Prediction of Smoking, Alcohol, Substance, and Psychoactive Drug Abuse based on Emotional Dysregulation and Child Abuse Experience in People with Borderline Personality Traits

Mina GannadiFarnood, Majid MahmoudAlilou

Mina GannadiFarnood
M.A. of Clinical Psychology
Tabriz University
Iran
E-mail: aysa.farnood@yahoo.com

Majid Mahmoud Alilou
Assistant Professor of Psychology Department
Tabriz University
Tabriz
Iran

Research on Addiction Quarterly Journal of Drug Abuse
Presidency of the I. R. of Iran
Drug Control Headquarters
Department for Research and Education

Vol. 8, No. 30, Summer 2014
http://www.etiadpajohi.ir/

Abstract

Objective: This research was an attempt to predict the tendency of people having borderline personality traits to smoking, drinking alcohol, and taking psychoactive drugs based on emotional dysregulation and child abuse. **Method:** This study employed a correlation method which falls into descriptive category. A sample including 600 male and female bachelor students of Tabriz University was selected by cluster sampling. Then, risk behavior survey questionnaire, emotional dysregulation scale, child abuse scale, and borderline personality scale were distributed among this group. **Results:** Stepwise multiple regression analysis suggested that emotional dysregulation and child abuse significantly predicted varying degrees of smoking, drug, and alcohol usage. **Conclusion:** The research findings suggest the basic role of initial biological vulnerability in terms of emotional regulation (dysregulation) and invalidating family environment (child abuse) in the prediction of catching the disorder of borderline personality traits and producing high risk behaviors such as alcohol drink and drug usage.

Keywords: Emotional Dysregulation, Substance Abuse of Drugs, Alcohol, and Psychoactive Drugs

Introduction

Borderline personality disorder is divided into the category of B disorders. Personality disorder of B category is demonstrated by impulsion, self-destruction, unstable emotions and defective models of attachment (Narud, Mykletun, Dahl, 2005). Borderline personality disorder is a complex and serious psychological disorder identified with severe and fast changes of mood, impulsion and self-distorting behaviors, fear of rejection, unstable relations and unstable self-imagination (First et al, 2003; cited in Wingenfeld, Spitzer, Rullko & Lo¨we, 2010). Borderline patients frequently report initial, multidimensional and chronic incompatibility and even risky experiences such as frequent sexual or physical abuse or emotional or physical neglects (Herman, Perry & Van der Kolk, 1989; Ogata, 1990; Zanarini et al, 1997; cited in Wingfield et al, 2010). Generally, borderline personality disorder has an unstable pervasive pattern in interpersonal relations, self-imagination and emotions with a significant impulsion which commences at the beginning of adulthood. Prevalence grounds of this disorder are different and come along with chaos traits and emotional states of nervousness, anger, stress and risky behaviors such as self-injury and substance abuse (US Association of Psychology, 2007). According to Million's model (2004), people with borderline symptoms are those who cannot be diagnosed as with borderline personality disorder, since the scores of these people in the test are less than the cut-off point. However, some symptoms of this disorder are apparent in them. Today, the outbreak of high risk behaviors in youths have turned into one of the most important and widespread concerns in the world. High risk behaviors are the behaviors which put the health and welfare of the sufferers and other people of the society at risk (Maher, 2004). Some of these behaviors such as substance, alcohol and psychoactive drug abuse have caused many deaths and injuries among adolescents and have a negative effect on human societies. Substance abuse and addiction as an important socio-psychological trauma in the current century have exposed many different classes of society, especially adolescents and youths to overwhelming risks. Features of adolescence make this innocent class vulnerable against addiction phenomenon. The relationship of substance abuse and addictive behaviors with other defective and corrupted behaviors increases the harmful area of this phenomenon.

The prevalence rate of substance abuse among youths is higher than that in any other age groups and substance abuse has experienced a dramatic increase, especially during the 1960s and 1970s while, from 1992 onwards, the expansion of prohibited drugs among youths has even increased more rapidly (Sneed, Morisky, Rotheram, Ebin & Malotte, 2002). Investigations in 2009 have shown that there are 3761000 illegal addictive substance abusers, out of whom 2547000 people are drug dependent (Vazirian, 2005). Recent studies have been focused on risk factors and multidimensional etiology.

Although social factors are emphasized as effective in drug use tendency, substance and alcohol abuse are also associated with biological and psychological processes (Glantz, 1992). Emotional regulation as a psychological variable has attracted the attention of many researchers (Goleman, 1995; Achutte et al, 1998). Considerable evidence suggests that emotional regulation is interrelated with success and failure in many aspects of life (Schutte, Malon, Thorsteimson, Bhullar & Rooke, 2007; Jackobs et al, 2008). Nevertheless, few studies have undertaken to investigate the relationship between emotional regulation and substance abuse (Parker, Taylor, Eastabrook, Schell & Wood, 2008). Low level of emotional regulation which is derived from an inability in effectively dealing with emotions and their management plays a role in the initiation of substance abuse (Goleman, 1995; Parker et al, 2008). When a person is under pressure by his/her peers for substance abuse, effective emotional management reduces the risk of substance abuse. Ability in managing emotions in situations with high risk of substance abuse leads an individual to apply various strategies. Individuals with high levels of emotional regulation are more competent in predicting other persons' demands. These people understand unwanted peer pressures and they are able to control their emotions more effectively and, thereby, show more resistance to substance abuse (Trinidad & Johnson, 2000). In contrast, those who have low levels of emotional regulation are oriented towards substance abuse in order to stand against negative emotions (Trinidad, Unger, Chou and Azen & Johnson, 2004). The results of the study done by Tichman, Barnea & Raven (1980) showed that there was a positive relationship between substance abuse and sensation seeking and its effect on substance abuse is more significant than situational anxiety and depressed mood. Akbari Zardkhaneh, Rostami & Zareian (2007), in a study on Tehran University students, showed that there is a negative relationship between the scores of emotional intelligence, emotional conceptualization and addiction. Accordingly, the construct of emotional intelligence wherein emotional regulation is one of the components can have a role as a strong mediator variable between emotional components and addiction acceptance. Parker et al (2008) showed that difficulty in redefining emotions and malfunction in establishing emotional relation with others leads to substance abuse in individuals. Knowledge about emotional states has a pervasive relation with alcoholism by facilitating its avoidance. Hasking & Oei (2007) investigated the role of emotional dysregulation in tendency towards alcohol abuse and committing violence in male and female students and they found out that both alcohol abuse and physical and sexual violence are associated with emotional dysregulation, especially in the area of risk seeking. A cold, closed and indifferent emotional environment between family members and maladjusted childhood experiences leads to the development of risk seeking behaviors and addictive substance abuse

(Pirmoradi, 2008). The result of the study done by Dube et al (2003) showed that hurtful experiences in childhood increase the risk of drug addiction and permanent use of drugs, alcohol and addictive substances in adulthood. Initiation and continuation of substance abuse is based on defective growing grounds which is first established inside the family system and, then, continues in the society (Zeinali, Vahdat & Eisavi, 2008). Malfunctioned family traits can predict the severity of addictive substance abuse and smoking disorders in addicts (Besharat, RanjbarNoushry & Rostami, 2008). Review of the related literature on the long-term effects of child abuse indicates that the majority of youths and adults who had suffered abusive incidents introduced themselves as alcohol abusers, addicts and illegal drug abusers more than others. Several findings about the relationship between personality disorders and substance abuse have been suggested: as an instance, it has been shown that this relationship is hardly accidental since one of the dimensions of diagnostic criteria for borderline personality disorder includes substance abuse which is an indicator of impulsiveness. Generally, a strong relationship has been reported between substance abuse and borderline personality disorder (Skodal, Gunderson & Pfohl, 2002). Since emotional dysregulation as a variable describes the recurrent nature of negative emotions and delayed relapse into basic states in individuals suffering borderline personality disorder, if the experience of negative emotion gets lengthy, the possibility of substance abuse may increase. In fact, there is a reciprocal relationship between borderline personality disorder and illegal substance abuse. Substance abuse and consumption of some special substances such as amphetamines leads to the severity of symptoms of borderline personality disorders. On the other hand, consumption of these substances leads to destructive behaviors and collapse of individual self-control and, thereby, results in the appearance of clinical symptoms of borderline personal disorder. Zanarini & Frankenburg (1997) suggested a type of multifactor borderline personality disorder and believed that such a disorder is composed of 3 components, namely inherent temperament, childhood's painful and suffering experiences, and neurological and biochemical malfunctions. According to them, the last component is likely to result from initial destructive experiences and inherent vulnerabilities of borderline patients. Given the aforementioned discussion which somehow showed vulnerability and malfunction in emotional regulation (emotional processing, positive and negative emotions and impulse control) in individuals with borderline personality traits, and also due to the existence of emotional moderators and mediation and child abuse experience in such vulnerabilities, it is necessary to conduct a comprehensive study in this area. Identifying the role of traumatic childhood experiences in the formation of personality disorders in adulthood may lead one to gain advantageous insights into the first level preventive interventions. Given the costly nature of

campaigns against drug abuse, treatment and accommodation of addicts and also due to the problems related to treatment and detoxification, the prevention of substance abuse seems much more affordable and efficient. Thus, identifying risk factors in substance abuse and protective factors against it is one of the prominent grounds of study on substance abuse. Despite the pervasive studies conducted on sensation seeking, emotional regulation and child abuse experiences towards the discussion and prediction of high risk behaviors such as smoking, drug and alcohol abuse; no study covering such fields in Iranian society was found. Therefore, the present study aims to predict smoking, drug, alcohol and psychoactive substance abuse based on emotional dysregulation and child abuse experience in individuals with borderline symptoms.

Method

This study employed a correlation method which falls into descriptive category. The participants were both male and female students of Tabriz University at bachelor's program. The number of 600 students was chosen as the sample of the study since initial sample screening based on the scores of personality borderline scale was needed. Since the prevalence of borderline personality traits has been estimated from 13 to 20 percent (Burner et al, 1995) and also due to the number of variables, the number of 100 participants was needed to be available at the end of treatment for running regression analysis. Therefore, 600 participants based on this logic were chosen while 96 of them were put aside due to the defection and damage of questionnaires and the initial sample consisted of 504 students. Given the screening of the initial sample based on scores of borderline personality disorder questionnaire, the final sampling was reduced to 120 participants.

Instrument

1. Risk behavior survey questionnaire: this questionnaire has been derived from high risk behaviors questionnaire of American center for disease control designed in 1989. Theoretical foundation proposed for this questionnaire by Burner el al (1995) is a collection of behaviors in contradiction to physical health which increases the risk of disease and social problems and in a large degree results in the death among adolescents and youths. The questionnaire of this study includes 32 items while only the items regarding cigarette smoking, psychoactive drugs, and alcohol were responded given the subject of the study. Using test-retest reliability within a 2-week interval, Burner et al confirmed its reliability as normal. Also the Kappa coefficient for all items was reported to lie between 0.23 and 0.90. Bakhshani et al (2007) reported its reliability as 0.85 through retest method. In another study on 377 people, Mehrabi et al (2010) reported the reliability of the whole scale as 0.79 using

Cronbach's Alfa. These researchers reported the diagnostic validity coefficient of this questionnaire as 0.56. The cut-off score 17.44 (17) with the sensitivity of 0.96, specialty of 0.76 and general power of 0.86 was also reported.

2. Emotional dysregulation scale: this questionnaire was developed by Geratz & Roomer (2004; cited in Aminian, 2009). It includes 36 multidimensional and self-reporting items which assess emotional regulation patterns. Participants are asked to retell the degree of their agreement on the items of the questionnaire related to their feelings in the last week and their responses are scored according to a 5-point Likert scale (almost never, sometimes, often, most times, almost always). Gratz reported the reliability of this questionnaire as 0.93 and its reliability was reported to be 0.80 via Cronbach's alpha. According to Amininan's study (2009), its reliability via Cronbach's alpha and split-half methods was calculated as 0.86 and 0.80, respectively. In addition, its scores were correlated with the scores of Zukerman's sensation seeking questionnaire to evaluate its criterion-based validity and the results implicated a significant positive correlation between the two sets of scores. In this way, convergent validity of emotional regulation questionnaire was also confirmed.

3. Self-reporting child abuse scale: this questionnaire was developed by Mohammad Khani (2002) and consists of 38 items. It measures a range of child abuse behaviors, from sexual abuse to emotional and negative domestic environment and child negligence. Cronbach's alpha coefficient was reported to be 0.92 for this scale which showed high internal consistency. Scoring of this scale is done according to Likert scale from never=0 to always=3. In addition, items numbered 15 and 25 that are related to the subscale of child negligence are conversely scored.

4. Borderline personality scale: this questionnaire was developed by Claridge & Brookz (1984) based on the third version of statistic and diagnostic manual for psychological disorders and was revised in 2001 (Rowling, Carich and Freeman, 2001). It describes borderline personality disorder states which include unstable interpersonal behavioral patterns such as bidirectionalism and emotional control problems. Also, it can evaluate borderline traits in normal people based on the continuum model of psychometric properties. Mohammad Zadeh et al (2005) has accommodated this questionnaire with the 4th revised version of diagnostic statistic manual for psychological disorders. It consists of 24 yes/no items. One point is given to the response yes and no point is given to the response no. Jackson & Claridge (1991) reported its test-retest reliability coefficient as 0.61. Its concurrent validity was evaluated with neuroticism and psychoticism scales and reported to be as 0.64 and 0.44, respectively (Rowlingz, Claridge & Freeman, 2001).

Results

From the total of 600 participants in this study, 96 people were put aside because of the defective completion of their questionnaires. Among 504 remaining ones, there were 238 male participants tantamount to%47.2 of the whole sample and 266 people equivalent to %52.8 were female. The average age of the whole participants was 22.30 years with the standard deviation of 4.26. Also, 89 students were students from Technical Engineering faculty, 196 from Human Science faculty, and 91 students from Medical Science faculty.

Given the subject of the study and the mean and standard deviation of borderline personality scores, only the persons whose standard deviations in borderline personality questionnaire were 1 SD higher than the mean scores were selected as the final sample. Therefore, the number of 120 participants was selected as final participants, from whom 45 people (%37) were female students and 75 people (%62.5) were male students. Descriptive statistics related to demographic information and the study variables are shown in the following table.

Table 1: Descriptive statistics of the study variables

Variables	*N*	*Least*	*Most*	*Mean*	*SD*
Age	120	18	28	23.52	2.42
Smoking	120	3	17	10.27	4.25
Alcohol abuse	120	3	18	11.51	2.60
Narcotics and psychoactive drugs	120	0	20	5.97	4.29
Emotional dysregulation	120	90	168	125.46	13.86
Child abuse experience	120	12	100	66.69	21.12

Stepwise regression analysis was used to explore the predictive power of tendency towards smoking based on variables of emotional dysregulation and child abuse experience. In the first step, childhood abuse was taken into account and %18.4 variance of tendency towards smoking was accounted for by it. In the second step, emotional dysregulation was added and these two variables together explained %21.4 of the total variance. In the last step, the regression coefficients are presented in the following table.

Table 2: Regression coefficients of smoking tendency based on child abuse experience and emotional dysfunction in the last step

predictors	*B*	*β*	*t*	*Sig.*
Constant	2.24	-	4.325	0.0005
Child abuse experience	0.09	0.44	5.475	0.0005
Emotional dysregulation	0.07	0.40	2.654	0.01

For the prediction of tendency towards alcohol consumption based on emotional dysregulation and childhood abuse experience, regression analysis

method was used. In the first step, childhood abuse was taken into account which explained %16.1 of the variance of tendency towards narcotic and psychoactive drug abuse. In the second step, emotional dysregulation was added and these two variables together explained %20 of the total variance. The regression coefficients in the last step are presented in the following table.

Table 3: Regression coefficients of alcohol use tendency based on child abuse experience and emotional dysfunction in the last step

predictors	***B***	***β***	***t***	***Sig.***
Constant	2.24	-	3.12	0.0005
Child abuse experience	0.09	0.40	4.752	0.0005
Emotional dysregulation	0.07	0.40	2.829	0.01

Discussion and Conclusion

This study was aimed at predicting tendency toward smoking, alcohol abuse, addictive and psychoactive drugs in people with borderline personality traits. The results showed that both variables of emotional dysregulation and child abuse play a significant role in predicting smoking and substance and psychoactive drug abuse and also alcohol abuse. These results confirm the results obtained by Cydres, Flory & Rainer (2009) in terms of emotional dysregulation and adventure seeking in tendency towards alcohol abuse; by Harley, Sprich, Safiren, Jacobo & Fava (2009); MaCauley & Calhon (2008); Parent & Newman (1992) on the relation of high emotional dysregulation and lack of inhibition with tendency towards substance and alcohol abuse; Rolison & Scherman (2002); Zuckerman, Eysenck & Eysenck (1987) about the role of sensitivity seeking in substance and alcohol abuse and smoking; Rostami, Azrehi & Zamirinejhad (2009) on the existence of child abuse experience in alcohol addicts; and Pirmoradi (2009). All of these studies lay emphasis on the role of emotional dysregulation and child abuse experience in producing one or some high risk behaviors such as substance and alcohol abuse and smoking. In the present study, the existence of a significant relationship between both predictor variables and tendency towards smoking, addictive substances, psychoactive drugs and alcohol abuse was found.

As Bankrof & Johnson (2003) suggest, it seems that emotional dysregulation and child abuse experience not only increase risk taking for enjoyment in students so that they seek enjoyment and entertainment by alcohol and substance abuse, but also they assess the risks and negative consequences of tendency towards such activates much less than what they deserve. For instance, despite engaging in drinking alcohol, substance abuse and high risk sexual behaviors once in a while, they do not take the consequences of such activities seriously and view themselves secure in the face of these dangerous risks with such misleading thoughts as “I don’t get addicted by drug use as a fun” or “I’ll take it now to see what happen next”.

The features of inefficient families can represent the severity of substance abuse disorders and smoking in addicts (Besharat, 2008). Family as the first effective source in childhood and adolescence has a considerable role in personal decisions on taking high risk behaviors. Child rearing methods and parental substance abuse are effective factors in the generation and appearance of high risk behaviors. Violent behaviors on the part of parents lead to inferiority complex and reduce self-satisfaction in children. These children are likely to make friends with those who emotionally support them and consume addictive substances (Emmery & Laumman, 2009).

In general, the results of this study can be interpreted according to Linehan's (1993) theory that the patients suffering borderline personality disorder are born with a type of initial biological vulnerability in emotional regulation ground (emotional vulnerability). This vulnerability comes along an unhealthy family environment and incompetent parents (insecure environment). Such an insecure environment is so harmful that stands against the individual's feelings and demands. The consequence of such an insecure and sick environment is child sexual and physical abuse. As a result, a child will not learn many required skills on the ground of emotional regulation and interpersonal relations. The end product of such a situation is the establishment of borderline personality disorder and production of impulsive and high risk behaviors. Linhan believes in a reciprocal relationship between a person and the surrounding environment and suggests that each behavior at any time is rooted in a reciprocal reaction between a person and environment, a phenomenon which is called "reciprocal determinism" in the social learning theory. Many people who are born with some natural vulnerability in emotional regulation will not suffer borderline personality disorder, since Linhan's theory makes it well clear that a special family environment is required for the establishment of borderline personality traits, in addition to emotional vulnerability,.

One of the implied results of the present study is the requirement of supervision over psychological health of family, especially in those families in which the risk of child abuse is higher due to such factors as economic pressure, parental addiction or psychological disorders. In addition, these results imply that supervising patterns alongside insights should be developed in the course of intimate relations by parents. On the other hand, they put emphasis on interventional programs such as emotional control training, creative methods for filling the free time, and considering group approaches for the accomplishment of activities so that students' variety seeking and sensation seeking can be satisfied. It is also clear that training and acquaintance with different types of high risk behaviors and their consequences are necessary.

It must be noticed that participants in this study did not have the required criteria for borderline personality disorder diagnosis and the study sample

included non-clinical people who had subliminal symptoms of borderline personality disorders. As a result, it is possible that the real sufferers of borderline personality disorder on the ground of emotional dysregulation and abuse experience have different condition from the subjects of this study; however, the experience of child abuse had already been assessed by a questionnaire and also it is possible that this does not reflect exactly the right picture. Secondly, it is possible that questions are not answered in a sincere way for cultural issues and a sense of insecurity in responding to some questions about particular behaviors; therefore, the falsification of the results could be taken into account. Finally, in this study, suffering first axis disorders was not controlled and there is the possibility of influencing the results.

Reference

Akbari Zardkhaneh, S., Rostami, R. & Zarean, M. (2007). The relationship of intelligence and defensive mechanisms with addiction, *Iranian Journal of psychology, 15 (4),* 193-203.

Aminian, M. (2009). The relationship between emotional regulation, mental pressures of life, and the image of body with eating disorders in women, *Journal of Thought and Behavior*, 13, (4), 65-78.

American association of psychology (2007). *The revised text of DSM,* translated by Nik-Khoo. M. & Avadies, H, Tehran: Sokhan Publication.

Bakhshani, N. & Lashgaripoor, K. (2007). The development of high risk activities related to intentional and non-intentional hurts in high school students of Sistan and Blouchestan province, *Physician East, 9 (3),* 25-42.

Bancroft, J., Janssen, E. (2003). Sexual Risk-Taking in Gay Men: The Relevance of Sexual Reusability, Mood, and Sensation Seeking. *Archives of Sexual Behavior, 32 (6),* 555-563.

Besharat, M., Ranjbar Noshari, F. & Rostami, R. (2008). Comparing the functions of families with drug abuse problems among their members and normal families, *Journal of Psychology and Nurturing Sciences, 38 (3),* 137-156.

Brener, N.D., Conins, J., Kannl, L. (1995). Reliability of the youth Risk Behavior survey questionnaire. *American Journal of epidemiology, 141(6),* 575-580.

Claridge, G., Broks, P. (1984). Schizotypy and hemisphere function: I. theoretical considerations and the measurement of schizotypy. *Personality and Individual Differences, 5,* 633-648.

Cydres, M., Flory, K., Rainer, S. (2009). The role of personality dispositions to risky behavior in prediction first-year college drinking. *Journal of Addiction, 104(2),* 193-203.

Doran, N., Mc Charque, D., Cohen, L. (2007). Impulsivity and the reinforcing value of cigarette smoking. *Addictive Behaviors*, *32*, 90-98.

Dube, S. R., Felitti, V. J., Dong, M., Chapman, D. P., Gile, W. H., Anda, R. F. (2003) "Childhood Abuse, Neglect, Household Dysfunction and the Risk of Illicit Drug, the adverse childhood experiences study". Pediatrics, *113 (3)*, 564-572.

Emmery, R., Laumman, L. (1988). An overview of the nature, causes and consequences of abusive family relationships toward differentiating maltreatment. *American Psychologist*, *49*, 173-183.

Glantz, M. D. (1992). *Vulnerability to drug abuse: introduction and overview*, Washington Dc: American Psychological Association.

Golman, G., Schutte, N.S., Mayer, J. D., Karousou, M., Salovey, P. (1999). *What is emotional intelligence? In P. Salovey& D. Sluyter (Eds), emotional development and emotional Intelligence: Implication for educators*, New York: Basic Books.

Golman. (1995). *Emotional intelligence*, NewYork: Bantam Books.

Gratz, K.L., Roemer, L. (2004). Multidimensional assessment of emotion regulation and deregulation: Development, factor structure and initial validation of the difficulties in emotion regulation scale. *Journal of psychopathology Behavior Assessment*, *26*, 41-54.

Harley, R., Sprich, s., Safren, S., Jacobo, M., Fava, M. (2009). Treatment resistant depression of dialectical behavior therapy skills training group for treatment-resistant depression. *Journal of mental disorders*, *196(2)*, 136-143.

Hasking, P.A., Oei, T.P. (2007). Alcohol expectancies, self-efficacy and coping in alcohol dependent sample. *Addictive Behaviors*, *32(1)*, 99-113.

Jackson, M., Claridge, G. (1991). Reliability and validity of a psychotic trait questionnaire (STQ). *British Journal of Clinical Psychology*, *30*, 311-323.

Jakobs, M., Snow, K., Geraci, M., MeenaVythilingam, M., Blair, R.j., Charney, D.S., pine, D.S. & Blair, K.S. (2008). Association between level of emotional intelligence and severity of anxiety in generalized social phobia. *Journal of anxiety disorder*, *87*, 9-24.

Linehan, M.M., (1993). *Cognitive Behavioral Treatment of Borderline Personality Disorder*, New York: Guilford Press.

Maher, F. (2004). High risk behaviors in free time of youths, procedures and models, *Journal of Youth Studies*, *6*, 118-143.

Mehrabi, H., Kajbaf, M & Mojahed, A. (2010). Perdition of high risk behaviors based on sensation seeking and demographic factors in students of Isfahan University, *Psychology Studies*, *6 (2)*, 25-38.

McCauley, J.L., Calhon, K.S. (2008). Faulty perceptions? The impact of binge drinking history on college women's perceived rape resistance efficacy. *Addictive Behaviors, 33(12),* 1540-1550.

Millon, T., (2004). *Personality Disorders in Modern Life*, New Jersey: Willy.

Mohamad Zadeh, A. Goudarzi, M., & Taghavi M. (2005). Investigation of factorial structure, validity, reliability and validation of borderline personality in students of Shiraz University, *Journal of Psychological Health Principles, 27 (7),* 75-89.

Mohamad Khani, P., Mohamadi, M., Nazari, M. & Salavati, M. (2002). Prevalence of child abuse, the most pervasive child abuse model in students of Tehran guidance schools, *Research Project, Ministry of Health and Medical Education.*

Narud, K., Mykletun, A., & Dahl, A. A. (2005). Therapists' handling of patients with cluster B Personality disorders in individual psychotherapy. *Comprehensive psychiatry, 46,* 186- 191.

Parent, E.C., Newman, D.L. (1999). The role of sensation-seeking in alcohol use and risk taking behavior among college women. *Journal of Alcohol and Drug Education, 44(2),* 12- 29.

Parker, J.D., Taylor, R.N., Eastabrook, J.M., Schell, S.L. & Wood, L.M. (2008). Problem gambling in adolescence: Relationships with internet misuse, gaming abuse and emotionalintelligence. *Personality and individual differences, 45,* 174-180.

Pirmoradi, S. (2009). *Addiction in the context of familial relations*. Tehran: Homam Publication.

Rawlings, D., Claridge, G., Freeman, J.L. (2001). Principal components analysis of the Schizotypla Personality Scale (STA) and the Borderline Personality Scale (STB). *Personality and Individual Differences, 31,* 409-419.

Rolison, M. R &Scherman, A, (2002). Factors influencing adolescents' decisions to engage inrisk-taking behavior, *Journal of Adolescence, 37 (147),* 585-597.

Rostami, R., Zarehi, J. & Zamirinejad. S. (2009). Investigation of record of child abuse in male addicts in comparison with non-addicts population, *Fourth National Congress of Family and Sexual Health*, Novermber 2009, Tehran, Iran.

Schutte, N. S., Malou, J. M., Thorsteinsson, E. B., Bhullar, N., &Rooke, S. E. (2007). A meta-analytic investigation of the relationship between emotional intelligence and heath. *Personality and individual Differences*. *42*, 921-933.

Schutte, N. S., Malou, J. M., Hall, L. E., Haggerty, D. J., Cooper, J. T., Golden, C. L., Dornheim. L. (1998). Development and validation of the measure of emotional intelligence. *Personality and Individual Differences, 25*, 167-177.

Silk, K. R. (2000). Borderline personality disorder. Overview of biologic factors. *Psychiatric Clinics of North America, 23(1),* 61–75.

Skodol, A.E., Gunderson, J.G., Pfohl, B., (2002). The Borderline Diagnosis: Psychopathology, Comorbidity, Personality structure. *Biological Psychiatry, 51,* 936-950.

Sneed, C.D., Morisky, D.E., Rotheram, M.J., Ebin, V.J., Malotte, C.K. (2002). Patterns ofadolescent alcohol, cigarette and marijuana use over a 6-month period. *Addictive Behaviors, 26*, 415-423.

Teichman, M., Barnea, A., Ravon, G. (1980). Personality and substance use amongadolescents: a longitudinal study. *British Journal of Addiction, 84*,181-190.

Trinidad, D.R., Johnson, C.A. (2000). The association between emotional intelligence andearly adolescent tobacco and alcohol use. *Personality and individual differences, 32,* 95-105.

Trinidad, D.R., Unger, J.B., Chou, C.O., & Johnson, A. (2004). The protective association ofemotional intelligence with psychosocial smoking risk factors for adolescent. *Personalityand Individual Differences*. *36,* 945-954.

Vazirian, M. (2005). *A Guideline for prevention and treatment of substance abuse (for Medical professionals),* Tehran: Suleiman Publication.

Wingenfeld, K., Rullkoetter, N., Mensebach, C., Beblo, T., Mertens, M., Kreisel, S., et al. (2009). Neural Correlates of the Individual Emotional Stroop in Borderline Personality Disorder. *Psychoneuroendocrinology, 34 (4),* 571—586.

Wingenfeld, K., Spitzer, C., Rullko¨tter, N., Lo¨we, B. (2010). Borderline personality disorder: Hypothalamus Pituitary Adrenal Axis and Findings from Neuroimaging Studies. *Psychoneuroendocrinology, 35,* 154- 170.

Zanarini, M.C., Frankenburg, F.R., (1997). Pathways to the development of borderlinepersonality disorder. *Journal of Personality disorder, 11,* 93-104.

Zanarini, M.C., Laudate, C., Frankenberg, F.R., (2010). Predictors of Self-Mutilation in Patients with Borderline Personality disorder, a 10- Year Follow-up Study. *Journal of Psychiatric Research, 12,* 1-6.

Zeynali, A., Vahdat, R., & Eisavi M. (2008). Pre-addiction nurturing grounds in treated addicts, *Iranian Journal of Clinical Psychology and Psychiatry, 14 (1),* 71-79.

Zuckerman, M., Eysenck, S. & Eysenck, H. I, (1978). Sensation-seeking in England and America: Cross-cultural, age, and sex comparisons. *Journal of Consulting and Clinical Psychology*, *46*, 139-149.