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## Case Report

# Cognitive Behavior Therapy as Relapse Prevention for Opioid Use Disorders

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## ABSTRACT

Opioid use disorder (OUD) is a prevailing psychiatric illness that provides foundations of morbidity and mortality. **Objective:** To investigate the effectiveness of Cognitive Behavior Therapy (CBT) in terms of relapse prevention in the treatment of patients with opioid use disorders. **Methods:** After the period of detoxification, an individualized treatment plan was made based on CBT. To assess the effectiveness of planned and executed CBT sessions, pre and post assessment method was opted. **Results:** Results specify that CBT worked successfully as relapse prevention in one-on-one sessions. CBT attested to be working in treating patients' lapses as well as relapses by increasing control on cravings and improving assertive behavior. **Conclusions:** The conclusion can be drawn that CBT is an effective methodology that successfully deals with patients' cravings, and develops assertive behavior thereby preventing relapse.

## INTRODUCTION

Opioid use disorder (OUD) is a prevailing psychiatric illness that provides foundations of morbidity and mortality [1]. "Opioids" covers a broad range of medicinal substances. It not only includes natural alkaloid compounds derivative of the opium gum (labeled "opiates," comprising Codeine, Thebaine, heroin, Oxycodone, and morphine etc.) but also takes account of related synthetic compounds (comprising oxycodone and hydromorphone) [2]. In simple language, opioids are drugs that can be either natural or man-made

[3] and have powerful pain-soothing properties by acting upon a precise neurological region [4]. In prescribed medication drug abuse, opioids have the highest percentage [5] and become the cause of co-opting psychological problems instance depression and anxiety [6]. Signs of opioid use disorder (OUD) include weakened restraint on opioid utilization, repeated opioid use despite efforts to minimize, and regardless of having continuing physical, psychological, interpersonal, social, tolerating

and withdrawal issues [7]. Another research highlighted that the signs of Opioid withdrawal cover agitation, craving, abdominal cramps, diarrhea, anxiety, sneezing, elevated heart rate, pupil dilation, elevated blood pressure, sweating, rhinorrhea, tearing, shakiness, goosebumps, muscle pain, and insomnia [8]. Diagnostic and Statistical Manual of Mental Disorders, 5th Edition (DSM 5-TR) describes Opioid Use Disorder (OUD) as a problematical and periodic pattern of opioid use, that causes notable damage or suffering for at least 12 months [9]. In Pakistan, the intake of heroin opium, and other illegal opiates and the non-therapeutic use of medically prescribed opioids like OxyContin has widespread, and rates are still escalating [10]. In the 1990s, there was increasing heroin usage, with the most common drugs used being cannabis and opiates [11]. Based on evaluations, 320,000 individuals (0.3%) and 860k individuals (0.8%) habitually use opium and heroin, respectively. One million sixty thousand individuals overall (1% individuals in the age range 15 years-64 years) are using opiates [12]. Opioid Use Disorder is a curable and manageable Psychopathological condition. CBT is an effective approach for treating OUD and can be administered in group or individual sessions following the detoxification period [13]. Predominantly CBT addresses behavioral and cognitive issues of patients. The current investigation was intended to examine the efficiency of CBT in patients with opioid withdrawal disorder.

## METHODS

The very first step of this study was to take permission from hospital (Silver Lining Hospital Faisalabad) to conduct this research. In that hospital two patients who came with presenting complaints of opioid use disorder were selected for our investigation. Both the patients were male, in case-1 patient was thirty-year-old and married, while in case-2, patient was a twenty-seven-year-old and unmarried. Treatment was initiated following the patients' consent. Through clinical interviews the information was collected from patients. Additionally, for the screening and assessment of patients, the Addiction Severity Index (ASI) and Alcohol Smoking and Substance Involvement Screening Test (ASSIT) were administered. Two self-reporting tools The Brief Substance Craving Scale (BSCS) and The Rathus Assertiveness Schedule (RAS) were used for pre and post assessment purpose. BSCS contains eight items intended to assess the degree of craving for substance abuse. Participants rate the intensity and frequency of their cravings using a five-point Likert scale. The time duration required for administering it is usually 10 minutes; and it can be used at any stage of treatment including follow-up sessions [14]. However, the RAS consists of 30 items in a self-reporting layout. This tool

allows consistent and useable assessment of assertiveness or social boldness [15]. The scores of pre and post-test show a significant difference. For formal diagnosis, the Diagnostic criteria from the DSM-5 were taken into account. Thus, both patients were officially diagnosed with opioid withdrawal disorder. [292.0(F11.23)]. After formal diagnosis 16 CBT-based individualized therapeutic sessions were planned and executed for both of them. Afterward, 3 months follow-up session was conducted to educate the patients about lapse and relapse prevention. Starting from March 2023 and extending through December 2023.

## RESULTS

The current finding screening tool (Table 1) revealed that both patients (case 1 and case 2) scored high-risk levels on tobacco which showed the main gateway to addiction. Similarly, both patients also scored high on opioid substances which showed disturbance in their daily routine of life. However, the results of table 1 indicate a detailed assessment (Addiction Severity Index: ASI) to rule out the addiction severity on different issues/problems.

**Table 1:** Scores of both Cases on ASSIT

Substances	Case-1		Case-2	
	Score	Risk Level	Score	Risk Level
Tobacco Products	30	High	28	High
Alcoholic Beverages	0	Low	0	Low
Cannabis	0	Low	0	Low
Cocaine	0	Low	0	Low
Amphetamine/ stimulants	1	Low	1	Low
Inhalants	1	Low	0	Low
Sedatives/ Sleeping Pills	1	Low	1	Low
Hallucinogens	1	Low	0	Low
Opioids	30	High	28	High
Other - specify	1	Low	0	Low

Note. ASSIT= Alcohol, Smoking, and Substance Involvement Screening Test

Table 2 shows the impact of opioids on their different domain of life such as medical, social, and legal issues. Each score represents the severity level of the respective problem area for the individual case. The result of ASI showed that both patients have severity on family and social level, employment level, and drug level. Due to the effects of substances, an individual's family is affected as well as one can't give attention in the workplace because of craving and lack of assertiveness.

**Table 2:** Scores of both Cases on Addiction Severity

Problems	Case-1	Case-2
	Severity profile	Severity profile
Medical	2	2
Employment	5	7
Alcohol	0	0
Drug	9	9
Legal	0	1
Family/social	7	8
Psych	0	0

Table 3 shows that there was a significant difference in the baseline scores and post-testing scores between the patients with opioid use disorder over time. In addition, analysis revealed that significant differences were found on the scales (i.e., BSCS and RAS).

**Table 3:** Scores of Pre and Post Testing of both Case Studies

Scales	Case-1		Case-2	
	Pre-Testing	Post-Testing	Pre-Testing	Post-Testing
BSCS	28	9	22	7
RAS	-80	-35	-70	-28

Note: BSCS= Brief Substance Craving Scale; RAS= Rathus Assertiveness Scale

## DISCUSSION

Findings of this investigation indicate that cognitive behavior therapy (CBT) has played a vital role in lessening cravings among patients (Table 3). Furthermore, it significantly improved ability to behave assertively in both cases which reduced the relapse risk. These findings correlate with the outcomes of prior research stating CBT techniques in intervention plans has many positive outcomes special when it is paired with medication [16]. Cognitive behaviour therapy (CBT) effectively treats OUD [17]. However, CBT displayed a significant improvement in positive appraisal than other therapies in psychological treatment [18]. CBT is regarded as an evidence-based strategy for treating a variety of behaviours and craving issues [19]. The widely used behavioural intervention for people with various mental health conditions for many years has been CBT which integrates cognitive and behavioral theories [20]. One of the main issues, in the treatment of OUD, is relapse [21] and CBT is the most extensively studied form of psychotherapeutic intervention, as it methodically targets the thoughts, feelings, and behaviours that in turn support relapse prevention [22]. In the present analysis, carefully planned individualized CBT sessions were conducted as intervention plan. Each of those sessions was based on a certain agenda. But in general, the overall goal of these sessions was cognitive restructuring of patients, improve their daily living functioning, and Preventing lapses and relapses. There was an outstanding improvement in the

behavioural and cognitive functioning of patients. Furthermore, it was witnessed that they made efforts to address challenges such as cravings. The research has shown in their research that for dealing issues of illicit drugs using CBT is very effective [23]. The prior researches also shed a light on importance of the durability of intervention for its effectiveness. For example, in research conducted by Rawson and colleagues, it was testified that 60% of individuals undergoing Cognitive Behavioural Therapy (CBT) in a certain state tested negative for substances in toxicology screenings at the 52-week follow-up [24]. Our pre and post-test assessment reveals a marked difference created by CBT confirming its effectiveness. A marked difference in the pre-and post-rating of the problems was noticed, following the intervention based on CBT technique. It was also determined that employing contingency measures proves highly effective in individuals with opioid use disorder. In addition, the inability to effectively manage the antecedents and consequences of substances is accepted as a weighty factor contributing to the relapse of Opioid Use Disorders (OUDs) [25]. CBT for OUDs focuses on reconstructing patients' erroneous perceptions of themselves, others, and their surroundings, developing coping skills, and re-establishing a healthy lifestyle for maintaining abstinence [26]. Positive associations between CBT sessions and the number of continuous weeks of opioid abstinence and the provision of opioid-negative urine [27]. CBT for OUD highlights its effectiveness in reducing opioid use, improving coping skills, and preventing relapse [28]. Hence, cultural adaptation of evidence-based interventions is crucial to ensure their relevance and effectiveness in diverse cultural contexts. However, the literature on culturally adapted CBT interventions for individuals with OUD in Pakistan is limited. Most studies examining CBT for substance use disorders have been conducted in Western countries, where cultural factors, values, and norms may differ significantly from those in Pakistan. A review of the existing literature reveals a dearth of research on the effectiveness of CBT as relapse prevention among patients with OUD in Pakistan.

## CONCLUSIONS

This study concluded that Cognitive Behaviour Therapy is an effective intervention strategy for the treatment of Opioid use disorders (OUD). It efficiently enhances the cognitive, behavioural, as well as occupational functioning of the patient.

## Authors Contribution

Conceptualization: MS

Methodology: MS, MJ

Formal analysis: ZA, QUA

Writing-review and editing: MS, AU, QUA, ZA, MJ

All authors have read and agreed to the published version of the manuscript.

### Conflicts of Interest

The authors declare no conflict of interest.

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