners and policy-makers should pay particular attention to these perceived messages of family approval toward smoking hookah which might be a primary predictor for drug abuse in later life [37].

The findings demonstrated that the students' responses to PADA had major effects on the sense of self-derogation amongst the students. Similar findings have [33] [38] [39] reported statistically significant effects of delinquency on self-esteem. In the study conducted by Taylor [16] it was concluded that the utility of PADA and self-derogation should be primarily emphasized in designing any prevention and interventional programs, and that such interventions should be conducted

before adolescents reach ages that are related to initiating drug abuse. The findings of the present study complemented this conclusion in the way that PADA should be considered as the core category, while recognizing high-risk individuals in order to initiate early intervention programs and prevention.

Conclusion

In the present study, significant differences were found in the student's self-derogation by PADA. Moreover, there was a statistically significant relationship between the students' response to PADA and their sense of self-derogation. These findings suggest that PADA and self-derogation are two factors that might precede drug dependency among this sample of male students. The findings of the present study supported Kaplan's Self-derogation Theory in that the higher the level of self-derogation amongst the students by grade level, the higher the level of their positive response to PADA. However, considering the ambiguous causal relationship between self-derogation and PADA, more research studies, especially qualitative ones, are recommended. There is also need to consider some factors like higher-grade level that make these boys more vulnerable to higher the level of self-derogation. There were several limitations of the present study. Firstly, we did not include females in the study and it is impossible to generalize the results and include females. Secondly, because of limitations, we could not investigate drug abuse amongst the respondents. The prediction rate of drug abuse by PADA and self-derogation could have been calculated and thus more valuable results inferred. Furthermore, data was self-reported and thus had all possible complications that go with this type of data.

Acknowledgments

The authors thank University of Kurdistan Medical Sciences for financial support and also all of the participants who gave time to collaborate.

Contribution

Study design: PA
Data collection and analysis: PA, BN
Manuscript preparation: PA, HN, AF

Conflict to Interest

"The authors declare that they have no competing interests."

Funding

The authors received financial support (University of Kurdistan Medical Sciences; code: 88/42) for the research, authorship and/or publication of this article.

References

1- Momtazi S, Rawson R. Substance abuse among Iranian high school students. *Curr Opin Psychiatry*2010; 23(3): 221-6.

2- Goodarzi F, Karrari P, Eizadi-Mood N, et al. Epidemiology of drug abuse (chronic intoxication) and its related factors in a MMT clinic in Shiraz, Southern Iran. *Birjand University of Medical Sciences*2011; 4(4): 377-9.

3- Farhadinasab A, Allahverdipour H, Bashirian S, Mahjoub H. Lifetime pattern of substance abuse, parental support, religiosity, and locus of control in adolescent and young male users. *Iran J Public Health* 2008; 37(4) : 88-95.

4- Kaplan HB. Self-attitudes and deviant response. *Soc F*1975; 54(4): 54: 788.

5- Kaplan HB, Martin SS, Robbins C. Application of a general theory of deviant behavior: Self-derogation and adolescent drug use. *J Health Soc Behav*1982: 274-94.

6- Kaplan HB, Martin SS, Robbins C. Pathways to adolescent drug use: Self-derogation, peer influence, weakening of social controls, and early substance use. *J Health Soc Behav*1984: 270-89.

7- Horowitz LM, Locke KD, Morse MB, et al. Self-derogations and the interpersonal theory. *J Pers Soc Psychol*1991; 61(1): 68.

8- Thoma RJ, Monnig MA, Lysne PA, et al. Adolescent substance abuse: the effects of alcohol and marijuana on neuropsychological performance. *Alcohol Clin Exp Res*2011; 35(1): 39-46.

9- Roman S, Cuestas PJ, Fenollar P. An examination of the interrelationships between self-esteem, others' expectations, family support, learning approaches and academic achievement. *Studies in Higher Education*2008; 33(2): 127–38.

10- Shin H. Does depression moderate or mediate the

relations between deficits in competence and aggression? A short-term longitudinal study of Korean children. *School Psychology International*2010; 31(4): 331–52.

11- Ybrandt H, Armelius K. Peer aggression and mental health problems. Selfesteem as a mediator. *School Psychol Int*2010; 31(2): 146–63.

12- Mcknight L, Loper A. The effect of risk and resilience factors on the prediction of delinquency in adolescent girls. *School Psychol Int*2002; 23(2): 186–98.

13- Donnellan MB, Trzesniewski KH, Robins RW, Moffitt TE, Caspi A. Low self-esteem is related to aggression, antisocial behavior, and delinquency. *Psychol Sci*2005;16(4): 328-35.

14- Kaplan HB, Johnson RJ, Bailey CA. Deviant peers and deviant behavior: further elaboration of a model. *Sch Psychol Q*1987; 50(4): 277-84.

15- Kaplan HB, Johnson RJ. Social deviance: Testing a general theory. New York: Kluwer academic/plenum publishers; 2001.

16- Martino SC, Ellickson PL, Mc Caffrey DF. Multiple trajectories of peer and parental influence and their association with the development of adolescent heavy drinking. *Addict Behav*2009; 34(8): 693-700.

17. Substance abuse and mental health services administration, 2011. Results from the 2010 national survey on drug use and health: summary of national findings, NSDUH series H-41, HHS publication No. (SMA) 11-4658. Rockville, MD: Available atURL:http://www.samhsa.gov/data/NSDUH/2k10NSDUH/2k10Results.pdf. Accessed Jan, 2014.

18- Myers MG, Aarons GA, Tomlinson K, Stein MB. Social anxiety, negative affectivity, and substance use among high school students. *Psychology of Addictive Behaviors*2003; 17(4): 277.

19- Wills TA, Sandy JM, Yaeger A. Temperament and adolescent substance use: An epigenetic approach to risk and protection. *J Pers*2000; 68(6): 1127-51.

20- Windle M, Windle RC. Adolescent temperament and lifetime psychiatric and substance abuse disorders assessed in young adulthood. *Personality and Individual Differences*2006; 41(1): 15-25.

21- Geramian N, Akhavan S, Gharaat L, Tehrani AM, Farajzadegan Z. Determinants of drug abuse in high school students and their related knowledge and attitude. *J Pak Med Assoc*2012; 62(2-3): 62-6.

22- Mohammadpoorasl A, Nedjat S, Fakhari A, Yazdani K, Foroushani AR, Fotouhi A. Substance Abuse in High School Students in Association with Socio-Demographic Variables in Northwest of Iran. *Iran J Public Health*2012; 41(12): 40.

23- DeLeire T, Kalil A. Good things come in threes: single-parent multigenerational family structure and adolescent adjustment. *Demography*2002; 39(2): 393-413.

24- Hemovich V, Lac A, Crano WD. Understanding early-onset drug and alcohol outcomes among youth: the role of family structure, social factors, and interpersonal perceptions of use. *Psychol Health Med*2011;16(3):249-67.

25- MacKinnon DP, Lockwood CM, Williams J. Confidence limits for the indirect effect: distribution of the product and resampling methods. *Multivariate Behav Res*2004; 39(1): 99-128.

26- Polit DF, Beck CT. The content validity index: are you sure you know what's being reported? Critique and recommendations. *Res Nurs Health*2006; 29(5): 489-97.

27- World health organization. Process of translation and adaptation of instruments. n.d. Available atURL: http://www.who.int/substance_abuse/research_tools/translation/en/index.html. Accessed Jul 16, 2014.

28- Donnelly J, Young M, Pearson R, Penhollow TM, Hernandez A. Area specific self-esteem, values, and adolescent substance use. *J Drug Educ*2008; 38(4): 389-403.

29- Geramian N, Akhavan S, Gharaat L, Tehrani A, Farajzadegan Z. Determinants of drug abuse in high school students and their related knowledge and attitude. *J Pak Med Assoc*2012; 62(3-2): S62-6.

30- Jabbari Beyrami H, Bakhshian F, Vahidi R, Mohammadpour Asl A. High risk behaviors and attitudes of secondary school students in Tabriz toward drugs of abuse. *Iranian Journal of Psychiatry and Clinical Psychology*2008; 14(3): 350-4.

31- Kaplan HB. Self-Attitudes and deviant behavior: new directions for theory and research. *Youth and Society*1982; 14(2): 185-211.

32- Lee KJL. Self-esteem and delinquency in South Korean adolescents: latent growth modeling. *School Psychology International*2012;33: 54-68.

33- Chung IJ. Developmental trajectories of adolescent self-esteem and their predictors on Korean youth. *Studies on Korean Youth*2007; 18: 127–66.

34- Ahmadi J, Hasani M. Prevalence of substance use among Iranian high school students. *Addict Behav*2003; 28(2): 375-9.

35- Mohammadi MR, Mohammad K, Farahani FK, et al. Reproductive knowledge, attitudes and behavior among adolescent males in Tehran, Iran. *Int Fam Plan*

*Perspect*2006: 35-44.
36- Mohammadpoorasl A, Fakhari A, Vahidi R, Rostami F, Talebi M. Predicting the incidence of self-injury in Iranian high school students. *Res J Biol Sci*2007; 2: 427-30.
37- Sajid KM, Chaouachi K, Mahmood R. Hookah smoking and cancer. Carcinoembryonic antigen (CEA) levels in exclusive/ever hookah smokers. *Harm Reduct J*2008; 24: 5-19.
38- Jang S, Thornberry T. Self-esteem, delinquent peers, and delinquency: a test of the self-enhancement thesis. *Am Sociol Rev*1998; 63(4): 586–98.
39- Kim H, Kim KY. A longitudinal study of causal relationships between delinquency and self-esteem among adolescents. *J Pers Soc Psychol*2000; 38(5): 15–24.