TECHNIUM
SOCIAL SCIENCES JOURNAL

Vol. 20, 2021

A new decade for social changes

ISSN 2668-7798

www.techniumscience.com

Technium Social Sciences Journal
Vol. 20, 540-545, June, 2021
ISSN: 2668-7798
www.techniumscience.com

The Effect of Cognitive Behavioral Therapy in Reducing Social Anxiety Among Adult Stutters

Karwan Kakabra Kakamad

Psychology Department, Faculty of Arts, Soran University, Iraq

Karwan.kakamad@soran.edu.iq

Abstract. Social anxiety is a chronic disorder that affects about half of all people who stutter. As a result, there is a need for individuals with this disorder to be assessed and treated. In adults who stutter, cognitive-behavioral therapy (CBT) has demonstrated success in reducing anxiety symptoms. This study aimed to determine the effectiveness of a cognitive behavior therapy (CBT) program to reduce social anxiety among adults who stutter. This study included 16 participants, (12) male and (4) female. The Liebowitz Social Anxiety Scale (LSAS) was recorded for pre and post intervention in twelve-week CBT program. The findings highlighted the importance of assessing and treating social anxiety among adults who stutter and indicated that the CBT intervention significantly reduced social anxiety among participants in this research.

Keywords. Social Anxiety, Stutter, CBT

Introduction:

Social anxiety:

Social anxiety is considered as one of the most psychological disorders related to stuttering (Iverach & Rapee, 2013; Blungart, TranA and Craig, 2010). It is a very common and severe type of anxiety affecting 8-13 % of people through their lifetime, peaked at age 14-16 years (Kessler et al., 2005). It manifested by face flushing, sweating, termer, and speech struggling to a degree observed by the surrounding. Individuals who suffer from social anxiety usually fear meeting people or speaking to them (Lydiard, 2001). Several factors included in social anxiety etiology, Genetic, biological, and physiological factors are the main (Brook& Schmidt, 2008). Finding from the previous study shows that the etiology has a neurological complex as it carries risk factors to depressive disorder and substance abuse (Stein& Stein, 2008; Leichsenring& Leweke, 2017). Likewise, depending on the empirical study, this problem can be seen when there is a strong association between social anxiety and some psychiatric disorders including, major depression, post-traumatic disorder, alcohol abuse, panic disorder. This must be remembered that the nature of social phobia, unlike pure anxiety is more reluctant and chronic (Lydiard, 2001; Keller, 2006). More specifically, people with SAD are significantly at high risk of drug dependency (Buckner, 2008).Regarding gender differences, both are likely to have a social anxiety disorder; with this in mind, females are at higher risk with a greater complication than males (Asher, Asnaani& Aderka, 2017).

Under those circumstances, social anxiety disorder (SAD) has a huge negative impact on individuals lifestyle; as it interferes with the individual social activities, the sufferer avoids

Technium Social Sciences Journal
Vol. 20, 540-545, June, 2021
ISSN: 2668-7798
www.techniumscience.com

educational and occupational functions and limits their social relationship (Beidel, Alfano, Kofler, Rao, Scharfstein & Sarver, 2014; Russell, & Topham, 2012; Keller, 2006). All these consequences expose the sufferer to a variety of psychological disorders, especially depression.

The development of Social anxiety among stutters:

Stuttering is a chronic disorder that means inability to speak fluently (Mcallister et al., 2017; Blumgart, Tran& Craig, 2010); dysfluent or stutter speech is characterized by one type of speech disorder. People with stutters cannot speak fluently and replicate words and syllables involuntary (Cuncic, 2020)

Nearly about 50% of the adults who stutter have a social anxiety disorder (Scheurich, Beidel& Vanryckeghem, 2019). The prevalence rate of stutters is about 4-5 % of the general population. It is usually observed early at childhood, mainly at the age of 2- 5 years (Bloodstein& Bernstien Ranter,2008), as at this age, the process of learning to speak and language skills begin (Yairi, Ambrose& Cox,1996).

According to Freud's psychoanalytic theory, adverse childhood experiences negatively impacts (e.i., psychologically and emotionally) the individual in their later life (Freud & Bonaparte, 1956). additionally, a study conducted by (Ost, 1976) stated that the negative conditioning of childhood experience also has a role in developing social phobia, which has been proven by (Gega, Kenwright, Mataix_ Cols, Cameron, and Marks, 2005). Similarly, Langevin and Hagler, in their study, revealed that early childhood experience negatively impacted verbal fluency (i.e., stuttering). Furthermore, stutterers are continuously exposed to bullying, teasing, and exclusion as a reaction by their peers, specifically in primary school, which will affect individual's dysfluency (Packman, Onslow& Attansaio, 2003; Langevin, Packman& Onslow, 2009). Consequently, this will exacerbate the condition; therefore, people who stutter fear speaking or interacting with the people around them compared to those who do not stutter (DSM-5, 2013). Depending on the fact that stutters have the perception of low self-esteem due to the unaccepted evaluation from the others (Stein, Baird, John& Walker, 1996). As a result, such chronic disorder has significant negative effects on an individual's emotional and psychological aspects (Blood, Blood, Maloney, Meyer & Qualls, 2007). Furthermore, the high level of emotional tension, inconvenience to interact, and the social response has been reported by individuals with stuttering compared with non-stuttering (Kraaimaat, Vanryckeghem& Van Dam-Baggen, 2002).

In addition, evidence from the two-factor theory of the learning process (classical conditioning and instrumental conditioning) provides a better understanding of the association and development between anxiety and stuttering (Brutten & shoemaker, 1967, 1971). Furthermore, in Classical conditioning, emotional disturbance causes the involuntary inability to pronounce words and verbs correctly. Instrumental conditioning causes avoidance of situation that exposes the stutterer to speak. As a consequence of this theory, stutters have a low emotional threshold and low neuro-psychological threshold (Brutten,1986) cited in (Kraaimaat et al., 2002).

Cognitive behavior therapy for a social anxiety disorder who stutter:

Cognitive therapy is a type of psychotherapy based firmly on the idea (thoughts, behavior, feelings, and physiological responses) that are linked to each other (Beck,2019). CBT is widely used in the management of mental disorders. Individuals who stutter almost always feel shame about speaking because of low self-esteem; such feelings will influence physiological change that stimulating behavioral reaction (Kelman& Wheeler, 2015). More specifically, CBT is an effective tool in reducing social anxiety, not speech fluency (Scheurich,

Technium Social Sciences Journal
Vol. 20, 540-545, June, 2021
ISSN: 2668-7798
www.techniumscience.com

Beidel& Vanryckeghem, 2019). Similarly, the recent study conducted by Scheurich, Beidel& Vanryckeghem (2019) illustrates that CBT has a dominant role in reducing social anxiety among adults experiencing stutter. In one study by Meyer and Hautzenger in 2012, their results show that cognitive behavior therapy is a type of therapy to treat social anxiety or negative thoughts. It also builds trust- communication relationship between the therapist and patient, which later on encourages them to continue the treatment. Therefore, cognitive behavior therapy CBT focuses more on treating social anxiety, which is significantly common among stutters (Nnamani et al., 2019). Because of that, the stutters almost always (60%) seek CBT treatment for eliminating social anxiety disorder (Iverach et al., 2009).

However, cognitive-behavioral therapy may not effectively improve speech fluency in some cases, as it needs a professional language therapist and other psychological treatments (Iverach, Rapee, Wong, & Lowe, 2017). Based on the cognitive behavior therapy protocol, Alternatively, cognitive-behavioral language therapy CBLT program is a suitable tool for treating speech anxiety and alleviate the psychological aspects of stutters. Language educators, psychologists, neurologists, speech counselors constitute the program of CBLT (Nnamani et al., 2019).

Method

Procedures and design

Participants were recruited from the public via flyers posted at the Soran University and Soran Technical Institute and emails sent to members of an organization that support people who have a stutter. Participants who were eligible for this study agreed to be assessed by the researcher. Before applying assessments, all information regarding this study was provided to all participants. The consent form has been filled in. The first step was to use social anxiety assessment (LSAS) as a pre- Interventions, and those who had a stutter and social anxiety at the same time were recruited to CBT sessions.

There were eight sections in the program. Each session focused on different techniques to reduce social phobia in participants, each session lasting 1.5 hours undertaken over 12 weeks. The participants helped to identify and correct the maladaptive thoughts that caused social anxiety while speaking. The sessions include activities such as recognizing speech-related anxious feelings and somatic responses to anxiety, simplified cognitive restructuring training, managing self-talk, avoidance, and response to feared triggers. The specific methods utilized by the therapists included exposure, behavioral experiments, and cognitive restructuring. This program helps participants explore the links between their thoughts, feelings, physiological reactions, and behavioral responses, introduce the vicious circle concept, and allows them to weigh up which of their typical ways of coping are helpful and less so. After finishing all the CBT sessions, the participant's required to fill out social anxiety scale (LSAS) as a post-Interventions, which has been assessed again to reveal the effectiveness of CBT sessions in reducing social anxiety.

Participants

Participants compromised sixteen individuals who were recruited from Soran University and Soran Technical Institute. Their age ranged from 18 to 22 years old. Regarding their gender, twelve participants were male, and four were female. All participants were initially Kurdish speakers, and their participation was voluntary.

Technium Social Sciences Journal
Vol. 20, 540-545, June, 2021
ISSN: 2668-7798
www.techniumscience.com

Instrument:

The Liebowitz Social Anxiety Scale (LSAS) developed by Liebowitz (1987) was employed to assess social anxiety. The LSAS consists of 24 items and a four-point Likert scale for fear of anxiety and avoidance, ranging from 0 none and never to 3 severe and usually. The scoring scale followed as (0-29) not suffer from social anxiety, (30-49) mild social Anxiety, and (50-64) moderate social Anxiety, (65-79) marked social anxiety, 80-94 severe social anxiety, and greater than 95 indicates very severe social anxiety. The LSAS Cronbach's alpha for the Kurdish version was 0.86, and the test re-test was 0.79.

Result

The paired-sample t-test was conducted to compare the statistical mean differences between Pre-Intervention and Post-Intervention. The statistically significant differences had been found (*M*= 76.18, *SD*= 9.02) for pre-Interventions and (*M*= 61.87, *SD*= 4.68) Post-Intervention; t (16) =7.36, *p*=0.00, 95% CI: (10.12 to 18.45) The Cohen's *d* was (1.992) indicated a large effect size; (r=0.509, p= 0.044). The Effect size was (0.25) indicated a small effect size. Moreover, the results presented significant decreases in social anxiety during the baseline of the CBT program among participants. seven participants demonstrated a significant reduction in social anxiety from severe social anxiety to moderate Social Anxiety, while seven participants showed a significant reduction in social anxiety from marked Social Anxiety to Moderate social Anxiety. On the other hand, two participants demonstrated no significant decreases in social Anxiety during CBT intervention.

Discussion

The current study used a various baseline design to assess the effectiveness of a Cognitive Behavioral Therapy that established to reduce social anxiety among adults who stutter. The results support the previous evidence that many stuttering adolescents are suffering from social anxiety. After following the twelve weeks of Cognitive Behavioral Therapy intervention, there was a significant reduction in social anxiety among the participants. This finding confirms previous studies that found cognitive factors play a central role in the production and management of social Anxiety (Cho et al., 2004). Similarly, the recent research conducted by Scheurich, Beidel& Vanryckeghem (2019) illustrates that CBT has a central role in reducing social anxiety among adults who stutter.

On the other hand, stuttering occurrence did not determine consistent change among participants. In any of the participants, the interventions did not seem to affect the stuttering rate in any way. Perhaps all the participants confirmed a reduction in social anxiety, but there was no significant change in stuttering rate. The findings are supported by other research that Cognitive Behavioral therapy intervention progresses in psychological functioning, but no probable progress in stuttering (Helgadóttir et al., 2014; Menzies et al., 2016). In addition, cognitive-behavioral therapy might not be effective in improving speech fluency in some cases, as this needs a professional speech therapist and other psychological treatments to reduce speech fluency rate (Iverach, Rapee, Wong, & Lowe, 2017).

In conclusion, the findings prove cognitive behavioral therapy's efficacy in reducing social anxiety and enhancing stuttering's affective, mental, and cognitive responses among people who stutter. This result is consistent with other studies in the field, which show that CBT is successful with this population. The short duration of the CBT intervention can be used as a supplement to other therapies, including speech therapy. To discover, review, and disseminate the best treatment practices for stutters, speech-language pathologists and clinical psychologists should collaborate and work together. Finally, CBT was shown to be beneficial in reducing

social anxiety in adults who stutter. On the other hand, the theoretical aspects of social anxiety were given a lot of attention. In order to achieve more reliable data, future studies should attempt to cover other elements, including speech anxiety.

References

[1] Asher, M., Asnaani, A., & Aderka, I. M. (2017). Gender differences in social anxiety disorder: A review. *Clinical psychology review*, *56*, 1-12.
[2] American Psychiatric Association, A. P., & American Psychiatric Association. (2013). Diagnostic and statistical manual of mental disorders: DSM-5.
[3] Beck, A. T. (2019). A 60-year evolution of cognitive theory and therapy. *Perspectives on Psychological Science*, *14*(1), 16-20.
[4] Beidel, D. C., Alfano, C. A., Kofler, M. J., Rao, P. A., Scharfstein, L., & Sarver, N. W. (2014). The impact of social skills training for social anxiety disorder: A randomized controlled trial. *Journal of anxiety disorders*, *28*(8), 908-918.
[5] Blood, G. W., Blood, I. M., Maloney, K., Meyer, C., & Qualls, C. D. (2007). Anxiety levels in adolescents who stutter. *Journal of communication disorders*, *40*(6), 452-469.
[6] Bloodstein, O., & Bernstein-Ratner, N. (2008). A Handbook on Stuttering, 6th edn (New York, NY: Thomson-Delmar).
[7] Blumgart, E., Tran, Y., & Craig, A. (2010). Social anxiety disorder in adults who stutter. *Depression and Anxiety*, *27*(7), 687-692.
[8] Brook, C. A., & Schmidt, L. A. (2008). Social anxiety disorder: a review of environmental risk factors. *Neuropsychiatric disease and treatment*
[9] Brook, C. A., & Schmidt, L. A. (2008). Social anxiety disorder: a review of environmental risk factors. *Neuropsychiatric disease and treatment*.
[10] Brutten, E. J., & Shoemaker, D. J. (1967). *The modification of stuttering [by] Eugene J. Brutten [and] Donald J. Shoemaker*. Englewood Cliffs, N.J: Prentice-Hall.
[11] Brutten, G., & Shoemaker, D. (1971). Stuttering: Behavior theory and therapy. *Handbook of speech pathology and audiology*, 1027-1035.
[12] Buckner, J. D., Schmidt, N. B., Lang, A. R., Small, J. W., Schlauch, R. C., & Lewinsohn, P. M. (2008). Specificity of social anxiety disorder as a risk factor for alcohol and cannabis dependence. *Journal of psychiatric research*, *42*(3), 230-239.
[13] Cho, Y., Smits, J. A., & Telch, M. J. (2004). The Speech Anxiety Thoughts Inventory: scale development and preliminary psychometric data. Behaviour Research and Therapy, 42(1), 13-25.
[14] Freud, S., & Bonaparte, P. M. (1954). *The origins of psychoanalysis* (Vol. 216). London:
[15] Helgadóttir, F. D., Menzies, R. G., Onslow, M., Packman, A., & O'Brian, S. (2014). A standalone Internet cognitive behavior therapy treatment for social anxiety in adults who stutter : CBTpsych. *Journal of Fluency Disorders*, *41*, 47-54.
[16] Iverach, L., & Rapee, R. M. (2014). Social anxiety disorder and stuttering: Current status and future directions. *Journal of fluency disorders*, *40*, 69-82
[17] Iverach, L., O'Brian, S., Jones, M., Block, S., Lincoln, M., Harrison, E., ... & Onslow, M. (2009). Prevalence of anxiety disorders among adults seeking speech therapy for stuttering. *Journal of anxiety disorders*, *23*(7), 928-934.
[18] Iverach, L., Rapee, R. M., Wong, Q. J., & Lowe, R. (2017). Maintenance of social anxiety in stuttering: a cognitive Behavioral Model. *American Journal of Speech-Language Pathology*, *26*(2), 540-556

Technium Social Sciences Journal
Vol. 20, 540-545, June, 2021
ISSN: 2668-7798
www.techniumscience.com

[19] Keller, M. B. (2006). Social anxiety disorder clinical course and outcome: review of Harvard/Brown Anxiety Research Project (HARP) findings. *Journal of Clinical Psychiatry*, *67*, 14.
[20] Kelman, E., & Wheeler, S. (2015). Cognitive behaviour therapy with children who stutter. *Procedia-Social and Behavioral Sciences*, *193*, 165-174.
[21] Kessler, R. C., Berglund, P., Demler, O., Jin, R., Merikangas, K. R., & Walters, E. E. (2005). Lifetime prevalence and age-of-onset distributions of DSM-IV Disorders in the National Comorbidity Survey Replication. *Archives of general psychiatry*, *62* (6), 593-602.
[22] Kraaimaat, F. W., Vanryckeghem, M., & Van Dam-Baggen, R. (2002). Stuttering and social anxiety. *Journal of fluency disorders*, *27*(4), 319-331
[23] Langevin, M., Packman, A., & Onslow, M. (2009). Peer responses to stuttering in the preschool setting
[24] Leichsenring, F., & Leweke, F. (2017). Social anxiety disorder. *New England Journal of Medicine*, *376*(23), 2255-2264
[25] Lydiard, R. B. (2001). Social anxiety disorder: comorbidity and its implications. *Journal of Clinical Psychiatry*, *62*, 17-24
[26] McAllister, J., Gascoine, S., Carroll, A., Humby, K., Kingston, M., Shepstone, L., ... & Hodgekins, J. (2017). Cognitive bias modification for social anxiety in adults who stutter: a feasibility study of a randomised controlled trial. *BMJ open*, *7*(10), e015601.
[27] Hodgekins, J. (2017). Cognitive bias modification for social anxiety in adults who stutter: a feasibility study of a randomised controlled trial. *BMJ open* , *7*(10), e015601.
[28] Menzies, R., O'Brian, S., Lowe, R., Packman, A., & Onslow, M. (2016). International Phase II clinical trial of CBTP sych: A standalone internet social anxiety treatment for adults who stutter. *Journal of Fluency Disorders*, *48*, 35-43.
[29] Meyer, T. D., & Hautzinger, M. (2012). Cognitive behavior therapy and supportive therapy for bipolar disorders: relapse rates for treatment period and 2-year follow-up. *Psychological medicine*, *42*(7), 1429
[30] Nnamani, A., Akabogu, J., Otu, M. S., Ukoha, E., Uloh-Bethels, A. C., Omile, J. C ., ... & Iyekekpolor, O. M. (2019). Cognitive behaviour language therapy for speech anxiety among stuttering school adolescents . *Journal of International Medical Research*, *47*(7), 3109-3114 .
[31] Packman, A., Onslow, M., & Attanasio, J. (2003). The timing of early intervention with the Lidcombe Program. *The Lidcombe Program of early stuttering intervention: A clinician's guide* , 41-55.
[32] Russell, G., & Topham, P. (2012). The impact of social anxiety on student learning and well-being in higher education. *Journal of Mental Health*, *21*(4), 375-385 .
[33] Scheurich, J. A., Beidel, D. C., & Vanryckeghem, M. (2019). Exposure therapy for social anxiety disorder in people who stutter: An exploratory multiple baseline design . *Journal of fluency disorders*, *59*, 21-32.
[34] Stein, M. B., & Stein, D. J. (2008). Social anxiety disorder. *The lancet*, *371*(9618), 1115-1125
[35] Stein, M. B., Baird, A., & Walker, J. R. (1996). Social phobia in adults with stuttering. *The American journal of psychiatry*, *153*(2), 278-280 .
[36] Yairi, E., Ambrose, N., & Cox, N. (1996). Genetics of stuttering: A critical review. *Journal of Speech, Language, and Hearing Research*, *39*(4), 771-784.