

The Role of Distress Tolerance in Predicting Susceptibility of Addicts and Non-Addicts to Addiction

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Abstracts: The aim of this study was to examine the role of distress tolerance role in predicting susceptibility of addicts and non-addicts to addiction. The method of the study was correlation-prediction. The statistical population of the study consisted of all regular residents of Zahedan city in the range of 15-17 year old and all withdrawing people referring to rehabilitation centers of Zahedan. The available sampling method and the multistage clustering sampling method were used for regular and addict people, respectively. The instruments for collecting data were Simons' and Gaheer's Standard Questionnaire of distress Tolerance and Vide's and Bucher's Addiction Potential Scale (APS). Data were analyzed using Pearson correlation coefficients and step-by-step regression methods. The findings indicated that there is a significantly positive, but low severe, relationship between distress tolerance and susceptibility to addiction among addicts, while there is a significantly negative relationship between distress tolerance and susceptibility to addiction among regular people. Also, the results of the step-by-step regression analysis showed that the components evaluation, tolerance and absorption predicted 9.1, 15.8 and 24.8% of total variance of susceptibility to addiction among addict people.

Key words: Distress tolerance, susceptibility to addiction, addicts, non-addicts, susceptibility

INTRODUCTION

Drugs addiction, as the most serious social problem of Iran has involved different aspects of sociology, psychology, legal and policy of Iran. Social analysts argue that drugs addiction is one of complicated issues in current era which paves the road for other exhibition of many social traumas and deviances. In other words, the relationship of addiction with social issues is reciprocal, on the one hand, addiction leads society to stagnation and decadence and, the other is a phenomenon rooted in social, economic and cultural issues of the society (Farhani and Azar, 2006). Drugs dependency or so called drugs addiction is seen in all careers, educational levels, economic and social status and is not specific to certain individual or stratum (Zargar *et al.*, 2008). The drugs addiction problem is global and scientific studies have shown that prevention of addiction is far easier than cure (Parsania *et al.*, 2012). Addiction is a social illness which has physical and psychological effects and physical and psychological treatments would be effective only in a while and people would return to the drugs unless we pay attention to reasons of the 'patient's trends to drugs. Addiction literally refers to get habituated and acclimatize with something. Different factors involving in addiction are social (availability of drugs, poverty and

socioeconomic inequalities, unemployment and lack of expertise, immigration, marginalization and live in high crime neighborhoods, illiteracy, bad friends, lack of recreational facilities, false traditions and norms), political and geographical (unbalanced industry growth, unemployment and lack of expertise, the war and the economic crisis) and distress tolerance.

Distress is a typical construct in research on emotional disorders. It has been defined as one's own ability to experience and tolerate negative emotional states (Simons and Gaheer, 2005). Indeed, distress tolerance is an individual different variable which points to capacity of experiencing and tolerating emotional upsets (O'cleirigh *et al.*, 2007). Distress tolerance has been seen as an important construct in developing a new insight to ward onset and maintenance of mental traumas as well as prevention and cure interventions (Zvolensky *et al.*, 2011). In a similar manner, the findings of Daughters *et al.* (2009) on 231 white and black American teenagers indicated that low distress tolerance increased risk of alcohol abuse and delinquent behavior and symptoms of internalization disorders among whites, blacks and women, respectively. The findings of Pottera *et al.* (2011) showed that distress tolerance mediated the relationship between severe of PTSD symptoms and Marijuana use as a coping strategy. Regard

to causes of addiction among American students, Orford concluded that most of addicted students had environmental and structural frustrations. Failure to address their emotional demands by the community is a reason of their tendency to addiction. According to Picko, the emotional gap between children and parents, particularly the father, is one of factors responsible for addiction. In his study entitled 'sociology of addiction' to explain its societal origins, Kosari considered living in disadvantaged areas, extreme poverty, destroyed houses, torn apart families and other ravages as factors which cause such behavioral deviation. He also argues that addiction has detrimental effects on families. For example, divorce can be taken into account as one of accompanying results of addiction. Given that the tendency to drugs use is a problem which has occupied the mind of today societies (Navidnia *et al.*, 2002) and since it compromises the individual, family and society health and leads to mental and moral disorders (Afqah and Khalilian, 1995), the current research addresses the following hypotheses.

The research hypotheses:

- There is a relationship between addicts' distress tolerance and susceptibility to adiction
- There is a relationship between non-addicts' distress tolerance and susceptibility to addiction.

MATERIALS AND METHODS

Population, sample and sampling method: The research is descriptive-predictive correlation. The statistical population of the study consisted of all regular residents of Zahedan city in the range of 15-17 year old and all withdrawing people referring to rehabilitation centers of Zahedan. The available and the multistage clustering sampling methods were used for regular and addict people, respectively. Among 13 rehab centers across the city, 7 centers were selected. The sample included 334 addicts of these centers and 300 regular people from the city.

Instruments

Distress tolerance scale: This scale is a self-report measurement of emotional distress tolerance designed by Simons and Gaher (2005). The scale is consisted of 15 items and 4 subscales including emotional distress tolerance (1, 3 and 5), absorption by negative emotions (2, 4 and 15), mental evaluation of distress (6, 7, 9, 10, 11 and 12) and regulation of efforts to relieve distress (8, 13 and 14). Addiction Potential Scale (APS): This scale was developed by Zargar *et al.* (2008) has validated it in

Iranian population. This 36-item scale includes 5 polygraph items and two subscales of addiction potential (3, 4, 5, 7, 8, 9, 10, 11, 16, 17, 18, 19, 22, 24, 25, 26, 27, 28, 29, 30 and 31) and addiction acceptance (1, 2, 9, 13, 14, 20 and 23), the item 9 assesses both subscales. The scoring of the scale is based on a 4-point Likert type from 0 (fully disagree) to 3 (fully agree). Zargar *et al.* (2008) indicated that the scale discriminates addicts from non-addicts well. Also, they reported the concurrent validity coefficient of 0.45 for the scale using the clinical symptoms inventory 25 item. The reliability of the scale obtained 0.9 using Cronbach's α .

RESULTS AND DISCUSSION

The hypothesis 1: There is a relationship between addicts' distress tolerance and susceptibility to adiction. Pearson correlation test was used to examine the relationship between addicts' distress tolerance and susceptibility to addiction (Table 1-3).

As can seen in Table 3, the obtained significant level is 0.037 which is <0.05 ($p<0.05$). Therefore, there is a significant correlation between addicts' distress tolerance and susceptibility to addiction. As the Pearson correlation was significant, step-by-step regression analysis was used to examine the effects of distress tolerance components as predictor on susceptibility to addiction as criterion. The number of distress tolerance components (predictor variable) is four.

As can seen in Table 4, the results of step-by-step regression of distress tolerance components to predict susceptibility to addiction shows that only the regulating component has been removed from the equation among the others.

Table 1: Frequency and frequency percentage of male and female addicts, by age groups

Age group	<20	21-30	3-40	41-50	>51	Total
Male						
Frequency	30.0	117.0	79.0	37.0	30.0	293
Frequency (%)	10.2	39.9	27.0	12.6	10.2	100
Female						
Frequency	6.0	23.0	7.0	4.0	1.0	41
Frequency (%)	14.6	56.1	17.1	9.8	2.4	100

Table 2: Frequency and frequency percentage of male and female non-addicts, by age groups

Age group	<20	21-30	31-40	41-50	>51	Total
Male						
Frequency	37.0	88.0	57.0	35.0	7.0	223
Frequency (%)	10.2	39.9	27.0	12.6	10.2	100
Female						
Frequency (%)	13.0	33.0	16.0	7.0	4.0	73
Frequency	17.8	45.2	21.9	9.5	5.4	100

Table 3: The results of pearson correlation test between addicts' distress tolerance and susceptibility to addiction

Variable	r	Sig.
Distress tolerance and addiction potential	0.114	0.037

Table 4: The results of the step-by-step regression analysis of distress tolerance components to predict addicts' susceptibility to addiction

Step	Variables	R	R ²	Adjusted R ²	F-values	Sig.	B	β	t values	Sig.
First	Evaluation	0.302	0.091	0.089	33.414	0.000	2.961	0.389	7.843	0.000
Second	Tolerance	0.397	0.158	0.152	30.940	0.000	-0.750	-0.437	-7.741	0.000
Third	Absorption	0.498	0.248	0.241	36.233	0.000	0.377	0.344	6.293	0.000

Table 5: The results of Pearson correlation test between non-addicts' distress tolerance and susceptibility to addiction

Variable	r	Sig.
Distress tolerance and addiction potential	-0.512	0.000

The determination coefficient means that how much of the variance of the criterion variable can be explained by the equation. The components evaluation, tolerance and absorption predict 9.1, 15.8 and 24.8% of variance of the variable susceptibility to addiction, respectively. Also, β 's standard coefficients show that by unit change in standard deviation of evaluation, tolerance and absorption, the score of susceptibility to addiction will change 0.389, -0.437 and 0.344.

The hypothesis 2: There is a relationship between non-addicts' distress tolerance and susceptibility to addiction.

Pearson correlation test was used to examine the relationship between non-addicts' distress tolerance and susceptibility to addiction.

As can seen in Table 5, the obtained significant level is 0.000 which is <0.05 ($p < 0.05$). Therefore, there is a significant correlation between non-addicts' distress tolerance and susceptibility to addiction. As the Pearson correlation was significant, step-by-step regression analysis was used to examine the effects of distress tolerance components as predictor on susceptibility to addiction as criterion. The number of distress tolerance components (predictor variable) is four.

As can seen in Table 6, the results of step-by-step regression of distress tolerance components to predict non-addicts' susceptibility to addiction shows that only the absorption component has been removed from the equation among the others. The components regulation, evaluation and tolerance predict 33.7, 36.9 and 38.6% of variance of the variable susceptibility to addiction among the non-addicts, respectively. Also, β 's standard coefficients show that by 1 unit change in standard deviation of regulation, evaluation and tolerance, the score of susceptibility to addiction will change -0.485, -0.169 and -0.136.

In regard to the hypothesis 1, there is a significantly positive but poor relationship between addicts' distress tolerance and susceptibility to addiction. It means that in addicts and people who already have the experience of addiction, increased distress tolerance may lead to

higher tendency to addiction. Albeit the severity of the relationship is poor. Furthermore, the conducted step-by-step regression analysis showed that the components evaluation and absorption in addicts positively impact on their susceptibility to addiction, while the component tolerance negatively impacts on it. Based on these results, when the tolerance of upsetting feelings in addicts gets high, they tend to addiction less than before (Abedi *et al.*, 2012). Also, the positive impact of the component absorption on addicts' susceptibility to addiction shows that the more is absorption in the addicts, the more is their susceptibility to addiction. Also, there was not any significant relationship between regulation and susceptibility to addiction among addicts. This result is consistent with research done by Brook, Nomura and Cohen.

In regard to the hypothesis 2, there is a significantly negative and moderate, relationship between non-addicts' distress tolerance and susceptibility to addiction. According to the results, if non-addicts' distress tolerance reduces, their susceptibility and tendency to addiction will increase. These results are consistent with those of Daughters *et al.* (2009). Conversely, the more is non-addicts' distress tolerance, lower is their susceptibility to addiction. This finding is consistent with that of Kosari and Bolhori. According to the researches, one of reasons people tend to addiction is expression of distress feelings and confusion in their life which is consistent with our finding that lack of distress tolerance causes increased susceptibility to addiction. Step-by-step regression was used to examine the effects of distress tolerance components on susceptibility of non-addicts to addiction. The results show that the components regulation, evaluation and tolerance impact on susceptibility of non-addicts to addiction and there is not any relationship between the component absorption and susceptibility to addiction. Also, regulation and tolerance, among the others, have the most and the least impact, respectively. All 3 components were negatively related to the criterion variable or susceptibility to addiction. In other words, if a person has low sense of regulation, his/her susceptibility to addiction will increase. Also, decreased evaluation in non-addicts will lead to more susceptibility to addiction (Abedi *et al.*, 2011). Finally, the more is non-addicts' ability to tolerate feelings and distress, the lower their susceptibility to

Table 6: The results of the step-by-step regression analysis of distress tolerance components to predict non-addicts' susceptibility to addiction

Step	Variables	R	R ²	Adjusted R ²	F values	Sig.	B	β	t values	Sig.
First	Regulation	-0.581	0.337	0.335	-15.265	0.000	-0.519	-0.485	-9.713	0.000
Second	Evaluation	-0.608	0.369	0.365	-86.731	0.000	-0.163	-0.169	-3.477	0.001
Third	Tolerance	-0.621	0.386	0.379	-61.724	0.006	0.131	-0.136	-2.784	0.006

addiction will be. The conducted analyses of the studied variables on addicts and non-addicts indicated that distress tolerance in addicts and non-addicts was lower and higher than moderate, respectively.

CONCLUSION

Based on the results of the current study, people who have high distress tolerance and are able to absorb and digest their distressing feelings and frustration easily as well as people who are less likely to engage in impulsive behavior when they are experiencing negative emotional events and have low negative anxiety, they exhibit less drugs dependency. These results are consistent with those of Mohamadi and Simons and Gaher (2005).

REFERENCES

- Abebi, G., J. Shojaii and F. Rostami, 2011. Analytical approaches of impellent and preventive power on hospital services. *World Applied Sci. J.*, 12: 2071-2077.
- Abedi, G., A. Mohammadi, F. Mohammadi, A. Alizadeh, H. Hosseini and F. Rostami, 2012. University students' personality profile based on casta and MacCrea five factor theory. *Int. J. Collaborative Res. Intern. Med. Public Health*, 4: 330-336.
- Afqah, S. and A.R. Khalilian, 1995. Investigating the factors related to drugs dependency in Mazandaran state. *J. Med. Sci. Mazandaran Univ.*, 6: 29-35.
- Daughters, S.B., E.K. Reynolds, L. MacPherson, C.W. Kahler, C.K. Danielson, M. Zvolensky and C.W. Lejuez, 2009. Distress tolerance and early adolescent externalizing and internalizing symptoms: The moderating role of gender and ethnicity. *Behav. Res. Therapy*, 47: 198-205.
- Farahani, F.K.A. and F.E.F. Azar, 2006. Comparison of the effect of AIDS prevention training by peers and adults on awareness, attitude and self-sufficiency of female high school students of the educational area 4 of Tehran using the cognitive-social theoretical model. *J. Fertil. Infertil.*, 5: 77-91.
- Navidnia, A., A. Daevachi and N.B. Dust, 2002. Study of addicts personality characteristics in a rehab center in Zahedan. *J. Hakim Stud.*, 5: 17-22.
- O'Cleirigh, C., G. Ironson and J.A.J. Smits, 2007. Does distress tolerance moderate the impact of major life events on psychosocial variables and behaviors important in the management of HIV. *Behav. Therapy*, 38: 314-323.
- Parsania, Z., M. Firouzeh, L. TakFallah, S.M. Semnani, E. Jahan and A. Emami, 2012. Personality disorder in individuals with drugs abuse disorder referring to rehab centers. *J. Med. Sci. Islamic Azad Univ.*, 22: 152-156.
- Pottera, C.M., A.A. Vujanovic, E.C. Marshall-Berenz, A. Bernsteind and M.O. Bonn-Miller, 2011. Posttraumatic stress and marijuana use coping motives: The mediating role of distress tolerance. *J. Anxiety Disord.*, 25: 437-443.
- Simons, J.S. and R.M. Gaher, 2005. The distress tolerance scale: Development and validation of a self-report measure. *Motivation Emotion*, 29: 83-102.
- Zargar, Y., B. Najarian and A. Na'ami, 2008. The relationship of personality characteristics (thrill-seeking, assertiveness, psychological hardiness), religious attitudes and marital satisfaction with susceptibility to drugs addiction. *J. Educ. Psychol. Shahid Chamran Univ. Ahvaz*, 1: 99-120.
- Zvolensky, M.J., A. Bernstein and A.A. Vujanovic, 2011. *Distress Tolerance: Theory, Research and Clinical Application*. Guilford Press, New York.