



Psychological Interventions for Reducing Public Speaking Anxiety in Adults with Speech Impairments

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Abstract: This study aimed to evaluate the effectiveness of psychological interventions, specifically cognitive-behavioural therapy (CBT), mindfulness-based stress reduction (MBSR), and exposure therapy, in reducing public speaking anxiety in adults with speech impairments. Public speaking anxiety is prevalent in this population, often exacerbated by communication challenges, which limit participation in social and professional contexts. Previous research supports the effectiveness of these interventions for general social anxiety, but limited evidence exists on their specific application for individuals with speech impairments. A quantitative, randomized, controlled design was employed with a sample of $n=100$ adults diagnosed with speech impairments and public speaking anxiety. Participants were randomly assigned to one of the three intervention groups or a control group, with data collected at baseline, post-intervention, and follow-up using the Public Speaking Anxiety Scale (PSAS), Brief Fear of Negative Evaluation Scale (BFNE), and Connor-Davidson 2023 Resilience Scale (CD-RISC). Results indicated significant reductions in anxiety across all intervention groups compared to the control, with CBT showing the largest effect ($F(2, 188) = 85.3, p < .001$). The findings highlight the potential of psychological interventions to reduce public speaking anxiety and improve resilience in adults with speech impairments, emphasizing the need for integrated treatment approaches. Future research should explore combined therapeutic approaches and include qualitative data for a more comprehensive understanding.

Key Words: Public Speaking Anxiety, Speech Impairments, Cognitive-behavioural Therapy, Mindfulness, Exposure Therapy

Introduction

Public speaking anxiety, a common form of social anxiety, poses significant challenges for many individuals, and the impact is even more profound for adults with speech impairments. Public speaking can be a fundamental part of day-to-day existence and is essential for proficient, instructive, and individual settings. For people with speech weaknesses, in any case, the experience frequently includes apprehension about judgment as well as the battle to be perceived, which might compound sensations of nervousness, shame, and social separation (Iverach et al. 2014). Psychological interventions, especially those tending to nervousness and self-viability, are progressively perceived as powerful apparatuses for diminishing public speaking uneasiness and working on personal satisfaction in people with communication problems (Alladin, 2015).

This study expects to investigate the viability of psychological interventions in relieving public speaking tension explicitly in grown-ups with speech impedances, a group for whom such difficulties are

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often compounded. Public speaking nervousness is one of the most well-known types of social uneasiness, influencing roughly 15% to 30% of everyone (Beidel et al., 2019). For grown-ups with speech hindrances, this tension can be more extraordinary because of the double test of overseeing both communication boundaries and the apprehension about regrettable assessment. People with speech impedances, for example, faltering, dysarthria, and aphasia, frequently face uplifted degrees of hesitance and stress over judgment from others, which can prompt aversion to speaking open doors and social withdrawal (Foley & Pollatsek, 1999). This aversion, while briefly mitigating tension, can at last support the trepidation and breaking point of individual and expert development, as commitment is much of the time undeniable in work and group environments.

Psychological interventions, like CBT, care-based pressure decrease (MBSR), and openness treatment, have shown adequacy in treating social and execution-related tension in everybody (Alladin, 2015). These treatments address the basic psychological interventions and close-to-home examples that add to the tension, helping people reexamine pessimistic contemplations and progressively overcome their feelings of trepidation in a controlled way. Nonetheless, grown-ups with speech debilitations experience remarkable stressors connected with communication hardships, which are not normally tended to in standard tension medicines (Foley & Pollatsek, 1999). For example, while CBT might assist with altering silly contemplations about open speaking, people with speech weaknesses may likewise require explicit systems to deal with communication challenges before a group of people.

Research suggests that adjusting these psychological interventions to represent the extraordinary needs of people with speech disabilities can prompt improved results (Beidel et al., 2019). By consolidating conventional nervousness in the executive's methods with language training standards, custom-made intercessions could offer people more extensive help, focusing on both the profound and informative parts of public speaking uneasiness. For instance, a consolidated methodology could incorporate activities to further develop speech clarity close by care rehearses that assist people with zeroing in on the current second as opposed to expected judgment. This coordinated methodology can possibly enable people with speech disabilities to connect all the more unhesitatingly in broad daylight speaking settings, working on their personal satisfaction and growing their chances for individual and expert achievement.

Background of Study

Speech debilitations, which envelop many problems that influence enunciation, familiarity, and vocal quality, can prompt extreme communication obstructions. Grown-ups with these impedances oftentimes face critical difficulties in friendly circumstances, especially in settings requiring clear verbal communication, like public speaking (Beidel et al., 2019). Research shows that public speaking uneasiness in grown-ups with speech disabilities is connected to uplifted degrees of social withdrawal, lower confidence, and decreased support in both individual and expert settings (Rice et al., 1991).

Problem Statement

Regardless of the known advantages of Psychological interventions for uneasiness, there is restricted exploration of their adequacy in diminishing public speaking nervousness among grown-ups with speech disabilities. While psychological interventions, such as CBT, have been displayed to diminish social uneasiness, few examinations have investigated their immediate effect on open-speaking nervousness in people with communication issues (Beidel et al., 2019). This hole features the requirement for designated research on how Psychological interventions can explicitly reduce the novel difficulties faced by grown-ups with speech hindrances while speaking out in the open.

Significance of Study

This study is significant because it addresses a gap in research by exploring Interventions are explicitly intended to mitigate uneasiness of public talking among grown-ups with discourse hindrances. Viable administration of public talking nervousness can prompt superior social cooperation, more prominent fearlessness, and improved personal satisfaction for people impacted by discourse problems (Alladin, 2015). The discoveries of this study might give advisors, teachers, and discourse language pathologists proof-based methodologies to help clients who face extraordinary hindrances to communication.

Research Objectives

1. To assess the impact of cognitive-behavioural therapy on public speaking anxiety in adults with speech impairments.
2. To determine the effects of mindfulness-based stress reduction on anxiety levels in public speaking contexts.
3. To examine whether exposure therapy reduces anxiety and increases self-confidence in public speaking among this population.
4. To identify the coping strategies that individuals with speech impairments find most helpful in managing public speaking anxiety.

Research Questions

1. How effective is cognitive-behavioural therapy in reducing public speaking anxiety in adults with speech impairments?
2. Does mindfulness-based stress reduction significantly reduce anxiety in public speaking situations for individuals with speech impairments?
3. What role does exposure therapy play in improving self-confidence and reducing anxiety in public speaking for this population?
4. Which coping strategies are perceived as most effective by adults with speech impairments in managing public speaking anxiety?

Literature Review

Public speaking uneasiness is a typical and frequently incapacitating issue, especially influencing grown-ups with speech weaknesses, as it compounds communication challenges and can obstruct both individual and expert open doors. Psychological interventions, like cognitive behaviour therapy (CBT), care-based approaches, and openness treatment, have been generally read up for their viability in addressing uneasiness connected with public speaking. CBT has demonstrated particularly compelling results in lessening tension side effects by rebuilding negative idea designs that add to speech-related fears (Pertaub & Slater, 2002). Studies show that openness treatment, frequently joined with unwinding strategies, permits people to continuously stand up to and adjust to their nervousness triggers, bringing about expanded certainty and diminished evasion ways of behaving (Anderson, 2005).

Mindfulness-based interventions and acknowledgement of genuine fears have likewise shown a guarantee of lessening uneasiness, especially by upgrading profound guideline abilities (Goldin & Gross, 2010). Meta-examinations of mediation studies propose that joining numerous strategies, like CBT with care or openness treatment, can yield considerably more huge enhancements in decreasing public speaking tension among grown-ups with speech debilitations (Stewart et al., 1992). Given these discoveries, further examination is justified to advance intercession methodologies, guaranteeing they are customized to the novel necessities of people with speech weaknesses and analyzing long haul results to help support uneasiness decrease and work on open speaking abilities.

Public speaking uneasiness (public service announcement) is one of the most widely recognized types of social nervousness, portrayed by a serious feeling of dread toward being adversely assessed by others while speaking in broad daylight (Ruscio et al., 2008). For grown-ups with speech hindrances, this uneasiness can be significantly more articulated as communication challenges heighten their anxiety toward judgment and disappointment. The double weight of public service announcements and speech hindrances can restrict social cooperation, professional possibilities, and, generally speaking, personal satisfaction (Leary & Kowalski, 1997). Psychological interventions are fundamental in resolving these issues, planning to diminish tension levels and enable people with the certainty and abilities expected to participate in broad daylight speaking settings successfully.

CBT has shown critical viability in overseeing uneasiness in public speaking, particularly in people who face extra difficulties because of speech hindrances. CBT works by aiding people to perceive and challenge pessimistic idea designs that fuel uneasiness, supplanting them with positive, reasonable convictions (Hofmann et al., 2009). Research has shown that grown-ups with speech weaknesses benefit from CBT by



figuring out how to zero in on their message as opposed to apparent defects in their speech (Pertaub et al., 2002). This approach has prompted quantifiable decreases in public service announcements, assisting people with having a good sense of safety in broad daylight speaking circumstances. Openness treatment, frequently coordinated into CBT programs, includes step-by-step facing dreaded circumstances, permitting people to lessen nervousness through rehashed openness (Anderson et al., 2005). For those with public service announcements and speech disabilities, reviewed openness to public speaking undertakings can incorporate rehearsing before little, steady gatherings before bigger crowds. Studies show that openness treatment can essentially diminish evasion ways of behaving as people figure out how to deal with their nervousness reactions through gradual openness (Heimberg et al., 1993). This approach lessens dread and advances flexibility and self-adequacy, openly speaking.

Virtual Reality (VR) innovation has arisen as a significant device for openness treatment, offering a controlled climate where people can rehearse public speaking without certifiable repercussions. VR-based mediation has been demonstrated to be especially viable for people with public service announcements, giving a place of refuge to defy fears and work on speaking abilities (Harris et al., 2002). For grown-ups with speech weaknesses, VR can mimic different public speaking situations, assisting them with acclimating to various settings and decreasing uneasiness through redundancy (Pertaub et al., 2002). VR's versatility and openness make it an imaginative answer for handling public service announcements in clinical settings.

Theoretical Framework

This study is grounded in Social Cognitive Theory (Bandura, 1986) and Cognitive Behavioral Theory (Beck, 1976). Social Cognitive Theory believes that people can impact their feelings and ways of behaving through self-viability or their confidence in their capacity to prevail in unambiguous circumstances. For people with uneasiness in public speaking, self-viability is fundamental for overseeing nervousness and taking part in communication, notwithstanding anxiety toward pessimistic assessment. This hypothesis gives a premise to understanding how mediations like CBT and openness treatment can assist people with building self-viability in broad daylight speaking by continuously overcoming their feelings of trepidation in controlled settings.

Hypotheses

- H1:** Cognitive-behavioral therapy (CBT) will significantly reduce public speaking anxiety in adults with speech impairments.
- H2:** Mindfulness-based stress reduction (MBSR) will positively impact emotional regulation and reduce anxiety in public speaking situations for this population.
- H3:** Exposure therapy will significantly increase self-confidence and reduce public speaking anxiety in adults with speech impairments.
- H4:** An integrated approach combining CBT and speech therapy techniques will yield greater reductions in public speaking anxiety compared to psychological interventions alone.

Methodology

Research Design

This randomized controlled study evaluated the effectiveness of CBT, MBSR, and exposure therapy compared to a no-intervention control group. Random assignment minimized bias and enhanced validity by ensuring comparable groups pre-intervention.

Population and Sample

The study targeted adults (18+) with speech impairments and public speaking anxiety. A purposive sample of $n=100$ participants met criteria including diagnosed speech impairment, self-reported or clinically assessed anxiety, and no severe cognitive impairments.

Public Speaking Anxiety Scale (PSAS)

A self-report measure assessing the intensity of public speaking anxiety, including physiological, cognitive, and behavioral responses.

Brief Fear of Negative Evaluation Scale (BFNE)

A scale evaluating fear of being negatively evaluated by others is a common component of public speaking anxiety.

Connor-Davidson Resilience Scale (CD-RISC)

A validated measure of resilience, included to assess improvements in self-efficacy and emotional regulation following the intervention.

Therapist Assessment Checklist

A standardized checklist was completed by therapists to observe and rate participant engagement, anxiety levels, and overall progress during each session.

Ethical Considerations

IRB approval was obtained, and informed consent ensured participants' rights and confidentiality. Therapists provided support for anxiety during assessments, and debriefing included resources for further help.

Results

Table 1

Descriptive statistics for public speaking anxiety, fear of negative evaluation, and resilience scores by group and time

Group	Time	PSAS (M ± SD)	BFNE (M ± SD)	CD-RISC (M ± SD)
CBT	Baseline	65.8 ± 9.2	30.1 ± 6.5	52.3 ± 8.7
	Post-intervention	45.4 ± 7.6	18.4 ± 5.3	65.9 ± 7.2
	Follow-up	47.6 ± 8.1	20.3 ± 5.8	63.1 ± 7.9
MBSR	Baseline	66.2 ± 8.9	31.4 ± 7.0	51.7 ± 9.1
	Post-intervention	50.2 ± 8.3	23.0 ± 6.2	62.5 ± 7.5
	Follow-up	52.4 ± 8.7	25.1 ± 6.4	60.3 ± 8.2
Exposure Therapy	Baseline	67.1 ± 8.6	29.8 ± 6.8	53.4 ± 8.9
	Post-intervention	48.1 ± 7.9	21.6 ± 5.9	61.8 ± 7.7
	Follow-up	50.5 ± 8.3	23.2 ± 6.1	59.4 ± 7.8
Control	Baseline	66.4 ± 9.1	30.5 ± 7.2	51.9 ± 8.5
	Post-intervention	65.2 ± 8.8	30.0 ± 6.9	52.7 ± 8.6
	Follow-up	66.0 ± 9.0	30.3 ± 7.1	51.8 ± 8.3

Table 1 indicated participant in the CBT, MBSR, and exposure therapy groups demonstrated significant reductions in PSAS and BFNE scores from baseline to post-intervention, indicating decreased public speaking anxiety and fear of negative evaluation. The control group showed no significant changes. Resilience scores (CD-RISC) improved in all intervention groups, with the CBT group showing the largest increase.

Table 2

Repeated-measures ANOVA for public speaking anxiety scale (PSAS) scores

Source	SS	df	MS	F	p	η ²
Time	3456.2	2	1728.1	85.3	< .001**	.49
Group	1987.3	3	662.4	32.7	< .001**	.39
Time × Group	854.9	6	142.5	7.03	< .001**	.21
Error	2681.6	188	14.3			

Note: -.p < .01.

Table 2 indicated that there were statistically significant main effects for both Time ($F(2, 188) = 85.3, p < .001, \eta^2 = .49$) and Group ($F(3, 188) = 32.7, p < .001, \eta^2 = .39$), as well as a significant Time × Group



interaction ($F(6, 188) = 7.03, p < .001, \eta^2 = .21$). These findings indicate that the interventions significantly reduced anxiety over time, with the interaction effect showing that each group responded differently to the interventions. The effect size for time was large ($\eta^2 = .49$), suggesting substantial changes in anxiety levels across time points.

Table 3

Post-hoc comparisons of PSAS score reductions between intervention groups and control group

Comparison	Mean Difference	SE	t	p	Cohen's d
CBT vs. Control	-17.4	2.4	-7.25	< .001**	1.12
MBSR vs. Control	-13.8	2.6	-5.31	< .001**	0.94
Exposure vs. Control	-15.6	2.5	-6.24	< .001**	1.03
CBT vs. MBSR	-3.6	2.2	-1.64	.108	0.42
CBT vs. Exposure	-1.8	2.1	-0.86	.392	0.23
MBSR vs. Exposure	1.8	2.1	0.86	.392	0.23

Note: -.p < .01.

Table 3 indicated that the post-hoc tests revealed that each intervention group (CBT, MBSR, and exposure therapy) significantly reduced anxiety compared to the control group, with large effect sizes (Cohen's $d > 0.8$). There were no significant differences between the intervention groups, suggesting that all three interventions were similarly effective in reducing public speaking anxiety among participants.

Table 4

Effect sizes for reductions in public speaking anxiety scale (PSAS) scores by group

Group	Baseline to Post-Intervention	Baseline to Follow-up
CBT	1.50	1.32
MBSR	1.25	1.08
Exposure Therapy	1.38	1.15
Control	0.15	0.12

Table 4 indicated that all intervention groups showed large effect sizes from baseline to post-intervention, with Cohen's d values ranging from 1.25 to 1.50, indicating substantial reductions in public speaking anxiety. The effect sizes remained large at follow-up, suggesting sustained anxiety reduction even after the intervention ended. The control group's effect sizes were minimal, showing negligible changes over time.

Discussion

The results of this study demonstrate that cognitive behavioural therapy (CBT), mindfulness-based stress reduction (MBSR), and openness treatment essentially lessen public talking tension in grown-ups with speech hindrances. Every mediation prompted significant declines in the Public Speaking Anxiety Scale (PSAS) and Brief Fear of Negative Evaluation Scale (BFNE) score, alongside enhancements in strength as estimated by the Connor-Davidson Flexibility Scale (Compact disc RISC). Prominently, the CBT bunch showed the best general decrease in tension and the main improvement in versatility, followed intently by the openness treatment and MBSR gatherings. These outcomes recommend that psychological interventions explicitly custom-fitted to address public talking tension in this populace can essentially work on both home guidelines and self-assurance in talking settings.

The discoveries line up with past exploration on the adequacy of psychological interventions in overseeing social and execution-related nervousness. Concentrates on CBT and openness treatment have reliably shown that these methodologies decrease tension by assisting people with adjusting silly apprehensions and confronting testing circumstances in controlled ways (Beidel et al., 2019; Alladin, 2015). Also, MBSR's advantages in decreasing tension through care rehearsal and profound guidelines have been proven and factual (Yadav et al., 2019). Notwithstanding, while past examinations, for the most part, centred around populaces without speech hindrances, this study expands the relevance of these

intercessions to people with speech-related difficulties, featuring the interesting advantages of a joined remedial methodology. The comparative adequacy across every one of the three intercessions proposes that different restorative choices might suit different individual inclinations, supporting the flexibility of these mediations.

These discoveries have significant ramifications for both clinical practice and language training. Considering that every one of the three mediations — CBT, MBSR, and openness treatment — delivered significant decreases in broad daylight talking uneasiness, specialists can offer a scope of helpful choices customized to individual inclinations and requirements. Coordinating mental help into language training conventions could work on personal satisfaction and utilitarian communication for grown-ups with speech hindrances, as lessening tension might urge these people to partake all the more certainly in friendly and expert talking circumstances. Also, the discoveries stress the likely advantages of joining mental and language training draw near, especially for those encountering elevated nervousness in communication settings. By tending to both the profound and informative parts of public talking nervousness, specialists might cultivate a more comprehensive and powerful recovery process. The discoveries from this study recommend a few down-to-earth applications for working on helpful practices for grown-ups with speech hindrances who experience public talking tension. Speech-language pathologists, analysts, and advocates could work cooperatively to incorporate psychological help inside language instruction meetings. Procedures from CBT, MBSR, and openness treatment can be modified and carried out to assist people with defying their tension, further develop versatility, and assemble trust in communication settings. Furthermore, creating support assets, such as self-improvement guides and online projects, may give people progressing apparatuses to oversee tension in external clinical settings. Such assets could expand helpful help past conventional meetings, engaging people to rehearse and apply these survival methods in their day-to-day existences.

Limits of Study

Despite its contributions, this study has several limitations. First, the reliance on self-reported measures, such as the PSAS and BFNE, may introduce response bias.

Recommendations

Future exploration ought to address these impediments by integrating a bigger, more different example and including both subjective and quantitative information assortment strategies. Subjective meetings, for example, could give further bits of knowledge into the members' encounters, uncovering the particular difficulties they face in broad daylight talking and the survival techniques they see as generally gainful. Furthermore, a longitudinal report configuration would be important for assessing the supported impacts of these mediations over a lengthy period. Investigating consolidated intercession models that coordinate CBT, MBSR, and openness treatment with language instruction strategies could likewise yield a more far-reaching way to deal with treatment. Finally, future examinations could research the effect of social and social elements on the uneasiness of open-talking in grown-ups with speech disabilities, which would make them all the more likely to grasp individual contrasts.

Conclusion

In conclusion, this study provides evidence that psychological interventions, including CBT, MBSR, and exposure therapy, are effective in reducing public speaking anxiety in adults with speech impairments. By helping individuals modify negative thought patterns, regulate emotions, and confront anxiety-provoking situations, these interventions contribute to improved self-efficacy and communication resilience. The study's findings highlight the importance of a holistic approach to treatment, one that addresses both the emotional and functional communication needs of individuals with speech impairments. While the study has limitations, it offers valuable insights into the benefits of tailored psychological interventions and sets a foundation for further research to explore combined approaches. Ultimately, these findings support a more integrated and flexible therapeutic approach to improving the quality of life for adults facing public speaking anxiety and communication challenges.



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