Emotional Intelligence, Motivation and Dysfunctional Attitude among Patients with Substance Use: Cognitive Behavior Therapy

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The study explores the significant predictive relationship between emotional intelligence, motivation, and dysfunctional attitude among substance use patients with the role of cognitive behavior therapy. The sample was comprised of 150 addictive patients. Among 150 patients, 40 were selected for intervention. The sample was divided into two groups of 20 each in the experimental and controlled groups. Participants were selected using a purposive sampling technique from Poly Clinic Jhelum, Punjab, Pakistan. To estimate the constructs following scales were used Trait Emotional Intelligence Questionnaire-Short Form Scale, Situational Motivation Scale, Dysfunctional Attitude Scale Short Form and Drug Abuse Screening Test all in Urdu. Patients with a high level of dysfunctional attitude were selected for intervention. For each participant, 12 sessions were planned. The statistical calculations were done using Statistical Package for Social Sciences(V-26). Regression analysis confirmed that emotional intelligence and motivation is a significant predictors of dysfunctional attitudes in substance used patients [R^2=.066; $F_{(2, 147)}$ = 5.198, p<.01] with 6.6% explained variation in the dysfunctional attitude due to emotional intelligence and motivation. The effectiveness of cognitive behavior therapy was also evident with the experimental groups mean score of emotional intelligence (M=78.6, M = 169.00), motivation (M=58.1, M = 92.10) and dysfunctional attitude (M=61.1, M = 26.00) pre and posttest scores. It indicates that Cognitive Behavior Therapy was effective in the treatment of drug addicts to deal with lower levels of motivation and emotional intelligence as well as higher dysfunctional attitudes.
Keywords: substance use, emotional intelligence, motivation, dysfunctional attitude, cognitive behavior therapy.

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Introduction

The world Drug Report 2021 witnessed that about 275 million people used drugs in the last year in the world. Among these more than 36 million experienced drug use disorders [1]. Further, in 2020, approximately 162.5 million individuals having an average age of 12 years or older were identified as suffering from substance use disorder which was related to their use of illicit drugs (13.5%) tobacco (18.7%), and alcohol (50.0%) [2]. The Diagnostic and Statistical Manual of Mental Disorders 5th Edition defines substance use disorders according to the criteria of 11 points. These include using a drug for a longer time and in excessive amount, unable to stop orreduce the drug use, difficulty in receiving, using, or recovering from the drug, excessive desire and needs for the drug, problem in working, problematic relationships due to drug use, unable to do societal, job-related, or leisure activities, putting oneself in danger, somatic or mental problems because of substance use, tolerance and withdrawal symptoms [3].

The substance oftenly used by patients may encounter many psychological issues. Among others, emotional intelligence was worth notifying. It is referring the capacity to recognize feelings of self and others, to motivate ourselves and to manage emotions well in ourselves and our relationships. An extensive review of 7 articles revealed that emotional intelligence was very less in people with drug abuse [4]. Further the motivation of substance abuse patients is also very important to be examined. Motivation is the driving force is internal which forces a person for completion of a task to satisfy a certain need that was unfinished [5]. While dealing with drug abusers' motivation to change oneself is considered the key feature. Research indicated patients that were not willing fortreatment of drug abuse had less motivation to be treated whereas the patients that were willing have more motivation for treatment [6]. Now the current study was done to foreseen that emotional intelligence and motivation as the determinant of the dysfunctional attitude of the substance use patient. If look at the definition of dysfunctional attitude, these are the induce adverse feelings of a person about his/herself, other people, and future aspirations [7]. Research conducted in 2017 on dysfunctional attitude confirmed that there was a direct association between the construct and the risk of developing drug abuse [8]. The literature gives a clear indication of a problem in the emotional intelligence, motivation, and dysfunctional attitude of the substance use patient. Therefore, the first objective of the study focuses on the predictive relationship between emotional intelligence and motivation in the dysfunctional attitude of substance abuse patients.

Further, it is important to foresee the intervention that can control these problems in substance abuse patients. For this cognitive behavior therapy was used as an intervention to handle the emotional intelligence, motivation, and dysfunctional attitude of the substance use patient.

Cognitive Behavior therapy is linked with the cognitive theory based on information processing. Cognitions are a person's interpretation and comprehended meanings based on individual experiences. The cognitive theory gives a description of one's emotions, physiological state, and behavioral tendencies as a result of a person's thinking style. The impulsive, unintended interpretations attached to a situation encountered currently are called automatic thoughts, and when these thoughts are misperceived Beck called it a dysfunctional automatic thought pattern. Cognitive behavior therapy techniques play a very important role in the treatment of substance use disorders. Different coping skills are useful for addictive patients like behavioral role-play; self-reported urges, stress management skills, and problem-solving skills [9]. Cognitive therapy is constructed on the base of the cognitive model, which describes how individuals' views and thoughts impact their behavior, emotions, and psychological reactions. Cognitive refers that how a person can give and assign meanings to

his thoughts. Automatic thoughts are stated as unplanned, spontaneous interpretations linked with particular events in the present. Perceptions of individuals are often dysfunctional and distorted when they are in troubled. The goal of this therapy is theindividual identify and learn about his automatic thoughts and correct his thoughts according to reality. It was also included how people with psychological problems feel and observe their events in life. If the perception of an individual is accurate and positive, then accurate thinking of realities will be present. But if inaccurate perception is present then depression, anxiety, hopelessness, anger, and psychological distress will be present.

Cognitive behavior therapy (CBT) focused on the patterns of thinking. These approaches focus on identifying distorted thinking that stamped out the problem and resolving the distortion after evaluating the reality. Further, there is a need to consider the behavior and motivation of other people along with coping the problematic situation through problem-solving skills. There must be a development of better confidence feeling one's capabilities.

It is also a helpful intervention in changing the behaviors by avoiding conflicting situation. Moreover, the role play technique can be used to handle difficult interaction patterns with others. The mind and the body can be relaxed through learning processes.

The effectiveness of cognitive behavior therapy for an addictive patient will be helpful to initiate effective programs and policies for substance use patients at the governmental level. Through cognitive behavior therapy, particular information about good health and how to enhance the coping skills related to the drug's use can be confirmed.

There were two major objectives of the study. First to investigate the emotional intelligence, motivation, and dysfunctional attitude in substance use patients, and second the role of cognitive behavior therapy in the treatment of emotional intelligence, motivation, and dysfunctional attitude in substance use patients.

Material and Methods.

There were two phases in this section of the study according to objectives.

 i. Find out the relationship between emotional intelligence, motivation and dysfunctional attitude among substance use patients.
 ii. Management of emotional intelligence, motivation and dysfunctional attitude through cognitive behavior therapy.

First phase of the study

To find out the relationship between emotional intelligence, motivation and dysfunctional attitude in substance use patients 150 participants were selected. The age range of the entire sample was from 19-70 years with mean age (of 20.40). The purposive sampling technique was utilized for selecting a sample from Poly Clinic Jhelum Punjab Pakistan. The purpose of selection was the diagnosed drugs patients that were registered in the center of the drug were included as a sample. In this study, the following demographic form and four questionnaires were utilized for collecting data Trait Emotional Intelligence Questionnaire-Short Form Scale [10], Situational Motivation Scale [11], Dysfunctional Attitude Scale Short Form [12], and Drug Abuse Screening Test [13] all in Urdu. Proper permission from authorities and doctors of the hospital was taken with the university reference letter. After taking permission from the doctor's, list of all patients from their hospital was taken. All participants were having requirement tosign an informed consent letter. Participants were explained in detail the purpose of the research. In the pre-treatment phase, the sample of 40 participants was selected from 150 participants for intervention in the experimental and control group. The experimental group was comprised of 20 participants, who received cognitive behavior therapy as an intervention. On the other hand the control group consists of 20 participants, who did not receive treatment. A sample of (n=40) participants was screened out through the emotional intelligence scale, motivation and dysfunctional attitude

Scale. Participants with a high score and severity level were listed for intervention. Individuals with high scores were randomly separated into two groups. Then patients were administered cognitive behavior therapy as an intervention. 12 sessions for each participant were designed. Each session was consisting of 40-45 minutes per week.

A second phase of the study

In the intervention stage, the cognitive behavioral therapy (CBT) manual technique was applied to participants after taking suitable management from the supervisor and different manuals after approving one manual "Treating alcohol dependence: A coping skills training guide" [14]. This manual consist 8 core and 4 elective sessions according to the need of the subject. The main objective of this manual is to determine the substance use patients respond differentially to three treatments that are Twelve-Step Facilitation Therapy, Cognitive Behavioral Coping Skills Therapy, and Motivational Enhancement Therapy. Cognitive behavioral coping skills therapy is based on the principles of social learning theory which focus on drinking behavior as a major problem in a person's life. The purpose of this therapy is to increase the person's ability to cope with high-risk situations including interpersonal difficulties and interpersonal discomforts like anger and depression, and it enable the individual to use active behavior and coping methods to deal with problems, relatively dependent on alcohol as a coping strategy.

Eight core sessions are presented here:
Session 1: Introduction to coping skills training
Session-2: Coping with cravings and urges to drink
Session 3: Managing thoughts about alcohol and drinking
Session 4: Problem solving
Session 5: Drink refusal skills
Session 6: Planning for emergencies and coping with a lapse
Session 7: Seemingly irrelevant decisions

Final Session: Termination.

At the post-treatment stage, all the participants of both groups were reexamined with the same instruments emotional intelligence Scale, motivation scale, and dysfunctional attitude Scale. To explain the data in statistical terms statistical procedures were utilized. To investigate the predictive relationship between emotional intelligence, motivation and dysfunctional attitude regression was used to check the effectiveness of CBT on the three study variables dependent sample T-test was used through Statistical Package for Social Sciences (SPSS –V. 26).

Result and discussion.

Table 1. Summary of linear regression analysis of emotional Intelligence . Motivation as a predictor of dysfunctional attitude among substance use patients.

Predictor	R	R^2	AdjR	F	P
Emotional Intelligence & Motivation	.257	.066	.053	5.198	.007

In the first hypothesis of the study, it is investigated that emotional intelligence and motivation would be significant predictors of dysfunctional attitudes in a substance use patients. Linear regression has been run to confirm the results in Table 1. The summary of the regression analysis is given in the table. Analysis has confirmed , emotional intelligence and motivation is a significant predictors of dysfunctional attitudes in the substance used patients [R^2=.066; $F_{(2, 147)}$ = 5.198, p<.01]. Findings explained that 6.6% variation in the dysfunctional attitude in the substance used patients was because of emotional intelligence and motivation.

Table 2. Paired sample T Test with emotional intelligence on experimental and control group among substance use patients

Group	variables	Mean	N	S.D	SE.mean	t-test	p-value
Experimental	Pre (EI)	78.60	20	5.081	1.136	-70.58	.000
	Pos (EI)	169.10	20	4.375	.9784		
Control	Pre (EI)	81.70	20	8.43	1.886	-2.442	.025
	Pos(EI)	84.350	20	10.38	2.321		

Note: N= Number of Participants, S.D= Std. Deviation, SE.Mean= Std. Error Mean

Table 2 indicates the impact of the intervention on two groups control and experimental. There is a change in the mean score of experimental groups (M=78.6, M = 169.00) due to the intervention of CBT. Results also indicated that the control group showed no changes in the mean score due to no intervention.

Table 3. . Paired sample T Test with motivation on experimental and control group among substance use patients

Group	variables	Mean	N	S.D	SE.mean	t-test	p-value
Experimental	Pre (SIM s)	58.15	20	6.69	1.497	-23.17	.000
	Pos (SIMs)	92.15	20	4.56	1.021		
Control	Pre (SIM s)	62.15	20	7.67	1.717		
	Pos (SIM s)	62.65	20	7.67	1.717		

Table 3 showed that there is a change in the mean score of experimental groups (M=58.1, M = 92.10). Whereas the control group has shown no changes in mean score and a non-significant difference.

Table 4. Paired Sample T Test with dysfunctional attitude on experimental and control group among substance use patients

Group	variables	Mean	N	S.D	SE.mean	t-test	p-value
Experimental	Pre (DAS)	61.35	20	2.033	.454	60.77	.000
	Pos (DAS)	26.00	20	2.00	.447		
Control	Pre (DAS)	62.05	20	7.67	1.71	.906	.376
	Pos (DAS)	61.15	20	1.81	.405		

Table 4 showed that there is a change in the mean score of experimental groups (M=61.1, M = 26.00) with a significant difference. On the other hand, the control group showed a non-significant difference in the mean score.

The first objective of the study was to investigate emotional intelligence and motivation as predictor of dysfunctional attitudes in substance use patients.

Results indicate that emotional intelligence and motivation was significant predictor of dysfunctional attitude in the substance used patients $[R^2=.066; F (2, 147) = 5.198, p<.01]$ further there was a 6.6% explained variation in the dependent variable that is a dysfunctional attitude in the substance used patients because of the independent variables that are our emotional intelligence and motivation. According to the literature, the cutoff value of R^2 merely depends on the domain of research questions. If the study is measuring human behavior which is difficult to forecast, the R^2 value can be below 50%. Moreover, if one has statistically significant results the small R^2 value cannot be used to abolish or change the explanation of the coefficient [15]. Further previous studies show that the emotional intelligence of a person had a direct inclination toward dysfunctional belief and thought processes [16]. Another study confirmed that dysfunctional attitudes were linked with negative emotions [17]. Motivation also predicts a link with dysfunctional attitudes. Research has confirmed that for the better treatment of substance abuse it was highly recommended that patients must be given some motivational therapeutic strategies. It can be concluded that motivation for treatment is integral to drug management [18]. Motivational interviewing techniques were considered appropriate for aversive drug use of any intensity , different age

groups and settings [19]. Moreover addictive persons were also found with dysfunctional attitudes [20]. Another study also explored that drug abuser had dysfunctional thinking opinions and display emotional-based coping approaches [21].

According to the second objective cognitive behavior therapy play a very important role in the treatment of low emotional intelligence, low motivation for treatment and high level of dysfunctional attitude. In this study to check the impact of the intervention on emotional intelligence researchers compare two groups control and experimental groups. Results showed that there is a change in the mean score of experimental groups (M=78.6, M = 169.00). Results also indicate the control group has no changes in the mean score. Previous studies indicated that drug addiction in adults is categorized by problems in emotional regulation which explore the significance of new and specific treatment methods [22]. Finally research witnessed that exposure to CBT programs can reduce psychological problems [23].

To check the impact of the intervention on motivation results showed that there is a change in the mean score of experimental groups (M=58.1, M = 92.10) as compared to the control group that didn't receive any intervention. The previous result of the study indicated the experimental group with enhanced motivation showed a less tendency to drug use. Due to a lack of motivation people showed high substance faced problems [24], [25].

To check the impact of the intervention on dysfunctional attitudes results showed that there is a change in the mean score of experimental groups (M=61.1, M = 26.00). Results also indicate the control group that is without intervention has no changes in the mean score. In light of the literature review and cognitive behavior therapy techniques play a very important role in the treatment of these dysfunctions in substance use disorders. Different coping skills are useful for addictive patients like behavioral role-play; self-reported urges, stress management skills, and problem-solving skills [9].

Conclusion

This study confirms the significant influence of cognitive behavior therapy on resolving and guiding to tackle the issues of emotional intelligence, motivation and dysfunctional attitude among drug users. Before treatment, emotional intelligence and motivation were low but dysfunctional attitude was high. But after the intervention emotional intelligence, motivation, and dysfunctional attitude were improved. So, results show Cognitive Behavior Therapy was effective for drug addicts. Through cognitive behavior therapy, we provide particular information about good health and enhance the coping skills related to the drug's use. Therefore, future studies should have to focus on intervention plans for the betterment of psychological well-being of people who suffer from drug addictions.

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