

Cognitive Behavior Therapy on Spouses' Anxiety and Quality of Life in Inpatients with Substance Use Disorders

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ABSTRACT

Background: Substance use disorders have been identified as one of today's most important social, psychological, and health-related challenges. It has not only affected the dependent individual's health but also had familial and social consequences. Given the intimacy of the relationship, spouses experience the greatest impact. **Objective:** The aims of the study are to evaluate the benefits of cognitive-behavioral therapy for spouses' anxiety and quality of life. **Methods:** The quasi-experimental design included pre- and post-tests, as well as a three-month follow-up during which all participants completed the Depression, Anxiety, and Stress Scale-21 (DASS-21) and World Health Organization Quality of Life-BREF (WHOQOL-BREF) questionnaires. The sixty (60) wives of patients' husbands with substance use disorders were chosen through a purposive sampling process, and then they were randomly assigned to experimental (n = 30) and control (n = 30) groups. The experimental group participated in eight 45- to 60-minute individual cognitive behavior therapy sessions per week. **Results:** The results showed that there were significant differences between the pretest, posttest, and follow-up scores of the experimental group, so cognitive behavior intervention could significantly reduce the anxiety and enhance the quality of life of the addict's wife. **Conclusion:** These findings have significant clinical implications for enhancing the mental health of these women.

Keywords: *Anxiety, Spouse Caregivers, Cognitive Behavior Therapy, Substance use Disorders, Quality of Life.*

INTRODUCTION

Substance use disorders have been identified as one of today's most important social, psychological, and health-related challenges. According to the World Drug Report 2022, 284 million people between the ages of 15 and 64 took drugs globally in 2020, a 26% rise from ten years prior. Many people in India use psychoactive substances. Adult men bear the brunt of substance use disorders. There are 72,642 drug dependents in our country, India (Ambekar et al., 2019).

Substance dependence has a wide range of effects on the family, including anxiety, financial difficulty, stigma, psychiatric problem, and the responsibility of providing care. Given that they aid and take part in the healing process in India, it is crucial to understand the mental health of family members (Sarkar et al., 2016). Family members and society as a whole suffer greatly from substance misuse and dependence. Given the intimacy of the relationship, spouses experience the greatest impact. Wives may have negative effects on their quality of life because of their husbands' substance use disorders. According to the World Health Organization's (2019) International Statistical Classification of Diseases and Related Health Problems (11th ed.; ICD-11) definitions of substance use disorders (harmful substance use and substance dependence) and substance-induced disorders, such as substance

intoxication, substance withdrawal, substance-induced mental disorders, sexual dysfunctions, and sleep-wake disorders, these are among the conditions brought on by substance use. According to the World Health Organization's (2017) report on depression and other common mental disorders, anxiety disorders affected 3.6% of the world's population in 2015, or more than 246 million years of life with disability (YLD). For those affected and for society at large, anxiety disorders pose severe personal, financial, and care challenges. A recent study found that 88% of Indians had anxiety disorders of some description (Kanwal, 2023). Anxiety is a complex cognitive, affective, physiological, and behavioural response mechanism (also known as threat mode) that is brought on by impending situations or events that are perceived as being extremely unpleasant because they are seen as unpredictable, uncontrollable, and potentially dangerous to an individual's vital interests (Clark & Beck, 2010). Anxiety is quite common among drug users' spouses, according to the literature (Noori et al., 2015).

The spouses of alcoholic men were also shown to have higher incidences of anxiety and low marital satisfaction (Rao & Pandit, 2013; Begam et al., 2015; Mammen et al., 2015; Shah et al., 2017; Dandu et al., 2017; Gandhi et al., 2017). Women are particularly vulnerable in stressful

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environments if they have an unstable family, worry about their partners leaving, or try to avoid them because of their negative experiences with their husbands' substance use disorders (Maghsoudi et al., 2019). Their psychological health was impacted by living with a partner who was addicted to substances, notably their levels of stress, anxiety, and sadness (O'lafsdo'ttir et al., 2018). The World Health Organization defines quality of life as a person's sense of their place in life in relation to their objectives, aspirations, standards, and concerns, as well as the values and culture of their environment (WHO, 1994). A recent study by Gaikwad et al. (2018) has shown that there is a negative association between the wives' quality of life in each of the four domains (physical health, psychological health, social relationships, and environment) and the degree and duration of their husbands' alcohol dependence. The quality of life of spouses whose husbands have substance use disorders benefits from mindfulness training (Gharibboluk & Hosseizadeh, 2018).

Beck (1960) developed a classic form of psychotherapy called "cognitive therapy". Cognitive therapy (CT) is an active, short-term, present-oriented, structured approach used to treat depression and other mental disorders, such as anxiety. The goal of cognitive therapy is to assist clients in recalibrating overstated danger assessments and raising their tolerance for risk and unpredictability in relation to their anxiety issues (Beck & Clark, 2010). Faghieh and Pahlavanzadeh et al. (2018) revealed that cognitive behaviour therapy helps reduce the burden on drug dependence caregivers. For inpatients with substance use disorders, informal care is primarily the responsibility of the spouse. The caregiver's quality of life will be lowered if their capacity to participate in social, recreational and employment activities is restricted by their caring responsibilities. The act of giving care could have an adverse effect on the woman's health. The spouse will get more anxious and stressed as the person with the substance use problem relapses. Women who provide care for partners with substance use disorders may also notice changes in their marital happiness, a self-reported loss in physical health, and worsening family dynamics.

Limitations and gaps in the intervention studies of female spouses' patients who are drug addicts in the northeast Indian state of Manipur Finding out how successful cognitive behaviour therapy is at reducing anxiety and improving quality of life for the most vulnerable women is of interest and significant scientific significance in light of the

aforementioned factors. This study will contribute to the corpus of knowledge regarding the mental health of spouse caregivers who are coping with substance use disorders and aid in our comprehension of the therapeutic advantages of psychotherapy.

METHOD

Aim and Objective of the study

The current study compared the efficacy of cognitive behavior therapy to a control group in terms of reducing anxiety and improving quality of life in spouses of men with substance use disorders.

Hypotheses of the study

H1: The cognitive behavior intervention will reduce anxiety in the experimental group.

H2: The cognitive behavioral intervention will enhance the quality of life in the experimental group.

Participants

The sample of the study consisted of a total of 60 (sixty) spouse caregivers of husbands' substance use disorders who fulfilled the inclusion and exclusion criteria. A purposive sampling method was used for the selection of the sample.

Inclusion criteria required participants to be the wives of inpatients with substance use disorders and be over 19 years of age. Spouses who suffer from chronic disease or mental illness or who are also co-dependent on substances were excluded.

Research Design

This study used a pretest- posttest design with a control group in a quasi-experimental setting. From January to December 2022, the study was carried out at the Regional Institute of Medical Sciences (RIMS), Department of Psychiatry, Lamphelpat, Imphal West, Manipur.

Procedure

The 11th institutional ethical committee of Sikkim University granted ethical approval on December 31, 2021 (No. SU/REG/F-1/03/2019/Vol-II/891). Consent form: written informed consent of the participants. Confidentiality: protecting the privacy and secrecy of the data of participants.

The entire research was conducted in **three** distinct phases:

Phase I: Screening/Pre-intervention Assessment

During this phase, individuals interested in participating provided written informed consent and completed eligibility screening questionnaires,

including the basic demographic information and the questionnaires, namely the DASS-21 and WHOQOL-BREF. A sample of 60 female spouse caregivers who scored above the clinical cut-off on the anxiety score (DASS-21) but had a low quality of life score (WHOQOL-BREF) was included and randomly assigned to the experimental (n = 30) and control (n = 30) groups, respectively.

Phase II: Cognitive Behavior Therapy (CBT) intervention for the experimental group

For each participant, the CBT intervention sessions lasted between 45 and 60 minutes, including the mindful breathing exercise session, which lasted five minutes.

Phase III: Post-intervention Phase: Post-intervention assessment participants completed self-reported outcome measures post-treatment, as well as at 3-month follow-up, to determine the treatment effectiveness across the three-point time periods on anxiety and quality of life.

Tools Used

1. **Socio-demographic Datasheet:** It consists of the personal records of the spouse caregivers, such as age, sex, education, residential address, religion, social group, socio-economic status, the family's income and occupation, etc.
2. **Depression, Anxiety, and Stress Scale—21 (DASS-21):** The Depression, Anxiety, and Stress Scale is a short version of the DASS-42, which was developed by Lovibond and Lovibond (1995). Three self-report scales are included in the set, and they are used to assess the emotional states of stress, anxiety, and depression. Each index consists of seven items, for a total of 21 items. A 4-point Likert scale was used to evaluate the degree to which they had experienced each state over the past week, with a range of 0 to 3 (0 = "did not apply to me at all" to 3 = "apply to me very much, or most of the time"). Scores for depression, anxiety, and stress were multiplied by two to calculate the final score. Total scores for each indicator ranged from 0 to 42, with higher scores indicating a higher level of psychological distress. The anxiety levels were defined as normal: 0–7, mild: 8–9, moderate: 10–14, severe: 15–19, and extremely severe: 20+. The DASS-21 demonstrated high internal consistency and test-retest reliability scores of 0.89 and 0.96, respectively, as well as criterion validity and construct validity.

3. **The World Health Organization Quality of Life-BREF (WHOQOL-BREF):** The World Health Organization Quality of Life- BREF was developed by the World Health Organisation group in 1995. It produces a quality of life profile and contains a total of 26 items. It is a self-reported questionnaire that assesses four domains of quality of life (QOL): physical health, psychological health, social relationships, and environment. Additionally, two items are looked at independently: question 1 measures overall QOL, and question 2 measures overall health. Together, they measure an individual's perception of their overall health and quality of life. The four domain scores are scaled in a positive direction (i.e., higher scores denote a higher quality of life). WHOQOL-BREF domain scores demonstrated good content validity, discriminant validity, and internal consistency for domains: 0.80 for physical health, 0.76 for psychological, 0.66 for social relationships, and 0.83 for environment. The test-retest reliability for domains was 0.66 for physical health, 0.72 for psychological health, 0.76 for social relationships, and 0.87 for environment.

Outline of Intervention Program: Beck's Model Cognitive Behavior Therapy (CBT)

Session I: providing explanations of substance use disorders and the impact of them on family members; providing psychoeducation on anxiety; practicing mindful-breathing exercises with their potential benefits on quality of life; discussing the role of cognitive behavior therapy in the treatment of anxiety disorders; and developing a good working alliance and client feedback.

Session II: practicing mindful-breathing exercise, we collaboratively examine the client's meaning system and assist the client in recognizing the salient connections between thinking, feeling, and behaving/motivation/physiology in relation to their challenges, typically using real-life examples. Client's feedback.

Session III: Continue mindful breathing exercises; examine or explore the evidence for their beliefs and assumptions based on their behaviors. Client's feedback.

Session IV: mindful-breathing exercise: help the client recognize perceptual attention that leads to impractical interpretation. Impart the cognitive model in a way that infers that the client is thinking inadequately rather than "irrationally." Client's feedback.

Session V: Mindful-breathing exercise, guiding discovery: to help the client learn facts that will help them understand things better (and to help the client adopt this strategy for themselves as the basis for exploring their own beliefs). Client's feedback.

Session VI: Continue mindful-breathing exercise, identification, and recording of central cognitions (involuntary thoughts or images). Assist the client in obtaining alternative explanations for issues, with the goal of assisting the client rethink their problems. Client's feedback.

Session VII: Mindful-breathing exercise, identification, and modification of dysfunctional assumptions ("intermediate beliefs"). Behavioral activation: an activity schedule to help clients manage behavioral symptoms. Client's feedback.

Session VIII: Mindful-breathing exercise, the client learned how to become their therapist and terminate therapy as planned. Client's feedback.

STATISTICAL ANALYSES

The data was analyzed and interpreted using multivariate analysis of variance (MANOVA) with the statistical package for social science (SPSS) version 26. The significance level in statistical tests was 0.05.

RESULTS

Table 1 Summarizes participant demographics; the descriptive information of the variables is provided in Table 2. The results of the multivariate analysis of variance are shown in Tables 3 and 4.

Table 1: Frequency distribution of participants' demographic characteristics

Variables	Treatment		Total %
	Intervention	Control	
Age in years			
young age (19 to 45)	28(46.67%)	25(41.67%)	53(88.34%)
old adult (45 & above)	2(3.33%)	5(8.33%)	7(11.66%)
Total	30(50%)	30(50%)	60(100%)
Locality			
urban	6(10%)	5(8.33%)	11(18.33%)
rural	24(40%)	25(41.67%)	49(81.67%)
Total	30(50%)	30(50%)	60(100%)

As shown in Table 1, the result of the current study shows that 46.67% of the experiment groups' members were young adults, whereas 3.33% were older adults. Young adults made up 41.67% of the population, and older adults made up 8.33% of the control group. Furthermore, these results showed that 10% of the spouses of substance use husbands came from urban areas, 40% from rural areas, and

8.33% and 41.67%, respectively, for the experimental group and control groups.

Table 2: Descriptive informative (mean and standard deviation)

Variables	Groups	Pre-test	Post-test	Follow-up
		Mean and Standard Deviation (M & SD)	Mean and Standard Deviation (M & SD)	Mean and Standard Deviation (M & SD)
Physical health D1	Experimental	43.53±9.00	67.50±7.49	67.50±7.49
	Control	44.13±10.58	46.47±10.27	46.47±10.27
Psychological D2	Experimental	39.17±8.623	60.23±9.198	60.23±9.198
	Control	43.03±9.593	43.70±9.724	43.70±9.724
Social relationships D3	Experimental	35.77±9.905	52.90±7.112	52.90±7.112
	Control	34.53±9.043	39.80±9.859	39.80±9.859
Environment D4	Experimental	38.60±9.324	53.60±6.811	53.60±6.811
	Control	38.37±9.427	41.07±10.923	41.07±10.923
Anxiety	Experimental	14.2000±4.70803	2.6000±1.49943	2.6000±1.49943
	Control	14.8667±3.84827	12.6667±3.83571	12.6000±3.71947

QOL= quality of life; physicalhealthD1= physical health domain 1; psychological D2= psychological domain 2; social relationships D3= social relationships domain 3; environment D4= environment domain4.

As observed in Table 2, the mean scores in the control group showed little difference, but the difference is visible in the experimental group.

Table 3: Multivariate Tests

Test	Value	F	Hypothesis	df	Error	df	Sig.
Pillai's Trace	.727	28.731	5.00	54.00	<.05		
Wilks' Lambda	.273	28.731	5.00	54.00	<.05		
Hotelling's Trace	2.66	28.731	5.00	54.00	<.05		
Roy's Largest Root	2.66	28.731	5.00	54.00	<.05		

Table 3 shows that the observed F for Pillai's Trace, Wilks' Lambda, Hotelling's Trace, and Roy's Largest Root is 28.73 at a significance level of .05. This means that there is a significant difference, at least in one of the comparable variables, between the two groups.

Table 4: Tests of Between-Subjects Effects

Dependent variable	Sum of squares	df	Mean square	F	Sig.	Eta
Physical health	8597.42	1	8597.42	40.24	<.05	.410
Psychological	4263.20	1	4263.20	18.49	<.05	.242
Social relationships	3762.93	1	3762.939	18.25	<.05	.239
Environment	3200.45	1	3200.45	13.76	<.05	.192
Anxiety	2149.35	1	2149.35	76.37	<.05	.568

The results in Table 4 showed that there is a significant difference between the groups in terms of all four domains of quality of life and anxiety. This means that cognitive behavior intervention enhanced the physical health domain of quality of life ($F = 40.24, p.05$), psychological ($F = 18.49, p.05$), social relationships ($F = 18.49, p.05$), environment ($F = 13.76, p.05$), as well as reduced anxiety levels ($F = 76.37, p.05$) in the experimental group compared to the control group. Given the size of the effect, it can be stated that intervention had the greatest impact on anxiety.

DISCUSSION

Spouse caregiver: When it comes to substance use disorders, mental health is essential for both the patients and the smooth functioning of the family. Unnoticed by nature, a husband's substance dependence has detrimental effects that result in a host of psychological, social, and environmental difficulties. The present study examines the effect of cognitive behavior therapy on the anxiety and quality of life of substance use disorder spouse caregivers. According to the findings, at the baseline intervention, there was no significant difference between the intervention and control groups for anxiety or the four quality of life domains (dom1, dom2, dom3, and dom4) mean scores. However, according to the study's findings and the mean scores at the post-test and follow-up intervention, there were significant differences between the intervention and control groups for anxiety and the four domains of quality of life (dom1, dom2, dom3, and dom4) mean scores. These findings were consistent with studies by Borji et al. (2017), which examined family caregivers of prostate cancer patients; in addition, the results of another study by Faghieh and Pahlavanzadeh (2019), which examined family caregivers of drug users. The three time points in the intervention group differed significantly from one another. Nevertheless, there was no discernible decrease in the control group's mean care burden score. Caregivers of drug addicts may have less stress as a result of CBT. As in previous studies by Gharibboluk and Hosseinzadeh (2018), which looked at the psychological wellbeing and marital satisfaction of wives of dependent adults, The outcomes demonstrated that mindfulness training had a positive impact on the psychological health and marital quality of women who had an addicted husband. Also, a three-month follow-up showed that the intervention was successful. Similarly, according to study findings by Secker & Brown (2005), which looked at the psychological discomfort, sadness, and burden of caring for a group of people with Parkinson's disease, the experimental group's mean score of quality of life after the intervention was significantly higher than that of the control group.

CONCLUSION

These findings provide early evidence in favor of a cognitive behavioral therapy (CBT) method for improving anxiety and quality of life in spouse caregivers of those with substance use disorders. It helps the spouses recognize the salient connections between thinking, feeling, and behaving in relation to their challenges and also learn skills like mindful breathing exercises and living in the moment.

Limitations and Implications

The study's main weakness was that the sample was exclusively drawn from female spouses who served as the primary caregivers for male inpatients who sought treatment at a tertiary care hospital and were therefore perhaps not typical of the general community. In order to evaluate the findings' generalizability to a wider range of spouse caregivers, determine the longer-term effects on outcomes in caregivers and SUD patients, and determine the most efficient way to administer CBT, more extensive study is required in the future. The findings make spouse caregivers of inpatients with substance use disorders more aware of the effects of the cognitive behavior intervention on their mental health. This study laid the foundation for the subsequent investigations, spurring other researchers to continue their explorations into the partners of substance use disorders. This study also highlights the need for additional research employing a variety of psychotherapies in diverse contexts that are culturally acceptable.

Conflict of interest

The authors declared no conflict of interest.

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