Psychometric Properties of the Persian Version of Codependency Inventory

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Abstract

Objective: The purpose of the present study was to develop the Persian version of Codependency Inventory and assess its reliability and validity. **Method**: The Persian version of the Co-dependency Inventory was developed using double translation technique and was administered to 430 students (119 males and 311 females) from Kharazmi University of Tehran. The reliability of the Persian version of the Co-dependency Inventory was examined based on internal consistency methods, correlational methods, and test-retest method. In addition, factor analysis, the correlation between sub-scales, and criterion validity were used to assess the scale validity. **Results**: The Cronbach's alpha range of 0.54 to 0.88 showed that the Persian version of the Co-dependency Inventory and its subscales have a desirable internal consistency. Similarly, the item scores and total scores of the sub-scales had a significant correlation with each other. The value of the test-retest coefficients (0.82-0.88) indicated the stability of the scale. The confirmatory factor analysis supported the 5-factor model of the Co-dependency Inventory. Finally, the existence of specific patterns of correlation coefficients between the subscales of the Persian version and behavioral brain systems and attachment styles indicated the good criterion validity of the scale. **Conclusion**: The Persian version of Codependency Inventory has desired psychometric features in the Iranian community and can be used in different clinical and research situations.

Keywords: co-dependency, Persian version of Codependency Inventory, factor analysis, validity, reliability

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Introduction

Chronic addiction is defined a disorder with chronic relapse that is associated with the impulsive behaviors of drug seeking despite its negative outcomes (Milton & Everitt, 2012). Various psychological variables have been identified as susceptibility, continuity, exacerbation and cause of craving for use and relapse in this disorder (Yarmohammadi, Alipour, Bastami, Zolfaghari nia, Bazazzadeh, 2015). In addition to harm that addiction imposes on the user (Ali Pour, Saeedpour and Hasani, 2015), family members of the user are not protected against these harms. The family members of these people live in stressful conditions and are at high risk for psychological disorders (Ray, Mertens& Weisner, 2009). In this regard, the codependency theory refers to the effects of this disorder on family members and states that the effect of family members and one's addiction disorder is bidirectional with specific complexities and in the treatment and prevention , it requires specific interventions (Orford, Velleman, Natera, Templeton, & Copello, 2013). When a person is subject to stressful events, family members' behavior and reactions play an important role in dealing with the problem (Levy, 2006). Codependency creates conditions among families with drug users that are one of the determinants of addiction treatment. A part of the reason for failure of addiction treatment is codependency that occurs in the addict's family atmosphere (Lee, Shin and Park, 2007).

Unhealthy relationships with parents in childhood, especially with addicted parents, lead to the development of children with a sense of distrust, self-centeredness, low self-esteem and self-denial, which are the causes of codependency. Codependency is a concept that came from chemistry in the literature on the treatment of alcoholism. Initially, the syndrome of codependency was associated with the thoughts and stresses associated with living with an addict. Later in the study, it became clear that even in the case of an addict treatment, family members' codependency behaviors continue to be seen in the parents, spouse or partner. Then, clinical studies developed around this issue (Hopkins and Jackson, 2002), and O'Brien & Gaborit (1992) stated that codependency is also a non-chemistry variable. Research literature refers to the main features of codependency, including self-neglect, low self-worth, an inability to identify, express, and manage feelings, lack of autonomy, using maladaptive strategies to cope with stressful life events; hiding self, feeling responsible for others; other-focus (Stafford, 2001).

In the twentieth century, the term "codependency" also emerged from the mutual behavior of family members, close friends of alcoholics, or other addictive substances. Codependency was initially known as co-alcoholism; in fact, at the meetings of the alcoholic anonymous American association, this title was used for alcoholic individuals, which prevented them from treating their spouses in a variety of direct and indirect methods (Haaken, 1993). In 1980, the concept of co-alcoholic was replaced with codependency under the supervision

of psychiatrists, and henceforth the term became familiar (Harper & Capdevilla, 1990). After the *1970s*, *codependency* was defined as the dysfunctional relationship between "an enabler," often a *spouse*, and his or her alcoholic counterpart. (Hopkins and Jackson, 2002; Lindley, Giordano & Hammer, 1999; Malloy & Berkery, 1993). Some scholars defined codependency as pathological behavior pattern exhibited by individuals coping with stressful situations when growing up (Fuller & Warner, 2000; Hughes-Hammer, Martsolf & Zeller, 1998). The characteristics of the codependent individuals are shaped more by family unhealthy education; families that shape the need to control, perfectionism, self-assimilation, and poor communication skills in an individual. Bowen (1998) suggests in his theory the notion of differentiation of self, which refers to families that prevent distinctions and separated identities. The members of these families lack emotional boundaries with other family members and never form single and separate trait (Loucks, 2005).

Codependency is one of the key concepts in mental health, especially in women, because women have the potential for abuse and harm in relationships due to their dependence. Carson & Baker (1994) found that female students with a history of child sexual abuse had a significant difference in the scores of codependency in comparison with the control group. Carson and Baker (1994) reviewed a study on 171 adult women reporting a relationship between codependency and childhood abuse, of which 59% reported abusive behavior by alcoholic parents, and this factor had a significant correlation with codependency in these individuals. In a similar study, Gotham & Sher (1996) showed a similar relationship between the history of alcoholism and the abuse of parents with the codependency of the children of these families. The results of another study by Crothers& Warren (1996) showed that there is a significant relationship between the codependency of individuals and parents' codependency. Autenshlyus (2008) in a study on 200 women between the ages of 23 and 30 showed that high codependency was associated with symptoms of posttraumatic stress disorder, and these individuals showed more symptoms than those with low levels of codependency. Hughes- Hammer et al. (1998) showed a relationship between depression and codependency among women. Haynes (1993) states: "Codependent women have greater risk taking for AIDS, because they want to continue the relationship without regard to the damage and the consequences of the relationship." Also, there is a significant relationship between depression and codependency (Carson & Baker, 1994; Hughes, Hummer et al., 1998). Capell-Sowder (1984) observed that wives of alcoholic men had over-control characteristics, disapproval of patient behaviors, concomitant use of the patient, and lack of control over emotions. In a study conducted by Rusnáková (2014) on the members of the families of alcoholic addicts, it is clear that they have a high degree of codependency, and this is a factor in continuing use and relapse. Ançel, Kabakçi (2009) also investigated the relationship between attachment styles and codependency, which showed that people with high scores in the

codependency assessment scale had anxiety-related codependences and their families had more problems and depression. In 1990, attempts were made to define this concept in a consensus with the presence of experts in the field, and co-dependence was defined as a learned behavior expressed by dependencies on people and things outside the self; these dependencies include neglecting and diminishing of one's own identity. The false self that emerges is often expressed through compulsive habits, addictions and other disorders that further increase alienation for the person's true identity, fostering a sense of shame (Whitfield, 1991, p. 10). (Whitefield, 1991). Following this definition, experts began to develop a specialized framework for research and clinical treatment. In the research literature, there are many conceptualizations of codependency. According to Wegscheider-Cruse & Cruse1990) codependency covers three essential symptoms, which are denial/delusion, emotional repression, and compulsions leading into three negative outcomes (low self-worth, communication problem and medical problems). The researchers combined the model of Wegscheider-Cruse and Cruse with other definitions and defined codependency as other focus, self-neglect including the subscales of family issues, low-self-esteem, hiding self and medical problems.

Codependency is an emotional, psychological, and behavioral pattern that results from long-term contact with strict laws and ultimately leads to personality disorder that develops based on the following: the need to control the environment to avoid undesirable consequences, neglect, distort distinct boundaries, and long-term relationships with people with psychiatric disorders (Cermak, 1986). Codependency is a learned behavior expressed by dependencies on people and things outside the self; these dependencies include neglecting and diminishing of one's own identity. This is one of the very serious problems of mental health, and it is estimated that about 40 million Americans have codependent characteristics (Goff & Goff, 1988). Women, who are codependent, have the potential for more harms and abuse in interpersonal relationships that can get rid of these harmful relationships in case of treatment. Detection of individuals with codependency is an important part of treatment for these individuals and the degree of codependency is a clinical and research instrument with validity and reliability for diagnosis. Generally, codependency can be defined as individual personality traits that focus only on the responsible and extreme control of others, regardless of their mental and physical needs, and by ignoring their emotions; it only addresses the needs and feelings of others (Ramírez, Martínez & Bogarín, 2014).

According to Wegscheider-Cruse and Cruse (1990), the main core of codependency is other focus/self-neglect including four other subscales. The codependency assessment scale is a multi-variate tool being designed based on the five-factor definition of codependency. The subscales include: 1- Other focus/Self-neglect: It is the main core of codependency and refers to compulsive helping, advice giving, controlling events or people, and having distorted

boundaries. According to Cermak (1986, 1991), this criterion to define codependency includes controlling self and others, having responsibility to solve the problem of others even by self-denial, having distorted boundaries and intimacy with others and being involved in communication. 2- Hiding self refers to use of a "positive front" by controlling or repressing negative emotions (Whitfield, 1987).

In Wright and Wright's (1991) model, for the definition of codependency as a personality symptom, three subscales were identified, including shame, minimal resilience and unrealistic positive expectations.

Gotham & Sher (1996) in a study showed that medical complaints had a positive and significant relationship with codependency scores. 4. Family of origin: It highlights unhappiness due to growing up in a troubled family where affection was not openly displayed, and feelings and thoughts were not expressed and discussed. Researchers have argued that grow up in such families leads to codependency (Wegscheider-Cruse, 1984). In the following definitions, codependency was introduced as an adaptation mechanism in an unhealthy family. In the conceptualization of Ackerman (1983), which raised the concept with the alcoholic children, he described this phenomenon as an unacceptable and rejection outcome, which affects the growth of the personality of these children as a result of family rejection. Favorini (1995) states that to yield control and orientation toward caring for others is in fact a behavior for the survival of the child in the abusive family atmosphere. 5-Deiminished self-worth: codependency includes the critical thoughts and self-hatred and the sense of shame and humiliation. Fossum & Mason (1986) argued that the shame of individuals is shaped by shame in the family's space of these people. Hinkin & Kahn (1995) in the study of two alcoholic groups with the negative family history and control showed that alcoholic group had low self-esteem. This scale can be used for different purposes in the field of addiction, in addition, it can be used for various clinical and research purposes in various disorders. Given the cultural differences that have a great impact on the concept of codependency, the standardization of this test in the domestic community is of great importance. In general, due to the importance of codependency as unhealthy personality traits in relation to others, the chronic form and the importance of its developmental period and the harm it infects, and also given the importance of this communication model in the topic of addiction disorder (Baranok, 2012) and other psychiatric disorders and psychological problems, and the lack of comprehensive tools of codependency in Iranian culture, this study has been conducted to investigate the reliability of the codependency questionnaire in Iranian society.

Methodology

Population, sample and sampling method

The present research is carried out within the framework of a descriptive and psychometric design based on correlation. The population of this study was all students of Kharazmi University in the academic year of 2015-2016. The sample consisted of 430 students (119 male and 311 female) who were selected by stratified random sampling and inclusion criteria. Inclusion and exclusion criteria included non-use of psychiatric drugs, no physical illness and informed consent of the research. After obtaining the consent and explaining the research process, the Persian form of the co-dependency assessment tool, Jackson's five-factor questionnaire, and attachment style questionnaire by Hazen and Shaver were distributed among the participants. During the response period, the researchers had an active participation to prevent the occurrence of random responses (quick response without concentration, completion before the due date) and, if necessary, respond to their questions. After data collection, data were analyzed by SPSS-22 and LISREL 8.54 software.

Instrument

1-Persian version of Codependency Assessment Tool: This questionnaire was developed by Hughes-Hammer, C., Martsolf, D. S., & Zeller (1998) to measure the codependency characteristics of individuals with 25 questions and 5 subscales including other focus/self -neglect, family of origin issues low self-worth, hiding self, medical problems. The scoring is based on a five-point Likert scale (never = 1, always = 5). The range of scores obtained from scores is between 25 and 125. The score between 25 and 50 indicates low codependency, 51 to 75 mild codependency, 76 to 100 moderate codependency, and 101 to 125 severe codependency. The test retest reliability of this questionnaire and its sub-scores were reported to be between 0.78 and 0.94. Cronbach's alpha for the total scale is 0.91 and for the sub-scales including other focus-self-neglect is 0.85, low self-worth 0.84, original family issues 0.81, hiding self 0.80 and medical problems 0.78 (Loucks, 2005; Hughes-Hammer, C., Martsolf, D. S., & Zeller, 1998). A double translation technique was used to prepare the Persian form of the co-dependency assessment tool. First, the questionnaire was translated independently into Persian by two researchers. The two translations were converted to one form after a joint meeting and solving the challenges, and then it was reviewed by a specialist in the Persian language literature, a specialist in English and two psychologists, and probable corrections were made. In the next step, the translated version was translated again to English by one of the PhD students of the English language literature. After the translated version and the original version were matched, the existing problems were resolved and the prepared questionnaire was ready to be used. Before the main implementation, the prepared version was implemented in a pilot study on 60 students selected through convenient sampling. The purpose of the pilot study was to obtain

feedback from the participants on the questionnaire's instructions, understanding the content of the questions and possible corrections in the items.

2- Jackson Five Factor Inventory (2009): This questionnaire includes 30 items with five subscales of the behavioral activation system, the behavioral inhibition system and the fight/flight/ freeze system. For each subscale, 6 items are considered. Responses are rated on a five-point Likert scale from 1 (strongly disagree) to 5 (strongly agree). Persian version of this scale is developed by Hassani, Salehi and Azad (2012). In the Persian version, the Cronbach's Alpha was (0.72 to 0.88), the coefficients of test re-test (0.64, 0.78) and the correlation of the set of items (0.28 to 0.68).

3- Attachment Style Questionnaire of Hazen & Shaver (1987): The attachment scale is developed by Hazen and Shaver in 1987 and is standardized by Besharat (2011) on students at the University of Tehran. The Cronbach's alpha coefficients of the questions of each of the secure, avoidant and ambivalent attachment styles for a sample of 240 people for the whole participants were 0.74, 0.71, 0.69 for female students and 0.72, 0.71 and 0.72 for male students, respectively indicating the suitable internal consistency of this scale.

Findings

Based on the results, the age range of the participants was 18 to 44 with a mean (standard deviation) of 23.38 (4.34). Based on the level of education, 265 (61.6%) had bachelor's degree, 140 (32.6%) had master's degrees and 25 (5.8%) had PhD. Before the validation of the Farsi version of the codependency instrument, the item analysis was done first. Cronbach's alpha was 0.283 for 25 questions. The coefficients of the diagnosis of the questions showed that all the questions other than the item 20 (in my childhood, my family expressed their emotions and feelings clearly), which belongs to the subscale of the original family issues, there was an acceptable correlation with the score of total scale. This question had a weak correlation with other questions and in the factor analysis, the factor load was less than 0.3. Before removing item 20 from the subscale of original family issues, the Cronbach's alpha coefficient of subscale in men, women and all subjects was 0.58, 0.61 and 0.61, respectively, but with the elimination of the Cronbach's Alpha coefficient, it was 0.74, 0.83 and 0.77 respectively. The internal consistency and stability method was used to evaluate the Persian form of codependency assessment tool. In examining the internal consistency of the questionnaire, Cronbach's alpha was calculated individually for men, women and all subjects. To test the stability of the questionnaire, a test re-test method was used. For this purpose, 60 participants responded the Farsi version of the codependency assessment tool in a 4-week interval. The Pearson correlation coefficient was calculated between the scores obtained from the two implementations. Table 1 shows the mean, standard deviation, Cronbach's alpha coefficients, and test retest of subscales and the total score of the Persian form of the codependency assessment tool based on gender.

Table 1: Descriptive Statistics and Cronbach Alpha Coefficients and Test Retest of Persian Form of Codependency Assessment Tool

Subscales	*Groups*			*Cronbach's alpha*			*Test re-test coefficients*
	Man M(SD)	*Woman M(SD)*	*Total M(SD)*	*Man*	*Woman*	*Total*	
Other-focus self-neglect	14/02 (3/73)	12/77 (3/20)	13/12 (3/40)	0/58	0/73	0/67	0/82***
Self-worth	9/46 (3/67)	9/87 (3/69)	9/75 (3/68)	0/79	0/80	0/79	0/88***
Hiding self	13/28 (3/53)	12/24 (3/04)	12/53 (3/21)	0/54	0/75	0/62	0/87***
Medical problems	10/21 (4/16)	9/59 (4/08)	9/72 (4/11)	0/77	0/81	0/78	0/88***
Original family issues	12/12 (3/41)	11/51 (3/52)	11/68 (3/49)	0/74	0/83	0/77	0/84***
Total score	59/09 (13/25)	55/98 (10/98)	56/84 (11/72)	0/80	0/88	0/83	0/87***

*** P< 0/001

The results of Table 1 show that the Cronbach's alpha coefficients for all of the scales and the total score of the Persian form of the co-dependency assessment tool is satisfactory and test re-test coefficients are significant and suitable. In order to investigate the factor structure (construct validity) of the Persian form of the codependency assessment tool, a confirmatory factor analysis with the Maximum likelihood method at the level of variance covariance matrix was used. The results of the tests of Kaiser-Meyer-Olkin Measure of Sampling Adequacy (0.89) and Bartlett's Test of Sphericity)(Chi-square=3479, p<0.001) indicates that sample size is desirable and factorial ability of scale items can be shown. For full fitness of the model with the data, we tried to improve the model by releasing some parameters based on the modification indexes. To this end, based on the proposed indicators of the model, the results of Varimax rotational exploratory factor analysis and considering the correlation between the obtained factors, several parameters were released. The path diagram of the confirmatory factor analysis after the release of these parameters along with path coefficients and initial fit indices are shown in Fig. 1. In the next step, model fitness was evaluated based on chi-square index, Comparative Fit Index (CFI), Normed Fit Index (NFI)

Relative Fit Index (RFI), Standardized Root Mean Square Residual (SRMR), Root Mean Square Error of Approximation (RMSEA), Goodness of Fit Index (GFI) and Akaike Information Criterion (AIC) and the results are presented in Table 2.

Table 2- The Fit Indices of Confirmatory Factor Analysis of Persian Form of Codependency Assessment Tool

Chi-square	*Df*	*CFI*	*NFI*	*RFI*	*GFI*	*SRMR*	*REMSEA*	*AIC*
705/13	265	0/92	0/88	0/86	0/88	0/064	0/063	853/19

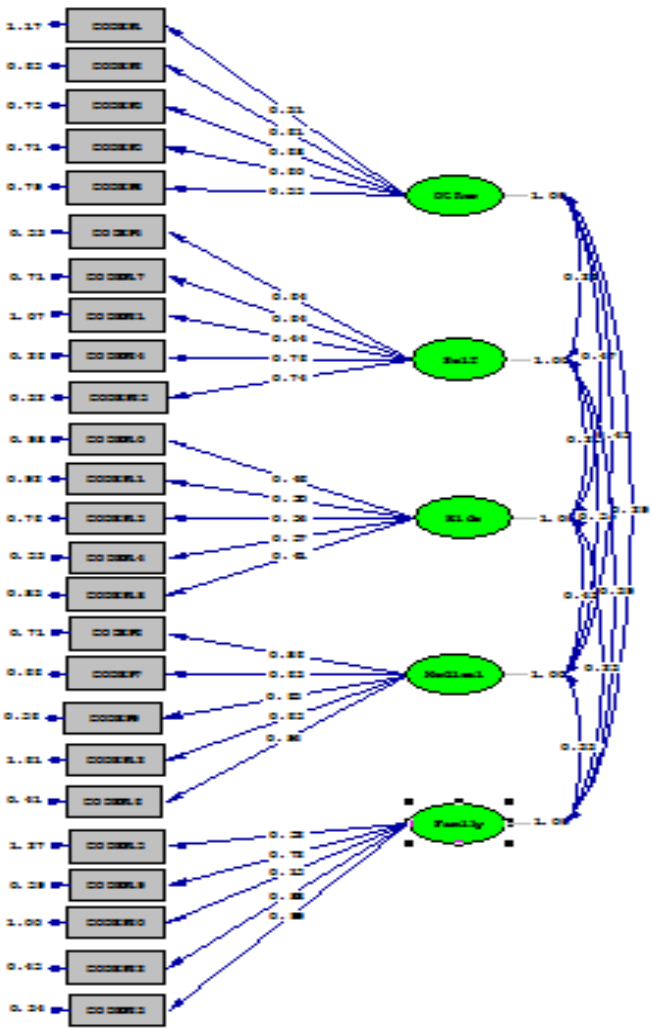

Figure 1: Path Coefficient Chart of Confirmatory Factor Analysis of Farsi Form of Codependence Assessment Tool

The closer the comparative fit indices, normed fit index, relative fit and goodness of fit to 1, it represents the optimal fit of the model. However, to evaluate the goodness of fit, the Chi square index is commonly used the chi-square increases with increasing sample size and the degree of freedom. For this reason, Hu, & Bentler (1999) recommended using the two indices of Standardized Root Mean Square Residual (SRMR), Root Mean Square Error of Approximation (RMSEA). According to Schermelleh-Engel et al. (2003), the Standardized Root Mean Square Residual between 0 and 0.05 indicates a good fit and 0.05 to 0.10 indicates acceptable fit for the model. Also, Root Mean

Square Error of Approximation (RMSEA) between 0 and 0.05 indicates good fit and 0.05 to 0.08 indicates acceptable fitness. Therefore, according to the values in Table 2, the standardized coefficients and the t index, we can say that the confirmatory model has an acceptable fit. Table 3 indicates the results of confirmatory factor analysis.

Table 3: Standard Coefficients and T Indicators of Confirmatory Factor Analysis of Farsi Form of Co-Dependency Assessment Tool

Subscales	*Items*	*Standard coefficients*	*Explanation coefficient*	*T index*
Other focus	1	0/31	0/07	4/83
	2	0/61	0/36	11/34
	3	0/68	0/38	11/64
	5	0/60	0/34	10/84
	8	0/55	0/28	9/80
Self-worth	4	0/64	0/44	14/49
	17	0/64	0/36	12/87
	21	0/44	0/15	19/64
	24	0/76	0/69	7/58
	25	0/74	0/63	18/36
Hiding self	10	0/46	0/18	7/36
	11	0/50	0/22	8/13
	13	0/65	0/21	7/11
	14	0/57	0/38	9/27
	18	0/41	0/17	10/83
Medical problems	6	0/86	0/51	13/70
	7	0/63	0/37	15/66
	9	0/63	0/41	12/79
	12	0/65	0/21	9/16
	16	0/84	0/64	18/11
Original family issues	15	0/52	0/18	8/46
	19	0/72	0/46	14/91
	20	0/15	0/02	2/89
	22	0/88	0/64	18/19
	23	0/99	0/74	20/12

The validity of Farsi version of the codependency assessment tool was investigated through criterion validity and correlation between subscales. In evaluating the validity of the criterion, the concurrent validity (simultaneous implementation with Jackson's 5-factor inventory and attachment scale) was used. These results are presented in Table 4.

Table 4: Matrix of Correlation Coefficients between Subscales of Codependency and Their Relationship with Behavioral Brain Systems and Attachment Styles

Subscales	*1*	*2*	*3*	*4*	*5*	*Behavioral brain systems*						*Attachment styles*	
						BAS	*BIS*	*Fight*	*Escape*	*Freeze*	*Secure*	*Avoidant*	*Ambivalent*
Other-focus (1)	-	-	-	-	-	0/07	0/28*	0/20*	0/09	0/17*	-0/03	0/16*	0/31*
Self-worth (20	0/23	-	-	-	-	-0/08	0/09	0/02	0/19*	0/44*	0/19*	0/31*	0/30*
Hiding self (3)	0/31	0/20	-	-	-	-0/02	0/04	-0/04	-0/04	0/13*	0/04	0/17*	0/16*
Medical problems (4)	0/33	0/48	0/29	-	-	-0/12*	0/04	0/16*	0/17*	-0/30*	0/04	0/20*	0/30*
Original family issues (5)	0/21	0/31	0/16	0/27	-	0/06	0/06	0/07	0/07	0/17*	0/05	0/15*	0/23*
Total score	0/62	0/70	0/53	0/76	0/59	-0/03	0/15*	0/13*	0/16*	0/38*	0/09	0/31*	0/41*

* P< 0/001

The correlation coefficient between subscales in Table 4 shows that there is a good internal consistency between the subscales. Also, the correlation coefficient model of the sub-scales with the activity of brain-behavioral systems and attachment styles indicates that the good concurrent validity of the Persian form of codependency assessment tool.

Discussion and Conclusion

The purpose of the present study was to develop a Persian version of the codependency inventory and evaluation of the psychometric properties, factor structure, validity and reliability in Iranian student society. In the dimension of the reliability of the codependency questionnaire, the range of Cronbach's alpha coefficients (0.54-0.88) and the correlations of the set of items (0.16-0.48) indicated the suitable internal consistency of the scale. Also, the test-retest coefficients (0.82-0.88) imply the stability of the total scale and its subscales. These results are consistent with the findings of Hughes-Hammer, Martsolf & Zeller (1998), Loucks (2005) and Ançel & Kabakçi 2009) who report good reliability and factor analysis with five subscales, and indicate good reliability of total scale and the subscales of the Persian version of codependency questionnaire .

Regarding the correlation between the subscales of the questionnaire and the activity of brain-behavioral systems and attachment styles, it can be concluded that this questionnaire has a suitable criterion correlation. In the present study, to evaluate the factor structure and construct validity of the Persian version of

codependency questionnaire, both methods of confirmatory factor analysis and explorative factor analysis and correlation of subscales were used. The results of factor analysis showed that the Persian version of the questionnaire consists of five main factors and the distribution of the items of subscales is consistent with the main test. Also, the observed correlation model between the subscales of the questionnaire showed the multidimensionality of the version of the codependency questionnaire and the relative independence of its subscales. In addition, the correlation coefficient model of the subscales of the Persian version of codependency questionnaire with behavioral brain systems and attachment styles showed that it has acceptable criterion validity.

Addiction disorders have always been a disorder with high relapse and high failure rates. Unfortunately, the various treatments used in this area are still with high relapse rate; this also becomes more significant in treating the types of addiction. Codependency is one aspect that plays an important role in one's relationship with the family. Codependency is associated with the various factors of the addict, such as vulnerability, persistence of addiction, comorbid disorders, problem-solving styles, continuity of harmful relations, and disorder relapse (Ivanova & Giannouli, 2016). Regarding the psychosocial and interpersonal problems, codependence also plays an important role. For example, we can refer to interpersonal relationships between couples, parents and children, and, in general, family members, which can be negatively affected by codependency and lead to communication problems and sometimes individual problems for family members. Assessment in this topic is the first step, and after assessment, therapies and interventions designs can be performed. Addiction treatment should consider all aspects of the addicts' life, short-term interventions that do not take into account all dimensions of the individual's life are failed in the long run (Ali Pour, Moradi and Hassani, 2015). Codependency is also one of these dimensions that play an important role in the addict's family. In sum, despite the suitable validity and reliability coefficients of the Farsi version of the codependency questionnaire, ease of use and the conditions of use in different situations and groups, enables researchers to make extensive use of this scale in various clinical research and psychology fields. It is worth noting that along with the strengths of this scale, one should pay attention to the limitations of the present study. First, the participants are selected from the university. This sample may not be representative of the general population. Therefore, it is recommended that further researches be carried out with samples that represent the general population and even we can perform the research with the clinical populations to evaluate the separated validity of scale and the standardization of this test in the community of addicts are the further recommendations. Second, the present study was conducted with self-report data. These data are inherently exposed to bias. Therefore, it is better to investigate the psychometric properties of the Persian version of the codependency questionnaire with other measurement methods such as structured clinical interviews, peer and family

rating, or behavioral measurements. Also, based on the effect of codependency on addiction disorder process, it is suggested to study the psychometric properties of this scale in the addicts' society, especially due to the difference in the difference of addictive disorders spectrum in psychological variables (Alipour, Saeedpour And Moradi, 2016; Alipour, Saeedpour and Hassani, 2015) based on the different types of addiction. Finally, based on the findings of the present study, it can be concluded that the Persian version of the codependency questionnaire with the proper psychometric properties, can be used in different clinical and research situations, use the questionnaire in different normal and abnormal groups and is correlated with other scales

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