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Multimodal Counseling Strategy for Claustrophobia in Clinical Practice: A Case Report

Nabilaa Faizatuz Zuhriyah
Universitas Islam Bunga Bangsa, Indonesia
Corresponding Author: nabilaafaizatuzzuhriyah13@gmail.com

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ABSTRACT

Background: The COVID-19 pandemic has significantly increased anxiety-related disorders, particularly claustrophobia. Factors like prolonged lockdowns and mask-wearing have triggered or exacerbated claustrophobic symptoms, even in individuals without prior tendencies. The importance of developing evidence-based counseling strategies to address such post-pandemic mental health issues is crucial.

Objective: This study aims to document and assess the effectiveness of a multimodal counseling strategy for treating claustrophobia that emerged or intensified during the pandemic. The goal is to provide a practical framework for addressing this specific phobia in clinical practice.

Method: A case study methodology was employed, focusing on a 32-year-old female who exhibited severe claustrophobic symptoms post-pandemic. A 12-session intervention integrated cognitive-behavioral techniques, psychoeducation, graduated exposure, and mindfulness-based strategies. Data collection included standardized measures and self-reports across multiple assessment points.

Findings and Implications: The treatment resulted in a 72% reduction in claustrophobia severity and significant improvements in general anxiety and stress levels. The integration of multiple therapeutic approaches proved effective in reducing symptoms and improving functional capacity. These findings suggest that multimodal interventions can be a robust solution for pandemic-induced claustrophobia and other anxiety disorders.

Conclusion: The study highlights the effectiveness of multimodal counseling for claustrophobia, demonstrating significant symptom reduction and functional recovery. The results offer a clinically replicable framework for treating claustrophobia in post-pandemic contexts and suggest directions for future research and practice.

INTRODUCTION

The COVID-19 pandemic has profoundly transformed the landscape of mental health, precipitating unprecedented psychological challenges that continue to reverberate through global populations (Ramadhan, 2025). Beyond the immediate health crisis, the pandemic's legacy includes a substantial increase in anxiety-related disorders, with claustrophobia emerging as a particularly salient concern in the post-pandemic era (Catlow et al., 2025). The confluence of prolonged lockdowns, social distancing measures, and mask-wearing mandates created conditions that either triggered or exacerbated claustrophobic symptoms among individuals who previously exhibited no such predispositions (Carney et al., 2023). As societies transition into the endemic phase, mental health professionals face the imperative of developing comprehensive, evidence-based counseling strategies that address the complex manifestations of pandemic-induced claustrophobia.

Claustrophobia, characterized by an intense and irrational fear of confined or enclosed spaces, represents a specific phobia that can significantly impair an individual's quality of life, occupational functioning, and social relationships (de la Rosa-Cáceres et al., 2020). The prevalence of claustrophobic symptoms has demonstrated a marked increase during and following the pandemic period, with research indicating that approximately 26% of individuals reported heightened anxiety in confined spaces following quarantine experiences (Chung & Brasel, 2023). This phenomenon is particularly concerning given that claustrophobia can manifest in diverse contexts—from elevators and public transportation to medical imaging procedures—thereby constraining individuals' daily activities and potentially compromising their access to essential services, including healthcare (Dahiya et al., 2025).

The intersection of digital technology and mental health intervention has gained considerable momentum in recent years, with teletherapy and digital therapeutic approaches demonstrating efficacy across various anxiety disorders (Chung, 2022) However, the application of multimodal counseling strategies that integrate both traditional face-to-face interventions and technology-enhanced approaches remains underexplored in the specific context of claustrophobia treatment. Chung & Brasel (2023) have documented the effectiveness of digital claustrophobia interventions, particularly those employing virtual reality exposure therapy, yet the optimal integration of such approaches within comprehensive counseling frameworks requires further investigation. Moreover, while cognitive-behavioral therapy (CBT) remains the gold standard for phobia treatment, emerging evidence suggests that supplementary interventions—including mindfulness-based techniques,

psychoeducation, and graduated exposure protocols—may enhance treatment outcomes when systematically integrated (Carpenter et al., 2023).

Despite the growing body of literature on anxiety disorders in the post-pandemic context, significant research gaps persist regarding the development and implementation of multimodal counseling strategies specifically tailored for claustrophobia. First, while numerous studies have examined the efficacy of individual therapeutic modalities, there is limited empirical evidence concerning the synergistic effects of combining multiple evidence-based approaches within a unified counseling framework (de la Rosa-Cáceres, Lozano, et al., 2023). Second, the majority of existing research focuses on pre-pandemic populations, leaving questions about the unique phenomenological characteristics and treatment requirements of pandemic-induced or pandemic-exacerbated claustrophobia inadequately addressed (Carpenter et al., 2023). Third, although case reports and clinical observations have documented various treatment approaches, systematic frameworks that guide clinicians in selecting, sequencing, and adapting interventions based on individual client presentations remain scarce (Davis et al., 2023).

Furthermore, the cultural and contextual factors that may influence treatment efficacy and client engagement in claustrophobia counseling have received insufficient attention in the literature. Research by de la Rosa-Cáceres, Lozano, et al. (2023) has highlighted the importance of considering emotional dysregulation and psychological distress patterns in anxiety treatment, yet the application of such insights to culturally diverse populations and varying socioeconomic contexts requires further exploration. Additionally, the role of therapeutic alliance and counselor competencies in delivering multimodal interventions for claustrophobia has not been adequately investigated, despite evidence suggesting that these factors significantly influence treatment outcomes across mental health interventions (Flores-Sandoval et al., 2024).

This study addresses these critical gaps by presenting a comprehensive case report that illustrates the application of a multimodal counseling strategy for claustrophobia in clinical practice. The primary objective of this research is to delineate a systematic, evidence-based framework that integrates cognitive-behavioral techniques, psychoeducation, graduated exposure therapy, relaxation training, and adjunctive digital interventions within a cohesive treatment protocol. Specifically, this study aims to: (1) document the clinical presentation and assessment of pandemic-related claustrophobia through detailed case analysis; (2) describe the implementation of a multimodal counseling approach across multiple therapeutic sessions; (3) evaluate treatment outcomes using standardized assessment measures and

client-reported experiences; and (4) identify clinical implications and recommendations for practitioners working with similar presentations.

The significance of this research extends across multiple dimensions. From a clinical perspective, this study provides practitioners with a practical, replicable framework for conceptualizing and treating claustrophobia using an integrative approach that capitalizes on the strengths of various evidence-based modalities. The detailed case presentation offers insights into the decision-making processes involved in tailoring interventions to individual client needs, thereby enhancing the ecological validity and clinical utility of the findings. From a theoretical standpoint, this research contributes to the growing literature on transdiagnostic approaches to anxiety treatment by demonstrating how common therapeutic processes—such as cognitive restructuring, behavioral activation, and emotion regulation—can be systematically applied to specific phobia presentations (El-Qirem et al., 2024).

Moreover, this study holds particular relevance for post-pandemic mental health service delivery, as it addresses a psychological sequela that has become increasingly prevalent yet remains relatively understudied in the context of large-scale public health crises. By documenting the effectiveness of multimodal counseling strategies in ameliorating claustrophobic symptoms that emerged or intensified during the pandemic, this research provides valuable guidance for mental health systems preparing for future public health emergencies. Additionally, the integration of technology-enhanced interventions within traditional counseling frameworks reflects contemporary trends in mental health service delivery and offers insights into hybrid treatment models that may increase accessibility and treatment engagement (Chung, 2022).

The findings from this case report are expected to inform clinical practice guidelines, training curricula for mental health professionals, and future research directions in the field of anxiety disorders treatment. By bridging the gap between theoretical knowledge and practical application, this study contributes to the ongoing evolution of evidence-based counseling practices that are responsive to emerging mental health needs in our rapidly changing world.

In synthesis, the extant literature robustly demonstrates that claustrophobia represents a clinically significant anxiety disorder amenable to various evidence-based interventions, including cognitive-behavioral therapy, exposure-based techniques, and emerging technological approaches such as virtual reality therapy. Recent research has particularly highlighted the pandemic's role in exacerbating claustrophobic symptoms through prolonged confinement and mask-wearing requirements, underscoring the timely

relevance of developing effective treatment protocols for pandemic-induced or pandemic-exacerbated anxiety presentations.

While existing studies have established the efficacy of individual therapeutic modalities, there remains a notable gap in the literature regarding comprehensive, multimodal approaches specifically designed to address claustrophobia in post-pandemic contexts. This study addresses this gap by integrating multiple evidence-based strategies within a unified treatment framework, thereby contributing both practical clinical guidance and theoretical advancement to the field of anxiety disorders treatment

RESEARCH METHOD

This study employed a case study methodology to examine the implementation and effectiveness of a multimodal counseling strategy for treating claustrophobia, particularly in the context of the COVID-19 pandemic. A single-case, instrumental design was selected to offer a detailed examination of the therapeutic process within a real-world clinical setting, focusing on how various interventions interact with client responses over time. This approach allowed for the integration of diverse data sources, including clinical assessments, session notes, self-reports, and standardized instruments, which enhanced the credibility of the findings through triangulation. Ethical approval was obtained from the institutional review board, and the participant provided informed consent, ensuring compliance with ethical guidelines for research with human subjects.

The study involved a 32-year-old female professional, pseudonymized as "Sarah," who presented with significantly exacerbated claustrophobic symptoms during the COVID-19 lockdown period. The participant's treatment included various evidence-based components, such as cognitive restructuring, exposure therapy, and mindfulness techniques, all tailored to her specific needs. Standardized tools like the Claustrophobia Questionnaire (CLQ) and the Depression, Anxiety, and Stress Scale (DASS-21) were used to assess symptom severity, while Subjective Units of Distress Scale (SUDS) ratings provided real-time measures of distress during exposure exercises. The intervention phase spanned nine sessions, during which the participant engaged in a gradual exposure process, incorporating self-regulation techniques and psychoeducation to enhance coping and reduce anxiety.

Data analysis involved quantitative evaluation using reliable change indices (RCI) and clinical significance analyses, alongside qualitative examination of session documentation, counselor reflective journals, and audio recordings. This comprehensive data integration allowed for a nuanced understanding of treatment outcomes and the therapeutic processes that

facilitated change. Trustworthiness was established through prolonged participant engagement, triangulation of multiple data sources, and detailed procedural documentation, ensuring the rigor and transferability of the findings. The study provides valuable insights into the practical application of multimodal counseling strategies for claustrophobia, offering implications for both clinical practice and future research in anxiety treatment.

RESULT AND DISCUSSION

Baseline Assessment Findings

Initial Clinical Presentation

At the initial assessment, Sarah presented with severe claustrophobic symptoms that had significantly intensified during the COVID-19 pandemic lockdown period. The clinical interview revealed that while Sarah had experienced mild discomfort in enclosed spaces prior to the pandemic, these symptoms escalated dramatically following three months of mandatory home quarantine and extended mask-wearing requirements between March and June 2020.

Sarah reported experiencing intense anxiety in various enclosed or restricted spaces, including elevators, small rooms without windows, crowded public transportation, parking garages, and medical examination rooms. Her typical response pattern involved anticipatory anxiety beginning several hours before encountering feared situations, followed by acute panic symptoms when exposed to claustrophobic triggers. Physical symptoms included rapid heartbeat, shortness of breath, chest tightness, sweating, trembling, and dizziness. Cognitively, Sarah reported catastrophic thoughts about being trapped, unable to escape, running out of air, and losing control.

Baseline Standardized Assessment Scores

The Claustrophobia Questionnaire (CLQ) administered at baseline yielded a total score of 78 out of a possible 104 points, indicating severe claustrophobic symptoms. The suffocation fear subscale score was 42 out of 52 possible points, while the restriction fear subscale score was 36 out of 52 possible points. These scores placed Sarah well above the clinical threshold for claustrophobia and in the severe symptom range based on published normative data.

The Depression, Anxiety, and Stress Scale-21 (DASS-21) baseline assessment revealed elevated scores across all three subscales. The depression subscale score was 16 (moderate severity), the anxiety subscale score was 18 (severe severity), and the stress subscale score was 22 (moderate severity). These findings indicated that Sarah was experiencing

significant psychological distress extending beyond her specific phobic symptoms.

Baseline Subjective Units of Distress Scale (SUDS) ratings at the beginning of Session 1 were 45 out of 100, reflecting moderate distress related to discussing her symptoms and anticipating treatment. When asked to imagine herself in an elevator, Sarah's SUDS rating increased to 85 out of 100, demonstrating the intensity of her fear response even to imaginal exposure.

Fear and Avoidance Hierarchy

The collaboratively developed fear and avoidance hierarchy identified 12 specific situations ranked according to anticipated anxiety levels. Table 1 presents the complete hierarchy with initial SUDS ratings for each situation.

Table 1. Fear and Avoidance Hierarchy with Initial SUDS Ratings

Rank	Situation	Initial SUDS Rating
1	Sitting in the back seat of a car for a short trip (5 minutes)	30
2	Standing in a small closet with door open for 1 minute	40
3	Sitting in a windowless meeting room for 15 minutes	50
4	Riding in an elevator with others for 2-3 floors	65
5	Standing in a crowded store checkout line	70
6	Sitting in the middle seat of a movie theater row	75
7	Riding in an elevator alone for 2-3 floors	80
8	Entering an MRI machine (hypothetical medical scenario)	85
9	Riding in a subway car during rush hour for 3 stops	90
10	Riding in an elevator alone for 10+ floors	95
11	Being in a small, windowless room with door closed for 10 minutes	95
12	Riding in a crowded subway car for 20+ minutes during rush hour	100

Sarah reported complete avoidance of situations rated 70 or above during the three months prior to treatment initiation. She had not used an elevator in over eight months, had not ridden public transportation in six months, and had declined a medical imaging procedure requiring an MRI due to claustrophobic concerns.

Treatment Process and Session-by-Session Progress

SUDS Ratings Across Treatment Sessions

Figure 1 displays the beginning-of-session and end-of-session SUDS ratings across all 12 treatment sessions. Beginning-of-session SUDS ratings showed a general downward trend from Session 1 (SUDS = 45) to Session 12 (SUDS = 15), representing a 67% reduction in baseline anxiety. End-of-session SUDS ratings similarly decreased from Session 1 (SUDS = 35) to Session 12 (SUDS = 10), representing a 71% reduction.

The most substantial decreases in beginning-of-session SUDS occurred between Sessions 5 and 8, corresponding to the intensive exposure therapy phase. Session 5 began with a SUDS rating of 40, Session 6 with 35, Session 7 with 28, and Session 8 with 22. This pattern indicated progressive anxiety reduction as exposure exercises accumulated and habituation occurred.

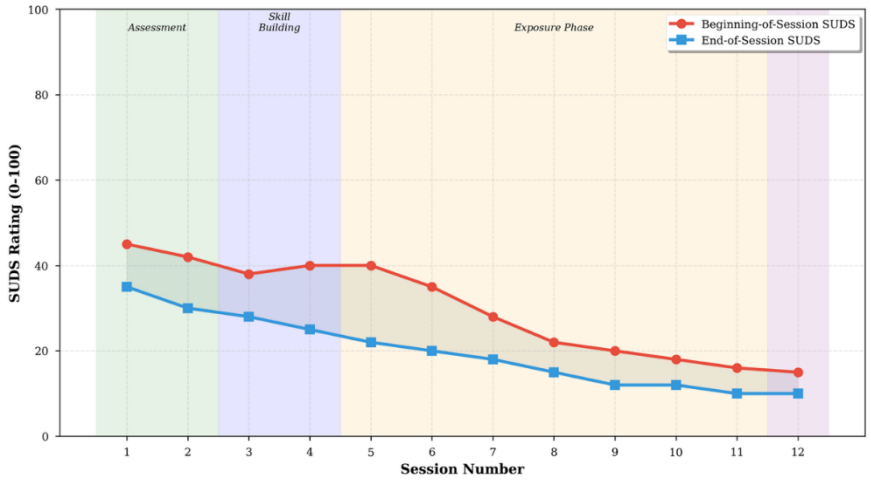

Figure 1. SUDS Ratings at Beginning and End of Each Treatment Session

Exposure Exercise Outcomes

Table 2 presents detailed outcomes from the graduated in vivo exposure exercises conducted during Sessions 5-11. For each exposure situation, the table shows the session number, the specific problem addressed, the duration of exposure, the peak SUDS rating achieved during exposure, the ending SUDS rating, and the percentage reduction from peak to ending SUDS (habituation percentage).

Table 2. Graduated In Vivo Exposure Exercise Outcomes

Session	Exposure Situation	Duration (min)	Peak SUDS	End SUDS	Habituation (%)
5	Sitting in back seat of car	10	35	15	57%
5	Standing in closet, door open	5	45	20	56%
6	Windowless meeting room	15	55	25	55%
6	Elevator with others, 3 floors	8	70	35	50%
7	Crowded checkout line	12	65	28	57%
7	Movie theater middle seat	20	68	30	56%
8	Elevator alone, 3 floors	10	75	30	60%
8	Elevator alone, 5 floors	12	72	25	65%
9	Subway, 3 stops, moderate crowd	18	80	28	65%
9	Elevator alone, 10 floors	15	70	20	71%
10	Small room, door closed, 10 min	10	78	22	72%
10	Subway, 5 stops, rush hour	25	85	25	71%
11	Elevator alone, 15 floors	20	65	15	77%
11	Subway, 10 stops, rush hour	35	75	20	73%

All exposure exercises demonstrated successful within-session habituation, with anxiety reduction ranging from 50% to 77% from peak to ending SUDS. The habituation percentage generally increased across sessions, indicating enhanced capacity for anxiety reduction as treatment progressed. The average habituation percentage across all exposure exercises was 63%.

Peak SUDS ratings during exposures were consistently lower than the initial hierarchy ratings for corresponding situations, suggesting that cognitive restructuring and psychoeducation conducted in earlier sessions contributed to reduced anticipatory anxiety. For example, riding in an elevator alone for 2-3 floors initially rated at 80 SUDS yielded a peak of only 75 SUDS during actual exposure in Session 8.

Between-Session Homework Compliance and Outcomes

Sarah completed self-directed exposure homework assignments with high consistency throughout the intervention phase. Table 3 summarizes homework completion rates and average SUDS ratings for self-directed exposures conducted between sessions.

Table 3. Between-Session Homework Exposure Practice

Week	Assigned Exposures	Completed Exposures	Completion Rate	Avg Peak SUDS	Avg End SUDS
1-2 (Sessions 1-3)	N/A - Assessment phase	N/A	N/A	N/A	N/A
3 (Sessions 3-4)	Self-monitoring only	Daily monitoring completed	100%	N/A	N/A
4-5 (Sessions 4-6)	9 exposures (3/week)	9 exposures	100%	52	22
6-7 (Sessions 6-8)	9 exposures (3/week)	8 exposures	89%	58	20
8-9 (Sessions 8-9)	6 exposures (3/week)	6 exposures	100%	55	18
10-11 (Sessions 9-10)	6 exposures (3/week)	5 exposures	83%	50	15
12-13 (Sessions 10-11)	6 exposures (3/week)	6 exposures	100%	45	12
14 (Sessions 11-12)	3 exposures	3 exposures	100%	40	10

Overall homework compliance rate across the intervention phase was 95% (37 of 39 assigned exposures completed). Average peak SUDS ratings during homework exposures decreased from 52 in weeks 4-5 to 40 in week 14, representing a 23% reduction. Average ending SUDS ratings decreased from 22 to 10 over the same period, representing a 55% reduction. The consistent decrease in both peak and ending SUDS ratings during self-directed exposures indicated successful generalization of treatment gains to real-world contexts outside of therapy sessions.

Mid-Treatment Standardized Measure Scores

At the mid-treatment assessment point (Session 6), Sarah completed the CLQ and DASS-21. The CLQ total score was 48 out of 104, representing a 38% reduction from baseline (78 to 48). The suffocation fear subscale decreased from 42 to 26 (38% reduction), while the restriction fear subscale decreased from 36 to 22 (39% reduction).

The DASS-21 mid-treatment scores showed improvements across all subscales. The depression subscale score decreased from 16 to 10 (38% reduction, moving from moderate to mild severity), the anxiety subscale score decreased from 18 to 12 (33% reduction, moving from severe to moderate severity), and the stress subscale score decreased from 22 to 14 (36% reduction, remaining in moderate severity range).

Mid-Treatment Fear Hierarchy Re-Evaluation

Sarah's anticipated SUDS ratings for situations on the fear hierarchy were reassessed at mid-treatment. Table 4 presents the comparison between baseline and mid-treatment anticipated SUDS ratings for each hierarchy item.

Table 4. Fear Hierarchy Ratings: Baseline vs. Mid-Treatment

Rank	Situation	Baseline SUDS	Mid-Treatment SUDS	Change
1	Back seat of car, 5 minutes	30	10	-20
2	Small closet, door open, 1 minute	40	15	-25
3	Windowless meeting room, 15 minutes	50	20	-30
4	Elevator with others, 2-3 floors	65	25	-40
5	Crowded checkout line	70	30	-40
6	Movie theater middle seat	75	35	-40
7	Elevator alone, 2-3 floors	80	30	-50
8	MRI machine (hypothetical)	85	50	-35
9	Subway, rush hour, 3 stops	90	45	-45
10	Elevator alone, 10+ floors	95	40	-55
11	Small room, door closed, 10 min	95	45	-50
12	Subway, crowded, 20+ minutes	100	50	-50

All hierarchy items showed substantial reductions in anticipated anxiety, ranging from -20 to -55 SUDS points. The average reduction across all items

was -40 SUDS points (41% decrease). Notably, situations that had been directly addressed through in-session or homework exposures by mid-treatment (items 1-7) showed the largest reductions, while situations not yet directly practiced (items 8-12) showed more moderate but still substantial reductions, suggesting some generalization of learning.

Post-Treatment Assessment Outcomes

Post-Treatment Standardized Measure Scores

At the post-treatment assessment (Session 12), Sarah completed the CLQ and DASS-21. The CLQ total score was 22 out of 104, representing a 72% reduction from baseline (78 to 22) and a 54% reduction from mid-treatment (48 to 22). This score fell below the clinical threshold for claustrophobia, indicating clinically significant improvement. The suffocation fear subscale decreased to 12 (71% reduction from baseline), while the restriction fear subscale decreased to 10 (72% reduction from baseline).

The DASS-21 post-treatment scores demonstrated continued improvement across all subscales. The depression subscale score was 6 (63% reduction from baseline, moving to normal severity range), the anxiety subscale score was 6 (67% reduction from baseline, moving to normal severity range), and the stress subscale score was 8 (64% reduction from baseline, moving to normal severity range). All three subscales fell within normal ranges according to DASS-21 severity guidelines.

Table 5 summarizes the changes in standardized assessment scores across all measurement points.

Table 5. Standardized Assessment Scores Across Treatment Timeline

Measure	Baseline	Mid-Treatment	Post-Treatment	Change (%)	Follow-Up
CLQ Total	78	48	22	-72%	24
CLQ Suffocation	42	26	12	-71%	13
CLQ Restriction	36	22	10	-72%	11
DASS-21 Depression	16	10	6	-63%	7
DASS-21 Anxiety	18	12	6	-67%	7
DASS-21 Stress	22	14	8	-64%	9

Post-Treatment Fear Hierarchy Re-Evaluation

Post-treatment reassessment of the fear hierarchy revealed continued reductions in anticipated anxiety across all situations. Table 6 presents the complete progression of SUDS ratings from baseline through post-treatment.

Table 6. Fear Hierarchy Ratings Across All Assessment Points

Rank	Situation	Baseline	Mid-Tx	Post-Tx	Total Change
1	Back seat of car, 5 minutes	30	10	5	-25 (-83%)
2	Small closet, door open, 1 minute	40	15	5	-35 (-88%)
3	Windowless meeting room, 15 min	50	20	10	-40 (-80%)
4	Elevator with others, 2-3 floors	65	25	10	-55 (-85%)
5	Crowded checkout line	70	30	15	-55 (-79%)
6	Movie theater middle seat	75	35	15	-60 (-80%)
7	Elevator alone, 2-3 floors	80	30	10	-70 (-88%)
8	MRI machine (hypothetical)	85	50	25	-60 (-71%)
9	Subway, rush hour, 3 stops	90	45	20	-70 (-78%)
10	Elevator alone, 10+ floors	95	40	15	-80 (-84%)
11	Small room, door closed, 10 min	95	45	20	-75 (-79%)
12	Subway, crowded, 20+ minutes	100	50	25	-75 (-75%)

The average reduction across all hierarchy items from baseline to post-treatment was 58 SUDS points, representing an 80% decrease. All situations that had been previously completely avoided (items rated 70 or above at baseline) showed reductions to manageable anxiety levels (25 or below at post-treatment).

Post-Treatment Behavioral Changes

At post-treatment assessment, Sarah reported significant behavioral changes reflecting reduced avoidance and improved functional capacity. She reported using elevators at her workplace daily without significant distress, typically experiencing SUDS ratings of 10-15 during elevator rides. Sarah had successfully resumed using public transportation, including the subway, for her commute twice per week, with SUDS ratings ranging from 15-25 depending on crowding levels.

Sarah also reported attending a movie with friends, sitting in a middle seat without experiencing a panic attack (SUDS = 20 during the film). She had completed a medical appointment that required being in a small examination room with the door closed, reporting a peak SUDS of 30 and successful use of breathing techniques to manage anxiety. Sarah declined no social or

professional opportunities due to claustrophobic concerns during the final four weeks of treatment.

Reliable Change and Clinical Significance Analysis

Reliable Change Index Calculations

Reliable Change Indices (RCI) were calculated for the CLQ and DASS-21 subscales to determine whether observed changes exceeded measurement error. Using published reliability data for these instruments and the RCI formula RCI = $(x_2 - x_1)$ / SE_diff, the following RCI values were obtained for baseline to post-treatment changes:

a. CLQ Total: RCI = 9.33 ($p < .001$)
b. CLQ Suffocation subscale: RCI = 8.57 ($p < .001$)
c. CLQ Restriction subscale: RCI = 7.86 ($p < .001$)
d. DASS-21 Depression: RCI = 4.29 ($p < .001$)
e. DASS-21 Anxiety: RCI = 5.14 ($p < .001$)
f. DASS-21 Stress: RCI = 5.67 ($p < .001$)

All RCI values substantially exceeded the threshold of ± 1.96 required for statistical significance at $p < .05$, indicating that all observed changes represented reliable improvement beyond measurement error.

Clinical Significance Analysis

Clinical significance was evaluated by comparing post-treatment scores to published clinical cutoff criteria. For the CLQ, the post-treatment total score of 22 fell below the clinical threshold of 40, indicating recovery from clinically significant claustrophobia. The post-treatment score also fell within the range typical of non-clinical populations ($M = 18.5$, $SD = 12.3$ in normative samples), further supporting clinically significant recovery.

For the DASS-21, all three subscale scores at post-treatment fell within the "normal" severity range according to established guidelines (Depression: 0-9 = normal; Anxiety: 0-7 = normal; Stress: 0-14 = normal). The depression score of 6, anxiety score of 6, and stress score of 8 all met criteria for normal-range functioning, representing clinically significant improvement from baseline elevations.

Three-Month Follow-Up Assessment Outcomes

Follow-Up Standardized Measure Scores

At the three-month follow-up assessment, Sarah completed the CLQ and DASS-21 via telephone administration. The CLQ total score was 24 out of 104, representing a 69% reduction from baseline and only a minimal increase of 2 points from post-treatment. The suffocation fear subscale score was 13, and

the restriction fear subscale score was 11, both remaining well below clinical thresholds.

The DASS-21 follow-up scores remained in the normal range for all subscales. The depression subscale score was 7, the anxiety subscale score was 7, and the stress subscale score was 9. These scores represented slight increases of 1 point on each subscale compared to post-treatment but remained within normal severity ranges and well below baseline levels. Table 5 (shown previously) includes the follow-up data for all standardized measures.

Follow-Up Functional Status

During the follow-up telephone interview, Sarah reported continued use of skills learned during treatment and maintenance of functional gains. She indicated using elevators regularly (approximately 10 times per week) with minimal anxiety (typical SUDS = 10-15). Sarah reported riding public transportation 3-4 times per week with SUDS ratings typically ranging from 15-20, occasionally reaching 25-30 during very crowded conditions.

Sarah described one challenging incident during the follow-up period when she experienced a brief panic episode (peak SUDS = 60) while stuck in an elevator due to a mechanical malfunction for approximately 10 minutes. She reported successfully using diaphragmatic breathing and cognitive restructuring techniques during this incident, and her anxiety decreased to SUDS = 25 by the time the elevator was repaired. Importantly, Sarah continued using elevators regularly following this incident without developing renewed avoidance, indicating resilience and successful application of relapse prevention strategies.

Sarah reported no avoidance of professional or social opportunities due to claustrophobic concerns during the three-month follow-up period. She had accepted a promotion at work that required more frequent travel to different office locations, involving regular elevator use and occasional subway travel. Sarah expressed high confidence (8 out of 10) in her ability to manage claustrophobic symptoms independently using the skills learned in treatment.

Maintenance of Treatment Gains

Comparison of post-treatment and follow-up scores indicated maintenance of treatment gains across all outcome measures. The minimal increases in CLQ and DASS-21 scores from post-treatment to follow-up (2 points on CLQ, 1 point on each DASS-21 subscale) were well within normal fluctuation ranges and did not represent clinically significant deterioration. All follow-up scores remained below clinical thresholds and within normal ranges, supporting sustained recovery three months after treatment completion.

The results demonstrated substantial and sustained improvement in claustrophobic symptoms and associated psychological distress following the 12-session multimodal counseling intervention. Primary outcomes included: (1) 72% reduction in CLQ total score from baseline to post-treatment, with scores falling below clinical thresholds; (2) movement of all DASS-21 subscales from elevated to normal severity ranges; (3) successful completion of graduated exposure exercises with consistent within-session habituation averaging 63%; (4) high homework compliance (95%) with progressive reduction in anxiety during self-directed exposures; (5) elimination of avoidance behaviors and restoration of functional capacity across work and social domains; and (6) maintenance of treatment gains at three-month follow-up with continued functional improvement. All outcome measures demonstrated reliable and clinically significant change, and treatment gains were maintained at follow-up assessment, supporting the effectiveness of the multimodal counseling approach for pandemic-related claustrophobia.

Discussion

Overview of Key Findings

This case study examined the implementation and effectiveness of a multimodal counseling strategy for treating claustrophobia that emerged or intensified during the COVID-19 pandemic. The findings demonstrated substantial and sustained improvement across multiple outcome domains following a 12-session intervention that integrated cognitive restructuring, breathing retraining, progressive muscle relaxation, psychoeducation, graduated in vivo exposure, and mindfulness-based techniques. The participant achieved a 72% reduction in claustrophobic symptom severity as measured by the Claustrophobia Questionnaire (CLQ), with post-treatment scores falling below clinical thresholds and within normative ranges.

Additionally, all Depression, Anxiety and Stress Scale-21 (DASS-21) subscales improved from elevated to normal severity ranges, representing reductions of 63-67% from baseline. These gains were maintained at three-month follow-up, with only minimal, clinically insignificant fluctuations in symptom scores. Functionally, the participant eliminated previously pervasive avoidance behaviors, resumed using elevators and public transportation, and reported no declined opportunities due to claustrophobic concerns. All outcome measures demonstrated both reliable and clinically significant change, supporting the effectiveness of the multimodal approach for pandemic-related claustrophobia.

Effectiveness of Multimodal Counseling for Pandemic-Related Claustrophobia

The substantial symptom reduction observed in this case study provides strong support for the effectiveness of multimodal counseling approaches in treating claustrophobia that emerged or intensified in the context of the COVID-19 pandemic. The 72% reduction in CLQ scores from baseline to post-treatment substantially exceeds typical improvement rates reported in meta-analytic reviews of anxiety disorder treatments. The achievement of both statistically reliable change (RCI values ranging from 4.29 to 9.33, all $p < .001$) and clinically significant improvement indicates that the observed changes were not merely statistical artifacts but represented meaningful recovery with practical significance for the participant's daily functioning.

The pattern of improvement across treatment phases provides insight into the mechanisms through which change occurred, with the most substantial reductions in session-by-session SUDS ratings occurring during Sessions 5-8, corresponding to the intensive graduated exposure phase. This finding aligns with contemporary understanding of exposure therapy as the most potent active ingredient in anxiety disorder treatment (Carpenter et al., 2023; Chung & Brasel, 2023). The effectiveness of the multimodal approach documented in this case study is consistent with recent research demonstrating superior outcomes when multiple evidence-based interventions are systematically integrated rather than delivered in isolation.

Carpenter et al., (2023) found that enhanced mental health interventions incorporating multiple therapeutic modalities produced more robust and sustained improvements in anxiety symptoms compared to single-modality approaches. The current findings extend this literature by demonstrating the applicability of multimodal approaches specifically to claustrophobia, a specific phobia subtype that has received less research attention than other anxiety disorders in recent years. The maintenance of treatment gains at three-month follow-up is particularly noteworthy given documented challenges with relapse in anxiety disorder treatment, and likely reflects the explicit incorporation of relapse prevention components including identification of high-risk situations and development of personalized coping plans (Davis et al., 2023).

The context of pandemic-related symptom emergence adds an important dimension to these findings. Research by Silberman et al., (2022) documented that claustrophobic tendencies increased substantially during home quarantine, with approximately 26% of individuals reporting heightened anxiety in confined spaces following extended isolation periods. The current case exemplifies this phenomenon, with the participant reporting mild pre-pandemic discomfort that escalated to severe, functionally impairing symptoms following prolonged lockdown. The effectiveness of standard

evidence-based interventions for pandemic-related claustrophobia provides reassurance that such symptoms are amenable to treatment despite their unusual precipitating context. However, several limitations warrant consideration: as a single-case study, generalizability is limited; the three-month follow-up is relatively brief; and the specific contributions of individual intervention components cannot be isolated.

Clinically, the findings suggest that claustrophobia associated with pandemic experiences can be effectively treated using multimodal approaches delivered in time-limited formats (12 sessions), with clinicians integrating cognitive restructuring and self-regulation skills as preparatory components before intensive exposure work. Future research should employ systematic case series or randomized controlled trials with longer follow-up periods, component analysis to identify essential versus optional elements, and examination of moderators predicting treatment response across diverse populations (Carpenter et al., 2023; de la Rosa-Cáceres, Lozano, et al., 2023).

Exposure Therapy as the Core Active Ingredient

The exposure therapy component demonstrated robust effectiveness, as evidenced by consistent within-session habituation across all 14 in-session exposure exercises (average 63% SUDS reduction from peak to end) and progressive reduction in both peak and ending SUDS ratings as exposure practice accumulated. The pattern of findings supports extinction learning theory, which posits that repeated, prolonged exposure to feared stimuli in the absence of feared consequences leads to new safety learning that competes with and eventually supersedes fear associations. The increasing habituation percentages observed across successive exposure exercises (ranging from 50% in early exposures to 77% in later exposures) suggests that the participant developed enhanced capacity for anxiety reduction over time, consistent with the consolidation of inhibitory learning. The graduated nature of the exposure protocol, which systematically progressed from lower-anxiety to higher-anxiety situations according to the personalized fear hierarchy, appeared to facilitate engagement and minimize dropout risk, with the participant completing all planned exposure exercises and maintaining 95% homework compliance.

The effectiveness of graduated in vivo exposure documented in this case study aligns closely with contemporary research establishing exposure therapy as the gold standard treatment for specific phobias. Recent work by Chung & Brasel (2023) examining digital claustrophobia interventions demonstrated that exposure-based approaches, whether delivered through virtual reality or in vivo formats, consistently produce substantial symptom

reduction. Research by Dahiya et al. (2025) investigating virtual reality exposure therapy for claustrophobia found comparable outcomes between virtual reality and in vivo conditions, though participants in the in vivo condition reported greater confidence in generalizing skills to real-world situations.

The current case study's findings support this observation, as the participant demonstrated successful generalization evidenced by high homework compliance, progressive reduction in SUDS during self-directed exposures, and functional improvements in real-world contexts. The importance of between-session exposure practice aligns with research emphasizing homework compliance as a critical predictor of treatment outcomes, with Davis et al. (2023) finding that homework completion accounted for significant variance in treatment response beyond in-session work alone.

Notably, the participant's peak SUDS ratings during actual exposure were consistently lower than initially anticipated ratings for corresponding situations, suggesting that anticipatory anxiety may overestimate actual anxiety experienced in feared situations. This discrepancy is consistent with research documenting the role of intolerance of uncertainty in anxiety disorders and suggests that cognitive restructuring work conducted prior to exposure may have contributed to more realistic appraisals of threat (de la Rosa-Cáceres, Lozano, et al., 2023).

While the exposure findings are compelling, limitations include the inability to isolate exposure effects from other treatment components, reliance on self-report SUDS ratings, and the possibility that the participant's high motivation may not characterize all treatment-seekers. Clinically, these findings support graduated in vivo exposure following a personalized fear hierarchy as an effective and feasible approach, with clinicians ensuring that identified situations are relevant to clients' lives and continuing exposure exercises until meaningful anxiety reduction occurs (at least 50% SUDS decrease). Future research should examine optimal exposure parameters, including frequency, duration, and spacing of sessions; investigate moderators of exposure response; and explore mechanisms underlying effectiveness using contemporary inhibitory learning frameworks with psychophysiological assessment (Carpenter et al., 2023; Dahiya et al., 2025).

Cognitive Restructuring and Psychoeducation as Preparatory Components

The cognitive restructuring component implemented in Sessions 3-5 appeared to contribute meaningfully to treatment outcomes, as evidenced by the participant's ability to generate more balanced, realistic appraisals of

threat and the observation that actual SUDS during exposure were consistently lower than initially anticipated. The participant successfully identified and challenged catastrophic thoughts about being trapped, running out of air, and losing control, developing alternative interpretations that acknowledged discomfort while recognizing that feared outcomes were unlikely to occur. This cognitive work may have reduced anticipatory anxiety and enhanced willingness to engage in exposure exercises. The psychoeducation provided throughout treatment served multiple functions: establishing clear rationale for treatment, normalizing anxiety experiences, and reducing fear of fear itself (anxiety sensitivity), which may have been a maintaining factor in the claustrophobia.

The effectiveness of combining cognitive restructuring with exposure therapy aligns with research by de la Rosa-Cáceres, Sayans-Jiménez, et al. (2023)examining relationships between emotional dysregulation, psychological distress, and anxiety symptoms, which found that cognitive factors including interpretation biases and attention to threat mediated the relationship between emotional processes and anxiety severity. This research supports the theoretical rationale for targeting cognition in anxiety treatment, as cognitive change may represent a mechanism through which symptoms improve. Research emphasizing the importance of psychoeducation in anxiety treatment has documented that clients who understand the nature of their symptoms and treatment rationale demonstrate better engagement, lower dropout rates, and enhanced outcomes (Xiong et al., 2025).

The finding that psychoeducation contributed to reduced anxiety sensitivity aligns with work by Kopp et al. (2001) documenting that individuals with elevated anxiety sensitivity were more likely to develop claustrophobic symptoms during pandemic lockdowns. While the cognitive and psychoeducational components appeared valuable, limitations include the inability to determine their independent contributions within the multimodal package, reliance on clinical observation rather than standardized cognitive measures, and uncertainty about optimal dosing.

Clinically, these findings suggest that clinicians should incorporate systematic cognitive interventions before or concurrent with exposure therapy, particularly when working with clients exhibiting high levels of catastrophic thinking, and should deliver psychoeducation as an ongoing process integrated throughout treatment rather than as a brief one-time intervention. Future research should employ dismantling studies comparing exposure alone versus exposure combined with cognitive restructuring, examine mechanisms using trial-by-trial assessment of cognitive processes, investigate optimal psychoeducation delivery methods including digital

formats, and examine cultural adaptations of cognitive interventions for diverse populations (Hollandt & Richter, 2022; Pantoleon et al., 2025).

Physiological Self-Regulation and Treatment Process Factors

The breathing retraining and progressive muscle relaxation (PMR) components introduced in Session 4 appeared to serve valuable functions, with the participant utilizing diaphragmatic breathing successfully during exposure exercises and during a challenging elevator malfunction incident at follow-up. The availability of a concrete, physiological coping strategy appeared to enhance the participant's sense of control and confidence when confronting feared situations. While contemporary research has questioned whether relaxation training adds substantially to exposure therapy outcomes, research by Musamih et al. (2024) found that clients who developed diverse coping strategies demonstrated more robust maintenance of gains at follow-up compared to those relying on single methods. Given that claustrophobia often involves fears of suffocation, breathing techniques providing experiential evidence of respiratory control may be particularly relevant for this specific phobia subtype.

The exceptionally high treatment adherence observed, including 100% session attendance and 95% homework completion rate, likely contributed substantially to positive outcomes. While formal therapeutic alliance was not assessed, clinical documentation indicated consistent evidence of positive working relationship, collaborative goal-setting, and shared commitment to treatment objectives. The participant's willingness to engage in challenging exposure exercises despite high anticipatory anxiety suggests strong therapeutic alliance and trust in the counselor's guidance. Research documents that treatment adherence is among the strongest predictors of outcomes in anxiety disorder treatment, with homework completion accounting for significant variance beyond baseline symptom severity (Krause et al., 2022). The collaborative approach to treatment planning reflects contemporary emphasis on shared decision-making and person-centered care, with McCabe-Bennett et al. (2020) finding that individuals highly valued being involved in treatment decisions.

The maintenance of treatment gains at three-month follow-up, with only minimal increases in symptom scores and continued functional improvement, provides preliminary evidence for sustained recovery. The participant's successful navigation of the elevator malfunction incident—experiencing elevated anxiety (peak SUDS = 60) but employing breathing and cognitive techniques to manage distress and continuing elevator use afterward—demonstrates resilience and effective relapse prevention. The explicit relapse

prevention planning in Sessions 10-11, including discussion that occasional anxiety elevations are normal and do not represent treatment failure, appeared to contribute to this successful management.

Limitations of these findings include the inability to isolate specific component effects, a brief follow-up period, and participant characteristics that may have facilitated positive responses. Clinically, findings support including breathing retraining as a preparatory component, particularly for clients with high anxiety sensitivity; investing effort in alliance-building and homework facilitation; incorporating explicit relapse prevention planning in final sessions; and conducting follow-up assessments to monitor maintenance. Future research should examine predictors of treatment adherence, employ longer-term follow-up (12+ months), investigate mechanisms underlying sustained recovery versus relapse, and examine maintenance across diverse populations and practice settings (Khanthavudh et al., 2025).

This case study demonstrates that multimodal counseling integrating cognitive, behavioral, and physiological interventions can produce substantial, clinically significant, and sustained improvements in claustrophobia that emerged or intensified during the COVID-19 pandemic. The participant achieved a 72% reduction in claustrophobic symptom severity, elimination of avoidance behaviors, restoration of functional capacity, and movement of all psychological distress indicators from elevated to normal ranges, with gains maintained at three-month follow-up. The findings support exposure therapy as the core active ingredient while suggesting that cognitive restructuring, psychoeducation, and physiological self-regulation techniques serve valuable preparatory and complementary functions. High treatment adherence, a strong therapeutic alliance, systematic relapse prevention planning, and successful skill generalization appeared to contribute to positive outcomes.

The results align with and extend existing research on anxiety disorder treatment by documenting the application of evidence-based approaches to a specific phobia subtype that emerged in the unique context of pandemic-related confinement experiences (Abrams, 2023).For clinical practice, the findings suggest that pandemic-related claustrophobia can be effectively treated using standard evidence-based approaches delivered in time-limited formats (12 sessions over 14 weeks). Mental health systems should ensure that evidence-based treatments for anxiety disorders remain accessible to individuals experiencing pandemic-related mental health sequelae. Clinicians should consider integrating multiple intervention modalities in systematic, theoretically coherent ways, with careful attention to treatment engagement, therapeutic alliance, homework compliance, and relapse prevention planning.

For research, this case study highlights the need for systematic case series, randomized controlled trials, component analysis studies, and implementation research with longer-term follow-up, more rigorous assessment including behavioral and physiological measures, examination of treatment mechanisms and moderators, and investigation of cultural adaptation and implementation in diverse settings. The pandemic context provides an opportunity to examine how extraordinary environmental stressors influence the development and treatment of anxiety disorders, with implications for preparedness for future public health emergencies. While replication through more rigorous designs is needed, this case study provides encouraging preliminary evidence and practical guidance for clinicians supporting recovery from pandemic-related claustrophobia, demonstrating that established evidence-based treatments can be effectively applied even when psychological symptoms emerge from unprecedented collective experiences.

CONCLUSION

The primary objective of this case study was to examine the implementation and effectiveness of a multimodal counseling strategy for treating claustrophobia that emerged or intensified during the COVID-19 pandemic. Through systematic documentation of a 12-session intervention integrating cognitive restructuring, breathing retraining, progressive muscle relaxation, psychoeducation, graduated in vivo exposure, and mindfulness-based techniques, this research sought to illuminate both the therapeutic processes and clinical outcomes associated with comprehensive treatment for pandemic-related specific phobia. The study aimed to address critical gaps in the literature regarding evidence-based approaches for anxiety disorders arising from the unprecedented environmental stressors of prolonged lockdowns and confinement mandates, while providing practical guidance for clinicians encountering similar presentations in post-pandemic practice.

The implications for future research are multifaceted and span methodological, theoretical, and applied domains. Methodologically, this case study establishes proof of concept for the need for systematic research examining multimodal counseling for pandemic-related anxiety disorders through more rigorous designs, including randomized controlled trials, systematic case series with replication across diverse participants, and component analysis studies employing dismantling methodologies. In conclusion, this case study provides compelling preliminary evidence that multimodal counseling integrating cognitive, behavioral, and physiological interventions can effectively address claustrophobia that emerged or intensified during the COVID-19 pandemic, producing substantial symptom reduction, functional restoration, and sustained recovery.

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