Original Research

Psychometric Features of Readiness to Addiction Questionnaire and Its Relationship with Students' Anxiety in Tehran

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Abstract:

Background: The main purpose of this research is to investigate the psychometric properties of addiction readiness questionnaire and its relationship with anxiety. The research population included all female and male students of Tehran universities who were studying in the academic year of 2021-02, from which 400 people were selected as a sample by cluster sampling method.

Method: In order to collect research data from questionnaires; 1) Addiction Readiness Questionnaire 2) Cattle Anxiety Questionnaire. The collected data were analyzed with the help of descriptive and inferential statistics with the aim of examining four research hypotheses and using SPSS statistical software. Cronbach's alpha method was used to determine the validity of the researched tool, and by using this method, the validity of this questionnaire in the present study was 0.931. Principal component analysis was used to check construct validity.

Results: By using Varimax rotation and according to the assumptions of factor analysis, the variance explanation percentage and the slope of the graph were finally extracted for 3 factors (passive readiness, active readiness and behavioral readiness). The factor matrix showed that the first factor has the highest factor load and its share was more than other factors. Next, standardized scores were prepared using Z and T scores, and finally, the relationship between anxiety and readiness for addiction was investigated, and the results showed, there is a positive and significant relationship between anxiety and readiness for addiction.

Conclusion: The results of the study showed that the level of activity of the nervous system explains the relationship between anxiety and drug craving during the process of drug abstinence. Also, stopping the use of drugs can lead to a state of anxiety and tension in a person.

Keywords: Psychometric Features, Readiness for Addiction, Norm, Exploratory Factor Analysis, Anxiety

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Introduction

Substance abuse among young people is one of the health, social and economic problems of today's world, which has a direct impact on their health (1). Substance abuse and health problems caused by it are considered as a global concern and are considered as one of the serious threatening behaviors of teenagers (2). Addiction is the repeated consumption of one or more psychoactive substances to the extent that the user or addict suffers periodic or chronic poisoning from it, has a compulsion to consume the substance, it is very difficult to voluntarily stop or reduce it, and a clear determination to acquire the substance show by any possible means (2).

In 1964, the World Health Organization , acknowledging the ambiguity of the aforementioned definition, suggests the use of the term "substance dependence" without providing a clear definition of it. Finally, with the emergence of the "American Psychiatric Association" classification, due to the derogatory nature of the term addiction as well as its ambiguity, the term dependence is accepted instead of addiction, and the following definitions are provided for dependence and abuse: Substance dependence is a pattern of non-adaptive use of substances that leads to suffering (distress) or significant clinical disorder so that at least three of the following manifestations are seen within a twelve-month period:

Substance abuse is a pattern of maladaptive use of substances that leads to distress or clinically significant impairment, such that at least one of the following manifestations is seen within a twelve-month period: inability to fulfill work, academic, or family obligations, frequent substance use in situations with physical risk (such as driving), repeatedly getting into legal problems, continuing to use despite the persistence and repetition of problems. However, the term addiction continued to be used in many reliable sources until in 2001, the "American Society of Addiction Medicine" coincidentally provided the following definition for addiction: Addiction is a primary and chronic neurological disease. –It is biological (neurobiological) whose appearance and manifestations are influenced by hereditary and psychological factors–It is social and environmental (3).

Opiate substance or so called addiction can be seen in all occupations, levels and economic and social classes and it is not specific to certain people or strata (4). Addiction means a pathological dependence on the consumption of one or more types of narcotics, which causes drug-seeking behaviors, and if the desired drug is not consumed, symptoms of deprivation appear in the addicted person (5).

According to the 10th International Classification of Disorders the final diagnosis of addiction requires the presence of three of the following six criteria: strong desire to use drugs, problems in controlling drug use, persistence in drug use despite knowing its harmful consequences, extreme preference for drug use over other activities and tasks, tolerance Increased medication and the existence of some physical states of substance withdrawal (World Health Organization , 2007). The National Institute on Substance Abuse has estimated that one out of ten Americans over the age of 12 has a substance abuse problem (6). Similarly, according to the latest reports from the Secretariat of the Anti-Narcotics Headquarters of the Planning Office (2013) in the rapid assessment of the situation of drug abuse and addiction in Iran, the number of drug addicts in the country in 2013 is estimated at 1,200,000 (7).

According to the research results, the prevalence of addiction is higher in men than in women (Sadok and Sadok, 2007; Rezaei, 2011; Zare et al. 2019). This disorder has the highest prevalence in some groups, it is shown as an example. That a significant part of the students (39.3%) have consumed at least one drug during their life (8).

On the other hand, in addition to the high prevalence and pervasiveness of addiction in different strata and classes, this phenomenon also has destructive effects and irreparable

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consequences because the undeniable connection of drug use and abuse with other deviations and problems such as mental disorders, running away from home, Aggression and violence have been shown in social behaviors, theft, delinquency, academic failure, academic apathy, attempted suicide, and prostitution (2).

Also, the rapid spread of drug use and related problems in the student population and the presence of laboratory materials such as glass and its harmful consequences such as lack of academic motivation, academic failure, physical and mental illnesses, suicide, reckless driving, destruction of public property, aggressive behaviors, feeling of identitylessness and risky sexual behaviors. It shows the necessity of planning and formulating preventive intervention solutions for addiction in universities. Transient reasons have also been mentioned for the tendency of people to different types of drugs. Clinical researchers have identified various variables as predictors of drug dependence, including the cultural environment. – Social, interpersonal factors, psychological factors–Behavioral and biological and genetic factors. Therefore, assuming that preventing people from getting addicted to drugs and preventing it is easier than treating this disorder. Therefore, identifying and working on people who have a tendency to addiction and more importantly, readiness for addiction potential they are probably the best tool. Readiness for addiction is a person's readiness to use drugs, in other words, people who are more at risk of addiction have a higher readiness for addiction (9).

On the other hand, some types of mental disorders are related to drug use (10). Mental well-being is one of the basic components of the World Health Organization's definition of health. Mental health allows people to know their abilities, cope with the normal stresses of life, work effectively and contribute to their society (World Health Organization, 2013). Two cases of psychological disorders are depression and anger. Based on the research findings of Skidmore, Kaufman and Crowell (2016) Students in the early years of entering university are more at risk of drug use than other groups (11). Tarmian et al (2018) stated that depression predicts substance abuse (12). Walters, Ballmer, Torviano, Obiaka and Bonhomme (2018) also studied the relationship between drug use and depression and anxiety among college students. These researchers concluded that depression symptoms are associated with the use of cannabis, tobacco, amphetamine, cocaine, sedatives and hallucinogens (13). Anger is another variable that has attracted the attention of researchers. Researchers believe that a person's inability to express emotions is related to anger, and this issue can act as one of the main drivers of drug relapse. Soltani and Mehrabi (2013) also showed that anger and depression are seen among drug users and are among the most important predictors of addiction severity (13).

According to Hirschi's theory of social control (1969; cited by Bahrami, 2013), pressure or exhaustion is realized due to the distance between the teenager's dreams and his perception of the availability of the necessary conditions to achieve those dreams (14). According to this point of view, a teenager who has not achieved his hopes and dreams and educational and career goals due to unfavorable educational and occupational conditions, does not feel any obligation towards the society and its values, and tends towards deviant peers who encourage drug use and according to Bandura's social learning theory, exposure and communication with friends and parents who are drug users affects people's attitude towards drugs in a positive way. The research of Garavand and Sabzian (2018) showed that the possibility of not achieving dreams causes mental illness such as depression and anxiety in students (15). Based on this, it is clear that drug use among students is a multifactorial phenomenon, and this has important applications in conceptualizing potential levels of intervention to prevent drug use. Although researches have studied the relationship of these factors separately, all variables have not been investigated in one model.

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Considering the importance of the tendency to addiction, researchers are looking for factors or predictor variables on the formation of its types, reviews and theories about addiction indicate that in addition to the stated factors that can be part of the factors of preparation for addiction, the use and abuse of substances. They have a multidimensional nature. On the other hand, the readiness to suffer from addiction, which according to the United Nations report, we have witnessed an increase among Iranian youth in the last few years, is actually a chronic recurring disorder that is associated with countless issues in the medical, psychiatric, family, legal, financial and spiritual fields. And not only does it overshadow the individual's life, but it has created many shortcomings and inconveniences for the family and society and imposes a lot of burden on them. According to many issues, drug addiction can be caused by high levels of negative emotions, but the question arises why all those who are under psychological pressure do not turn to drug use to reduce their tension, so in addition to emotional factors, the discussion of personality characteristics and environmental conditions will also be an effective factor in this field. On the other hand, at the theoretical level, explaining the relationship between the levels of negative emotions, such as anxiety and the degree of readiness to suffer from addiction, leads to the confirmation of assumptions and the expansion of existing concepts and hypotheses in this field, and provides a deeper understanding of how people are formed and transformed. They shake hands at the same level, the investigation of related and effective factors in the readiness to suffer from addiction and anxiety will lead to a more accurate understanding of how environmental and situational factors interact in the formation and evolution of life. These findings can be useful for evolutionary, educational and therapeutic theories. The common biological, psychological and social basis is not tested by experience. In other words, most of the written materials were based on history and written literature, therefore, while maintaining the principles related to culture and the structure of family and social values, necessary measures should be taken to experience experimental models and use overseas achievements in the form of Iranian standards.

It is obvious that the urgent and urgent need for psychological tests, especially the tools that help us in evaluating the personality of Iranian people, recognizing their psychosocial characteristics and treating them, should not cause the fundamentals and scientific principles of psychometrics to be ignored.

In this regard, considering that addiction is a common and pervasive phenomenon and has irreparable consequences, and as stated in previous articles, drug use and related problems are increasing in the student population (Perkins, 2002). The fact that students are the future builders of any society and considering that mental disorder such as anxiety disorder that makes people prone to drug use and has a significant relationship with drug use, in this research, an attempt was made to examine the validity and psychometric properties of the Addiction Readiness Questionnaire among Tehran students should be paid.

Based on the mentioned contents, the following questions arise;

1. Does the readiness scale for addiction have sufficient validity in students?
2. Does the addiction readiness questionnaire have the necessary validity in students?
3. Does the addiction readiness questionnaire have the right software?
4. Is there a relationship between preparation for addiction and students' anxiety level?

Theoretical framework:

Readiness to Addiction: Addiction is a physical, mental, social and spiritual disease, and its unpleasant consequences are one of the most important concerns of societies and one of the most unfortunate social harms, and it has attracted the attention of mental health experts for a long time. (8).

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Anxiety: Anxiety is an unpleasant emotion that we all have experienced in the form of words such as "anxiety", "worry", "tension" and "fear".

Methods

The research method used in this research is descriptive. In this community research, all male and female undergraduate students of public universities in Tehran are in the academic year of 2021-2022. The sampling method in this study is multi-stage cluster sampling. In this way, three universities (Tehran University, Allameh Tabatabai University, Beheshti University) were selected and randomly invited to complete the questionnaire according to the population of male and female students in each faculty. The number of investigated variables, data analysis method and the sample size were estimated to be around 400 according to Morgan's sampling table. And the questionnaires were distributed and collected among 400 people, but at the time of entering the data into the software, it was found that some of the questionnaires were incomplete and the questions were not fully answered, so they were excluded from the analysis. The construct validity of the scale by correlating it with the 25-item scale of the clinical symptom inventory (SCL-25)0.45 has been calculated, which was significant at the 95% confidence level. Also, the reliability of the scale was calculated using Cronbach's alpha (0.90), which is at the optimal level. In this research study, two Iranian addiction readiness test questionnaires and Cattle anxiety test were used. Questionnaire scale Anxiety Kettle has 40 three-choice questions. The Iranian Addiction Questionnaire consists of two factors and has 35 questions plus 5 lie detector questions. In the first factor (active readiness), most questions are related to antisocial behaviors, desire to use drugs, and thrill seeking, and in the second factor (passive readiness), most questions are related to lack of self-expression.

In this study, descriptive and inferential statistics have been used to analyze the results. In the descriptive index section, frequency distribution tables, percentages and calculation of central tendency and purity indices such as mean and variance were used, and in the inferential statistics section, exploratory factor analysis was used to identify the factor structure of the questionnaire, and Cronbach's alpha was used to check reliability. T and z scores were used to form the soft and norm table, and Pearson's correlation test was used to investigate the relationship between anxiety and readiness for addiction.

Results

Descriptive indicators of research variables

In table (1) the descriptive indicators of "maximum, minimum, mean and standard deviation" of the research variables are reported.

One of the assumptions of parametric statistics is the normality of the data, which is discussed in the following.

Checking the normality of the distribution of variables

The results of the Kolmogorov-Smirnov test for each of the research variables are shown in Table (2). Because the value of the significance level for all variables is higher than 0.05, then the null hypothesis is confirmed as a result of the normality of the distribution of these components with a confidence level of 95%.

Considering that the KS test showed that the distribution of the research components is normal; Therefore, appropriate methods of parametric statistics are used to check these research hypotheses.

Inferential findings

In this section, appropriate answers to the research questions are found using inferential statistics indicators. The results of these analyzes are examined separately for each question.

The first question: Is the readiness scale for addiction valid enough for students?

The following table shows the descriptive indexes of the questions (including the correlation of the question with the whole test and the reliability coefficients of the rest of the questions by removing each question). In this table, the correlation of each item with the total score of the questionnaire is calculated and reported, which

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indicates the relative desirability of the coefficients and the acceptability of most of the questions of the questionnaire.

The results obtained from the analysis of the questions of readiness to addiction scale based on loop method in table 4, as can be seen, questions 1, 4, 6, 9, 12, 15, 21, 22, 33, 35, 37 have the lowest correlation (0.3) are therefore left out of the analysis. In the fourth part of the table related to Cronbach's alpha if the question is removed, it is shown that there has not been much change in this Cronbach's alpha column and the reliability of all questions is higher than 0.930.

The second question: Does the addiction readiness questionnaire have the necessary validity in students?

In order to perform exploratory factor analysis, its assumptions were first examined, the results of which will be presented below.

a) Presumption of sufficient sample size and presumption of linear multiplicity: Factor analysis requires a large sample size, usually more than 300 people. SPSS software calculates the Kaiser-Meier-Oklin (KMO) index to check the adequacy of the sample size. This index is a number between zero and one. The index provided by SPSS for the default test of linear multiplicity is also the index of Sphericity-Bartlett symmetry. This index is reported as Chi-square. If the probability of this index is 0.05 or less (chi-square is significant), the correlation matrix is suitable for factor analysis and the assumption of non-linear multiplicity is met.

In order to ensure that the correlation matrix, which is the basis of the factor analysis, is not equal to zero in the population, the Bartlett-Sphericity test is used. Significance of chi-square and Bartlett's test is the minimum necessary condition to perform factor analysis. In Bartlett's test, rejecting the null hypothesis indicates that the correlation matrix has significant information and the minimum necessary conditions for factor analysis are present. As shown in the table, the value of Bartlett's Sphericity statistic (1113.44) was significant at the 0.010 level, so the assumption of linear multiplicity is also established.

b) Presupposition of unity: To determine the number of extraction factors, the Keyser criterion and Scree Kettle criterion (Scree diagram) are usually used. According to the shortcomings of the Keyser criterion method, the number of factors for Miller's life expectancy scale will be extracted using the Scree Kettle method. Based on Kettle's pebble diagram, there are 3 factors in the sloped part of the diagram and they can be considered as a separate factor.

According to Scree Kettle's criteria, three factors were selected as the number of acceptable extraction factors and the necessary instructions were given to the software to perform exploratory factor analysis.

To extract the factors, the correlation matrix was used by principal component analysis method with Varimax rotation. Because the purpose of this study was to explain the total variance of the correlation matrix. Therefore, by giving the necessary inputs, the data was interpreted by SPSS software.

Based on Scree Kettle's criterion, also considering the factor structure of the original version of the current questionnaire, it was decided to extract 3 factors. Accordingly, the first factor is 47.117%of the variance, the second factor is 6.179% and the third factor is 3.691%. Also, three factors together explain 56.988% of the total variance.

According to the information in Table 6, it can be seen that the rotation factor matrix and its factor loadings have not obtained a meaningful structure, so it was decided to use the Varimax rotation method to discover the overall body of questionnaire materials and to identify a simpler structure. It is possible to show the main and relatively clear lines to reach effective solutions. The factor matrix of the data has reached the best combination of structure and questions after 15 experimental rotations, the results of which can be seen in the table below.

Table 7 shows the factor indices after 15 times of Varimax rotation. The reliability of the final form

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of each component was recalculated. In the following, the table related to the naming of the factors and the summary of the changes in the questionnaire components are presented. Table 8 of the questions related to each of the three factors after the target of 11 questions is presented, it also shows the names of the factors and the corresponding Cronbach's alpha coefficient.

The third question: Is the addiction readiness questionnaire suitable?

Table 9 is the norm related to the addiction readiness scale scores, which in the first column is related to the raw scores, the second column is the standard Z scores, and the third column is related to the standard T score. The Z index is a basic standardized score and it is the result of dividing the deviation of the raw scores from the mean by the standard deviation and the T index is the result of converting the Z scores into a distribution with a mean of 50 and a standard deviation of 10. According to the soft scores, it is possible to judge how many percent of the people in the sample scored above a certain point in this scale. Is.

Question 4: Is there a relationship between readiness for addiction and students' level of anxiety?

Pearson's correlation statistical method was used to investigate the fourth question, considering that the data of the questionnaires are normal and the scale of the questionnaires is at the interval level.

As it is inferred from the results of table (10) related to the Pearson correlation between readiness for addiction and anxiety, there is a positive correlation (0.426) between readiness for addiction and anxiety, which is statistically significant with 99% confidence. It is significant (P = 0.001). The positive correlation of these two variables shows that with a high level of anxiety, a person's tendency to addiction will be high; Therefore, in response to the four research questions, according to the results, the existence of a relationship between active and passive addiction readiness and anxiety is confirmed

Discussion

Some phenomena of social and human issues have a sensitive nature, unclear structure and apparently hidden function. On the one hand, these phenomena and issues tend to remain hidden, and on the other hand, like the flow of a river, they have a calm appearance and a boisterous, elastic and powerful interior, and they overcome any obstacle and move forward. An example of these phenomena and issues is addiction and drug use (16).

Drug use has existed for a long time in different regions of the world, either as a part of traditional ceremonies or as a means of accommodation (Kaldi and Mahdavi, 2012). Humans have been using drugs for at least 3500 years (Sadok and Sadok) today, drug addiction is one of the most important public health problems in societies, many people suffer from drug use disorders throughout their lives, and every year many people die as a direct and indirect consequence of drug use (1). Nations and governments all over the world are facing the problem of drugs and addiction, a danger that was unimaginable a generation ago with this magnitude and scale, this phenomenon affects the life and health of people and political and economic development in many ways, and even the stability and survival of governments. This acts as an obstacle to social development, and the social and economic damages caused by the abuse of these substances severely affect the social infrastructure of countries. Iran, due to its cultural, social and misconceptions, and its neighborhood with Afghanistan as the largest producer of drugs in the world, has suitable conditions for turning to drugs and becoming dependent on them. In our country, the first efforts were aimed at reducing the supply of opioids, and less attention was paid to reducing the demand, and nowadays the cultural struggle with the problem of addiction and lowering the level of demand has been prioritized (7). It is assumed that preventing people from getting addicted to drugs and preventing it is easier than treating this disorder. It seems necessary to have

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an efficient and standardized tool to identify susceptible people, so this research was conducted with the aim of investigating the psychometric properties of the readiness to addiction questionnaire, which in this section will be discussed in more detail on several main axes.

The findings of the first question of the research indicate that these coefficients are high for all the components as well as the total score, so it can be said that both the whole scale and all the components have good reliability. The results obtained in this realization are in line with the researches of Gravand et al. (2018) (15), Walters et al., (2018) (5), Rezaei et al. (2015) (3).

In examining the second question the components of the first factor are related to the dimension of active preparation, which in the original version includes 26 questions. In this research, by conducting an exploratory factor analysis on the sample of Tehran students, the factor is composed of 19 questions. Also, regarding the second factor, which is related to the passive preparation factor, in the original version contains 10 questions, which have been changed to 7 questions. In this research, the third factor was found to have four separate questions.

According to the third question, it was determined how much the score obtained in the target scale is higher and lower than that of other people, which indicates the power of addiction readiness questionnaire.

Based on the fourth question the results of Pearson's correlation between readiness for addiction and level of anxiety showed that there is a significant relationship between addiction readiness (active readiness, passive readiness and behavioral readiness) and anxiety, so that addiction readiness as a general attribute has a positive relationship at the 99% confidence level (426 0.001) and significant (0.001) with anxiety. This statistical result conceptually means that people with a higher level of anxiety are more likely to be addicted to a higher degree.

In explaining this hypothesis, it can be said that etiology studies of individual factors such as disorders and mental illnesses, including anxiety, are among the factors of addiction. Among patients who seek treatment for drug abuse, three-quarters have a history of psychiatric disorders, and two-thirds have psychiatric disorders along with substance abuse (6, 18-21). Researches regarding substance abuse and dependence have emphasized the relationship between anxiety and addiction and have considered substance use as an non nonproductive that can act as a vicious cycle and cause continued use. Research has shown that people with anxiety or mood disorders are more addicted than the general population, and it has also seen that those who use drugs suffer from anxiety disorders (9). Therefore, psychiatric conditions such as anxiety disorder are an important risk factor for drug abuse, dependence and relapse (11). So that the findings of Rezaei and et al. (2015) (3) showed that there is a significant difference in the craving index between the two anxious and non-anxious groups, and the positive correlation between the two components of anxiety and craving was shown in the results. In terms of biological foundations, the activating structure of substance seeking or craving is affected by the excitement caused by anxiety in the brain circuits. In the study of Grillo (2010) (6), the role of corticotropin-releasing factor and adrenaline light pathways in the amygdalo circuit and direct and indirect interactions with the mesocortical dopamine system in causing anxiety during cocaine abstinence were investigated. The results of the study showed that the level of activity of the nervous system explains the relationship between anxiety and drug addiction during the process of drug abstinence. Also, stopping the use of cocaine can lead to a state of anxiety and tension in a person and cause slippage due to facing environmental stressors; Therefore, the results of this research are in agreement with the findings of Ronaji et al. (2018) (1), Goldway et al. (2023) (17), Walter et al. 2018) (5), Rezaei et al., (2015) (3) and Lerman et al., (2018) (9).

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Conclusion

Regarding the relationship between addiction preparation components (active preparation, passive preparation and behavioral preparation) and anxiety, we can also say; active preparation, passive preparation and behavioral preparation have a positive and significant relationship with the level of anxiety of people. This means that with a high level of anxiety in people, the level of active, passive and behavioral preparation will be higher.

Conflict of interest

The authors declare that they have no conflict of interest.

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Table/ Figure

Table 1. Descriptive characteristics of research variables

Variable	minimal	the maximum	you are crooked	Elongation	Mean	The standard deviation
Passive readiness	3	23	-02.	-040.	232.10	4974.3
Active readiness	3	70	03.	-03.	09.39	287.16
Obvious anxiety	16	52	-66.	-310.	23.35	2672.7
hidden anxiety	22	59	-33.	-221.	507.38	4125.7

Table 2. Test results for the normality of research components

Component	Significance Level (P)	Proving Hypothesis	Result
Passive of Readiness	0.052	H0	It is normal
Active Readiness	0.079	H0	It is normal
Obvious Anxiety	0.076	H0	It is normal
Hidden Anxiety	0.099	H0	It is normal

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Table 3. Reliability indicators for each question

Questions	Average scale if question is omitted	Variance of the scale if the question is omitted	Corrected question-total correlation	Cronbach's alpha if the question is omitted
1	34.53	697.384	0.260	0.931
2	14.53	368.369	0.655	0.927
3	61.52	368.369	0.706	0.927
4	07.53	190.366	0.107	0.932
5	12.53	881.389	0.436	0.931
6	59.53	017.400	0.206	0.927
7	65.52	368.369	0.493	0.927
8	40.53	368.369	0.808	0.932
9	18.53	190.366	0.155	0.931
10	42.53	881.389	0.512	0.927
11	74.52	697.384	0.677	0.927
12	15.53	368.403	0.271-	0.932
13	32.53	368.369	0.616	0.931
14	32.53	190.366	0.467	0.927
15	35.52	881.389	0.162	0.927
16	19.53	697.384	0.655	0.932
17	35.53	368.369	0.648	0.931
18	68.53	902.360	0.828	0.927
19	13.52	190.366	0.760	0.927
20	06.53	592.389	0.592	0.932
21	01.53	774.401	-0.266	0.931
22	07.53	368.369	0.101	0.932
23	18.52	368.369	0.710	0.927
24	74.53	370.371	0.555	0.928

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25	12.53	881.389	0.609	0.928
26	74.53	697.384	0.662	0.927
27	01.52	368.369	0.661	0.927
28	89.53	368.369	0.641	0.927
29	65.53	190.366	0.641	0.927
30	21.53	881.389	0.669	0.929
31	05.52	697.389	0.413	0.927
32	06.53	368.364	0.649	0.927
33	34.53	368.371	0.014	0.933
34	91.53	190.365	0.641	0.927
35	77.52	881.366	0.134	0.933
36	41.53	097.380	0.695	0.927
37	77.53	321.369	0.104	0.932
38	70.53	364.362	0.800	0.926
39	53.52	190.364	0.730	0.926
40	71.53	881.366	0.713	0.927
41	73.53	576.366	0.717	0.927

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Table 4. Sample size adequacy assumption test and linear multiplicity assumption

KMO	0.941	
chi square		699.6879
Degrees of freedom		435
meaningful		0.000

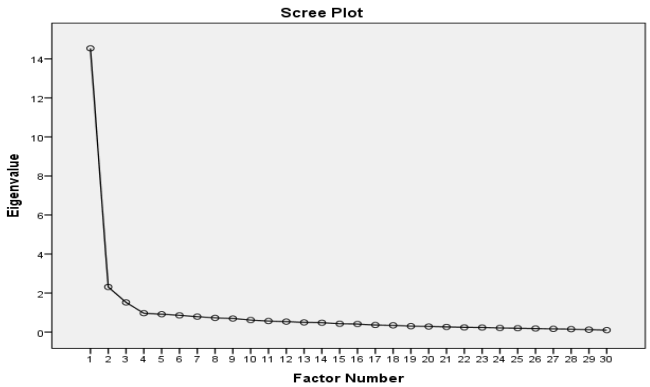


Diagram 1. Pebble diagram to specify the number of factors

Table 5. Matrix of factor indices before rotation

question	The first factor	The second factor	The third factor	question	The first factor	The second factor	The third factor
18	0.850			**26**	0.695		
8	0.840			**27**	0.696		
38	0.840			**17**	0.695	-0.368	0.438
19	0.794			**29**	0.692		
41	0.773			**32**	0.671		

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39	0.759			**34**	0.665		
40	0.752			**25**	0.636		
2	0.791			**13**	0.618	0.439	
3	0.733			**20**	0.585	0.357	
36	0.749	-0.335		**24**	0.562	0.387	
23	0.730		0.307	**10**	0.549	-0.320	0.453
11	0.720			**7**	0.540	0.409	
16	0.712	0.384		**14**	0.467	0.396	
28	0.700			**5**	0.446	0.429	
31	0.698			**30**	0.399		

Table 6. Matrix of factor indices after rotation

question	The first factor	The second factor	The third factor	question	The first factor	The second factor	The third factor
29	0.871			**16**	0.549		0.450
39	0.827			**25**	0.528		
28	0.774			**8**	0.489		
38	0.770			**34**	0.375		
3	0.760			**5**		0.721	
26	0.745			**13**		0.703	
41	0.741			**14**		0.679	

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2	0.741		**20**	0.672	
36	0.724		**24**	0.618	
27	0.709		**30**	0.555	
31	0.643		**32**	0.554	
40	0.592		**17**		0.899
19	0.588		**10**		0.861
18	0.562	0.355	**7**		0.717
11	0.549		**23**	0.301	0.566

Table 7. Questions related to each subscale of addiction readiness questionnaire

Row	Questions for each agent	Number	agent name	Cronbach's alpha
1	34-8-25-16-11-18-19-40-31-27-36-2-41-26-3-38-28-39-29	19	active	0.845
2	32-30-24-20-14-13-5	7	passive	0.805
2	17-10-23-7	4	behavioral	0.654

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Table 8. Quantitative norms of readiness for addiction

Row	Raw scores	Z scores	T scores	Row	Raw scores	Z scores	T scores
1	6	2.26-	27.37	48	53	0.21	11.52
2	7	2.21-	89.27	49	54	0.26	63.52
3	8	2.16-	42.28	50	55	0.32	16.53
4	9	11.2-	95.28	51	56	0.37	63.53
5	10	2.05-	47.9	52	57	0.42	21.54
6	11	00.2-	00.30	53	58	0.47	74.54
7	12	1.95	53.30	54	59	0.53	26.55
8	13	1.89	05.31	55	60	0.58	79.55
9	14	1.84	58.31	56	61	0.63	32.56
10	15	1.79	11.32	57	62	0.68	84.56
11	16	1.74	63.32	58	63	0.74	37.57
12	17	1.68	16.33	59	64	0.79	89.57
13	18	1.63	68.33	60	65	0.84	42.48
14	19	1.58	21.34	61	66	0.89	58.95
15	20	1.53	74.34	62	67	0.95	47.59
16	21	1.47	26.35	63	68	1.00	00.60
17	22	42.1-	76.35	64	69	1.05	53.60

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18	23	37.1-	32.36	65	70	11.1	05.61
19	24	1.32	84.36	66	71	1.16	58.61
20	25	1.26-	37.37	67	72	21.1	11.62
21	26	1.21-	89.37	68	73	26.1	63.32
22	27	1.16-	42.38	69	74	32.1	16.63
23	28	1.11-	95.38	70	75	37.1	68.63
24	29	1.05-	47.39	71	76	42.1	21.64
25	30	00.1-	00.40	72	77	47.1	74.64
26	31	-0.95	53.40	73	78	53.1	26.65
27	32	-0.89	05.41	74	79	58.1	76.65
28	33	-0.84	58.41	75	80	63.1	32.66
29	34	-0.79	11.42	76	81	68.1	84.66
30	35	-0.74	63.42	77	82	74.1	37.67
31	36	-0.68	16.43	78	83	79.1	89.67
32	37	-0.63	63.43	79	84	84.1	42.68
33	38	-0.58	21.44	80	85	89.1	95.68
34	39	-0.53	74.44	81	86	1.95	47.69
35	40	-0.47	26.45	82	87	05.2	00.70
36	41	-0.42	79.45	83	89	11.2	53.70
37	42	-0.37	32.46	84	90	16.2	05.71

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38	43	-0.32	84.46	85	91	2.21	58.71
39	44	0.26-	37.47	86	92	2.26	11.72
40	45	0.21-	89.47	87	93	32.2	63.72
41	46	0.16-	42.48	89	94	37.2	16.73
42	47	0.11-	95.48	90	95	42.2	68.73
43	48	0.05-	47.49	91	96	47.2	21.74
44	49	0.00	50.00	92	97	53.2	74.74
45	50	0.05	53.50				
46	51	0.11	05.51				
47	52	0.16	58.51				

Table 9. Regarding the Pearson correlation between readiness for addiction and anxiety

Variable	Number	Correlation	meaningful
Preparation for addiction (total)* anxiety	400	0.426	0.001
Preparation for active addiction *Anxiety	400	0.532	0.001
Preparation for passive addiction * Anxiety	400	0.367	0.001
Preparation for moral addiction * Anxiety	400	0.356	0.001

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