

Research Paper

Effectiveness of Acceptance Commitment Therapy in Social Anxiety Disorder: Application of a Longitudinal Method to Evaluate the Mediating Role of Acceptance, Cognitive Fusion, and Values

Esmail Soltani^{1*}, Seyed Abdolmajid Bahrainian², Ali Farhoudian³, Abbas Masjedi Arani⁴, Latif Gachkar⁵

1. Research Center for Psychiatry and Behavioral Sciences, Shiraz University of Medical Sciences, Shiraz, Iran.
2. Department of Clinical Psychology, School of Medicine, Shahid Beheshti University of Medical Sciences, Tehran, Iran.
3. Department of Psychiatry, School of Medicine, Tehran University of Medical Sciences, Tehran, Iran.
4. Department of Clinical Psychology, School of Medicine, Shahid Beheshti University of Medical Sciences, Tehran, Iran.
5. Infectious Diseases and Tropical Medicine Research Center, Shahid Beheshti University of Medical Sciences, Tehran, Iran.



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ABSTRACT

Introduction: The aim of the present study was to examine the effectiveness of acceptance and commitment therapy (ACT) on symptom severity, fear of negative evaluation, quality of life (QoL), and the mediating role of acceptance, cognitive fusion, and value among patients with social anxiety disorder (SAD).

Methods: Thirty patients diagnosed with SAD were randomized in the intervention (n=15) or waiting list groups (n=15). The social phobia and Anxiety inventory (SPAI), brief fear of negative evaluation scale (BFNE), World Health Organization quality of life (WHOQoL) scale, social anxiety-acceptance and action questionnaire (SA-AAQ), cognitive fusion questionnaire (CFQ), and valued living questionnaire (VLQ) were administered before, immediately after, and at a one-month follow-up. Repeated measurement design was used in the intervention group to investigate the changes of mediation and outcomes variables in the pre-test, during treatment, and post-test. Twenty-four patients completed the study. Data were analyzed using one-way analysis of covariance (ANCOVA), multivariate analysis of covariance (MANCOVA), and repeated measurements.

Results: There were significant differences between the intervention and waiting list groups in the severity of symptoms (P=0.001), fear of negative evaluation (P=0.002), and QoL (P=0.03), as well as in terms of specific measures of SA-AAQ (P=0.001), cognitive fusion (P=0.001), an important section of VLQ (P=0.001). Repeated measurement results showed that acceptance and action of social anxiety and cognitive fusion had a mediating role in the severity of social anxiety, fear of negative evaluation, and QoL.

Conclusion: The results indicated the effectiveness of ACT for SAD and highlighted the mediator role of social anxiety, acceptance and action, and cognitive fusion in the severity of SAD.

*** Corresponding Author:****Esmail Soltani, Assistant Professor.****Address:** Research Center for Psychiatry and Behavioral Sciences, Shiraz University of Medical Sciences, Shiraz, Iran.**Tel:** +98 (917) 1154250**E-mail:** ssoltani65@gmail.com

the therapeutic protocol used, the cause of this change was identified in the first sessions. The purpose of this protocol is to provide an acceptance context in early sessions. The goal of Eifert and Forsyth's protocol (2005) is to create a context for acceptance of the therapy in the initial sessions. The present study was the first research that used a longitudinal method and showed the role of mediation in social anxiety-acceptance and action. More research is needed to confirm this observation.

There were significant differences between the two groups in the scores CFQ and BAFT and its subscales. This finding is consistent with that of England et al. (2012). However, they used the Drexel defusion scale (DDS), which has a long manual, that explains cognitive defusion that can influence the respondents' answers and involves imaginary and unreal situations. Cognitive defusion interventions, like "saying thoughts loudly in a funny voice" or "labeling thoughts as thoughts" have been designed to reduce the regulatory function of thoughts through altering their contents. The "milk, milk, milk" practice can reduce distress and believability of thoughts (Masuda et al., 2004). Looking at the therapy protocol reveals some similar points.

The present study was the first research, in which the CFQ and the BAFT were used to assess patients with SAD. BAFT assesses the believability of thoughts and feelings and has been developed specifically for anxiety disorders (Herzberg et al., 2013) and CFQ provides a more comprehensive definition for fusion (Gillanders et al., 2014). Therefore, it can provide a more accurate assessment compared to other tools. The present study was the first research that used a longitudinal method and showed the mediation role of cognitive fusion in the severity of social anxiety and QoL.

The study results indicated no significant difference between the two groups in VLQ total score and consistency section. This finding is in contrast with the ACT model, in which people are encouraged to engage in valued behaviors without trying to reduce their anxiety (Hayes et al., 1999) and previous research (Ossman et al., 2006; Dalrymple & Herbert, 2007; Kocovski et al., 2013). In this therapy, clients learn to choose willingness to experience thoughts and feelings to become committed to valued behaviors (Strosahl et al., 2004). However, a review of the results showed that there was a significant difference between the two groups in the importance section of VLQ, whereas there was no difference in the consistency section of VLQ. This inconsistency could be attributed to VLQ as this questionnaire has some disadvantages (for example, answers to items are qualitatively interpreted). Furthermore, the test re-test reliability esti-

mates for the domains of the importance of values and behavior-values compatibility are not very high, and this could have also influenced the study results (Wilson et al., 2010). Individual differences among the patients, degree of practice outside the therapy sessions, and comorbid disorders may have also affected the results. Future studies can clarify these issues.

One of the limitations of the present study was a short follow-up period; therefore, future studies are suggested to use longer follow-up periods to increase the generalizability of the results. Another limitation of the present study was the small sample and future studies are suggested to use larger samples from different populations. Finally, our patients had axis I comorbidity and avoidant personality disorder. In general, our results support the effectiveness of ACT for SAD and highlight the mediator contributions of social anxiety-acceptance and action and cognitive fusion in SAD.

Ethical Considerations

Compliance with ethical guidelines

This research was registered by the Ethics Committee of Shahid Beheshti University of Medical Sciences (Code: IR.SBMU.MSP.REC.1394.13). This study was also registered at the Iranian Registry of Clinical Trials (Code: IRCT20171210037821N1).

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Authors' contributions

Conceptualization, study design and final approval: All authors; Data collection, data interpretation, statistical analysis and drafting the manuscript: Esmail Soltani; Review and critically revised the manuscript: Seyed Abdolmajid Bahrainian, Abbas Masjedi Arani, Ali Farhoudian and Latif Gachkar.

Conflict of interest

The authors declared no conflict of interest.

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