



CASE STUDY

CBT as a Therapeutic Approach for Mitigating Anxiety and Panic Symptoms: A Case Study

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ABSTRACT

Anxiety disorders are most common disorders among mental health issues; they are characterized by feelings of tension, worrisome thoughts and physical changes due to an unknown fear which could be real or anticipated. This case study highlights the psychological concerns of 37 years old married male client, who was suffering from panic and anxiety symptoms. He sought help for the panic, death anxiety and the physical symptoms of palpitation. This study is based on the application of Cognitive Behavioral Therapy, which provided the basic necessary tools for the reduction of panic and anxiety symptoms. The effectiveness of the CBT technique echoed lessening of symptoms and asserted the success of therapy. The case study validated that the CBT techniques are very effective and helpful in reduction of panic and anxiety symptoms. This would help the professionals working in mental health sector to better understand the effectiveness of CBT techniques, to reduce the knowledge gap and help them to make better treatment modifications.

KEYWORDS Anxiety Disorders, Cognitive Behavior Therapy, Mental Health, Panic Disorder

Introduction

Anxiety disorders involve several mental health conditions manifested by excessive and insistent feelings of anxiety, fear or uneasiness, which can potentially hinder day-to-day functioning of a person. Panic disorder, a draining kind of anxiety disease, is characterized by recurrent and unanticipated panic attacks. A panic episode is a sudden onset of strong fear or distress, peaking swiftly, sometimes it is accompanied by stressful physiological symptoms such as tachycardia, dyspnea, vertigo, chest pain, and feelings of losing control or approaching death (APA, 2023).

Individuals with panic disorder may come across episodes either instinctively or triggered by specific stimuli. The unprecedented character of these events often creates lasting fear of future attacks that leads to elevated anxiety till the next episode may occur (Craske, 2017). This chronic anxiety may compel the individuals to keep away from specific places or activities where they may potentially assume an attack, which restrains their social, professional, and personal lives. Panic episodes, although indicative of panic disorder, can also occur in other anxiety-related diseases, such as generalized anxiety disorder and post-traumatic stress disorder (APA, 2013). Panic disorder is diagnosed when panic attacks are recurrent and cause significant distress or impairment in daily functioning.

Anxiety disorders characterized by panic symptoms can have significant consequences, often affecting relationships, occupational performance, and overall well-being (Hofmann et al., 2012). Successful treatment modalities, such as cognitive-behavioral therapy (CBT), pharmacotherapy, and relaxation strategies, have proven efficacious in alleviating symptoms and enhancing the standard of life of people with symptoms of panic disorder (Cuijpers et al., 2016). Comprehending the characteristics and symptoms of panic disorder along with the regulatory mechanisms is essential for developing specific strategies which will eventually assist the clients in regaining control and alleviating their distress.

Case Description

Mr. Z.M., a male 35-year of age, came to a clinical psychologist with the complains of pronounced panic attacks and anxiety symptoms which impaired his daily functioning. Mr. Z.M. is married, employed in an ecological change-related office and holds a PhD Fellowship. He pursued professional assistance due to escalation in his signs of anxiety, blighting his work efficiency and personal connections. He experienced persistent feelings of undefined apprehensions and anxiety following his encounter with Covid-19 in 2021, prompting him to pursue psychiatric assistance alongside medication. Notwithstanding the alleviation of his ailments and the termination of treatment, a relapse occurred. The recent occurrence of panic attacks compelled him to seek psychological help once more.

Mr. Z.M. reported that the occurrence of current episode of panic attacks started abruptly about one week earlier the appointment. He categorized the attacks as abrupt episodes of extreme distress and anxiety, culminating within minutes. The episodes had been accompanied by physiological manifestations that included tachycardia, palpitation, chest congestion, and a permanent fear of a heart failure or mortality. He told that during these episodes, he repeatedly experienced a feeling of minimized self-control that resulted in increased distress. He informed that he started to sidestep the locations and surroundings where he thought a panic attack could occur, such as passing through long, dark passages like underpasses, which worsened his sense of seclusion and bitterness. The panic episodes, he experienced lacked perceptible triggers, and thus made them exceptionally stimulating for him to antedate and control. Subsequently, he started to nurture an intensified distress of recurring episodes which resulted in defensive anxiety—a worry regarding the probable for future occurrences despite of being in formerly secure surroundings. This uneasiness regarding expected future panic attacks deepened his avoidance inclinations and the general distress.

Mr. Z.M. expressed a profound objective to manage his anxiety and panic signs, recognizing their detrimental effect on his capacity to lead a serene life at home and at work. He was amenable to treatment and keen to explore therapeutic substitutes that could help him in dealing his anxiety more proficiently and lessening the incidence of panic episodes.

Personal and Family History

Mr. Z.M. was raised in an upper-middle-class socio economic background along with two sisters and a brother. His late father had a prominent influence in the family, confirming financial constraints and imposing hard standards especially about education. His mother, a house wife, she managed all the house hold chores until the decline in her abilities due to aging. During his childhood, he exhibited a momentous interest and had the talent for athletics especially in Taekwondo and martial arts. He

contested at the national level, a prominent accomplishment that could have brought about in a worthwhile profession in sports but his father stressed the importance of academics which made the children to excel in their studies. Mr. Z.M.'s siblings excelled academically, Z.M had the pressure to enrich his father's dreams therefore, he often had to skip his athletic activities in favor of academic compulsions which resulted in a sense of unsatisfied potential.

Another tenacious source of strain in Mr. Z.M.'s life was unending tug of war among his mother, wife, and separated sister. The familial disharmony has engendered a stressed and emotionally arduous atmosphere, imposing further stress which distracts his attention from personal development and specialized ambitions. At the age of 37, he experienced unrelenting struggle to establish a rewarding career path. His unharmonious familial environment incapacitated him professionally because he contended with an absence of inner satisfaction and right direction. He provided an average birth history devoid of notable complications. He developed strong bonds with his siblings and was known for his lively personality in his youth that infused his connections with energy and eagerness. His brilliance was apparent from an early age yet he exhibited indifference towards his studies hence contradicting the elevated academic hopes established by his father.

Mr. Z.M. is married and has three children; he came across recent challenges about his mental health. He got affected with COVID-19 in 2021 which precipitated significant anxiety and panic attacks and eventually lead to sleep disruptions with experiences of night terrors. He initially trailed medical and psychological support due to which he experienced some improvement, but the treatment ended early. The absence of self-care resulted in a relapse of his symptoms which consistently hinders his daily activities of life.

His insistent struggle with anxiety has aggravated his existing problems related to professional diffidence and personal gratification. His understanding emphasizes the necessity for ongoing sustenance and a reliable environment to effectually manage the psychological distress and too have an improved quality of life.

Assessment

An extensive assessment of the individual's anxiety symptoms was performed, concentrating on their onset, intensity, frequency, and impact on various aspects of his life. Data was gathered using clinical interviews, standardized self-report questionnaires, and specific projective evaluations, including the Thematic Apperception Test (TAT) by Murray and Morgan (1930) and the Human Figure Drawing Test by Florence Goodenough. Each method provided unique insights, augmenting the overall understanding of the individual's psychological state and the essential factors affecting his anxiety.

The client was questioned regarding the justification for his referral, the issues presented, the thoughts associated with the symptoms, his approaches to symptom management, and his expectations from treatment. The investigation included the person's historical background, developmental milestones, employment data, educational history, sexual history, and previous psychiatric, psychological, and medical treatments received.

The Thematic Apperception Test (TAT) was administered to evaluate the individual's internal thoughts, conflicts, and emotional responses to ambiguous stimuli

(Murray & Morgan, 1930). By analyzing the descriptions he made in response to the pictures, we gained valuable insights about his inherent concerns, adaptive techniques, and recurring themes of concern or tension that may not have been fully apparent in a traditional interview setting. The narratives revealed by the TAT provided insight into subconscious, exposing core difficulties related to self-image, social interactions, and perceived threats. Themes were later cross-referenced with documented anxiety symptoms to clarify the cognitive and emotional underpinnings of the individual's anxiety.

The Human Figure Drawing examination was employed to assess the individual's self-concept, beliefs of personal safety, and underlying emotional problems (Machover, 1949). The drawings were examined for certain elements, such as detail, size, and any distortions or omissions, to detect signs of insecurity, fear, or self-awareness, typically linked to anxiety. The examination of the drawings was integrated with supplementary evaluation data, clarifying aspects of self-esteem, social anxiety, and potential protective methods.

The amalgamation of many diagnostic methods provided a thorough representation of the person's anxiety. This strategy highlighted both conscious and unconscious factors that may have contributed to the reported anxiety symptoms. The findings provide a foundation for developing a targeted treatment strategy to address the identified difficulties.

Both formal and informal assessments were employed, encompassing clinical interviews, the Thematic Apperception Test, and the HFDT. The Beck Anxiety Inventory was employed for a formal assessment of anxiety symptomatology (Beck, 1988). This version of the inventory is highly regarded for its reliability (with a Cronbach's alpha of 0.92) and its validity. A pre- and post-assessment was performed to evaluate the decrease in symptoms.

Case Formulation

A 37-year-old, married male client, showing symptoms of anxiety and panic was referred to the clinical psychologist for psychological intervention. According to the information gathered from the client during the therapeutic sessions the case formulation was done by the therapist, predisposing, precipitating and maintaining factors were identified. The conceptual model is given below

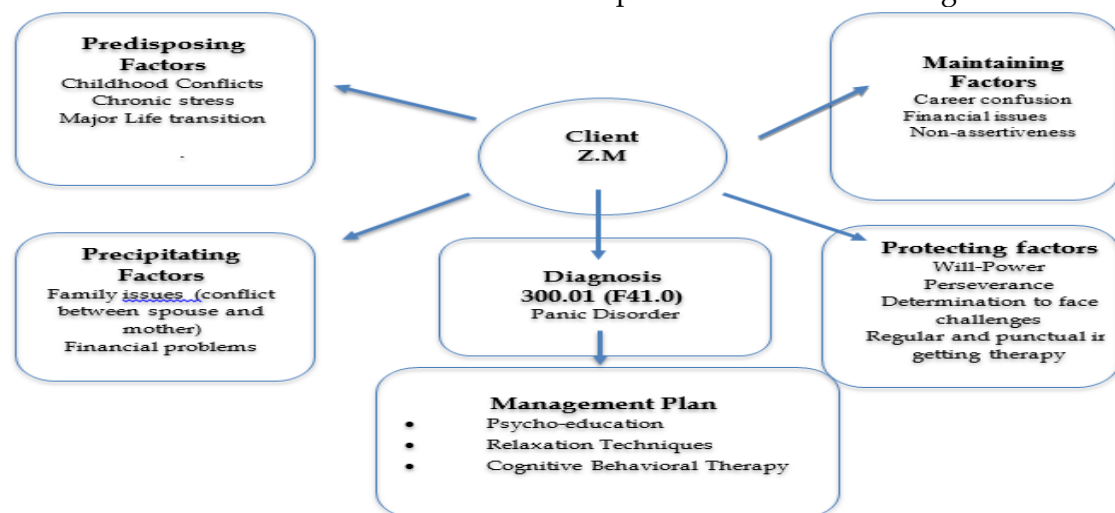


Figure 1 Conceptual Model

Predisposing Factors

According to the information given by the client he had unresolved childhood conflict, his father was very dominating and a man of principles and always used to criticize his son for not being as good in studies as rest of his siblings were. Unresolved childhood conflicts mostly result in anxiety and panic symptoms (McLaughlin et al., 2014). The client was very much active in physical sports but he had to give up his dream and fulfill his father's demands. The predisposing factors can also be genetic, psychological or neurological. Stress contributes the development of anxiety disorders, with minor daily stressors accumulating over time to worsen anxiety symptoms (Feng et al., 2023).

According to the client there could be some genetic tendencies as one of his siblings was diagnosed with bipolar disorder the psychological factor that led to this could be, under appreciation by the parents of the client. He was always very lively and full of life but as he advanced in his age, there were certain unfortunate events that led to trigger anxiety and panic symptoms. In 2017 he was offered a scholarship for doing PhD in China but he had to return to Pakistan in 2018 and got married. It was the time, when he realized that what are the responsibilities of life and what is the financial pressure he was under. His father remained ill and died after sometime. The death of his father was also a very unfortunate event in his life. In 2021 he suffered from COVID-19 which finally triggered his panic symptoms.

Precipitating Factors

Precipitating factors often act as catalytic agent, activating the onset or aggravation of anxiety disorders in individuals who are already at risk due to underlying susceptibilities (Monroe, 1991). After his marriage, the problems developed between his wife and his mother along with the financial burden he was facing, it doubled the struggle he was doing to suppress his dreams and work for a living which ultimately caused to trigger the current psychological issue.

Maintaining factor

Constant psychological and environmental factors can endure symptoms. A key factor in the persistence of anxiety is the cycle of negative emotions and stressors (O'Brien, 2023). The factors that contributed to maintain the problem were; the constant financial pressure the client had to face along with the career confusion he had as he was forced to do something he did not want to do but he had no option. The client showed some patterns of non-assertiveness that played an important role as a maintaining factor of his current problems.

Table 1
Anxiety Scores (Objective assessment)

Scale	Session 1 st	Session 10 th
Beck Anxiety Inventory	Moderate Anxiety	below 21 (No symptoms of Anxiety)

Table 2
HFDT and TAT Interpretation (Subjective assessment)

Assessment	Interpretation
Human Figure Drawing Test Internal Conflicts,	Emotional difficulties Ambivalence, Intellectual focus, Issues

Thematic Apperception Test

in Self-perception.
 Financial Issues,
 Lack of assertiveness,
 Work-home conflict,
 Need for approval and Validation,
 Adjustment problems,
 Unmet desires,
 Unfulfilled wishes

Intervention

After the formulation of the case, client's problem was drawn on the basis of cognitive model. Cognitive Behavior Therapy was chosen for resolving the client's problem. The psychologist conducted 12 sessions for this client (three assessment sessions and -three follow-up sessions). The formulation of all the problems was discussed with the clients to make him understand his problems (Beck, 2021). Together the client and the psychologist pinpointed the specific areas that were causing anxiety and panic, and then asked the client to identify which areas he wanted to focus on first, so they could begin tackling the problems together. CBT was used to help the client identify unhelpful thoughts and to learn practical self- help strategies. Cognitive behavioral model (Beck, 1960) was introduced to the client, he was taught how to recognize his own automatic thoughts and how to substitute them with more positive, constructive and less anxious thoughts. Following CBT therapeutic techniques were followed in the session sequence wise:

1. Therapeutic alliance was easily developed between the therapist and client since the beginning of therapeutic and client shared a detailed account of his problems. Deep breathing technique was used in the session for the reduction of client's symptoms of anxiety.
2. In the second session, progressive muscle relaxation (PMR) was taught to client to reduce muscle tension (Jacobson, 1938), and other physiological symptoms. Evidence suggests that these relaxation procedures are very effective in reducing the physiological symptoms of anxiety and panic (Luo, 2024).
3. Cognitive restructuring technique of CBT was used to modify the negative automatic thoughts (NATs) of client. He was asked to give himself 3 logical explanations that the NAT he is having is irrational. Moreover, he was asked to keep a gratitude journal to count the blessings and positive traits he is gifted with and how these helped him in facing the life challenges. This cognitive restructuring exercise was continued in the following 3 sessions too until the client was able to restructure his anxious thoughts with more realistic and rational thoughts.
4. Exposure techniques (Jones, 1924) were used with client in order to terminate or lessen the fears associated with going to different places such as the tunnel. At first, imaginal exposure was given to client gradually helping client to imagine the situations which push him towards being panic and relaxation exercises were used side by side to calm the nerves.
5. After the client mastered facing anxious situations in imaginal exposure, he was introduced with in vivo exposure technique, and he was given behavioral experiments to face the anxious situation in reality in gradual steps. This exposure was started from mild and moved towards moderate exposure to increase its affectivity (Beck, 2021; Scher, 2017).

Results and Discussion

Subjective rating of the client's problems was taken periodically in assessment and treatment sessions. Standardized scale was applied to get an objective measure of the anxiety symptoms. Through subjective and objective assessment, it was evident that the client symptoms had improved a lot. The client showed a high level of compliance with the therapy. He accepted the psychotherapeutic formulation of his problems, and he could internalize therapeutic techniques. After the intervention, his physical symptoms reduced and by the end of the sessions his symptoms were absent. His NATs were reduced, and he started thinking positively. CBT was effective for Mr. Z.M, and he applied acquired skills in different settings such generalization was a good indication of his prognosis.

Discussion

Although the client was diagnosed with anxiety disorder symptoms, most of his symptoms were related to panic disorder. In the sessions, the client expressed his feelings, his thoughts and behaviors. He vented out his feelings to therapist and felt much better when improvement had occurred. He was also very motivated to use the therapeutic techniques in his daily life which he learned during the sessions. The client was advised to keep doing relaxation techniques such as deep breathing and progressive muscle relaxation. The therapy overall was a success as client felt so much better after the sessions and developed confidence to deal with his NATs and anxiety.

It is also evident that CBT helped the client in managing his routine affairs more efficiently and it also hinted towards improvement in his physical as well as psychological symptoms with in minimum time. Cognitive restructuring helped the client to lessen the chances of relapse and paved the way to maintain healthy life style.

CBT proved to be most suitable psychological intervention to mitigate the symptoms of panic and anxiety disorders. This study paved the way for Clinical psychologists, therapists to use CBT for panic and anxiety disorders and to help the client manage his routine life not only effectively but permanently.

References

- American Psychiatric Association. (2007). *APA dictionary of psychology*. Washington, DC: American Psychological Association.
- Beck, A. T., & Steer, R. A. (1990). *Beck Anxiety Inventory: BAI; Manual*: Psychological Corporation.
- Beck, A. T., Epstein, N., Brown, G., & Steer, R. A. (1988). An inventory for measuring clinical anxiety: psychometric properties. *Journal of consulting and clinical psychology, 56*(6), 893.
- Barlow, D. H. (2002). *Anxiety and its disorders: The nature and treatment of anxiety and panic* (2nd ed.). The Guilford Press.
- Beck, J. S., & Fleming, S. (2021). A brief history of Aaron T. Beck, MD, and cognitive behavior therapy. *Clinical psychology in Europe, 3*(2).
- Beck, J. S. (2020). *Cognitive behavior therapy: Basics and beyond*. Guilford Publications.
- Cooper, A. A., Clifton, E. G., & Feeny, N. C. (2017). An empirical review of potential mediators and mechanisms of prolonged exposure therapy. *Clinical psychology review, 56*, 106-121.
- Craske, M. G., Hermans, D., & Vervliet, B. (2018). State-of-the-art and future directions for extinction as a translational model for fear and anxiety. *Philosophical Transactions of the Royal Society B: Biological Sciences, 373*(1742), 20170025.
- Feng, G., Xu, X., & Lei, J. (2023). Tracking perceived stress, anxiety, and depression in daily life: a double-downward spiral process. *Frontiers in Psychology, 14*, 1114332.
- Hofmann, S. G., & Otto, M. W. (2008). *Cognitive behavioral therapy for social anxiety disorder: Evidence-based and disorder-specific treatment techniques*. Routledge.
- Jacobson, E. (1938). *Progressive relaxation*. Univ. Chicago Press.
- Jones, M. C. (1924). A laboratory study of fear: The case of Peter. *Pedagogical Seminary, 31*(4), 308-315.
- Luo, Y., Du, J., Wang, J., Liu, P., Shi, Z., He, Y., ... & Wang, J. (2024). Progressive muscle relaxation alleviates anxiety and improves sleep quality among healthcare practitioners in a mobile cabin hospital: a pre-post comparative study in China. *Frontiers in Psychology, 15*, 1337318.
- Myers, B., McLaughlin, K. A., Wang, S., Blanco, C., & Stein, D. J. (2014). Associations between childhood adversity, adult stressful life events, and past-year drug use disorders in the National Epidemiological Study of Alcohol and Related Conditions (NESARC). *Psychology of Addictive Behaviors, 28*(4), 1117.
- McLaughlin, K. A., Weissman, D., & Bitrán, D. (2019). Childhood adversity and neural development: A systematic review. *Annual review of developmental psychology, 1*(1), 277-312.

- Monroe, S. M., & Simons, A. D. (1991). Diathesis-stress theories in the context of life stress research: implications for the depressive disorders. *Psychological bulletin*, 110(3), 406.
- O'Brien, E. (2023, November 24). Anxiety research roundup: November 24, 2023. *Psychiatric Times*
- Scher, C. D., Suvak, M. K., & Resick, P. A. (2017). Trauma cognitions are related to symptoms up to 10 years after cognitive behavioral treatment for posttraumatic stress disorder. *Psychological trauma: theory, research, practice, and policy*, 9(6), 750.
- Wolpe, J. (1968). Psychotherapy by reciprocal inhibition. *Conditional reflex: a Pavlovian journal of research & therapy*, 3, 234-240.