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The Effectiveness of the Third Wave of Psychological Treatments on Impulsivity of Women with Substance Use and Addictive Disorders

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ABSTRACT

Objective: Impulsive behaviors pertain to various reward-driven, immature, and high-risk activities encountered in daily life, often referred to as risky activities. This study aims to compare the efficacy of the third wave of psychological treatments in addressing impulsivity among women with substance-related and addictive disorders.

Methods: This study adopts an experimental design with both experimental and control groups. The target population consists of women exhibiting impulsivity and substance-related and addictive disorders in Zahedan city, Iran. Convenience sampling was employed, wherein 12 patients were chosen for each group after undergoing an interview at a psychology clinic. The research instruments employed were the Structured Clinical Interview based on DSM-5 (2013) and the Barratt Impulsive Scale (1994). The experimental group received the third wave of psychological treatment, which spanned one month and consisted of 8 sessions lasting 90 minutes each. Conversely, the control group did not receive any intervention. Pre and post-tests were conducted using inventories, and data were evaluated using multivariate analysis of covariance and LSD test.

Results: The findings reveal significant differences between the mean scores of impulsivity and its components in the experimental groups, which underwent the third wave of psychological treatments, and the control group ($p<0.001$).

Conclusions: In conclusion, the results of these studies have demonstrated that the third wave of psychological treatment, specifically DBT, can effectively address impulsivity in women with substance use and addictive disorders.

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Introduction

Various, relative, and variable phenomena encompass social trauma. Examples of social pathologies include aggression, crime, suicide, divorce, addiction, and prostitution. These social pathologies can differ quantitatively and qualitatively depending on place and time (Vaillant, 2014). Addiction is a significant concern in the fields of psychological and physical health. Substance-related and addictive disorders involve 10 drugs that cannot be distinguished from each other. The common factor among these drugs is their ability to activate the rewarding system through excessive consumption (Ganji, 2013).

The term addiction refers to a condition in which an individual becomes physically and psychologically dependent on a drug. They experience an intense and obligatory need to continue using the drug and are unable to quit voluntarily. Their tolerance gradually increases, leading to a reduced ability to abstain from substance use (Zamani et al., 2015). Addiction is a disease that has broad social, psychological, and ecological consequences (Wilhelm et al, 2013).

Addiction can serve as a refuge for individuals with deficits, instabilities, and psychological disorders. There is no clear distinction between drug abuse and drug dependence, as they are interconnected. In 2009, 22.5 million American teenagers and adults (8.9% of the total population) met the criteria for drug abuse disorders within a 12-month period. Among this population, 3.2 million engaged in drug and alcohol abuse, 3.9 million used narcotics without alcohol, and 15.4 million had alcohol abuse issues (Kalat, 2012).

According to the American Psychiatric Association (2013) in the DSM-5, substance use disorder is defined as an inappropriate pattern of substance use that leads to clinically significant distress or impairment. The challenge with addictions is that addicted individuals often no longer find joy in their addictive behavior, or it brings them limited joy. They are aware of the harmful effects of drug use but still feel compelled to continue their addictive behavior (American Psychiatric Association, 2013).

Impulsivity is a prominent and critical characteristic of individuals with addiction and substance-related disorders. It is described as engaging in actions without considering the consequences or acting based on thoughts that may not be in their best interest or in the interest of others (Zamani et al, 2014). Many situations require quick and accurate decision-making, taking into account all potential outcomes (Sadock, 2012). In addition to impulsivity, other concepts such as

venturesomeness, sensation seeking, and risk-taking behavior have been developed. The relationship between impulsivity and various psychological traumas in society, such as violence, antisocial behaviors, crime, and suicide, is of utmost importance. Furthermore, studies have shown that self-harm behaviors and impulsivity are among the key factors contributing to the risk of developing a drug addiction (Zamani et al, 2014).

Treatment for impulsivity should be determined based on the severity, type, and condition of the client's illness. This treatment can be conducted either in a group setting or individually. Impulse control training, a type of behavioral-cognitive intervention, has shown significant efficacy in treating impulsive disorders due to its inherent importance. It was developed by Spray (Sperry, 1999) to explore impulsive motivation, delay it, and ultimately reduce the inclination towards impulsive actions. According to Goldstein and Goldstein (Goldstein & Goldstein, 1998), frequent instability stems from a lack of control over impulsive behavior. Research on the impact of this treatment on mood disorders has demonstrated its effectiveness (Poushaneha et al, 2010), and self-control training enhances both behavioral self-efficacy and emotional behavior (Zamani et al, 2014).

Impulsivity is a leading cause of various social problems, including uncontrolled sexual behavior, drug abuse, personality disorders, and criminal activities (Evenden, 1999). It is also one of the nine criteria for diagnosing borderline personality disorder (American Psychiatric Association, 2013). In 2001, the American Psychiatric Association (APA) published treatment guidelines for individuals with borderline personality disorder (Zamani et al, 2014).

The findings of Soler et al. study (2005) indicate that patients in the dialectical behavioral therapy training group exhibit better outcomes in terms of mood and emotional issues such as depression, anxiety, anger, emotional stability, and excitability compared to those in the standard therapy group.

Given that impulsive behavior is a key characteristic of substance-related disorders and one of the nine symptoms of borderline personality disorder, it is unclear whether impulsivity and borderline personality disorder share the same underlying pathology or if similar treatment approaches are effective for both conditions. Furthermore, there are individuals who exhibit impulsive behaviors without having borderline personality disorder. This raises the question of whether the treatment

methods that impact impulsivity and borderline personality disorder are equally influential in both cases.

Initial inconsistent schemas, which serve as cognitive structures, are ineffective mechanisms that give rise to illogical beliefs with behavioral, emotional, and cognitive components (Cecero et al, 2004). Psychopathological symptoms are associated with certain initial schemas (Renner et al, 2011). Predictive schemas of psychological symptoms are prevalent in mood disorders (Ahmadiangorgi et al, 2009) and are triggered by different levels of emotional arousal, leading to psychiatric disorders such as depression, anxiety, impaired work performance, substance abuse, and interpersonal conflicts (Renner et al, 2011). Clinical and para-clinical patients exhibit mood and emotional disorders stemming from psychological trauma and inconsistent schemas.

Yung et al. study (2003) demonstrated that therapeutic schema effectively alleviates symptoms of mood and impulse disorders. Beck highlights the importance of addressing childhood traumatic experiences as a crucial step in the treatment of patients with impulse and mood disorders when employing therapeutic schema (Thimm, 2010).

Generally, considering negative effect of impulsive disorders on different aspects of human life, the significance of present study is due to cases such as less studies about risky behaviors of patients with addictive disorders and drug use disorders, lack of studies about efficiency of impulse control training, dialectical behavior therapy of therapeutic schema on such disorders in different aspect of human life, use of findings of present study in therapeutic environments and counseling and providing conditions for future studies in the field. The aim of present study is to answer the question of whether impulse control training, dialectic behavior therapy and therapeutic schema improve impulsive behavior of women with substance related and addictive disorder?

Materials and Methods

The present study was conducted as an experimental investigation, comprising of three experimental groups and one control group. Multiple groups were subjected to pre and post-tests. The target population was individuals with Impulsivity disorders residing in the city of Zahedan. The selection criteria were based on the Diagnostic and Statistical Manual of Mental Disorders 5th edition (American Psychiatric Association, 2013) and psychiatric clinical interviews, which included individuals with substance related and addictive disorders.

A total of 48 eligible participants, who scored one standard deviation above the mean, were randomly assigned to four groups: Impulse Control Training, Dialectical Behavior Therapy Training, Schema Therapy, and the control group.

After excluding certain participants during the treatment sessions, each group consisted of 9 patients, who scored one standard deviation above the mean. Individuals with disorders such as bipolar, borderline personality, and consistency disorders were not included in the study. Additionally, variables such as age and gender were controlled for.

The inclusion criteria encompassed the following factors: 1) Diagnosis of substance related and addictive disorders along with Impulsivity; 2) Educational attainment of at least a high school diploma; 3) Age range between 29 and 41; 4) No concurrent cognitive therapy specifically targeting substance related and addictive disorders; 5) Female gender; 6) Absence of any mental disorders. On the other hand, the exclusion criteria were defined as follows: 1) Presence of any mental disorders; 2) Patients undergoing any form of psychology therapy; 3) Individuals with Personality Disorders.

The research consisted of three stages: 1) Initial assessment of all four experimental and control groups; 2) Implementation of the independent variable (Impulse Control Training, Dialectical Behavior Therapy Training, and Schema Therapy) in the experimental groups; 3) Final assessment of all four experimental and control groups.

1- The diagnostic interview was conducted based on the criteria of the Diagnostic Statistical Manual of Psychiatric Association of America - the fifth edition (American Psychiatric Association, 2013). This interview served as a means of establishing the initial treatment relationship, diagnosing individuals, and justifying their participation in group therapy. Furthermore, it was used to match individuals to the appropriate group within the third wave of psychological treatment, based on the inclusion criteria.

2- The Barratt Impulsivity Scale, developed by Professor Ernest Barratt (Barratt et al, 2004), is a suitable tool for measuring various impulsive behaviors. This scale consists of 30 multiple-choice questions and assesses three factors: cognitive impulsivity (related to cognitive decision-making), motor impulsivity (related to acting without thinking), and no planning (characterized by a lack of foresight and spontaneous orientation). The questions on this scale capture dimensions of hasty

decision-making and lack of foresight, with the highest possible score being 120. The Persian translation of the Barratt Impulsivity Scale, conducted by Ekhtiari et al. (2008), has demonstrated good reliability and validity (Ekhtiari et al, 2008). The reliability coefficient obtained in this study was 0.83, which is higher than the reported findings of Barratt et al. (Barratt et al, 2004), who reported coefficients ranging from 0.40 to 0.81 in English and other translations, such as the Italian version.

3- Impulse Control Training is an intervention that aims to investigate impulsive motivation, delay it, and ultimately reduce unintentional desires to engage in impulsive acts (Sperry, 1999). The impulse control pattern-based treatment method is rooted in Spray's treatment protocol, which consists of 8 group sessions. The first session introduces and identifies the general condition, with the goal of familiarizing participants with scholarly concepts and establishing mutual understanding and agreement. The researcher's expectations for the study are also conveyed. The second session focuses on evaluating and identifying the thoughts and feelings that lead to self-destructive and impulsive behaviors. In session 3, participants explore these thoughts and feelings further, describing and identifying coping responses both internally and externally. All inconsistent thoughts and feelings are recorded during this session. Session 4 is dedicated to delaying and coping with impulsive responses. Patients are trained to manage responses that lead to impulsive behaviors. Session 5 involves practicing and receiving feedback to help patients gain control over their impulsive behaviors and achieve a logical level of self-control and dominance. Session 6 addresses the therapist's awareness of stimuli that trigger impulsive behaviors. If self-destructive behaviors are identified, it is likely that common behaviors will be replaced with less harmful methods, increasing consistency. Session 7 focuses on stability, where real-life situations that students encounter are explained and presented in the classroom. Group feedback and improvement methods are utilized during this stage, and students are encouraged to apply the impulse control pattern to all aspects of their lives. The final stage is the conclusion, where training is reinforced and post-tests are conducted.

4- Dialectical behavior therapy: The approach known as dialectical behavior therapy (DBT) combines the principles of client-centered problem solving, cognitive behavior therapy, and social skills training (Zamani et al., 2015). In order for this treatment to be effective, a strong and supportive relationship between the client and therapist is required. DBT utilizes three therapeutic

methods: individual sessions, group training, and communication with a therapist outside of therapy sessions. The therapist actively works to strengthen adaptive behaviors during and between sessions. The focus of DBT is on educating patients about how to manage emotional trauma, rather than simply reducing or eliminating it (Linehan, 2008).

Given that this method of treatment was designed for individuals with emotional disorders who were experiencing distressing and challenging emotions, we implemented acceptance-based therapy skills, such as distress tolerance and mindfulness skills, which are integral to DBT (Zamani, 2014). We then introduced skills training focused on change, including effective interpersonal and emotional regulation skills. This therapy is based on the research of McKay et al. (2007) and is structured according to Linehan's skill training book (1993). The therapy consists of two sessions for each skill. In the first two sessions, patients are taught basic distress tolerance and distraction skills, such as acceptance, distraction techniques, and developing a distraction plan. The advanced distress tolerance skills include creating a secure place, identifying personal values and strengths, and utilizing coping strategies. The third and fourth sessions focus on basic and advanced mindfulness skills, such as attention and distraction training, decision-making, and acceptance of the present moment. The fifth and sixth sessions involve training in basic and advanced emotional regulation skills, including identifying and managing emotions, reducing vulnerability to turbulent emotions, and problem-solving. The last two sessions cover basic and advanced effective communication skills, such as assertiveness, active listening, and conflict resolution strategies, as outlined in the treatment protocol. Overall, dialectical behavior therapy is a comprehensive approach that incorporates various therapeutic methods to help individuals manage their emotions and improve their interpersonal skills.

5-Therapeutic Schema Training: Yung’s therapeutic schema includes 18 inconsistent schemas in five fields of cut and rejection(including abandonment, instability, distrust, maltreatment, emotional deprivation, deficit, shame, social isolation and alienation), self-dependency and impaired performance (including dependency- inefficiency, vulnerability to loss or disease, unchanged self- involved, failure), disrupted limitations (including insufficient deserve, magnanimity, continence, self-disciplinary), direction-orientation (including abidance, sacrifice, attracting attention), excessive alertness and suppression (including negativism, pessimism, emotional suppression, stubbornly criteria, excessive reproach and punishment. Such schemas

deviate the relationship between individual and environment and activate automatic negative thoughts, accompanying with abnormal cognitive processing and attitudes. Although the individual knows that scheme dose not bring any upset to him, he feels comfort with the scheme and hence he makes no change in it (Young et al, 2003).

First session is dedicated to initial evaluation and communication, introducing the scholar and members, study objectives, taking written consent from participants to cooperate till end of the course (the participants were allowed to relinquish the study during treatment), fitness evaluation for therapeutic scheme, focusing on life history, doing pretest and initiating trainings related to home tasks. Session 2 dealt with trainings about schemas and coping styles, getting familiar with initial inconsistent schemas, characteristics and different types of them, describing coping styles, establishing a relationship between current life difficulties and schemas and presenting tasks. Session 3 dealt with skills of cognitive strategies, introducing logic of cognitive techniques, war metaphor, investigating members' tasks, using treatment style of therapeutic coping, introducing new definition of evidences threatening schema and presenting trained tasks. Session 4 was dedicated to cognitive technics, evaluation of advantages and disadvantages of styles and coping responses, establishing a discussion between scheme view and healthy view, using role playing, training, developing and making educational carts, and finally presenting tasks. Session5, dealt with experimental strategies, presenting logic of experimental technics and their objectives, mental imagination, relating past imaginations to present, imaginary conversation with parents and finally presenting tasks. Session 6 dedicated to behavioral pattern breaking, investigating tasks of previous session and getting feedback from members, presenting logic of behavioral technics, explaining objectives of behavioral technics, preparing a comprehensive list of special behaviors as subject of change, presenting solutions to provide list of behavior, hierarchy for breaking pattern and identifying most problematic behaviors, increasing motivation for behavior change and presenting task. Session 7 dealt with skills of behavioral technics, reviewing tasks of previous sessions, getting feedback, practicing healthy behaviors through mental imagination and role playing, overcoming obstacles of behavior change, reviewing tasks of previous session, making important changes in life, presenting a review of previous sessions and finally presenting task. Final session dealt with conclusion of previous discussions, reviewing tasks of previous session,

presenting an overview of previous sessions, final conclusion and summarizing, posttest, finishing sessions based on treatment protocol (Young et al, 2003).

Some ethical concerns that were considered in this research study include: 1) the selection of available samples, 2) the option for all subjects to choose whether or not to participate in the study, 3) the provision of necessary information on the research project's administration method, 4) the assurance of data confidentiality, and 5) the inclusion of a control group that received training at the end of the study to assess the effectiveness of treatment.

Finally, the pre and post-test data was analyzed using descriptive statistics methods such as frequency, percentage, mean, and standard deviation, as well as inferential statistics methods such as ANCOVA to examine the significance of the difference between means, and the LSD test to compare and identify significant differences between groups.

Results

Findings of present study were administrated on 36 participants in three experimental groups and one control group. Each group included 12 women addicted to substance use with impulsive behaviors which were reduced to 9 participants. Their information has been displayed in table 1 isolated based on grouping, marital, level of education, substance use duration.

Table 1.Comparison frequency of tetraploid groups separately according to Marital Status and Education

Variable Index		ICT		DBT		ST		Control group		Chi-square	
		F	%	F	%	F	%	F	%	X^2	**P**
Mari al Status	single	1	11.11	2	22.22	1	11.11	2	22.22	3.9	**0.6**
	married	5	55.56	4	44.45	5	55.56	4	44.45		
	divorced	2	22.22	2	22.22	1	11.11	2	22.22		
	widow	1	11.11	1	11.11	2	22.22	1	11.11		
Education	High school DIP	5	55.56	6	66.67	3	33.33	4	44.45	3.6	**0.9**
	DIP UP	3	33.33	2	22.22	3	33.33	2	22.22		
	MC, MA	1	11.11	1	11.11	3	33.33	3	33.33		
Time consumption	1-3 Age	1	11.11	2	22.22	1	11.11	2	22.22	3.03	**0.1**
	3-6 Age	2	22.22	2	22.22	3	33.33	3	33.33		
	6 UP Age	6	66.67	5	55.56	5	55.56	4	44.45		

According to Table 1, we can say that the groups in terms of therapy group, Marital Status, Education substance use duration and age did not have significantly differences and the groups are matched. The mean age of the third wave of psychological treatment groups and the control group

were 37.76±6.17, 35.06±6.14, 36.62±5.76 and 37.13±6.37 respectively. According to t-test, there is a significant relationship between two experimental groups and control group from average age aspect.

Table2. Comparison average age of sextet groups

Group	Age rang	Mean	Standard Deviation	F	P
ICT	30-41	37.76	6.17	0.751	**0.943**
DBT	29-40	35.06	6.14		
ST	29-41	36.62	5.76		
Control group	30-41	37.13	3.37		
Total	29-41	36.84	5.28		

The mean and standard deviation of subscales of Impulsivity is presented in table 3. In order to study the significance difference between means, analysis of covariance was used. Prior to the ANCOVA test, Leven's test for equality of variances was performed. The test was positive for all groups and the equality of score variances in all four groups was approved. ANCOVA results in regards to the comparison of the means of the four groups is presented in table 4. The results showed that there was a significant difference between the pre and post-tests in the total score and the subscales at the level of $p<0.01$.

Table 3. The mean and standard deviation of subscales of Impulsivity, in regards to the groups' pre-test and post-test.

Groups		ICT		DBT		ST		Control Group		Total	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Total Impulsivity	Pre-test	99/43	3.76	100.82	3.73	95.13	2.68	96.25	3.94	97.90	1.78
	Post-test	71/74	3.79	71.73	2.19	57.01	2.72	96.64	2.75	74.28	1.75
Non-planning	Pre-test	31.62	2.76	34.82	2.19	32.94	1.01	31.76	2.19	32.79	1.02
	Post-test	20.04	2.26	26.65	1.91	18.97	1.19	31.83	1.99	24.38	0.98
motor impulsivity	Pre-test	35.05	1.78	32.37	2.94	31.46	1.37	32.76	1.34	32.91	0.95
	Post-test	27.21	2.97	20.35	2.76	19.94	0.914	31.25	0.81	24.69	1.42
cognitive impulsivity	Pre-test	32.76	1.29	33.63	1.70	30.73	1.94	31.73	2.35	32.22	1.00
	Post-test	24.49	0.948	24.73	0.63	18.19	1.91	33.56	1.58	25.25	0.76

Table 4. Results of covariance analysis of the difference among Impulsivity scores in the four groups including third wave of psychological treatment and control groups

	Factors	DF	MS	F	P	Effect Size	Power
Total Impulsivity	Pretest	44	258/907	4.341	0.721	0.065	1
	Group Membership	3	93/032	276.12	0.001**	0.764	0.841
Non-planning	Pretest	44	92.304	9.34	0.423	0.076	0.611
	Group Membership	3	29.342	2.27	0.005	0.324	0.254
motor impulsivity	Pretest	44	78.95	8.67	0.165	0.006	0.843
	Group Membership	3	27.35	4.99	0.008	0.165	0.134
cognitive impulsivity	Pretest	44	87.654	9.65	0.001**	0.614	1
	Group Membership	3	26.34	5.36	0.751	0.057	0.367

The reduction of score in the experimental groups on the Impulsivity scale demonstrated the efficacy of these methods, as compared to the control group. Additionally, the results revealed that the factor of group membership was significant at a level of $p<0.01$ with respect to the scores of non-planning impulsivity, motor impulsivity, and cognitive impulsivity. The LSD was employed to compare the groups, and the findings demonstrated a significant difference between the experimental groups and the control group.

Discussion

The results obtained from the current study demonstrate the efficacy of impulse control training, dialectical behavior therapy, and therapeutic schemas in reducing impulsivity and impulsivity scales among women with substance-related and addiction disorders in the experimental groups compared to the control group. According to McKay et al., (2007), many individuals engage in risky behaviors in their daily lives. These impulsive and expulsive behaviors, often referred to as risky behaviors, encompass a wide range of undeveloped and hedonistic behaviors that are associated with a high level of risk (Ekhtiari, 2008). Impulsivity is a multidimensional construct that includes a focus on the present, an inability to delay gratification, a lack of inhibitory control, risk-taking tendencies, sensation seeking, sensitivity to reward, impatience, hedonism, and a lack of planning abilities.

Most of the studies in the field of voracity have predominantly focused on the behavioral and cognitive aspects of this phenomenon. Impulse control training, as a form of behavioral and cognitive intervention, has demonstrated its potential in the treatment of such disorders due to its

nature. The theories underlying impulse control training suggest that frequent instability is a result of poor impulse control behavior.

In impulse control training, clinical specialists teach individuals skills for recognizing and managing their emotions and thoughts, coping with internal and external responses, managing inconsistent emotions and thoughts, delaying and coping with immediate responses, and helping individuals gain logical dominance and control through empathy, understanding, and group dynamics. Furthermore, they provide problem-solving skills to individuals and encourage them to consider different solutions before reacting impulsively. The lack of necessary skills to react in a creative manner is one of the reasons why impulse control training has been successful in reducing emotional disorders in this study. These findings are consistent with the studies conducted by Sperry (1999), Newman et al. (1985), and Moeller et al. (2001), which examined the effectiveness of impulse control training on impulsive behavior, mood disorders, and other types of disorders.

Goldstein and Goldstein (1998) and Pushanha et al. (2010) also demonstrated the effectiveness of impulse control training in reducing unstable behaviors, sudden behaviors, depression, anxiety disorders, and the prevention of such behaviors. Additionally, studies conducted by Najm (2008), Ramsay and Rosan (2007), and Biderman et al. (2006) found that this type of treatment had positive effects on individuals who exhibited sudden and risky behaviors.

The Dialectic Behavior Therapy (DBT) approach, which was developed by Marsha Linehan in 1993, has been developed specifically for the treatment of patients diagnosed with borderline personality disorder (BPD). This therapeutic approach is based on three fundamental principles, namely behaviorism, dialectical philosophy, and Zen ethic. The DBT approach considers the interaction of biological and social factors as the underlying cause of borderline personality disorder. Consequently, individuals with BPD are those who exhibit emotional vulnerability as a result of biological factors and have grown up in an environment that has invalidated their inner experiences and individual behaviors on a frequent basis. As a consequence of emotional vulnerability combined with an invalidating environment, individuals may experience deficits in their ability, motivation, and emotion regulation, as well as various difficulties in life (Linehan et al., 2002). DBT is an integrated treatment method that has been shown to effectively reduce emotional suffering and pain, and is commonly used for patients who struggle with uncontrollable emotions and emotional and mood-related problems such as depression, anxiety, anger, emotional

instability, and motivation issues. The findings of this study align with previous research conducted by Soler et al. (2005), Mac Kalan et al. (2005), Miller et al. (2007), Van den Bosch, Koeter, Stijnen et al., Verheul and Brink (2002), which also found that DBT is effective in reducing impulsive behaviors. However, it is important to note that these previous studies focused exclusively on borderline patients, as impulsivity is one of the prominent characteristics and diagnostic symptoms of this disorder. Therefore, the novelty of the present study lies in its investigation of the effectiveness of DBT on individuals who struggle with emotional suffering but do not have a borderline diagnosis. These individuals often experience an increase in impulsivity during and after substance use.

In childhood, inconsistent schemas can develop as a result of unmet basic emotional needs. These needs include secure attachment to others, self-dependence, freedom to express needs and emotions, self-motivation, and realistic limitations. These schemas typically operate at a deep level of cognition and often operate outside of conscious awareness (Young et al., 2003). While the effectiveness of DBT has been demonstrated in the treatment of para-clinical disorders, anxiety, and depression, there is a lack of studies examining its effectiveness in addressing impulsivity. One of the reasons for the present study was the inclusion of a larger number of therapy sessions and a greater level of empathy towards patients with substance use disorders.

Given the common traumatic origins of impulsivity and borderline personality disorder, the objective of the present study was to explore treatment approaches for one of the variables associated with personality disorders through a specialized treatment program for individuals with co-occurring substance use disorders. This aspect of the study is considered to be its primary novelty.

In conclusion, the results of these studies have demonstrated that the third wave of psychological treatment, specifically DBT, can effectively address impulsivity in women with substance use and addictive disorders. These interventions can be incorporated into other interventions for women struggling with impulsivity in counseling centers and public hospitals, with the ultimate goal of promoting the mental health of women with addictive behaviors.

Data availability statement

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author.

Ethics statement

The studies involving human participants were reviewed and approved by ethics committee of Sistan and Baluchestan University. The patients/participants provided their written informed consent to participate in this study.

Author contributions

HJ and SJ contributed to the study conception and design, material preparation, data collection and analysis and contributed to the article and approved the submitted version.

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