Feasibility Study of Acceptance Commitment Group Therapy on Social Anxiety Symptom Reduction in College Students With Low Self-Esteem

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ABSTRACT
Social anxiety disorder (SAD) is a troublesome mental disorder affecting both social and academic life in college students. Social anxiety levels in college students are related to problems with social abilities, difficulty maintaining attention, and learning. Furthermore, individuals with SAD display hypersensitivity to processes related to self-assessment and dependence on social approval, which manifests as low self-esteem. Therefore, psychological intervention is necessary, particularly to help students address the thoughts and emotions that cause social anxiety. This study examines the feasibility of Acceptance Commitment Therapy (ACT) to reduce social anxiety and increase self-esteem in college students. This study used a quasi-experimental one-group, pretest/post-test design involving four participants. Each participant completed the Liebowitz Social Anxiety Scale (LSAS) and the Rosenberg Self Esteem Scale (RSES). The goal was to decrease social anxiety symptoms and increase self-esteem for college students with social anxiety problems. The participants’ LSAS scores decreased and their RSES scores increased. The interviews indicated that ACT helped the participants eliminate their need for avoidance through a process of mindfulness, being in the present, and better acceptance and commitment. The ACT also improved their capacity to realize that thoughts and feelings are part of their minds and not facts about themselves.

Keywords: Acceptance Commitment Therapy (ACT), self-esteem, social anxiety.

1. INTRODUCTION
Social anxiety disorder (SAD) is a common anxiety disorder characterized by excessive anxiety in various social situations. In general, this anxiety begins during adolescence when communication with others in a group of friends increases. This disorder initially appears at 16 to 18 years of age, and an estimated 8–13% of the total population suffers from SAD (National Collaborating Center for Mental Health, 2013).

SAD can be quite troublesome for students because its impact on performance is related to both social and academic life. Bernstein et al. (2007 in Russel & Topham, 2012) found that the severity of social anxiety in college students was related to problems with social abilities, difficulty maintaining attention, and learning difficulties. Research by Amerigen and colleagues (2003 in Russell & Topham, 2012) also found that the proportion of individuals with anxiety disorders was reported to drop out of school because of the anxiety they had. Other studies from Stein and...
Kean (2000 in Russell & Topham, 2012) found a significant influence of anxiety disorders on failure to complete school, thereby increasing the risk of failing examinations and failure to graduate (Wittchen, et al., 1999 in Russell & Topham, 2012).

It is very important that college students receive support from other people. Support from others in the form of social approval is highly correlated with self-esteem (Harter, Stocker, & Robinson, 1996 in Nordstrom, Goguen & Hiester, 2014). Individuals with SAD display hypersensitivity to processes related to self-assessment and dependence on social approval (Leary, 2001 in Nordstrom, Goguen & Hiester, 2014). This finding is supported by research performed in higher education settings which found that students who have high social anxiety report lower levels of self-esteem compared with students with low social anxiety (Stopa, Brown, Luke & Hirsch, 2010). Furthermore, Kocovski and Endler (2000) found that college students with low self-esteem reported greater fears of negative assessment, which was a predictor of SAD.

College students are often required to present their assignments in front of their class. Students with SAD worry that they will embarrass themselves or be humiliated in social situations such as presenting in front of the class. Consequently, those situations can increase anxiety, which significantly interferes with daily functioning and activities (Nordstrom, Goguen & Hiester, 2014). Although students generally realize that these fears do not make sense, they still tend to avoid such situations. This causes students to experience difficulties attending classes and lectures as a whole.

The above-described conditions have encouraged facilitators to design interventions that can reduce social anxiety symptoms and increase self-esteem in students. Many previous interventions, such as behavioral and cognitive therapy, have been developed to overcome SAD. However, many modern psychologists believe that traditional behavioral therapy does not produce a significant change; thus, better methods are necessary that specifically address thoughts and emotions. Furthermore, cognitive behavioral therapy-based interventions that claim that cognitive changes are necessary for clinical change have not been well-verified (Hayes et al., 2003). To develop, refine, and provide stronger theoretical alternatives in cognitive behavioral therapy-based interventions, clinical researchers have shown an increasing interest in mindfulness-based interventions and acceptance of psychological disorders.

Acceptance commitment therapy (ACT) is a type of intervention based on mindfulness (awareness of things happening in the moment), acceptance, and values that form the basis of traditional cognitive behavioral-based interventions (Hayes, et al., 2003). ACT has been found to be effective in treating anxiety among clinical and non-clinical populations and has been proven effective in both individual and group therapy (Swain, et al., 2013 in Rahmani, & Rahmani., 2015). From the perspective of ACT, anxiety disorders develop if the individual is very involved with cognitive activity to reduce or eliminate his experiences related to anxiety (Orsillo Roemer, & Holowka, 2005 in Rahmani, &
To treat psychological disorders, ACT is based on the assumption that there is rejection or avoidance of the deepest emotions (such as thoughts, memories, and sensations), which prevents individuals from experiencing growth. This internal experience is prevented and detained, and the inability to give way to experience leads to the emergence of psychological vulnerabilities such as anxiety disorders (Mennin, 2005; Rahmani & Rahmani, 2015). Handling anxiety using ACT interventions does not aim to directly reduce individual anxiety but rather helps individuals to live in harmony with their values without experiencing anxiety. This goal is fulfilled through the six main processes of ACT: acceptance, defusion, self-as-context, contact with moments, values, and behavioral committed exercises (Twohig et al., 2005; Rahmani & Rahmani, 2015).

Based on the description above, this study addressed the following research question: “Will the application of ACT group therapy reduce social anxiety symptoms and increase self-esteem in college students with social anxiety problems?” This study hypothesizes that the application of ACT in groups can reduce social anxiety symptoms and increase self-esteem in college students with social anxiety problems. Furthermore, ACT is expected to help participants accept thoughts or experiences related to anxiety as part of themselves and choose to do something in line with their values. Therefore, this study aimed to determine whether the application of ACT group therapy can reduce social anxiety symptoms and increase self-esteem in college students with social anxiety problems.

2. METHODS

2.1. Participants

Participant recruitment was performed by spreading information related to the implementation of the therapy and the required participant criteria. The inclusion criteria for participants were college students with problems related to social anxiety. Social anxiety was screened for using the Liebowitz Social Anxiety Scale (LSAS), and participants with a score greater than 30 were selected (Mennin, Fresco, Heimberg, Schneier, Davies, Liebowitz, 2002). Prospective participants based on the criteria completed an online form. The form contained questions related to personal information, schedule availability, and the LSAS.

Recruitment was held for one month, during which 24 students registered. Of the 24 students, only 11 met the criteria, and four participants were selected based on their availability and willingness to fully participate in the intervention with a predetermined schedule.

2.2. Research Design

This study used a quasi-experimental method with a one group pretest/posttest design, in which only one intervention group received the group intervention using ACT. The researchers conducted quantitative and qualitative measurements before and after the intervention was provided to evaluate the impact of applying the interventions on the participants' social anxiety symptoms and self-esteem. Quantitative measurements of social anxiety symptoms were performed using the LSAS (Liebowitz, 1987). The
LSAS consists of 24 items that measure the level of fear and avoidance in various social situations. Self-esteem was measured using the Rosenberg Self-Esteem Scale (RSES) (Rosenberg, et al., 1995). The RSES consists of 10 items and is a unidimensional measurement tool that measures global self-esteem (Bryne, in Schmitt & Allik, 2005). Additionally, qualitative measurements were performed using unstructured interviews for each participant.

2.3. Procedure

This study was conducted in two stages: the preparation stage and the implementation stage. During the preparation stage, a literature study and phenomenon study were conducted. After determining the problems, target participants, and intervention techniques to be used, the participants were recruited. Simultaneously, the researchers modified the modules from Kocovski, Fleming, and Rector (2009) and prepared all the components for implementing the intervention including PowerPoint presentations, logbooks for participants, and the room for the group interventions. After all the components were complete, the study continued to the implementation stage.

The intervention was performed during six sessions divided as follows: one session consisted of the pretest and introduction, four sessions consisted of the material, and one session consisted of the posttest and evaluation. Each session had a duration of 120 minutes. Each session was performed one week apart (except for the pretest and posttest sessions) on the following dates: July 22, 23, and 30 and August, 6, 13, and 14. The interventions were performed in Room B110, 1st Floor, Building B, Faculty of Psychology, University of Indonesia.

This group intervention was based on a modification of the second edition of the Mindfulness- and Acceptance-based Group Therapy for Social Anxiety Disorder: A treatment Manual module by Kocovski and Fleming (2014). Modifications were made regarding the number of sessions and material provided at each session. Kocovski and Fleming's manual (2014) includes 10 original sessions that were restructured into four sessions. Specifically, the sessions related to taking VITAL Action (which invited the participants to switch from the need for avoidance to becoming more mindful and doing what they really want to do) was conducted in one session (as opposed to six sessions in the original manual). The number of sessions was revised considering the characteristics and schedules of the participants. The modifications and adjustments in the ACT design for students with social anxiety problems can be found in Table 1.
Table 1. ACT module for college students with social anxiety

| Session | Objective |
|---------|-----------|
| Pre-session | Participants get to know the other group members |
| Introduction of participants and exploration of issues related to social anxiety, introduction of the term “social anxiety” and general explanation of ACT therapy | Participants share their experiences related to social anxiety problems |
| | Participants understand the term social anxiety |
| | Participants understand the general description of ACT therapy |
| Session 1 | Participants learn the concept of safety mode |
| Identification of safety mode and the impact of performing safety mode | Participants can identify the safety mode performed |
| | Participants can identify the impact they feel from performing the safety mode |
| Session 2 | Participants can identify fusion |
| Identification of fusion and learning the strategy for defusion | Participants understand the concept of acceptance of anxiety |
| | Participants can perform defusion |
| Session 3 | Participants can practice mindfulness |
| Identification of values and goals and introduction of mindfulness exercises | Participants know their values and goals |
| Session 4 | Participants know the concept of VITAL mode |
| Learn how to apply VITAL mode in daily life | Participants practice "get to know conversation" |
| Post-session | Therapist and participants can see changes and growth in the participants by sharing their experiences before and after completing the intervention |
| Conduct a posttest and determine long-term goals | Therapists and participants determine the long-term goals and steps to be taken |

2.4. Data Analysis

Qualitative and quantitative methods were used to analyze the data in this study. Each participant was measured qualitatively by the interview method before and after the intervention addressing the problem of social anxiety and low self-esteem. Before the intervention began, researchers conducted interviews about the problem of social anxiety and studied the impact related to this anxiety. After the intervention, the participants completed the final evaluation form and participated in a group discussion about the progress they made during the intervention.

The quantitative analysis was performed by comparing the pretest score and posttest score to see the impact of the intervention on the participants’ social anxiety symptoms and self Esteem. Both quantitative and qualitative data analyses provide a basis for examining the impact of ACT group therapy on reducing social anxiety symptoms and increasing self-esteem in college students with social anxiety problems.
3. RESULTS

The results of this study indicate that ACT therapy can reduce social anxiety symptoms and increase self-esteem in college students. Table 3 shows changes in the group’s mean scores before and after the intervention in the anxious domain, avoidance domain, LSAS, and RSES. The increase in the total mean scores was quite high, with the largest change reported for the LSAS avoidance subscale score (38%) and the smallest change reported for the LSAS fear subscale score (11%).

| Variable                        | Min | Max | Mean | Group Changes |
|---------------------------------|-----|-----|------|---------------|
| LSAS Fear Subscale Pre-Intervention | 27  | 60  | 41.00| 11%           |
| LSAS Fear Subscale Post-Intervention | 21  | 58  | 36.50|               |
| LSAS Avoidance Subscale Pre-Intervention | 20  | 60  | 37.75| 38%           |
| LSAS Avoidance Subscale Post-Intervention | 11  | 48  | 23.25|               |
| LSAS Score Pre-Intervention     | 47  | 12  | 78.85|               |
| LSAS Score Post-Intervention    | 32  | 10  | 59.75| 24%           |
| RSES Score Pre-Intervention     | 8   | 13  | 10.50| 24%           |

The social anxiety and self-esteem scores indicate that each participant experienced a decrease in their social anxiety symptom score and an increase in their self-esteem score to varying degrees. These differences can be observed in Figures 1, 2, 3, and 4 and Table 5.

Fig. 1. LSAS fear subscale scores before and after the group intervention
Fig. 2. LSAS avoidance subscale scores before and after the group intervention.

Fig. 3. LSAS scores before and after the group intervention.

Fig. 4. RSES scores before and after the group intervention.
Table 3. Range of changes in each participant’s score.

| Initial Participant | Result in Fear Subscale | Difference in Avoidance Subscale | Result in LSAS Score | Difference in RSES Score | Change in Fear Subscale | Change in Avoidance Subscale | Change in LSAS Score | Change in RSES Score |
|---------------------|-------------------------|---------------------------------|----------------------|--------------------------|------------------------|----------------------------|----------------------|----------------------|
| SH                  | 5                       | 24                              | 29                   | 4                        | 11%                    | 59%                        | 34%                  | 44%                  |
| US                  | 6                       | 9                               | 15                   | 1                        | 22%                    | 45%                        | 32%                  | 8%                   |
| SM                  | 5                       | 13                              | 18                   | 3                        | 16%                    | 43%                        | 29%                  | 23%                  |
| AS                  | 2                       | 12                              | 14                   | 2                        | 3%                     | 20%                        | 12%                  | 25%                  |

As observed in Figures 1, 2, 3, and 4 and Table 5, the change in the participants' LSAS scores ranged from 14–29 points. The greatest change was 29 points (34%); this score belongs to SH, who also displayed the greatest change in RSES score of 4 points (44%). Furthermore, the smallest change was obtained by US with a 14-point increase (12%); notably, US had the highest LSAS score in the pretest.

In addition to the changes that can be observed in the quantitative analysis, the benefits of the ACT group intervention are shown in the qualitative data in Table 5. Each participant experienced cognitive changes, i.e., they learned a new way of looking at his/her anxiety and strategies for processing thoughts related to anxiety. All four participants expressed that knowledge related to the acceptance of anxiety greatly affected how they viewed the problem of anxiety. The participants also reported behavioral changes. SH reported that he had started engaging in activities that he had previously avoided such as going to the mall, and the other participants reported being able to open up and become acquainted with new people.

Table 4. Participants’ condition post-intervention.

| Participant | Cognitive | Behavior |
|-------------|-----------|----------|
| SH          | SH learned that having anxiety is a natural thing, and he tends to feel more anxious when he does not want to feel anxious. These thoughts make him feel more comfortable in social situations and able to do activities that he really wants to do. | Doing activities that he had previously avoided (going to the mall, playing tennis). |
| SH feels the area in which he changed the most after attending the therapy sessions is the acceptance of his emotions and thoughts. |

| US          | After attending the therapy session, US is better able to fully accept himself. Next, US | She wants to share her problems with new people, particularly with people |
|-------------|------------------------------------------|----------------------------------------------------------------------------|
| SH          | SH feels the area in which he changed the most after attending the therapy sessions is the acceptance of his emotions and thoughts. | Doing activities that he had previously avoided (going to the mall, playing tennis). |
| US          | After attending the therapy session, US is better able to fully accept himself. Next, US | She wants to share her problems with new people, particularly with people |
realized the things that are important to him and began to determine the priorities he wants to achieve in life.

His anxiety no longer prevents him from doing what he wants to do to achieve his goals.

| SM      | After the intervention session, SM learned new alternatives in managing her anxiety. During this time, SM thinks that she should not feel anxious to display maximum performance. SM feels more able to sincerely accept the anxious thoughts and feelings that she has and shift her focus to something more positive. |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|         | Focus more on the things she wants to do without desiring to eliminate her anxiety.                                                                                                                                                     |

| SA      | After attending the intervention sessions, SA felt she has received the new social support she needed. Sharing sessions during therapy allowed her to better open up and view her problems from new perspectives. Additionally, SA gained new knowledge about how she views the problem of social anxiety. Accepting her anxiety and thoughts allows her to comfortably live her everyday life. |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|         | Able open up better (get acquainted) with new people.                                                                                                                                                                                                          |

4. DISCUSSION and CONCLUSION

The quantitative and qualitative data indicate that the application of ACT in group interventions can reduce symptoms of social anxiety and increase self-esteem in students with social anxiety problems.

Based on the quantitative results, each participant in the group therapy intervention displayed decreased anxiety symptom scores. Thus, group therapy with the ACT approach is effective in reducing social anxiety symptoms in college students with social anxiety problems. These results are consistent with previous research by Hasheminiya and Davodi (2016), who stated that ACT therapy is an effective way to reduce social anxiety and improve quality of life. Research from Azadeh, Karemi, and Besharat (2016) also noted that ACT is effective in helping students who have interpersonal problems and increasing psychological flexibility.

Social anxiety can have a negative effect on both the life and academic performance of students. Although students are aware of the illogical nature of fear that can cause embarrassment, predicting confrontations with these situations creates an immediate anxious response. As a result, students tend to avoid such situations that cause problems in performance and social relationships (Ghayur, Sepehri, Mashhadi, Ghanaei, & Articlear, 2015). Individuals with social anxiety problems must be directed so that instead of engaging in cognitive and active avoidance of thoughts and situations that lead to social anxiety, they can accept the
thoughts and emotions that arise in social situations. After that, they can choose what they want to do at the moment and act in a way that suits their values. These characteristics are developed during ACT by helping individuals eliminate their need for avoidance through the mindfulness process, being in the present, and better acceptance and commitment. Finally, this explanation also provides clarity on the findings that the average decrease in social anxiety in the avoidance domain was higher than the average decrease in social anxiety in the anxious or fear domain.

In addition to reducing social anxiety, the results also displayed an increase in students’ self-esteem levels. This is consistent with the findings of Segal, Williams, and Teasdale (2002), who stated that the mindfulness approach is effective for individuals with low self-esteem because the content of mind is not the crucial thing; rather, the individual's relationship with their mind is central. In the ACT approach, individuals are trained to develop open acceptance of their inner experiences independently. The assumption is that when individuals shift their attention to current experiences and accept the mind, they are able to realize that thoughts and feelings are part of the mind and not a fact or truth about themselves.

This study has some limitations in its implementation, including the differing backgrounds and varying degrees of intensity of social anxiety symptoms of each participant. Thus, it was difficult for the facilitators to apply examples or tasks in some sessions. Furthermore, this study was limited by the small number of participants. This might be a result of the therapy sessions taking place during the term break and the selection of constructs related to social anxiety problems; consequently, the number of participants in this group therapy only reached the minimum required number for group therapy (four people).

Based on the results of the initial interview, the study participants’ social anxiety was the result of other problems such as childhood trauma or bullying experiences. Therefore, further intervention is necessary to overcome the problems related to the causes or triggers of the emergence of social anxiety. Additionally, committing to attending each therapy session is crucial when implementing ACT group therapy. Thus, the therapist should instigate some rules at the beginning of the intervention so that each participant is committed to attending each session. The rules should be determined together as a group so that each participant feels involved.

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