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Disengaged Coping as a Mediator Between Dysfunctional Attitudes and Psychological Distress in Patients with Substance Use Disorder

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ABSTRACT

This study aimed to explore the intricate relationship between dysfunctional attitudes, psychological distress, and disengaged coping strategies among individuals diagnosed with substance use disorders in public and private hospitals and rehabilitation service providers for substance use disorder settings. The study uses a cross-sectional research design. The study was conducted at the Department of Clinical Psychology, National University of Medical Sciences (NUMS), with rehabilitation service providers for substance use disorder. The sample consisted of patients with substance use disorder (N=400) aged 18-50 (X=33.8, SD=7.195), and was selected using a purposive sampling technique. The demographic information form, dysfunctional attitude scale, Kessler Psychological Distress and Coping Strategies Inventory-Short Form. Data Analysis was done by using Regression Analysis and Mediation Analysis through SPSS V-27. Additionally, socioeconomic disadvantage was prevalent, as nearly half of the sample (49.5%) came from lower-income backgrounds. The findings revealed a strong association between dysfunctional attitudes and psychological distress ($\beta = 0.42$, $t = 12.58$, $p < 0.001$). Disengaged coping Strategies were found to mediate this relationship partially ($\beta = 0.71$, $t = 5.30$, $p < 0.001$). This research emphasises the importance. These findings highlight the critical role of dysfunctional attitudes in exacerbating psychological distress among individuals with SUD. Given that maladaptive

coping strategies further compound distress, interventions should focus on cognitive restructuring techniques and promoting adaptive coping mechanisms, such as problem-solving and emotional regulation. The study underscores the urgent need for culturally sensitive interventions and integrated mental health services in Pakistan to bridge the existing gaps in SUD treatment. Addressing these cognitive and behavioural factors could significantly improve psychological well-being and recovery outcomes in affected individuals.

Keywords: *Substance Use Disorder, Dysfunctional Attitude Scale, Psychological Distress, Coping Strategies, Pakistan*

INTRODUCTION

Substance use disorder (SUD) is a worldwide public health challenge marked not just by physical dependence but also by significant impairments in cognitive and emotional processes (Bush and Lipari, 2016). A key factor in these impairments is dysfunctional attitudes—persistent negative thought patterns (such as catastrophizing, perfectionism, or feelings of hopelessness) that skew self-perception and fuel recurring substance dependence. These maladaptive beliefs intensify psychological struggles, including anxiety, depression, or emotional volatility, which individuals may try to manage through substance consumption (Conway, Slavich, and Hammen, 2015). Coping mechanisms, however, play a critical role in whether distress worsens or diminishes. Adaptive approaches (such as seeking support or proactive problem-solving) versus maladaptive ones (like avoidance or continued substance use) yield vastly different outcomes. Research highlights a cyclical connection: dysfunctional attitudes may increase vulnerability to psychological distress, which then influences coping mechanisms, while ineffective strategies further entrench both distress and harmful cognitive patterns (Barnett and Gotlib, 1988). Despite this, the complex dynamics of these interactions remain insufficiently researched among individuals with SUD.

Dysfunctional attitudes, defined by inflexible and maladaptive thought patterns, are widely acknowledged as a significant factor affecting emotional well-being and behavioural responses (Kuiper & Dance, 1994). In individuals with SUD, these attitudes, when combined with psychological distress, can create a self-perpetuating cycle where ineffective coping strategies lead to heightened substance dependence. This interaction reinforces both emotional instability and reliance on maladaptive behaviours, further entrenching the difficulties associated with SUD. Beck's cognitive theory (1967) posits that dysfunctional attitudes underpin negative automatic thoughts, which contribute to emotional distress and are implicated in the development of mental health disorders such as anxiety and depression. Further research indicates that the influence of psychological distress may help explain the connection between maladaptive beliefs and dysfunctional emotional responses. Kuyken and Brewin (2014) found that individuals with heightened dysfunctional attitudes were more susceptible to substance use after encountering stressful life events. This highlights the significance of cognitive vulnerabilities in intensifying emotional reactions to stress, a crucial factor in the emergence of psychological distress (Yang, Xia, & Zhou, 2022).

Psychological distress plays a fundamental role in the lived experience of individuals with SUD, encompassing various emotional and mental health struggles such as anxiety, depression, guilt, and hopelessness (Kuiper & Dance, 1994). Serving as both a catalyst for and a result of substance use, this distress contributes to a self-reinforcing cycle that sustains dependency, making recovery more challenging. Psychological distress and substance use disorder (SUD) are deeply connected, with

distress often acting as both a cause and a result of substance misuse. Individuals experiencing intense emotional struggles, such as anxiety, depression, or trauma, may resort to substances to cope, seeking temporary relief from their pain. However, this pattern of self-medication can lead to dependence, further deteriorating both mental and physical well-being. Conversely, those with lower distress levels may not feel a strong urge to use substances but might still engage in occasional or recreational use, which, if left unchecked, could develop into harmful habits. This creates a reinforcing cycle where substance use worsens psychological distress, making it increasingly difficult to break free without proper intervention.

According to Caparrós and Masferrer (2021), coping mechanisms have a significant impact on the onset and progression of substance use disorder (SUD). Coping encompasses the cognitive and behavioural strategies individuals use to handle internal or external stressors (Adan Antúnez & Navarro, 2017). In individuals with SUD, these strategies can differ significantly, with some employing adaptive methods like seeking social support or problem-solving, while others rely on maladaptive behaviours such as avoidance or increased substance use. The chosen coping mechanisms play a crucial role in determining both the severity and duration of substance dependence, as well as overall mental health outcomes (Adan Antúnez & Navarro, 2017).

Research has consistently highlighted the role of dysfunctional attitudes in exacerbating psychological distress, particularly when paired with disengaged coping strategies like problem avoidance, self-criticism, and social withdrawal. Individuals with dysfunctional attitudes often perceive challenges as insurmountable, leading them to adopt maladaptive coping strategies that amplify distress rather than alleviate it. For instance, Garnefski et al. (2021) demonstrated that disengaged strategies, including self-blame (a form of self-criticism) and avoidance, mediate the relationship between negative cognitive schemas and heightened psychological distress. These strategies, characterised by emotional suppression or withdrawal from stressors, reinforce feelings of helplessness and inadequacy, particularly among those with inflexible thought patterns (Ghosh Choudhury & Panja, 2024). Similarly, studies have shown that problem avoidance and social withdrawal, common in individuals with pessimistic self-appraisals, correlate strongly with elevated psychological distress, leading to mental health-related problems. By evading challenges or isolating themselves, individuals inadvertently perpetuate cycles of distress, as these strategies prevent constructive engagement with stressors. Such findings underscore the compounding effects of dysfunctional attitudes and disengaged coping, emphasising their role as key drivers of psychological distress.

Disengagement coping strategies—such as avoidance, denial, and distraction—often intensify distress by preventing individuals from addressing underlying issues (Ghosh-Choudhury & Panja, 2024). Despite the well-established benefits of engagement coping, the interaction between dysfunctional attitudes and psychological distress, considering both engagement and disengagement coping strategies, remains insufficiently explored. This gap highlights the need for targeted research to examine these mediating pathways, offering a deeper understanding of how individuals can effectively manage psychological distress.

The way patients with substance use disorder manage their psychological distress, along with the role dysfunctional attitudes play in worsening this distress, has not been thoroughly explored in existing research, particularly in Pakistan. Highlighting this gap is essential for shaping the study and demonstrating its originality and significance.

This study is grounded in the Transactional Model of Stress and Coping, developed by Lazarus and Folkman (1984). According to this model, individuals evaluate stressors and determine their coping responses based on their perceived ability to handle the situation. Dysfunctional attitudes can interfere with this assessment, often resulting in disengaged coping strategies that heighten psychological distress. In the context of substance use disorder (SUD), the Transactional Model of Stress and Coping operates similarly to how individuals process other life challenges, such as substance use disorder. Those struggling with SUD first perform a primary appraisal to determine how threatening or challenging their substance use is to their well-being. If they perceive it as a significant threat, they proceed to a secondary appraisal, evaluating their coping resources and their ability to address the issue. These evaluations then influence their coping responses. Suppose individuals hold dysfunctional attitudes, such as self-blame or beliefs about their inability to change. In that case, they may resort to maladaptive coping strategies, like continuing to use substances, which worsens their psychological distress and hinders recovery. On the other hand, if they view the situation more adaptively and feel they can seek help or make changes, they are more likely to activate adaptive coping strategies, such as seeking treatment or applying problem-solving techniques. These strategies can lead to improved well-being and support the recovery process by reducing distress and promoting healthier coping. Despite extensive research, gaps persist in understanding how dysfunctional attitudes interact with other psychological factors, such as coping strategies, to influence distress (Galloghly-Apputhurai & Knowles, 2024). This study investigates the mediating role in psychological distress, aiming to contribute to targeted interventions to reduce dysfunctional attitudes and enhance psychological resilience.

METHOD

Participants:

The research covers 400 persons with substance use disorder in its sample, with an age range between 18-50 years (Mean= 33.8, SD= 7.195). The research took place in the rehabilitation service providers for substance use disorder and private and public hospitals in Islamabad and Rawalpindi, Pakistan. A purposive sampling technique was used to ensure that the sample characteristics were as diverse as possible. A cross-sectional research design was used in the study.

Inclusion Criteria:

These criteria were designed to identify participants who meet the necessary conditions for the research while maintaining the integrity and applicability of the findings. The inclusion criteria for this research include certain demographics, namely males only, ranging in age from 18 to 50 years. Research focuses on the people currently in hospitals and rehabilitation service providers for substance use disorder, who a diagnosed with substance use disorder by the clinical psychologist or a psychiatrist, were literate enough to understand the questions and willing to provide informed consent.

Exclusion Criteria:

To refine the sample further and ensure the reliability and validity of the findings, specific exclusion criteria were established. These criteria were chosen to eliminate confounding factors that could potentially affect the study's outcomes. The study did not include people with existing psychological conditions, cognitive impairment, polydrug users, acute substance intoxication, currently in the phase of detoxification and recent participation in research studies.

Measures

Demographic Information Sheet:

The demographic form included age in years, level of education, occupation, birth order, marital status, socioeconomic status, family system, drug of choice and age when started using drugs.

Dysfunctional Attitude Scale (DAS)

This instrument comprises a scale consisting of forty items, which was formulated following Beck's theoretical framework by Weissman and Beck (1978) to assess the diverse attitudes and various beliefs that underlie multiple manifestations of psychopathology (Oliver and Baumgart, 1985). The scoring spectrum ranges from 40 to 280, wherein elevated scores are indicative of more pronounced unhealthy attitudes. In the current investigation, the aggregate score was employed to signify overall dysfunctional attitudes. The Cronbach's α coefficient for the scale was determined to be 0.79. This measurement has exhibited robust construct and predictive validity, alongside sufficient to excellent internal consistency. Participants were directed to select the option they deemed to be their "most preferred" for all items to which they felt a significant connection. Each item was appraised utilising a 7-point Likert scale (7 = completely agree; 1 = completely disagree).

Coping Strategies Inventory – Short Form (CSI-SF)

This instrument represents a brief version of the actual 72-item 'Coping Strategies Inventory' (CSI-32) self-report questionnaire. This instrument includes eight primary subscales: problem-solving, cognitive restructuring, emotional expression, social interaction, problem avoidance, wishful thinking, self-criticism, and social withdrawal; besides, it contains four secondary subscales: problem-focused engagement, emotion-focused engagement, problem-focused disengagement, and emotion-focused disengagement; and also includes two tertiary subscales: engagement and disengagement. The instrument employed a five-point Likert-type scale ranging from '1' (Not at all) to '5' (Very much) to quantify the extent to which respondents manifested a particular reaction. The scores are aggregated for analytical interpretation. The reliability, as measured by Cronbach's alpha 0.81.

Kessler Psychological Distress Scale (K6)

The Kessler Psychological Distress Scale, or K10, is shortened to the six-item measure called the K6. Such a scale has been validated to indicate a sensitivity to mood and/or anxiety disorders. Each question on the scale assesses the situational respondent's experience of his or her emotional state over the previous month using a five-point Likert-type response format, ranging from '0' (None of the time) to '4' (All of the time). The total score attainable on the K6 is 0 to 24, whereby a score from 0 to 12 implies that the respondent is 'likely to be well,' while a score from 13 to 24 indicates that the respondent is 'likely experiencing psychological distress.' The Cronbach's alpha coefficient of the K6 is ($\alpha = 0.89$).

Procedure:

The research participants were selected from different public and private hospitals and rehabilitation service providers for substance use disorders located in Islamabad and Rawalpindi, Pakistan. Before data collection, permission from hospital authorities and rehabilitation service providers was obtained. Subsequently, permission was obtained from each participant through consent forms to participate in the research. The consent form clarified that their participation would be voluntary and that the collected information would be completely confidential. The individual right and freedom to withdraw from the research at any time were also explained. The research questionnaire was then delivered, along with a demographic information form. The surveys were completed within a time frame of 30-45 minutes.

Statistical Analysis:

The study's variables were analysed using the statistical software SPSS, V-27. The study used linear regression to examine the predictive association between DA and PD. The Hayes macro an extension, was used for the mediation analysis to examine the mediating role of DCSI between the DS and PD.

RESULTS

Table 1

The Demographic Characteristics of Participants (N=400)

Demographics	*Description*	*f*	*%*
Age	18-30	267	66.75
	31-40	121	30.25
	41-50	12	3.0
Level of Education	Uneducated	71	17.8
	Matric	224	56
	Graduated	104	26
Occupation	Unemployed	256	64
	Employed	144	36
Birth order	1st Order	170	42.5
	Middle Order	106	26.5
	Last Order	124	31
Marital Status	Single	214	53.5
	married	186	46.5
Socioeconomic Status	Low	198	49.5
	Middle	175	43.8
	High	27	6.8
Family System	Joint	70	17.5
	Nuclear	330	82.5
Drug of choice	Alcohol	14	3.5

	Amphetamine	159	39.8
	Cannabis	130	32.5
	Cocaine	96	24.0
	Opioid	1	0.3
Age when started using Drugs	16-20	243	60.75
	21-25	129	32.25
	26-30	25	6.25
	31-35	3	0.75

(Mean age = 33.8)

Table 1 shows the descriptive statistics of the sample characteristics.

Table 2

Descriptive Statistics of the Disengaged Coping Strategies Used by Patients with Substance Use Disorder (SUD), N=400

Disengagement Coping Strategies	Min	Max	M	SD
Problem Avoidance CS	7	20	13.76	3.654
Wishful Thinking CS	4	17	10.11	3.390
Self-Criticism CS	5	20	12.92	3.349
Social withdrawal CS	8	20	14.84	3.230
Problem-Focused Disengagement CSI	12	36	23.88	5.014
Emotion-Focused Disengagement CSI	14	40	27.77	4.929
Disengagement CSI	34	73	51.64	7.394

Note: Min = Minimum score, Max = Maximum score, M = Mean, SD = Standard Deviation

Table 2 indicates the descriptive statistics for the disengagement coping strategies (DCSI) and represents the overall tendency to use disengagement-based coping (Mean = 51.64, SD = 7.394). Among the data disengagement strategies, Social Withdrawal (Mean = 14.84, SD = 3.230) is the most commonly used disengaged coping strategy among substance use disorders, and Wishful Thinking (Mean = 10.11, SD = 3.390) is the least used coping strategy among patients with substance use disorder. Problem-focused disengagement suggests greater variability in how patients engage in these disengaged coping strategies.

Table 3

Descriptive Statistics of the measurement scales (N=400)

	n	*a*	*Min*	*Max*	*M*	*SD*	*Skew*	*Kur*
DAS	40	0.79	117	206	166.79	17.863	0.91	2.31
PD	06	0.89	10	20	16.01	1.893	0.64	2.45
CSI	32	0.81	61	111	83.57	10.092	0.78	2.44

Note: n = number of items, a = Cronbach's reliability, Min = Minimum, Max = Maximum value, Std. Dev = Standard Deviation, DAS = Dysfunctional Attitude Scale, PD = Psychological Distress, CSI = Coping Strategy Inventory

Table 3 indicates the descriptive statistics and reliability of the study measures (N=400). The scales used in the study demonstrated an acceptable to excellent internal consistency (DAS *a= 0.79, PD a=0.89, CSI a=0.81).* Scores showed moderate positive skewness and leptokurtosis, indicating normal distribution.

Table 4

Linear Regression Analysis for the Dysfunctional Attitude and Psychological Distress of all the participants of the study (N=400)

Variable	R^2	*β*	F	*p*
DA	.47	.79	109.521	.000[b]

***p<.01, DA = Dysfunctional Attitudes as a Predictor, Outcome Variable= Psychological Distress*

Table 3 indicates that dysfunctional attitude positively and significantly predicts psychological distress among persons with substance use disorders. Results showed that the predictor explains 47% of the variance of psychological distress (*β = 0.79, t = 12.47, p<.01)*

Table 4

Mediation Analysis for the Disengaged Coping Strategy, and Dysfunctional Attitude Scale, and Psychological Distress of all the participants of the study (N=400)

Paths	*B*	*t*	*p*	*F*	*β*	R^2	*LLCI*	*ULCI*
DA------PD	0.56	5.58	<.01	112.92	0.49	0.45	0.2724	0.5701
DAS----DCSI	0.69	10.4652	<.01	111.78	0.55	0.59	0.4477	0.6557
DCSI---PD	0.55	5.3089	<.01	113.52	0.71	0.50	0.2575	0.5619
Pathways Effects								
Direct Effects	0.56	9.2676	<.01	112.92		0.45	0.2724	0.5701
Indirect Effects	0.38	8.6265	<.01	97.78		0.47	0.1348	0.4224
Total Effects	0.94	13.1626	<.01	124.60		0.57	0.5358	0.7657

***p<.01, DA = Dysfunctional Attitudes as a predictor, DCSI = Disengaged Coping Strategies as a mediator, PD= Psychological Distress, DA – PD = Direct Effect, DCSI – PD x DCSI – DA = Indirect Effect, Total Effect = Indirect Effect + Direct Effect.*

Table 4 indicates that dysfunctional attitude significantly predicted disengaged coping strategy *(B=0.55, p=.000, β=0.71)*, indicating that higher levels of dysfunctional attitude are associated with higher disengagement in coping strategies. This effect (Path a) accounted for 49% of the variance in coping strategy *(R^2=0.49, F (1,398) = 109.52, p=.000).*

Second, dysfunctional attitude had a significant direct effect on psychological distress *(B=0.56, p=.000, β=0.49)*, even when accounting for disengaged coping strategy (Path c′). Additionally, disengaged coping strategies significantly predicted psychological distress *(B=0.69, p=.000, β=0.59)*, suggesting that higher coping strategy disengagement is associated with greater psychological distress (Path b). Together, these predictors explained 59% of the variance in psychological distress *(R^2=0.55; F (2,397) = 111.78, p=.000).*

DISCUSSION

The study confirms that dysfunctional attitudes significantly predict psychological distress in adults with substance use disorder (SUD), and coping strategies mediate this relationship. This aligns with stress-coping theories, which suggest that maladaptive coping techniques can amplify the negative impact of stressors on mental health. Dysfunctional attitudes and maladaptive thought patterns in substance use disorders (SUDs) contribute to prolonged substance use disorder and emotional distress. These unproductive cognitive patterns exacerbate addiction and complicate recovery, hindering individuals' ability to engage in and benefit from therapeutic interventions. They also drive feelings of hopelessness and helplessness.

Globally, the stigma surrounding SUDs adds another layer of pain and perpetuates dysfunctional attitudes. Additionally, poor mental health treatment resources in many parts of the world leave individuals with SUDs without the ability to address these underlying cognitive and emotional issues. In the setting of Pakistan, psychological discomfort and dysfunctional attitudes are prominent among persons struggling with substance use, leading to the complexity and persistence of substance use.

Disruptive attitudes in substance use disorder (SUD) individuals can significantly exacerbate emotional issues, leading to the use of disengaged coping strategies like denial, avoidance, substance use, and emotional numbness. These strategies are often seen as a way to avoid dealing with uncomfortable feelings or addiction. Dysfunctional attitudes directly contribute to psychological distress, worsening emotional states like anxiety and sadness. Individuals with higher dysfunctional attitudes are more likely to use maladaptive coping strategies, heightening discomfort. This highlights the importance of targeting cognitive processes and coping behaviours in therapeutic approaches to address psychological distress.

The combination of psychological discomfort, dysfunctional attitudes, and disengaged coping techniques generates a self-reinforcing loop in individuals diagnosed with substance use disorders (SUDs). This cycle is particularly troubling as it hampers the acquisition of healthier coping mechanisms. Without addressing cognitive distortions and underlying emotional suffering, individuals with SUDs are less likely to participate in adaptive measures such as seeking social support, participating in treatment, or practising mindfulness and emotional regulation techniques (Chavarria et al., 2019). This study highlights the long-term effects of addiction and psychological distress, suggesting that cognitive-behavioural therapy (CBT) can be a valuable tool in addressing dysfunctional attitudes and promoting adaptive coping mechanisms.

Conclusion

In summary, this study reveals the substantial predictive link between dysfunctional attitudes and psychological distress among individuals with drug use disorders, and coping techniques mitigate its role of dysfunctional attitudes and psychological distress. The results underline the role of maladaptive coping methods in eliciting dysfunctional attitudes and overall psychological suffering. Furthermore, this study shows the need to include psychological aid and coping methods in rehabilitation service providers for substance use disorders to increase mental health and effective coping strategies.

Limitations and Recommendations

To strengthen the relevance and trustworthiness of the results, the next studies should focus on resolving the difficulty of small and uniform sample sizes by enrolling a broader and more diverse cohort of persons with drug use disorder. Furthermore, broadening the inquiry to include maladaptive as well as adaptive coping strategies might provide a more holistic comprehension of how patients with substance use disorder might use different coping strategies to cope with the psychological distress and the underlying dysfunctional attitudes.

Although the present study successfully explained the association. However, future research could investigate the role of effective interventions, therapeutic plans, and updated policies while keeping the same factors constant in the study, which will help in thoroughly examining the relationship between the effective type of coping strategies and psychological distress. Moreover, alternative research designs may assist researchers to examine more in-depth causative links between dysfunctional attitudes, psychological discomfort and coping mechanisms. Therapeutic interventions for substance use disorders should address cognitive dysfunction, create healthier coping mechanisms, and address psychological discomfort and maladaptive attitudes. Cognitive-behavioural therapy, mindfulness, and a holistic approach to resilience building are effective methods.

Pakistan's underfunded mental health care system, lack of qualified experts, and cultural factors hinder access to specialist treatments for mental health issues like drug addiction. A multifaceted strategy, including comprehensive national plans and good drug laws, NGOs are needed.

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