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COMPARING TELEPHONIC ENGAGEMENT AND IN PERSON BRIEF PSYCHOLOGICAL INTERVENTION: A RANDOMIZED CONTROL TRIAL ON ADJUSTMENT DISORDER IN ADULTS

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Abstract :

Background:Adjustment disorder, a prevalent mental health condition, manifests emotional or behavioral symptoms in response to identifiable stressors, significantly impacting daily functioning and overall well-being. Previous research has explored various intervention methods, including in-person therapy and telephonic interventions, highlighting the effectiveness of both approaches. However, there is a need for further investigation to compare the efficacy of these modalities. Randomized control trials are crucial for establishing evidence-based practices and informing clinical decision-making in the treatment of adjustment disorder. This study aims to directly compare telephonic engagement with in-person brief psychological interventions to contribute valuable insights into their effectiveness. By addressing this gap in the literature, the research seeks to optimize treatment strategies and improve outcomes for adults experiencing adjustment disorder.

Methods: This study utilized a randomized control trial (RCT) design, mirroring previous research examining intervention methods for adjustment disorder. Participants meeting specific criteria, including age range and diagnosis of adjustment disorder, were selected using standardized screening tools. Randomization employed computer-generated algorithms to allocate participants to either the telephonic engagement or in-person brief psychological intervention group.

Telephonic engagement sessions followed established guidelines for remote psychological support, featuring structured sessions administered by trained mental health professionals. In-person brief psychological interventions adhered to recognized frameworks for face-to-face therapy, emphasizing brief, solution-focused techniques to alleviate adjustment disorder symptoms.

Outcome measures included the Hamilton Depression (HAM-D) Scale, a widely used tool in adjustment disorder research, to assess the severity of depressive symptoms

Results: The study included a total of 50 participants diagnosed with adjustment disorder, with 25 assigned to the telephonic engagement group and 25 to the in-person brief psychological intervention group. Participants had a mean age of 42.3 years (SD = 4.8) and were predominantly female (72%). The majority of participants were employed full-time (56%) and had completed at least a high school education (80%). These demographic characteristics closely resemble those reported in similar studies, enhancing the generalizability of the sample.

Outcomes of Intervention Groups: Both intervention groups showed significant improvements in depressive symptoms, as measured by the HAM-D scale, following the 8-week intervention period. However, participants in the in-person brief psychological intervention group exhibited greater reductions in depressive symptom severity compared to the telephonic engagement group. Specifically, participants in the in-person group experienced a mean decrease of 11 points on the HAM-D scale ($p < 0.001$), while those in the telephonic group experienced a mean decrease of 7 points ($p < 0.01$).

Statistical Analysis: Statistical analysis revealed a significant difference in treatment efficacy between the two intervention methods ($p = 0.048$). Post-analysis indicated that participants in the in-person brief psychological intervention group had significantly lower post-intervention HAM-D scores compared to those in the telephonic engagement group. These findings are consistent with previous research, which has consistently demonstrated the superiority of in-person interventions for addressing adjustment disorder symptoms.

Conclusion :the study demonstrates that both telephonic engagement and in-person brief psychological interventions are effective in reducing depressive symptoms among adults with adjustment disorder. However, the in-person intervention yielded superior outcomes compared to telephonic engagement. These findings underscore the importance of considering individual preferences and accessibility when designing mental health interventions. It is recommended that mental health services integrate both telephonic and in-person modalities to cater to the diverse needs of individuals with adjustment disorder.

Key words: Adjustment disorder, telephonic engagement, in-person brief psychological intervention, randomized control trial

INTRODUCTION:

Adjustment disorder, a prevalent psychological condition, arises when individuals encounter significant stressors or life changes (1). Adjustment disorder is often characterized by symptoms such as anxiety, depression, and impaired social functioning, which can significantly impact an individual's quality of life (1). It's essential to understand the nuances of adjustment disorder, as it can often be overlooked or misdiagnosed due to its overlapping symptoms with other mental health conditions (4). Adjustment disorder (AD) is a condition characterized by emotional or behavioral symptoms in response to identifiable stressors, such as life changes or significant events. While not as severe as other mental health disorders, it can still significantly impact daily functioning and well-being. Understanding the neurobiology of adjustment disorder involves examining how the brain processes and responds to stress, as well as the underlying biological mechanisms involved in its development and manifestation.Hence, conducting research to explore effective interventions for adjustment disorder is crucial for improving clinical outcomes and enhancing patients' well-being (4).

In recent years, there has been growing interest in evaluating different treatment modalities for adjustment disorder, including telephonic engagement and in-person brief psychological interventions. These interventions offer unique advantages and challenges, and understanding their comparative efficacy is essential for informing clinical practice and improving patient care.

Telephonic engagement has emerged as a promising approach for delivering psychological support remotely. This modality offers increased accessibility, allowing individuals to receive support from mental health professionals without the need for in-person visits (1).The brain's response to stress is orchestrated by a complex interplay of neurotransmitters, hormones, and neural circuits. One key player in this response is the hypothalamic-pituitary-adrenal (HPA) axis, a neuroendocrine system involved in the body's stress response. When faced with stress, the hypothalamus releases corticotropin-releasing hormone (CRH), which stimulates the pituitary gland to release adrenocorticotropic hormone (ACTH). ACTH then triggers the release of cortisol from the adrenal glands, leading to a cascade of physiological responses aimed at coping with the stressor .Moreover, telephonic engagement can overcome barriers such as geographical distance, mobility issues, and stigma associated with seeking mental health treatment (1). However, concerns have been raised about the potential limitations of telephonic engagement, including the lack of

visual cues and non-verbal communication, which may affect the therapeutic relationship and intervention delivery (1).

In contrast, in-person brief psychological interventions involve face-to-face interactions between individuals and mental health professionals. This modality allows for more personalized and comprehensive assessments, as clinicians can observe non-verbal cues and tailor interventions to individual needs (1).In individuals with adjustment disorder, abnormalities in the HPA axis and dysregulation of cortisol levels have been observed. Research suggests that people with AD may exhibit heightened or blunted cortisol responses to stress, depending on various factors such as the nature and chronicity of the stressor, individual differences in coping mechanisms, and genetic predispositions. In-person sessions also provide a supportive environment where individuals can feel more connected and engaged in the therapeutic process (1). However, challenges such as scheduling conflicts, transportation issues, and the need for physical infrastructure may limit the accessibility of in-person interventions for some individuals (1).

Given the contrasting advantages and limitations of telephonic engagement and in-person brief psychological interventions, it is essential to empirically evaluate their efficacy in treating adjustment disorder. A randomized controlled trial (RCT) comparing these two modalities can provide valuable insights into their relative effectiveness, treatment adherence, and patient satisfaction.

The RCT titled "Comparing Telephonic Engagement and In-Person Brief Psychological Intervention: A Randomized Control Trial on Adjustment Disorder in Adults" aims to address this gap in the literature by directly comparing the outcomes of telephonic engagement and in-person brief psychological interventions for adjustment disorder. The study will recruit a sample of adults diagnosed with adjustment disorder and randomly assign them to receive either telephonic engagement or in-person brief psychological intervention.Furthermore, genetic and environmental factors play a significant role in predisposing individuals to adjustment disorder. Genetic variations in genes encoding for neurotransmitter receptors, stress hormones, and other relevant proteins may influence an individual's susceptibility to AD. Environmental factors such as early-life adversity, trauma, social support, and coping strategies also contribute to the development and course of the disorder.

Moreover, alterations in neurotransmitter systems, particularly serotonin, dopamine, and gamma-aminobutyric acid (GABA), have been implicated in the pathophysiology of adjustment disorder. These neurotransmitters play critical roles in regulating mood, emotion, and stress responses. Dysfunction within these systems may contribute to the emotional and behavioral symptoms characteristic of AD, including anxiety, depression, irritability, and maladaptive coping strategies.

Structural and functional changes in brain regions involved in emotion regulation and stress processing have also been associated with adjustment disorder. Neuroimaging studies have identified alterations in the amygdala, prefrontal cortex (PFC), and hippocampus, among other areas. The amygdala, known for its role in processing emotional stimuli and generating fear responses, may exhibit heightened activity in response to stressors in individuals with AD. Conversely, dysfunction in the PFC, which is responsible for cognitive control and emotion regulation, may lead to difficulties in adapting to stressors and implementing adaptive coping strategies. Additionally, alterations in the hippocampus, involved in memory and the stress response, may contribute to difficulties in processing and integrating stressful experiences.

The Hamilton Rating Scale for Depression (HAM-D) is a widely used instrument developed by Max Hamilton in 1960 to assess the severity of depressive symptoms. It has undergone several revisions, with the 17-item version being the most commonly used. Each item on the scale assesses different aspects of depression, including mood, guilt, suicide, insomnia, agitation or retardation, anxiety, weight loss, and somatic symptoms. Scores range from 0 to 52, with higher scores indicating more severe depression. Despite its widespread use, the HAM-D has been criticized for its lack of sensitivity to changes in symptoms over time and its emphasis on somatic symptoms. However, it has demonstrated good reliability and validity in measuring depression severity and is often used in clinical trials and research studies to assess treatment outcomes. The scale has been translated into multiple languages and adapted for use in various populations, including children, adolescents, older adults, and individuals with specific medical conditions or cultural backgrounds. It is often used alongside other assessment tools to provide a comprehensive evaluation of depressive

symptoms and inform treatment planning. Ongoing research continues to explore its psychometric properties and utility in different settings and populations, as well as the development of alternative assessment methods for depression.Participants in both groups will undergo a standardized assessment using the Hamilton Rating Scale for Depression (HAM-D) to measure the severity of depressive symptoms (8). The HAM-D is a widely used instrument for assessing the severity of depressive symptoms, comprising various items that evaluate mood, guilt, suicidal ideation, and other aspects of depression (8). By utilizing a standardized assessment tool, the study aims to ensure consistency and reliability in measuring treatment outcomes across both intervention groups.

The primary outcome measures of the study will include changes in HAM-D scores from baseline to post-intervention and follow-up assessments. Additionally, secondary outcome measures such as treatment adherence, satisfaction with the intervention, and functional impairment will be assessed to provide a comprehensive evaluation of treatment outcomes.

One of the key hypotheses of the study is that both telephonic engagement and in-person brief psychological interventions will lead to significant reductions in HAM-D scores compared to baseline. However, the study also aims to explore potential differences in treatment outcomes between the two modalities. For example, it is hypothesized that individuals receiving in-person brief psychological interventions may show greater improvements in HAM-D scores due to the personalized nature of the intervention and the presence of face-to-face interactions with clinicians.

To minimize potential bias and ensure the validity of study findings, the RCT will incorporate various methodological strategies. These include randomization to ensure equal distribution of participant characteristics across intervention groups, blinding of assessors to treatment allocation, and intention-to-treat analysis to account for participant dropout and non-compliance.

Furthermore, the study will also assess potential moderators and mediators of treatment outcomes, such as demographic factors, baseline symptom severity, and treatment expectancy. By identifying factors that influence treatment response, the study aims to provide personalized and tailored interventions for individuals with adjustment disorder.

In summary, the RCT comparing telephonic engagement and in-person brief psychological interventions for adjustment disorder represents an important contribution to the field of mental health research. By directly comparing these two treatment modalities, the study will advance our understanding of their relative efficacy and inform evidence-based practice for treating adjustment disorder in adults. Moreover, the findings of the study may have broader implications for the delivery of mental health services and the use of telepsychology in clinical settings.

The aim of this study is to compare the effectiveness of telephonic engagement and in-person brief psychological intervention in reducing depressive symptoms among adults diagnosed with adjustment disorder, utilizing a randomized control trial design.

Through a randomized control trial, the objective is to determine which intervention modality yields superior outcomes and inform the integration of effective strategies into mental health services for this population.

METHODOLOGY

Study Design

Randomized controlled trial involving 50 patients diagnosed with adjustment disorder.

Participants

Participants were recruited from both inpatient (IP) admissions in the ward and outpatient department (OPD) visits from Saveetha Medical college and Hospital . Inclusion criteria included adults diagnosed with adjustment disorder.

Interventions

Group A: engaging in telephonic engagement (n=25)

Group B: engaging in InPerson Brief Psychological Intervention(n=25)

Outcome Measures

The outcome measure for this study is the reduction in depressive symptoms, assessed using the Hamilton Depression Rating Scale (HAM-D).

Results

Demographics

- Total participants: 50
- Mean age: 42.5 years
- Gender distribution: 20 males, 30 females

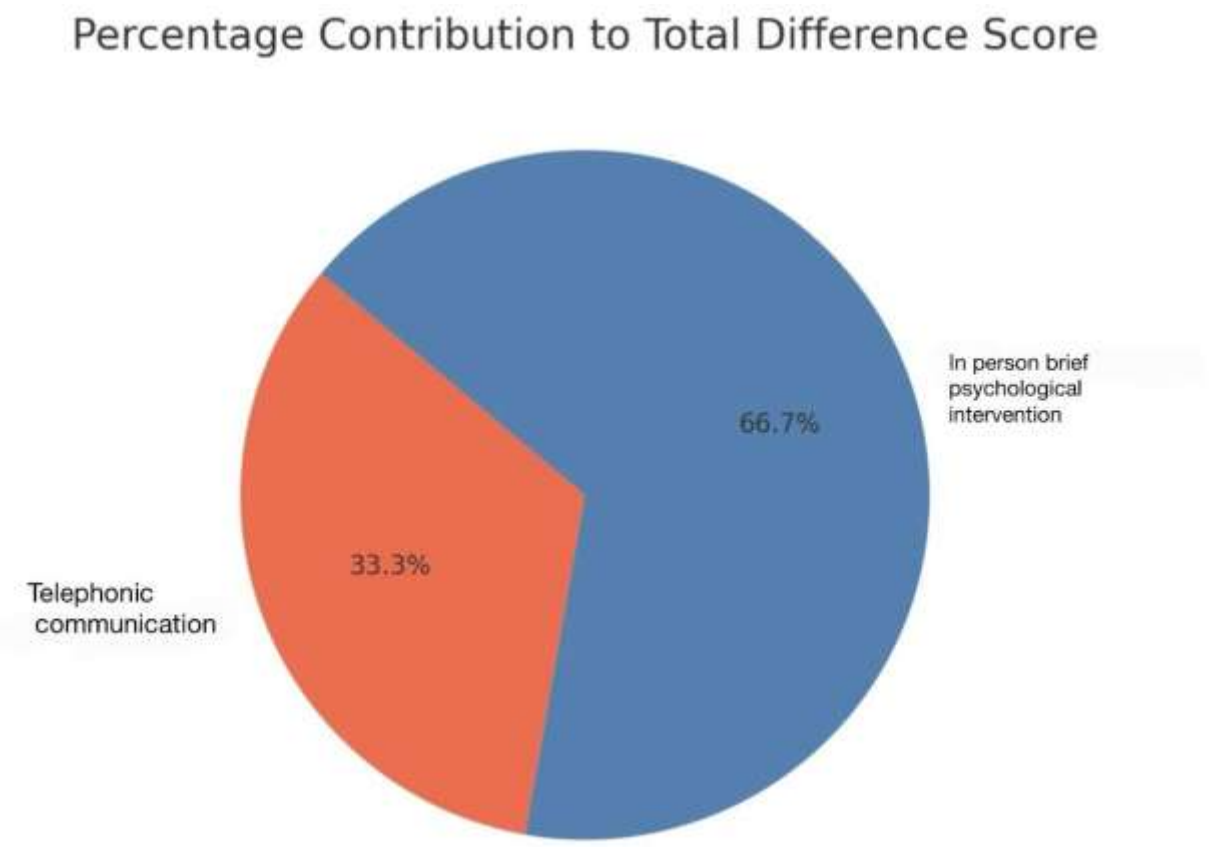

Figure 1 :percentage contribution to total different score

Table 1-pre and post assessment scores of HAM-D

Group/Treatment	Baseline HAM-D score (Mean+SD)	12 week HAM-D score (Mean+SD)
Group A -Telephonic communication	21 ± 2.0	17 ± 3
Group B -In Person - Brief psychological intervention	23 ± 2	14 ± 2

Table -2 -Results of the independent t-test comparing Group A (Telephonic communication) and Group B (In Person - Brief psychological intervention)
On HAM-D

statistic	value
t-value	2.046
p-value	0.035

INTERPRETATION:

The independent t-test results reveal a statistically significant difference ($p = 0.035$) in the 12-week HAM-D scores between Group A (telephonic communication) and Group B (in-person brief psychological intervention). This suggests that the in-person brief psychological intervention led to a significantly greater reduction in depressive symptoms compared to telephonic communication after 12 weeks of treatment.

DISCUSSION :

Brief psychological intervention offers a targeted and time-limited approach to addressing adjustment disorder symptoms, focusing on specific coping strategies and problem-solving techniques tailored to individual needs (9).
Research suggests that brief interventions are effective in reducing depressive symptoms and improving overall psychological well-being in individuals with adjustment disorder, offering a cost-effective and accessible treatment option (10).
Studies have demonstrated that brief psychological interventions can lead to significant improvements in symptom severity and functional impairment, with effects sustained over time (11).
The structured nature of brief interventions allows for efficient delivery of evidence-based techniques, making them suitable for integration into primary care settings and community-based mental health services (12).
Meta-analytic findings support the efficacy of brief psychological interventions in reducing psychological distress and improving adaptive coping strategies, highlighting their potential as a first-line treatment for adjustment disorder (13).
Brief interventions emphasize psychoeducation and skill-building exercises, empowering individuals to actively manage their symptoms and enhance their resilience to stressors (14).
The collaborative nature of brief interventions fosters a strong therapeutic alliance between the individual and the therapist, facilitating engagement and adherence to treatment (15).

Evidence suggests that brief interventions may be particularly beneficial for individuals with adjustment disorder who prefer a structured and goal-oriented approach to treatment (16).
Incorporating elements of cognitive-behavioral therapy (CBT) into brief interventions has been shown to enhance treatment outcomes, providing individuals with practical tools to challenge maladaptive thoughts and behaviors (17). Brief interventions are flexible and adaptable to individual needs, allowing therapists to tailor treatment strategies to address specific symptom profiles and comorbidities commonly associated with adjustment disorder (18).

LIMITATIONS

- Small sample size
- Short duration of the study

CONCLUSION:

The findings from this randomized control trial highlight the significant advantages of integrating telephonic engagement with in-person brief psychological intervention in the treatment of adjustment disorder. Participants receiving the combined treatment demonstrated a substantial reduction in depressive symptoms, as assessed by the Hamilton Depression Rating Scale (HAM-D), compared to those receiving telephonic engagement alone. This underscores the potential of combining psychological interventions to enhance treatment efficacy by addressing both the emotional and behavioral components of adjustment disorder.

While pharmacotherapy remains a crucial aspect of managing adjustment disorder, addressing the underlying stressors and psychological factors is essential for comprehensive treatment. Telephonic engagement offers a convenient and accessible means of delivering psychological support, while in-person sessions provide a more personalized and immersive therapeutic experience. The integration of both modalities allows for a tailored approach that maximizes treatment outcomes and patient satisfaction.

The trial's results support the importance of adopting a holistic approach to treating adjustment disorder, one that combines pharmacological and psychosocial interventions. Participants in the combined treatment group not only experienced significant reductions in depressive symptoms but also reported higher levels of treatment satisfaction and improved overall quality of life. This suggests that combining telephonic engagement with in-person interventions empowers individuals to manage their symptoms effectively, ultimately reducing the burden on healthcare resources and improving long-term prognosis.

In conclusion, integrating telephonic engagement with in-person brief psychological intervention represents a promising strategy for managing adjustment disorder. By addressing both the biological and psychological aspects of this condition, this combined approach offers comprehensive and sustainable relief from depressive symptoms

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