CASE SERIES

Individualised cognitive behaviour therapy in patients of substance use disorders: three case studies

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Abstract

The current study aims to investigate the effectiveness of Cognitive Behaviour Therapy (CBT) in the treatment of patients with substance use disorders. Three diagnosed patients with substance use disorders were recruited —i.e. 305.20 (F12.10) cannabis used disorder, 291.81 (FI0.239) alcohol withdrawal disorder and 292.0 (F11.23) opioid withdrawal disorder, respectively. The patients were detoxified and individual treatment plan was formulated on the basis of CBT. The CBT therapeutic outcomes were evaluated on the basis of pre- and post-assessment scores. Results indicate that CBT worked effectively in one-on-one session. CBT effectively worked to manage patients' anger, craving, stress, sleep hygiene and assertive behaviour. It is concluded that CBT is an effective approach to deal with patients' anger, stress, craving, sleep and assertive behaviour.

Keywords: Cognitive Behavioural Therapy; Canabis Used Disorder; Alcohol Withdrwal Disorder; Opioid Withdrawal Disorder

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Introduction

Substance use disorder (SUD) is a global psychiatric problem which has a high rate of mortality and morbidity[1]. For example, some adults use alcohol occasionally and some use it frequently, which causes deaths and others psychological as well as medical problems.[2] According to an estimate, in the United States around 55% adults of age 26 years consumed alcohol monthly and one fourth of the adults are involved in binge drinking which has harmful consequences.[3] Moreover, in the US 15.1 million adults met diagnostic criteria for alcohol-use disorder in the past 12 months which causes numerous mental health problems among individuals.[4] In Asian countries, the use of illicit drugs is increasing as well. In Asian countries drug prevalence is about 0.01% - 4.6%.[5]

The prevalence rate of substance use-related disorders is also high in Pakistan. According to a survey report by UNODC, 6.7% individuals used an illegal drug in the past year and 4.3% individuals are suffering from substance use disorders and they need urgent treatment. This rate is increasing. For example, it was estimated that in 1980, 50,000 individuals were using some sort of substance, which increased to 6.2 million in 2006, 8.1 million in 2011 and since 2013 drug abuse prevalence is increasing rapdily.[6] In Pakistan, heroin was not virtually in use around the 1980s, while 1990s saw an increasing heroin use.[7] The Ministry of Narcotics Control Pakistan and the United Nations Office on Drugs and Crime released a collaborative report on drug use in Pakistan in 2013. This report describes that cannabis is the most common drug used in Pakistan by people aged between 15 and 64, while opiate use (opium or heroin) is widespread in one percent of the population.[8]

Substance use disorders are treatable and manageable psychiatric problems. After detoxification, cognitive behaviour therapy (CBT) is an evidence-based therapy for substance use disorders. It can be given as group therapy but it is more effective in one-on-one sessions. CBT particularly targets patients' behavioural and cognitive problems. The current study was planned to investigate the effectiveness of CBT in patients of Canabis use disorder, Alcohol withdrwal disorder and Opioid withdrawal disorder.[9-10]

Patients and Methods

After getting permission from the Ethical Review Committee, three cases were studied using case study method at the DHQ hospital Shekhupura from June 2018 to February 2019. After getting consent from the patients, treatment was started. In depth clinical interviews were conducted. Further, Alcohol Smoking and Substance Involvement Screening Test (ASSIT) and Addiction Severity Index (ASI) tests were used for screening and assessment of the patients. Patients' scores on both scales are shown in Table 1 and 2. Patients were diagnosed according to DSM-5. Patient "A" was a 29-year-old married man diagnosed with [305.20 (F12.10)] cannabis use disorder. Patient "B" was a 27-year-old man, diagnosed with [291.81 (FI0.239)] alcohol withdrawal disorder. Patient "C" was a 20-year-old man, diagnosed with [292.0 (F11.23)] opioid withdrawal disorder. Further, 18 to 20 CBT-based therapeutic sessions were provided to each patient. Each CBT session was conducted as agenda-based session. Further, patients' follow up sessions were also conducted for three months

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Table-1: Scales Raw Scores on ASSIST of All Case Studies.

Substances	Case Study-1		Case Study-2		Case Study-3	
	Score	Risk Level	Score	Risk Level	Score	Risk Level
Tobacco products	30	High	1	Low	35	High
Alcoholic Beverages	0	Low	32	High	12	Moderate
Cannabis	0	Low	0	Low	32	High
Cocaine	32	High	0	Low	1	Low
Amphetamine/ stimulants	1	Low	1	Low	0	Low
Inhalants	1	Low	0	Low	1	Low
Sedatives/ Sleeping Pills	15	Moderate	12	Moderate	20	Moderate
Hallucinogens	1	Low	0	Low	1	Low
Opioids	0	Low	0	Low	35	High
Other – specify	1	Low	0	Low	1	Low

ASSIT= Alcohol, Smoking and Substance Involvement Screening Test

Table-2: Scale Raw Scores on Addiction Severity Index of All Case Studies.

Problems	Case Study-1 Severity profile	Case Study-2 Severity profile	Case Study-3 Severity profile
Medical	3	2	3
Employment	5	8	2
Alcohol	0	7	1
Drug	9	9	9
Legal	1	2	2
Family/social	8	8	8
Psych	0	0	0

and they were educated about the lapse and relapse preventions.

Pre- and post-screening tools: Novaco Anger Scale, a 25 item self-reported measure which assesses an individual's anger intensity in response to provoking situations, was used.[11] The test-retest reliability of NAS is .89. Furthermore, Brief Substance Craving Scale is an 8 items self-report tool that measures the level of craving for substance abuse.[12] Perceived Stress Scale was used to measure the perception of stress.[13] Adolescent Sleep Hygiene Scale is a self-report

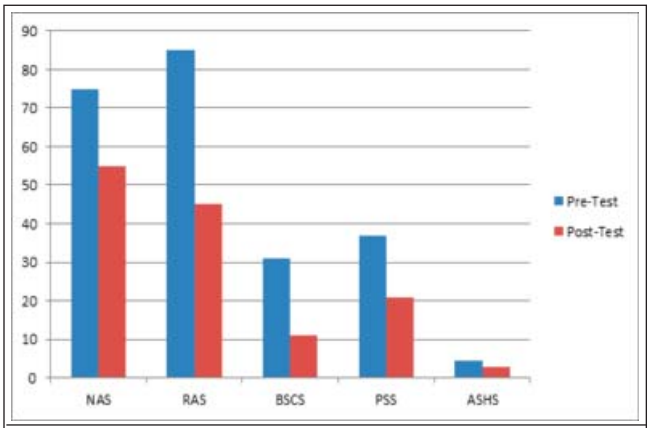

Figure: Graphical presentation of pre- and post-testing scores of three patients after Cognitive Behaviour Therapy.NAS: Novaco Anger Scale, RAS: Rathus Assertiveness Scale, BSCS: Brief Substance Craving Scale, PSS: Perceived Stress Scale, ASHS: Adolescent Sleep Hygiene Scale

Table-3: Scales Raw Scores of Pre and Post Testing of All Case Studies

Scales	Case Study-1		Case Study-2		Case Study-3	
	Pre-Testing	Post-Testing	Pre-Testing	Post-Testing	Pre-Testing	Post-Testing
NAS	87	45	79	44	87	45
BSCS	31	11	25	8	32	17
PSS	37	21	35	24	39	26
ASHS	80%	50%	90%	50%	80%	60%
RAS	-85	-38	-76	-32	-78	-73

NAS= Novaco Anger Scale; BSCS= Brief Substance Craving Scale; PSS= Perceived Stress Scale; ASHS= Adolescent Sleep Hygiene Scale; RAS= Rathus Assertiveness Scale

measure which assesses overall sleep hygiene.[14] Rathus Assertiveness Scale contains 30 items which are intended to assess an individual's level of assertiveness.[15] Significant difference was found between pre- and post-testing scores. (Figure-1).

Discussion

Findings reveal that cognitive behaviour or therapy (CBT) played a significant role in reducing anger, craving, and stress in patients. (Table-3). Furthermore, it increases the quality of sleep and assertive behaviour in patients. These findings are consistent with the findings of previous studies. CBT trails play a positive role in the treatment of cannabis use disorder and it becomes more effective when used along with medication.[16] It is evidenced that the nature of SUD affects patients' physiological, psychosocial and social function and CBT substantially helps to treat these factors. Moreover, CBT is an evidence-based approach which has been identified as an effective cognitive and behavioural treatment approach for SUD patients. In this study, individualised CBT sessions were provided to SUD patients and the outcomes were effective.[17] It was observed that CBT worked effectively with alcohol and opioid withdrawal disorders at the rehabilitation facility. After the detoxification process, patients felt more comfortable to stay in therapeutic sessions. A previous study has also shown that the combination of pharmacotherapy and CBT produce the best outcomes for treating patients with substances use disorder.

CBT is a goal-directed approach which focuses on the current position of patients and mainly targets the patient's maladaptive cognitive, behavioural and emotional patterns.17 Additionally, CBT techniques and planning of treatment particularly target the patient's core beliefs. If the patient's illogical and irrational beliefs change into logical and rational beliefs, the patient starts to believe that he is able to cope with his problems and his problems are manageable. In the current study, structured CBT sessions were conducted with the patients individually. Each session was formulated with a particular goal and agenda. The

main focus was on the patients' cognitive restructuring, stress management, daily living functioning, and lapse-relapse preventions. Patients' cognitive and behavioral functioning significantly improved. It was also observed that they tried to cope with their problems such as craving. CBT work effectively with alcohol and illicit drugs.[18] Research also revealed that the durability of treatment also affects the results. For instance, one study by Rawson and colleagues described that 60% of patients in CBT state gave clean toxicology screens at 52-week follow-up.[19] By following the CBT technique, a marked difference in the pre- and post-rating of the problems was noticed. It was also concluded that contingency is very effective in substance use disorder patients. Additionally, deficits in abilities for handling with antecedents and consequences of substances are measured as a major contributor to the development of SUDs. An individual with SUDs does not use appropriate skills to overcome life stressors in an effective way. The reduced use of trained habits and skills significantly leads to SUDs.[20]

In this current research, the technique "skill training" also known as "skills building" was used on substance use disorder patients. In the process of skills building, the patient's emotions, cognitive, behaviour, organisational, interpersonal and problem-solving deficits were targeted. The approaches that were based on patients's individual differences were used. The patient's connection with others was worked on because the opposite of addiction is not sobriety; in fact, it's the connection with society. In the current research, the focus was on the patient's interpersonal skills as well. Interpersonal skills help to remove relationship complications, enhance effective communication and capability to use effective communication and social support. This support helps in obtaining abstinence and healthy relationship.[21]

Conclusion

It is concluded that Cognitive Behaviour Therapy is an effective treatment approach for the treatment of substance use disorders. It effectively works to improve the patients' cognitive, behavioural and occupational functioning.

Limitations of the study

The study is rich in information but has some limitations. The patients showed moderate level of interest in homework assignments, and wished to increase the session interval when they felt they are improving but this factor was conrolled through continous motivations. Moreover, the patients apparently had lower level of family, social and moral support during treatment; it is felt that if these were present better results would be achieved.

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Conflict of Interest: None

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