

Original Article

The Association between Emotional Expressiveness Style and Addiction Potential in Male High School Students

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Objectives: Adolescents are the most vulnerable group of the society when it comes to risky behaviors. As a consequence of their volatile behavior during adolescence they are more likely to behave in ways that threatens their ongoing physical and psychological health and their future. The current study was designed to examine the association between the emotional expressiveness style and addiction potential among male high school students.

Methods: A cross-sectional study was conducted on 180 male high school students that had been selected through multi-stage random sampling from Karaj city's at-risk high schools. The research tools consisted of: a) the researcher-made demographic questionnaire, b) addiction potential scale, c) emotional expressiveness questionnaire. Pearson's correlation coefficient and multivariate analysis of variance (MANOVA) were used for data analyzing.

Results: Based on the results, emotional expressiveness and its components were negatively and significantly associated with addiction: 'expression of positive emotion' ($p=0.001$), 'expression of negative emotion' ($p=0.001$), and 'expression of intimacy' ($p=0.001$). 'Expression of positive emotion' plays a more significant role in predicting addiction potential. Addiction potential was significantly associated with familial economic status ($p=0.024$).

Discussion: On the whole, our results underscore the significance of emotions and emotional expressiveness in predicting addiction potential in adolescents. Therefore, it is essential to educate adolescents during their schooling years to prevent this phenomenon.

Keywords: Adolescent, Emotional Expressiveness, Addiction Potential

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Introduction

Nowadays, opiate substance abuse and addiction has become one of the most common psychiatry-related disorders in the world (1). It has turned into a political crisis that threatens the health, well-being, political and economic stability and social structure of different countries around the globe (2). Adolescents are the most vulnerable group of the society when it comes to risky behaviors. As a

consequence of their volatile behavior during adolescence they are more likely to behave in ways that threatens their ongoing physical and psychological health and their future. Studies have shown that most risky behaviors such as cigarette smoking, alcohol and opiate abuse begin in the years preceding the age of 18 (3). In Iran, we are also facing this dilemma, where opiate abuse and addiction have started to begin in adolescent years.

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There is shocking evidence of the spread of addiction among students particularly high school students, which necessitates adoption of serious measures in this field (4). Among the most outstanding characteristics of adolescence are 'sensation seeking' and expression of emotions (5). Researchers define sensation-seeking as a trait that seeks diverse, new, complex and intense experiences and adventures, and a desire to take physical, social, legal and financial risks for the sake of the experiences themselves (5, 6). An emotionally capable individual can face life's challenges easier (7). Those who are capable of emotionally expressing themselves are more successful in dealing with negative experiences and adapt better to their environment as compared to those who are unable to understand and express emotional states (8, 9). Some freely express their emotions-without being afraid of the consequences, some are conservative in expressing their emotional states, others review distressing emotions in their minds, some are expressers and others are non-expressers but at the same time may be in conflict with their style of expressiveness (10, 11).

Researchers observed that those who scored higher on the Zuckerman sensation-seeking scale exhibited more severe signs of opiate abuse such as psychological disorder and abuse of more than one illicit drug as opposed to those who scored lower (5, 6). Researchers and Psychologists believe that negative emotions like aggressiveness are the root cause of many psychological and behavioral problems in adolescents. If exhibited, these behaviors may cause interpersonal problems and lead to crimes and offenses against others; on the other hand, if suppressed they may create different types of physical and mental problems (12, 13). According to researches negative emotions like aggression during adolescence can pave the way for delinquency, conduct disorder, maladjustment in school and addiction during youth (14). Some researchers define emotional expressivity (EE) as 'the outward display of emotion, irrespective of its value (positive or negative) or manner (facial, verbal or behavioral) (15). Some researchers believe that there is an association between EE and neuroticism and the distress (inability to communicate) indicators (7, 16). Research studies have shown that refraining from emotional expression may preserve or raise the psychological trauma following exposure to a stressful event (17). According to Freud and his colleague's 'trauma theory'

experiencing severe anxiety in a traumatic situation in which this negative emotion cannot be outpoured will predispose the individual to neuroticism (17). Scientists believe that the verbal expression of traumatic experiences facilitates the coping process and describe emotional disclosure as 'cognitive spring-cleaning' (18, 19). King et al have described three constructs for EE: 'expression of positive emotion', 'expression of negative emotion', and 'expression of intimacy' (7). It is through emotion regulation that individuals are able to perceive the behavioral outcomes of themselves, their families and their peers (20). It goes without saying that opiate substance abuse during adolescence is associated with various problems such as low academic success, precocious and high-risk sexual activity, weak interpersonal relations, criminal behavior, addiction and marital problems in adulthood (21). A look at the growing statistics of opiate addiction and particularly its spread among adolescents indicates that the young generation has fallen prey to addiction, instead of actively participating in the constructive development of the community for the future. Hence, a deep investigation into the predisposing factors of addiction seems warranted. Although many studies have dealt with the prediction of addiction's predisposing factors, to our knowledge, no study has focused on the association between the EE style and addiction potential. Hence, the objective of this study was to determine the association between EE and its components (i.e. 'expression of positive emotion', 'expression of negative emotion', and 'expression of intimacy') and addiction potential. By identifying the determinant factors affecting addiction potential in adolescents the results of this study may help prevent addiction and other psychological disorders associated with it and eventually improve the national mental status.

Methods

The statistical population of this cross-sectional study consisted of all 14-18 year-old male students in Karaj city's public high schools active in the second half of the academic year '2013-2014'. They were selected from Karaj city's four educational districts and by multistage random sampling. Stratified sampling was done in the first stage. The schools were classified into different urban districts and levels; the first-year students of the academic year '2013-2014' comprised 50% of the entire population and the remaining levels i.e. second-year,

third-year and pre-academic year comprised respectively 17%, 16% and 17% of the entire population. So the aforementioned unequal percentages were calculated as follows: 90 first-year students, 30 second-year students, 30 third-year students and 30 pre-academic year students. The second stage of sampling was conducted through multistage random cluster sampling. The clusters were considered for each district, then the schools, the grades and finally the students. Students were selected randomly. The Cochran formula was used to calculate sample size and so 180 out of 1000 14-18 year-old male students from Karaj city's public high schools were chosen. The research project began after it was approved by the University's Research & Ethics Committee. Stratified sampling was chosen to select samples from all high school levels. Then, multistage cluster sampling was done from educational districts, followed by cluster sampling of various high schools. Three at-risk high schools were randomly chosen from each district. Then, students from all four levels i.e. first, second, third and pre-academic grades were randomly selected; keeping in mind the numbers of classes (the classes were numbered as odd and even). So finally, we had students who had been randomly selected from all four levels/grades in our sample. The research tools used in this research included three questionnaires: The demographic questionnaire was a researcher-made questionnaire that contained several demographic questions on the following: age, academic grade, parents' level of education, father's occupation, familial economic status and number of family members, Addiction Potential Scale (APS): Weed & Butcher created this scale and Zargar (2006) standardized it in Iran (22, 23). This scale has 36 items, and an additional 5 lie-detecting items. Each item is scored using an agreement scale ranging from '0' (completely disagree) to '3' (completely agree). A score of 21 or higher indicates the person has addiction potential. The scale's

Cronbach's alpha has been estimated at 0.90, which is desirable (23). In our study this figure was estimated at 0.86, Emotional Expressiveness Questionnaire (EEQ): This questionnaire was designed by King and Emmons to evaluate EE and its facets (7). It has three subscales and 16 questions. Its subscales are: expression of positive emotion (EPE), expression of intimacy (EI) and expression of negative emotion (ENE). Items 1 to 7 belong to the EPE subscale, items 8-12 belong to the EI subscale and items 13 to 16 belong to the ENE subscale. A Likert scale is used for the scoring system where 'completely agree' has 5 and 'completely disagree' has 0 scores. However, items 7, 8 & 9 have inverse scoring because of the negative direction of emotion expression. Based on this scoring system the respondent can score somewhere between 16 and 80 in the overall scale. S/he can score from 7 to 35 in the EPE subscale, 5 to 25 in the EI subscale, and 4-20 in the ENE subscale. A higher score indicates greater EE. Rafineya et al examined the scale's reliability and estimated Cronbach's alpha at 68%, 65%, 59% and 68% for the overall scale, and the EPE, EI and ENE subscales respectively (17). Data analysis: The gathered data have been analyzed by descriptive and inferential statistics. Mean and standard deviation (SD) have been used to describe the data. Pearson's correlation coefficient was used to examine the association between variables and multivariate analysis of variance (MANOVA) was used to determine the predictable variance of the dependent variable through the independent variable. SPSS software (Version 18) was used to perform these analyses. A $p < 0.01$ was considered as significant.

Results

Considering the data analysis, the descriptive statistics such as percentage and frequency were used to describe the data (table 1).

Table 1. The participants' demographic characteristics

Description	Age					Father's occupation			Familial economic status			
	14	15	16	17	18	Worker	Public	Private	Low	Average	Good	Well-off
Frequency	60	30	30	30	30	79	42	59	62	84	32	2
Percent	33.2%	16.7%	16.7%	16.7%	16.7%	43.9%	23.3%	32.8%	34.4%	46.7%	17.8%	1.1%

The participants' age ranged from 14-18 years, with a mean of 15.66. Table (2) shows the means and standard deviations of the variables along with

correlation coefficients predictive of addiction potential.

Table 2. Correlation matrix of research variable

	Addiction potential	Emotional expressiveness	Expression of positive emotion	Expression of negative emotion	Expression of intimacy	Mean	SD
Addiction potential	1					26.67	18.42
Emotional expressiveness	-0.79	1				45.94	18.69
Expression of positive emotion	-0.77	0.94	1			19.80	9.79
Expression of negative emotion	-0.73	0.91	0.85	1		12.54	5.24
Expression of intimacy	-0.58	0.77	0.56	0.57	1	13.63	6.06

According to table (2) the following correlations existed between addiction potential and EE, EPE, ENE, and EI, respectively: -0.79, -0.77, -0.73, and -0.58, which were all significant at a 0.01 level. These results indicate that there are significant negative associations between EE, EPE, ENE and EI and addiction potential, meaning an increase in the

forementioned variables decreases the participants' addiction potential. Based on table (3), after 3 stages and entering the EE variable into the regression model, the fourth stage in which the EPE, ENE and EI variables were entered showed that these variables could significantly predict addiction potential at a rate greater than 0.64.

Table 3. Regression model, variance analysis, statistical indices of addiction potential on emotional expressiveness style

Model	Predictive variable	df	sig	f	r	r2	beta	Estimation Error
Step 1	EPE	1	0.001	271.99	0.77	0.60	-0.777	11.621
Step 2	EPE	2	0.001	144	0.78	0.62	-0.568	11.410
	ENE						-0.245	
	EPE						-0.515	
Step 3	ENE	3	0.001	106	0.80	0.64	-0.181	11.071
	EI						-0.192	

Table (4) illustrates the multivariate regression coefficients of addiction potential on the basis of

EPE, ENE and EI variables. All three variables can significantly predict the addiction potential variable.

Table 4. Regression coefficients of emotional expressiveness style on addiction potential

Variable	B	Standard error	beta	t	sig
Constant	61.812	2.33		26.527	0.001
Expression of positive emotion	-0.969	0.165	-0.515	-5.886	0.001
Expression of negative emotion	-0.636	0.310	-0.181	-2.052	0.042
Expression of intimacy	-0.585	0.169	-0.192	-3.466	0.011

Discussion

This study was conducted to investigate the role of emotional expressiveness in predicting addiction potential. Pearson's correlation coefficient showed that high EE was associated with low addiction potential and low EE was associated with high addiction potential. Moreover, inverse relationships were found to exist between addiction potential and the subscales of 'expression of positive emotion', 'expression of negative emotion', and 'expression of intimacy'. Expression of positive emotions like admiration, love, and talking to others about emotions related to stressful events allows the

individual to gather information about the event and how to effectively cope with it and to organize one's thoughts (24). Moreover, some researchers believe that openly expressing emotions gives certain information to others and draws answers in return. This phenomenon shapes the individual's social ties in a way that directly affects his personal health and satisfaction of interaction and adaptation with stressful and threatening events such as opiate substance abuse (25). According to Stanton et al coping with stressful events though EE is an indicator of gaining social support. This social support acts a shield against stressful events and

helps one appropriately adapt oneself to stressful situations. On the other hand, not expressing negative emotions like anger and aggression can also lay the foundation for high-risk behavior. According to the aggression hypothesis, a person becomes frustrated and angry and aggressive if he fails as a result of familial or social issues. In our culture, frustrated and aggressive behavior-particularly with parents- is considered impolite and inappropriate. Hence, in order to overcome their emotions and reach inner calm such individuals turn to sedative drugs and opiate substances (26). Heidari et al showed that controlling emotions and a desire to refrain from expressing them led to adolescents' inappropriate behavior in unpleasant situations; when faced with risk factors they could not exhibit suitable adaptation (27). Therefore, the current findings indicate that those adolescents who can easily express their emotions and have higher EE gain social support and their peers' support by creating appropriate social ties. This in turn leads to their increased adaptation to stressful events and effective coping against risk factors and reduces their addiction potential.

Some research findings are consistent with our findings, and some others are not. Murray et al believe that outpouring and expression of positive as well as negative emotions such as anger, crying, and shouting are stressful events which occur to reduce the risk-related stress (28). Bonanno and Keltner believe that the continuous and prolonged expression of negative emotions such as anger and sorrow decrease an individual's capability in facing stressful events (25). Although the expression of negative emotions seems undesirable, but one must remember that not expressing them may be associated with more undesirable consequences. For example anger not only is the most fervent but it is the most dangerous emotion too, that can destroy whatever comes in its way. However, anger can be a fruitful emotion too. It can enhance a person's control, and increase perseverance to resistant again

threatening conditions effectively (5). It seems that adolescents who freely express their positive and negative emotions act better when faced with risk factors that encourage opiate substance abuse, which lowers their addiction potential. Foa et al were of the opinion that EI (expressing intimacy) reduced the intensity of physiological stability and setting following prolonged exposure to threatening stimulants, and acted as a potential moderator of EE's therapeutic effects. This way, EI is followed by a reduction of negative emotions and physiological stability derived from a threatening and stressful situation (29).

Conclusion

In conclusion, we may say that adolescents' style of emotional expressivity can play a significant role in their addiction potential. Apparently, the more adolescents express their emotions more effectively, the more can they adapt themselves to undesirable and challenging situations; this prevents them from being drawn to the risks of opiate substance abuse. Based on our results, emotional expressivity is an important factor in predicting addiction potential among Iranian adolescents. It appears that Iranian adolescents have little chance to outpour their emotions and face multiple barriers in expressing their emotions and feelings. Subsequently, they turn to techniques with which they can emotionally express themselves, one of which is opiate substance abuse, which explains why those of our subjects who had lower EE were more prone to addiction.

Conflict of Interests - The authors have no conflict of interests.

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References

1. Sinha R. New findings on biological factors predicting addiction relapse vulnerability. *Current psychiatry reports*. 2011;13(5):398-405.
2. Shives LR. *Basic concepts of psychiatric-mental health nursing*. Philadelphia: Lippincott Williams & Wilkins; 2008.
3. Soleimaninia L. *Predicting adolescent risk behaviors based on the positive and negative aspects of mental health*. Tehran: University of Social Welfare and Rehabilitation Sciences; 2005.
4. Mohammadi M, Shiyani M. Assessing Strategic Factors of Drug Abuse in Iran: A School- Based Program. *Social Welfare Quarterly* 2007;6(25):59-83.
5. Schultz D, Schultz S. *Theories of personality*. Tenth ed. Belmont: Cengage Learning; 2012.
6. Massah O, HoseinSabet F, Doostian Y, A'zami Y, Farhoudian A. The Role of Sensation-Seeking and Coping Strategies in Predicting Addiction Potential among Students. *Practice in Clinical Psychology*. 2014;2(3):200-6.
7. King LA, Emmons RA. Conflict over emotional expression:

- Psychological and physical correlates. *Journal of personality and social psychology*. 1990;58(5):864-77.
8. Boyatzis R, McKee A. *Primal leadership: Learning to lead with emotional intelligence*. Boston: Harvard Business Press; 2004.
9. Najafi M, Farhoudian A, Alivandi Vafa M, Ekhtiari H, Massah O. Comparing Emotion Regulation in Methamphetamine abuser with and without Risky Behavior. *Quarterly Journal of Rehabilitation*. 2014;14(5):9-14.
10. Emmons RA, Colby PM. Emotional conflict and well-being: Relation to perceived availability, daily utilization, and observer reports of social support. *Journal of personality and social psychology*. 1995;68(5):947.
11. Karami Z, Pirkhaefi A, Kowsarnia A, Massah O, Farhoodian A. Comparison of Personality Traits Based on Temperament and Character Inventory (TCI) in Opiate and Stimulant Abusers. *Quarterly Journal of Rehabilitation*. 2014;14(5):83-90.
12. Dostian Y, Bahmani B, Aazami Y, Godini AA. The Relationship between Aggression and Impulsiveness with Susceptibility for Addiction in Male Student. *Quarterly Journal of Rehabilitation*. 2013;14(2):102-9.
13. A'zami Y, Doostian Y, Mo'tamedi A, Massah O, Heydari N. Dysfunctional Attitudes and Coping Strategies in Substance Dependent and Healthy Individuals. *Iranian Rehabilitation Journal*. 2015;13(1):49-53.
14. Caprara GV, Paciello M, Gerbino M, Cugini C. Individual differences conducive to aggression and violence: Trajectories and correlates of irritability and hostile rumination through adolescence. *Aggressive Behavior*. 2007;33(4):359-74.
15. Kring AM, Gordon AH. Sex differences in emotion: expression, experience, and physiology. *J Pers Soc Psychol*. 1998;74(3):686-703.
16. Gross JJ, John OP. Revealing feelings: facets of emotional expressivity in self-reports, peer ratings, and behavior. *Journal of personality and social psychology*. 1997;72(2):435-48.
17. Rafineya P, Rasolzadeh Tabatabaei S, Azad Falah P. The relation between emotional expression and mental health in students. *Journal of psychology* 2006;10(1):85-104.
18. Tummers NE. *Teaching Stress Management: Activities for Children and Young Adults*. England: Human Kinetics; 2011.
19. Strumska-Cylwik L. Expression of fear and anger in the context of interpersonal communication. *International Journal of Arts & Sciences*. 2014;7(1):173-200.
20. Parks-Stamm EJ, Gollwitzer PM, Oettingen G. Action control by implementation intentions: Effective cue detection and efficient response initiation. *Social Cognition*. 2007;25(2):248-66.
21. Connor KM, Davidson JR. Development of a new resilience scale: The Connor-Davidson resilience scale (CD-RISC). *Depression and anxiety*. 2003;18(2):76-82.
22. Weed NC, Butcher JN, McKenna T, Ben-Porath YS. New measures for assessing alcohol and drug abuse with the MMPI-2: The APS and AAS. *Journal of personality assessment*. 1992;58(2):389-404.
23. Zargar Y, Najjarian B, Naeami A. The relationship between personality traits (sensation seeking, assertiveness, psychological hardness), the religious attitude and marital satisfaction with readiness for drug abuse. *Journal of Education and Psychology Chamran University*. 2008;1(3):99-120.
24. Taylor ER, Karcher MJ, Kelly PJ, Valescu S. Resiliency, risk, and substance use among Hispanic urban juvenile detainees. *Journal of Addictions & Offender Counseling*. 2003;24(1):46-64.
25. Bonanno GA, Keltner D. Facial expressions of emotion and the course of conjugal bereavement. *Journal of abnormal psychology*. 1997;106(1):126-37.
26. Fathi k, Mehrabizade M. Assessment of depression, sensation seeking, aggression, attachment style sand parental education as a predictor of drug dependence in adolescent boys Ahwaz. *Journal of studies and psychology*. 2006;9(2):35-45.
27. Heidari N, Pourebrahim T, Khodabakhshi Koolaei A, Mosalanejad L. Relationship between Emotional Control Expressiveness Style and Resilience Against Narcotics Substance Use in High School Male Students. *Journal of Rafsenjan University of Medical Sciences*. 2013;12(8):599-610.
28. Murray EJ, Segal DL. Emotional processing in vocal and written expression of feelings about traumatic experiences. *Journal of Traumatic Stress*. 1994;7(3):391-405.
29. Foa EB, Hembree EA, Cahill SP, Rauch SA, Riggs DS, Feeny NC, et al. Randomized trial of prolonged exposure for posttraumatic stress disorder with and without cognitive restructuring: outcome at academic and community clinics. *Journal of consulting and clinical psychology*. 2005;73(5):953.