

## CASE STUDY ANALYSIS OF BEHAVIOR THERAPY FOR SOCIAL ANXIETY DISORDER

Muhammad Ayub<sup>1</sup>, Sikandar Khan<sup>2</sup>, Kainat Zia<sup>\*3</sup>, Zeeshan Ahmad<sup>4</sup>, Zahid Ullah<sup>5</sup>

<sup>1,2, \*3,4,5</sup> Department of Psychology, University of Malakand

<sup>\*3</sup>[universalpsyche@gmail.com](mailto:universalpsyche@gmail.com)

Corresponding Author: \*

### ABSTRACT

*This case study details a patient experiencing depressed symptoms and significant stress associated with public speaking. The patient exhibits anxiousness, pallor, and aversion to delivering presentations. He was apprehensive about committing mistakes and facing humiliation before his peers. These emotions have prompted avoidance behaviors, such as missing classes that necessitate presentations. The patient's self-esteem is compromised, and he expressed feelings of despair and episodes of crying as a result. This instance exemplifies the effect of public speaking fear on an individual's mental health and daily functioning. The therapy of social anxiety disorder necessitates the application of behavioral methods to aid patients in acquiring new cognitive and behavioral approaches in social situations. Systematic desensitization aims to alleviate anxiety and enhance the patient's comfort and confidence in feared or avoided social situations. It aided patients in confronting negative attitudes and managing social interactions.*

**Keywords:** Behavior Therapy, Depression, Social Anxiety, Case study, Systematic Desensitization.

### INTRODUCTION

#### Background of the Mental Health Patient

Mr. X was a 22-year-old bachelor pursuing a BS degree. He was the second child in a nuclear middle-class family with two brothers and two sisters. His father was a farmer, and his siblings' educational backgrounds remained unclear. The evaluation was conducted at the Community Mental Health Centre (CMHC) at the University of Malakand, Pakistan.

The presenting problem was the patient's significantly high stress and sadness associated with semester presentations. Upon hearing about the presentations, the patient exhibited dread, reluctance, and a pale face. His fear of making mistakes during presentations and being embarrassed in front of his classmates caused him to cry and feel depressed. The patient rarely attended classes where he was expected to give presentations or speak, which exacerbated his sense of inferiority compared to his peers.

The patient's socioeconomic standing was middle class, and his pursuit of further education demonstrated a desire for personal and professional development. Nonetheless, his irrational fear of public speaking caused him significant academic loss and emotional distress, prompting him to seek assistance to cope with this phobia.

# The Research of Medical Science Review

## Case Progress

### Session I: (40 minutes)

The primary objective of the initial session was to establish rapport. At the commencement of the session, the patient provided informed consent and was assured of confidentiality. The therapist elucidated the procedure of evaluation and therapy sessions. Demographics and issue details provided by the patient. The 22-year-old university student disclosed the presented issues. The therapist permitted him to articulate the matter without restraint. The patient experienced depression yet had confidence in the therapist. The patient first exhibited anxiety but subsequently acclimated. The therapists conducted the deep breathing exercise with him. Family and academic history were documented. A mental assessment of the patient was conducted. To ensure his comfort, several queries were posed while the remainder were deferred to the subsequent session.

### Session II: (35 minutes)

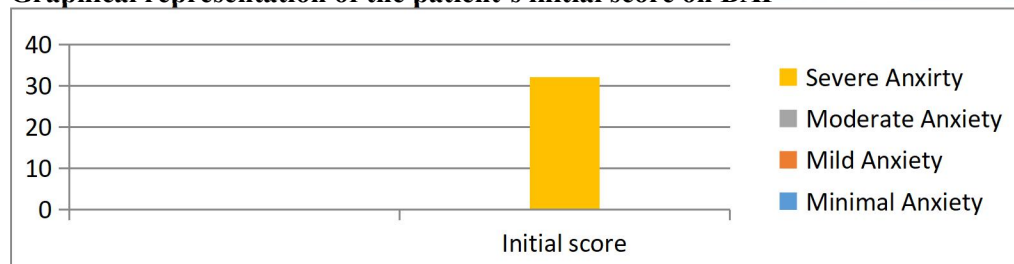
Following the patient's input, the second session commenced. The session concentrated on inquiries about problems. The therapist's questions were addressed. Symptoms indicative of social anxiety or phobia were documented. The patient reported experiencing anxiety related to presentations. He experiences dissatisfaction and anxiety with the presentation. He avoided presentation classes. He informed the therapist of his apprehension regarding errors during presentations. The patient expressed, "I fear I would feel ashamed, and the students will adversely influence me." The therapist attentively listened and encouraged the patient.

### Session III: (40 minutes)

The patient's earlier feedback was positive and inspired him for this session. This session focused on anxiety and its severity. The therapist used the Beck Anxiety Inventory (BAI). The therapist delivered psychological test instructions before administration. The patient scored moderate anxiety on the scale. The therapist coaches and uses mind relaxation, especially the deep breathing the patient has directed, taking slow, deep breaths and concentrating on the sensation of the breath going in and out of the body. The session ended with the patient's comfort.

S.no	Scales	Scores
1.	Beck Anxiety Inventory (BAI)	32

### Graphical representation of the patient's initial score on BAI



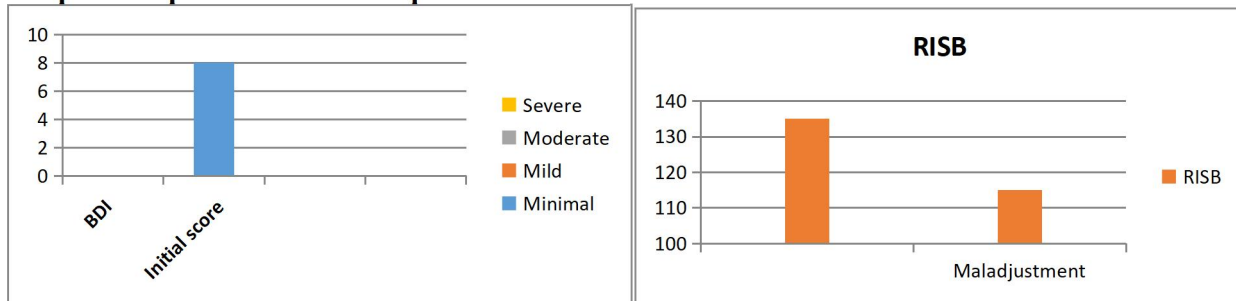
### Session IV: (50 minutes)

The therapist applied the Beck Depression Inventory (*BDI*) and Rotter Incomplete Sentence Blank (*RISB*) in this session. To assess patient depression and adjustment difficulties these tests were used. The therapist encouraged muscle relaxation following the test administration during the session. The therapist psycho-educated the patient. The session ended for the patient's comfort.

S.no	Scales	Scores
1.	Rotter Incomplete Sentence Blank ( <i>RISB</i> )	115
2.	Beck Depression Inventory ( <i>BDI</i> )	08

# The Research of Medical Science Review

Graphical representation of the patient's initial score on BDI & RISB.



## Session V: (40 minutes)

The focus of the session was to reduce anxiety. For this purpose, the patient's anxiety level was measured. And then selected the systematic desensitization technique. First, the therapist made the hierarchy of anxiety based on the Subjective Units of Disturbance Scale (*SUD*).

9= feel anxious about presentations in class.

8= feels fear in conversation with strangers.

7= experience fear while conversing with teachers.

6= experiences distress in sitting with family members and guests.

5= presenting a topic in a friend's circle.

3= presentations in front of a child.

Step 1: Learning and Practice Relaxation Techniques: The therapist tried to make the patient learn relaxation techniques and practice it during the session.

**Deep breathing technique:** with this technique, the therapist tried to relax the patient. Practice breathing by Breathing gently and deeply through the nose, holding the breath for 3 seconds, and then breathing out slowly.

**Visualization:** here the therapist instructed the patient to feel relaxed by closing your eyes and visualizing the presentation scenario. The therapist ended the session with the home task of practicing these techniques and being a part of the general conversation in class and at home.

## Session VI: (50 minutes)

The session commenced with a review of input from the last meeting. The patient provided affirmative feedback and appeared motivated for the session. During this session, the therapist tasked the individual with providing an introduction of himself. The therapist repeated the task. The therapist recommended that the patient engage with a minimum of five individuals daily or partake in face-to-face discussions. The therapist concluded the session by urging the patient to do assignments before the next meeting.

## Session VII: (45 minutes)

As always, the session started with feedback from the last session. Therapists get the patient ready to show. taught him about psychology, and the doctor gave the patient hope. Other ways the therapist helped the client deal with negative thoughts were by changing negative statements like "I am disappointed" to "I am hopeful," "I can control my fear, and I have the capacity to present," and so on. The therapist told the client to come up with a topic for a presentation at home and practice it in front of a mirror before giving the presentation to family.

# The Research of Medical Science Review

## Session VIII: (50 minutes)

Patient input from the last session was given at the start of the session. The patient liked the tasks to do at home and felt calm and secure. The main goal of this lesson is to put the patient in a real situation that makes them anxious. The person was told to get ready for the group talk. Use deep breathing and muscle ease to talk about a simple subject first with your friends and then with the class. The doctor made the patient want to come back.

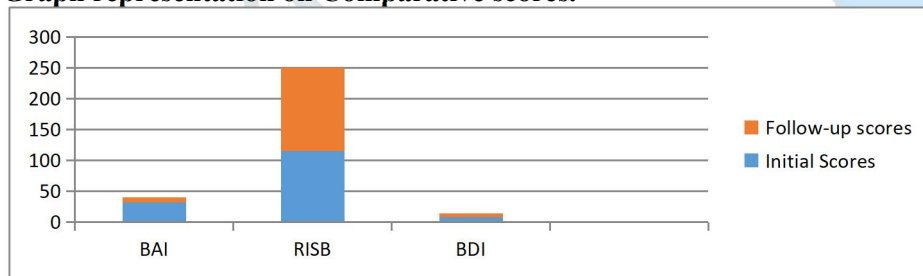
## Session IX: (45 minutes)

This was the termination session. The session commenced with remarks and input from the previous session regarding the overall sessions conducted. The patient commended the therapist's efforts. The therapist esteemed patient collaboration during sessions. The therapist advised the patient to return if issues emerge. The therapist recommended that the patient engage in regular mind and muscle relaxation exercises following the appointment. Incorporate healthier activities into your routine, engage in class discussions, pose inquiries, and elucidate and debate previous topics with peers. The formal termination has been executed.

## Comparative Evaluation of Patient's Progress

S No.	Scales	Initial Scores	Follow-up scores
1	BAI	32	08
2	RISB	115	135
3	BDI	08	07

## Graph representation on Comparative scores.



## Improvement Evaluation

- Alleviated symptoms of depression and anxiety
- Enhanced capacity to manage stress and anxiety associated with presentations
- Augmented confidence and self-esteem during presentations
- Refined social skills, including eye contact, body language, and public speaking
- Strengthened assertiveness skills, enabling the expression of needs and opinions confidently and respectfully
- Enhanced ability to remain present and focused during presentations through mindfulness meditation
- Elevated goal-setting skills and motivation to achieve presentation-related objectives
- Improved capacity to cope with potential relapse triggers and sustain progress post-therapy.

With a comprehensive treatment plan encompassing psychoeducation, exposure therapy, social skills training, mindfulness meditation, and relapse prevention, the patient is likely to experience substantial improvement in symptoms and attain goals related to presentations. The extent of variation will be dictated by the particulars of the case and the patient's response to the treatment.

## Discussion

This case study demonstrates the effectiveness of structured behavioral treatment in addressing social anxiety disorder related to public speaking. Social Anxiety Disorder (SAD) is characterized by intense dread

# The Research of Medical Science Review

or anxiety in social situations, accompanied by symptoms such as trembling, sweating, and inattention, which can lead to significant suffering in academic, social, and vocational settings (Leak, 2021; Taylor et al., 2018). The patient benefited from a tailored, multimodal behavioral treatment regimen comprising psychoeducation, relaxation techniques, systematic desensitization, and coping skills training, resulting in enhancements in anxiety control and overall functioning.

## Appropriate Assessment Tools

The Beck Anxiety Inventory (BAI) and the Beck Depression Inventory (BDI) were important in assessing the severity of the patient's anxiety and depression. The patient had moderate anxiety at the study's onset, evidenced by a BAI score of 32, which decreased to 8 by the last session. BAI has been validated as an effective instrument for assessing anxiety levels and distinguishing between clinical and subclinical populations (Vizioli, 2024). Similarly, the BDI exhibited a modest enhancement, with scores decreasing to 7, aligning with its application in evaluating the severity of depression (Pournesaei, 2023). The initial Rotter Incomplete Sentence Blank (RISB) score was 115, indicating maladjustment; however, the final score was 135, reflecting improved psychological adaptation and a reduction in cognitive impairments (Roohee, 2024).

## Relaxation and Systematic Desensitization Techniques

Relaxation techniques, including deep breathing and progressive muscle relaxation, were found to be highly efficient in reducing the physiological manifestations of anxiety. PMR is recognized for alleviating stress and anxiety in several populations, including teenagers and individuals with chronic illnesses (Gangadharan & Madani, 2018; Syazwina Muhammad et al., 2024). Deep and slow breathing (DSB) techniques employed during the sessions not only alleviated the patient's anxiety but also enhanced vagal tone, which is inversely correlated with anxiety levels (Magnon et al., 2021).

The systematic desensitization method was employed to acclimate the patient to anxiety-inducing situations progressively, utilizing a hierarchy derived from the Subjective Units of Disturbance Scale (SUDS). The SUDS score of 46.67 for presentations indicated the highest level of anxiety during the initial phase, which diminished as the intervention progressed, so endorsing the efficacy of this method in alleviating phobic anxiety (Ernst et al., 2024). This aligns with the findings of systematic desensitization for specific phobias and the enhancement of confidence levels (Agus et al., 2020; Chen et al., 2024).

## Coping Strategies and Psychoeducation

Coping strategies effectively assisted the patient in managing anxiety-inducing events. Encouraging affirmative self-coping statements, such as transforming negative expressions like 'I am disappointed' into positive affirmations like 'I am hopeful,' facilitated a shift in the patient's thinking and enhanced self-efficacy (Stefan, 2019). These tactics align with the notion that cultivating adaptive coping mechanisms mitigates social anxiety and improves typical social functioning (Yu-Wei et al., 2024). Psychoeducation enhances these coping abilities by instructing the patient on anxiety, its origins, and strategies to mitigate the symptoms (Dolan et al., 2021).

## Visualization and Exposure

Employing visualization techniques enabled the patient to anticipate challenging scenarios and experience greater relaxation. Visualization enhances emotional regulation by enabling individuals to focus on tranquil imagery (Makarova et al., 2024). Avoidance behaviors diminished further with further real-life exposure tasks, such as presenting before peers, so enhancing confidence, consistent with findings indicating exposure therapy as an effective remedy for social anxiety (Freitas et al., 2021; Premkumar et al., 2021).

## Outcome and Implications

The patient exhibited substantial enhancement across multiple metrics: Anxiety and depression levels were diminished, as shown by BAI and BDI scores.



# The Research of Medical Science Review

Social functioning enhanced, demonstrated by increased confidence in public speaking and less avoidance behaviors.

Enhanced coping mechanisms and emotional regulation were identified as factors that foster long-term resilience (Ernst et al., 2024).

## Practical Challenges

The patient exhibited reluctance to engage in therapy during the initial session.

The patient, being a student, had constrained availability for treatment sessions. This complicated the scheduling of regular sessions.

The patient had few family support and friends available to provide encouragement and spiritual support during the therapy period.

## REFERENCES

- Agus Prayetno, Raras Sutatminingsih, & Joesetta M. R. Tuapattinaja, (2020). "Effect of Systematic Desensitization for Decreasing of Anxiety in Individual with Specific Phobia," *International Research Journal of Advanced Engineering and Science, Volume 5, Issue 3*, pp. 124-126.
- Chen, J., Zhou, D., Gong, D., Wu, S., & Chen, W. (2024). A study on the impact of systematic desensitization training on competitive anxiety among Latin dance athletes. *Frontiers in Psychology*, 15
- Dolan, N., Simmonds-Buckley, M., Kellett, S., Siddell, E., & Delgadillo, J. (2021). Effectiveness of stress control large group psychoeducation for anxiety and depression: Systematic review and meta-analysis. *British Journal of Clinical Psychology*,
- Ernst, M., Bouchard, S., Andersen, T., Ørskov, P. T., Tarp, K., & Lichtenstein, M. B. (2024). Virtual reality-based exposure with 360° environments for social anxiety disorder: Usability and feasibility study. *JMIR Formative Research*, 8, e55679.
- Freitas, J. R. S., Velosa, V. H. S., Abreu, L. T. N., Jardim, R. L., Santos, J. A. V., Peres, B., & Campos, P. F. (2021). Virtual Reality Exposure Treatment in Phobias: A Systematic Review. *Psychiatric Quarterly*
- Gangadharan, M.P. (2018). Madani MAH. Effectiveness of progressive muscle relaxation techniques on depression, anxiety and stress among undergraduate nursing students. *Int J Health Sci Res.* 8(2):155–163.
- Leak, S. (2021). Through a psychoanalytic lens: A sharpened view of neuropsychological assessment. In J. A. Yalof & A. D. Bram (Eds.), *Psychoanalytic assessment applications for different settings* (pp. 28–57). Routledge/Taylor & Francis Group.
- Magnon, V., Dutheil, F., & Vallet, G. T. (2021). Benefits from one session of deep and slow breathing on vagal tone and anxiety in young and older adults. *Scientific Reports*, 11(1), 19267.
- Makarova, E., Degtyareva, E., & Kholina, O. (2024). Visualization as a method of overcoming anxiety and nervous tension, reducing symptoms of depression and stress in difficult life situations. *BIO Web of Conferences*, 84, 04012.
- Roohee & A. (2024). Functional Neurological Symptom Disorder (FNSD) assessment and treatment: A clinical case study. *Journal of Arts and Social Sciences*, 11(2).
- Stefan, C. A. (2019). Self-compassion as mediator between coping and social anxiety in late adolescence: A longitudinal analysis. *Journal of Adolescence*, 76, 120-128
- Syazwina Muhammad Khir, Wan Mohd Azam Wan Mohd Yunus, Norashikin Mahmud, Rui Wang, Siti Aisyah Panatik, Mohammad Saipol Mohd Sukor & Nor Akmar Nordin (2024) Efficacy of Progressive Muscle Relaxation in Adults for Stress, Anxiety, and Depression: A Systematic Review, *Psychology Research and Behavior Management*, , 345-365
- Taylor, J. H., Landeros-Weisenberger, A., Coughlin, C., Mulqueen, J., Johnson, J. A., Gabriel, D., Bloch, M. H. (2018). Ketamine for Social Anxiety Disorder: A randomized, placebo-controlled crossover trial. *Neuro psychopharmacology*, 43(2), 325–333.

# The Research of Medical Science Review

Vizioli, N. A. (2024). Beck Anxiety Inventory: Measurement invariance, latent mean comparison, and reliability in adults from Buenos Aires. *Psychological Thought*, 17(1), 35–57

