



**Bournemouth
University**

**The Role of Emotion Regulation Strategies in Individuals with Social
Anxiety Disorder**

Supervisor: Dr Emmy Van Den Heuvel

MSc Foundations of Clinical Psychology

July 2019

Buse Arslan

s5121444

Word Count: 13472

Dissertation Declaration

I agree that, should the University wish to retain it for reference purposes, a copy of my dissertation may be held by Bournemouth University normally for a period of 3 academic years. I understand that once the retention period has expired my dissertation will be destroyed.

Confidentiality

I confirm that this dissertation does not contain information of a commercial or confidential nature or include personal information other than that which would normally be in the public domain unless the relevant permissions have been obtained. In particular any information which identifies a particular individual's religious or political beliefs, information relating to their health, ethnicity, criminal history or sex life has been anonymised unless permission has been granted for its publication from the person to whom it relates.

Copyright

The copyright for this dissertation remains with me.

Requests for Information

I agree that this dissertation may be made available as the result of a request for information under the Freedom of Information Act.

Signed: _____.

Name: Buse Arslan

Date: 8 July 2019

Programme: Msc Foundations of Clinical Psychology

Original Work Declaration

This dissertation is my own work, except where stated, in accordance with University regulations.

Signed: _____.

ACKNOWLEDGEMENTS

I would like to thank my supervisor, Dr Emmy Van Den Heuvel for her kindness, help towards me. She really supported me throughout the dissertation writing process. I also would like to thank Dr Helen Bolderston, for her motivating encouragement.

I also would like to thank my family for their lovely supports for me. They are one of the biggest factors that make me here.

ABSTRACT

Social anxiety disorder (SAD) is an intense fear or anxiety of social events in which others may assess the person carefully. Socially anxious individuals have a personal fear related to the anxiety. They show an avoidance from the anxiety-inducing situations. The symptoms of anxiety remain at least six months. There are two main core features in SAD. These include emotion dysregulation and disability in quality of life. Cognitive behavioural therapy is considered to be the most effective psychological treatment for SAD. Therefore, it aims to treat these two core features in individuals with SAD. The therapy focuses on the usage of cognitive reappraisal. In the critical review, the usage of emotion regulation strategies to understand SAD, the changes measured by CBT and the association of the therapy with emotion regulation strategies will be evaluated. Additionally, the relationship between life satisfaction and emotion

Databases: Google Scholar, PubMed, and Bournemouth University Library Resources

Search Terms: social anxiety disorder, emotion regulation, emotion dysregulation, emotion regulation strategies, cognitive behavioural therapy, dysfunctional emotion regulation strategies, cognitive reappraisal, expressive suppression.

Table of Contents

Dissertation	
Declaration.....	2
Acknowledgements	3
Abstract	
.....	4
Data Bases and Search Terms	4
Introduction.....	
6	
Social Anxiety	
Disorder.....	6
Emotion Regulation.....	7
Methodology and Search Strategy.....	11
Inclusion and Exclusion	
Criteria.....	11
Critical Review	
.....	13
Discussion.....	4
6	
Conclusion.....	52

INTRODUCTION

- **Social Anxiety Disorder**

Individual health has been a significant area of concern for both health departments and governments around the globe. Diagnostic and Statistical Manual of Mental Disorders fifth edition (DSM-5) defines social anxiety disorder (SAD) as a distinct, or severe, fear or anxiety of social circumstances in which others may examine the person carefully (American Psychiatric Association, 2013). SAD is a heterogeneous diagnostic criteria. According to the criteria in the DSM-V, a patient diagnosed with SAD has to have a sense of personal fear about the symptoms of anxiety that individual will demonstrate that will be assessed in a negative way, an avoidance from social circumstances or endurance to them with great sense, and the fear or avoidance that is particularly remain for 6 months or more.

Social anxiety disorder is a common but treatable disorder throughout the usage of psychological therapies or pharmacotherapy, or combination of both. SAD age of onset was early, comorbidity with other mental disorders was high, and subsequent impairment was notable (Kessler et al., 2010). And SAD is among the fourth most prevalent psychiatric disorders and the percentage of a lifetime generality is 12.1 % (Kessler et al., 2005).

Cognitive behavioral therapy (CBT) is thought to be the first line treatment for individuals with SAD (Heimberg, 2002). The principal techniques of CBT that has been used to treat SAD consist of four parts: exposure, cognitive restructuring, relaxation training, and social skills training, respectively. (Heimberg,2002). On the one hand, emotion dysregulation that has been described as a core characteristic of mood and anxiety disorders is prevented by cognitive restructuring (Campbell-Sills & Barlow, 2007 cited in Goldin et al., 2012, p.2). Cognitive reappraisal, that includes altering the content of a situation which causes to the development of an emotion, is considered to be a significant part of cognitive restructuring (Goldin et al., 2012). It is clearly seen that CBT is important to treat emotion dysregulation by using cognitive reappraisal in individuals suffering from SAD. Cognitive

change is targeted as one of the primary goals in cognitive behavioural therapy for individuals with SAD (Jazaieri et al., 2015).

In the general literature, many studies have focused on the effect of CBT on treating symptoms of SAD. However, disability in quality of life is another core feature among patients with SAD. Heimberg defines that, “quality of life in this context refers to the person’s subjective judgment of the satisfaction he or she experiences in everyday life” (2002, p.105). People with SAD show generally lower life satisfaction.

- **Emotion Regulation**

Emotion regulation is an important part in humanity’s functionality. Gross defines that, “emotion regulation refers to the processes by which individuals influence which emotions they have, when they have them, and how they experience and express these emotions” (1998, p.275). Gross (1998) developed the emotion regulation model that highlights the assessment of two different signs (internal and external) that activate a range of reaction tendencies including experiential, physiological, and behavioural (Hofmann et al., 2009). Gross’ model (1998) highlights five types of emotion regulation strategies. These are situation selection, situation modification, attentional deployment, cognitive change, and response modulation, respectively. Strategies are employed to influence their emotional reply degree for a specific variety of emotion, such as prohibiting an individual from having extreme high or low emotional reaction (Bosse, et al., 2007).

However, difficulties with emotion regulation is considered as a core mechanism in individuals with SAD. Dysfunctional emotion regulation strategies is considered to lead to

the pathology. Response modulation and cognitive change are considered as the two most disrupted strategies in individuals with SAD.

Response modulation describes as attempts to change an emotion when it has been formed (Hofmann and Dibartola, 2014, p.520). The most occurring often type of this strategy is suppression which refers to volitional restriction of two forms of emotional expressions (verbal and behavioural). (Hofman and Dibartola, 2014, p.520). Researches have indicated that this type of emotion regulation is impairing because of the fact that it causes to physiological arousal that is reinforced paradoxically and undesirable emotion itself (Hofmann, 2009). In addition to these clients with SAD indicated that they employ higher expressive suppression and lower usage of response modulation compared to healthy people in social circumstances (Werner et al., 2011).

Farmer and Kashdan (2012) found that socially anxious individuals, who were observed during experience- sampling, have raised tendencies about expressive suppression. They (2012) conducted a study which a two-week daily diary method was used in order to measure the spill-over effects of emotion regulation strategies. The findings of the study supported that if individuals who dealt with SAD suppressed higher positive emotions, they had a tendency to have experience of fewer extreme positive emotions and less positive social experiences the day following. This outcome supports the fact that expressing emotions has a long-lasting impact on well-being. With respect to this finding, patients suffering from SAD efficaciously reduce their possibility about having experience of a positive social connection by their large attempt to prohibit a negative result.

There is another study that was conducted by Werner et al. (2011). Socially anxious people who took an interview based on the emotion regulation model by Gross (1998). These

patients indicated higher usage of avoidance and expressive suppression compared to control groups when there is a question about two social anxiety-inducing states that had existed throughout the last month. The researchers also confirmed that the notion that they had lower success in performing cognitive reappraisal and expressive suppression during these strategies that they used. Indeed, suppression in socially anxious people has been associated with lower positive experiences.

On the other hand, expressive suppression is usually thought to be a type of maladaptive emotion regulation strategies. However, there are other beliefs that emphasise that expressive suppression can be among adaptive emotion regulation strategies in circumstances where discolouring emotions must be restricted (Butler et al., 2003).

There is also other emotion regulation strategy is called cognitive change for people with SAD. Cognitive reappraisal is the most investigated type of cognitive change and is mainly thought to be an adaptive emotion regulation strategy (Jazaieri et al., 2015). Cognitive reappraisal, an original version of cognitive change, requires the usage of processes that are cognitive and linguistic in order to reinterpret the content of a circumstance to up or down-regulate the emotions (Hofmann and DiBartolo, 2014, p.520). Reappraisal may change affective responses to stressful, anxiety-inducing circumstances and may cause to psychological flexibility and emotional well-being (Hofmann and DiBartolo, 2014, p.520)

Difficulty with reappraising is considered to be a main part in patients with anxiety and mood disorders, including SAD. Investigative studies, that uses several methods, have indicated that socially anxious patients are fewer successful employing reappraisal in order to decrease

anxiety reactions (Werner et al., 2011). Using less cognitive reappraisal refers to maladaptive emotional regulation.

Cognitive model which was developed by Hofmann (2007) proposed that SAD is identified by heightened reactivity of emotion over three different time periods including before, during and after in social circumstances. It is clear that there are personal variations in the way individuals react to emotional circumstances. The majority of individuals usually find it enjoyable to have experiences associated with its positive emotion and are involved in strategies in order to continue them (Tugade & Fredrickson, 2007). Actually, social anxiety is associated with more commonly suppressing expressive emotions (both positive and negative) (Werner et al., 2011). It is believed that suppressing the expression of emotions (both positive and negative) has dysfunctional outcomes and it has been found that the belief has an indirect connection to social anxiety with decreased positive emotion (Juretic et al., 2013). There is experimental evidence which promotes strategies of these emotion dysregulation that contributes to understand the nature of SAD.

In addition to this Hofmann et al (2012) claimed that there are personal variations in the experience of positive and negative feelings. Cognitive behavioural model developed by Hofmann (2007) proposes that people suffering from SAD have distress because of noneffective emotion regulation involving particular social circumstance avoiding, failed cognitive reappraisal, and out of proportion expressive suppression.

2. Methodology

2.1 Search Strategy

A literature search technique was used to obtain articles from the databases. Bournemouth University Library and PubMed were searched for finding the articles. The search terms used for the identification of literature were “social anxiety disorder” and “emotion regulation”. In the advanced search option, full text articles were selected to remove abstract only from the search. Only related articles were chosen for study and reference. As, few articles required to be purchased therefore Google search with .pdf was also done to find articles from any database that are offering free .pdf files. The sorting of articles was done by just reading the abstract.

2.2. Inclusion and Exclusion Criteria

Only research studies focused on emotion regulation, social anxiety disorder, and cognitive behavioural therapy have been included.

The inclusion criteria were specific to the articles that described the diagnostic criteria of social anxiety disorder. The diagnosis reported in the articles ought to have been per the standard operational diagnostic criteria set out by the DSM-IV. The search for literature was limited to peer-reviewed articles published in English and with abstracts in the English language.

The articles had to have been published between 2014 and 2019. Only empirical data was found for the research studies. Any systematic review or other papers were excluded. The

articles that did not have adequate research design, sample size, and statistical analysis were excluded from the review in this study. Furthermore, articles that were not readily available and would be accessed after purchasing them were excluded. Additionally, the adult population was included in the studies.

CRITICAL REVIEW

The aim of this review is to how the use of emotion regulation strategies is important to understand social anxiety disorder (SAD) and the influence of cognitive behavioural therapy (CBT) on measuring change and two definite forms of emotional regulations in individuals with SAD. I will consider the factors including satisfaction of a patient, emotion regulation flexibility, emotion type, varying emotion levels, and trait and daily measures and these factors' relation with socially anxious individuals. Within this framework, five papers will be examined which are by the Philippe R. Goldin, Ihno Lee, Michal Ziv, Hooria Jazaieri, Richard G. Heimber, James J. Gross (2014), Jazaieri, H., Goldin, P. R., & Gross, J. J. (2017), Skytte, Morten, & Jensen (2014), and O'Toole, Zachariae, & Mennin (2017).

1.Treating Anxiety Disorder with CBT: Impact on Emotional Regulation and Satisfaction with Life (Jazaieri, Goldin, Gross, 2017)

Cognitive behavioural therapy (CBT) is among the most researched and controversial subject matters in the treatment of emotional disorders. The study Treating Anxiety Disorder with CBT: Impact on Emotional Regulation and Satisfaction with Life by Jazaieri et al., (2017), investigated the cognitive reappraisal and expressive suppression to understand the role of

CBT in the treatment of social anxiety disorders (SAD), a condition characterized by emotional fluctuations and impairments. Additionally, the article sought to evaluate the impact of emotional regulation on the overall satisfaction of patients regarding their lives. The evaluation of emotion regulation was premised on the employment of CBT because it causes anxiety disorder patients or individuals to experience the intense fear of the unknown.

Jazaieri et al. (2017) examined the influence of CBT on two definite forms of emotional regulations. The emotional regulations included expressive suppression and cognitive reappraisal and were used to assess their impacts on the overall satisfaction of a patient when applied co-currently with CBT. The goal of the study was to establish a better fit between expressive suppression and cognitive appraisal when applied with CBT. Moreover, the research would also assist in the determination of which of the two factors would yield a higher and effective satisfaction with the life of an individual with SAD. Therefore, the authors conducted two studies.

The authors conducted study 1 using 42 adults as the baseline, and 128 SAD patients, in which 61 were men and 67 were women. The inclusion and exclusion criteria were that only the patients who met the DSM-IV of the American Psychiatric Association (APA) were allowed to participate. The procedure involved passing all the Health Control (HC) patients through a diagnostic screen. The Diagnostic screening was made by clinical psychologists at the Ph.D. level of education. The Emotional Regulation Questionnaire (ERQ) measurements were then applied. A total of 16 items of the extended version were employed in the experiment. The instrument utilized a 7-point Likert-scale which ranged between 1 and 7 statements. According to this study, a minimum application of cognitive reappraisal and higher use of expressive suppression emotional regulations, and low levels of satisfaction with life were reported.

The study 2 involved a slightly randomized controlled CBT trial of 40 individuals with a control group of 32 individuals. The inclusion and exclusion criteria involved excluding patients with a current pharmacotherapy or psychotherapy history of any medical disorders and head traumas. Additionally, patients with psychiatric disorders, with the exception of principal diagnoses of SAD or any other secondary generalized disorders, were excluded. The procedure involved recruiting patients through clinician referrals and community bulletin boards. All the patients were screened for safety using magnetic imaging resonance (MRI). The ADIS-IV-L and initial screening were applied to establish the inclusion and/or exclusion criteria. The patients were then randomly assigned 16 weeks of CBT. The measures used in study 2 were identical to those used in study 1.

The results of the study indicated that CBT gave a more significant group in time interactions with cognitive reappraisal as well as satisfaction with life as opposed to the application of expressive suppression. It is noteworthy that cognitive reappraisal was an emotional regulatory approach that encompassed the altering of a trajectory of the emotional response by reinterpreting the implication of an emotional stimulus. Although the authors were inconclusive about the variation in the results between the two emotional regulations, it is essential to underscore that expressive suppression is an attempt to hide, reduce, or inhibit an emotion. In study 2, the authors used regression analyses to provide insights into the predictive measure of emotional repression as an emotional regulation on post-CBT life satisfaction.

The article also underlined the need to understand SAD patients comprehensively. They also realized that diminished positive experiences affected SAD individuals that were treated with

CBT. However, the treatment was administered with the assumption that CBT enhanced individuals' mental health regardless of their disorder. Therefore, it is evident that the CBT aimed to prevail upon dynamic cognitive distortions, including attitudes, thoughts, and feelings.

On the issue of emotion regulation, the authors noted that cognitive models of SAD and empirical evidence implied that patients with SAD were afflicted by ineffective and inept emotion regulation. The cognitive models showed that individuals with SAD exhibited the intense fear of social situations, thus predisposing them to limited social interactions. Hence, it implied that individuals had persistent general and pervasive fear for negative evaluation. Furthermore, the high proclivity to experiencing negative emotions and the maladaptive application of emotion regulation strategies were problematic for SAD individuals. Hence, emotion regulations were premised on addressing the emotions harboured by individuals.

Additionally, the authors noted that emotion regulation processes were arranged into groups. The arrangement was based on the time the authors received a primary impact on regenerative emotion generative processes using response modulation and cognitive change. The latter strategy involved deliberate efforts to change an individual's emotions by transforming the individualized meaning of a specific situation while the former were determinations made to change the experiential, physiological, and behavioral responses to particular situations. The authors further found that cognitive change involved the application of cognitive skills such as the reframing the meanings of thoughts and situations in modifying emotional reactions.

The primary strategy of change strategy employed by the authors was cognitive reappraisal. The strategy was perceived mainly as an adaptive emotional regulatory method. Through the appropriate use of the cognitive reappraisal strategy, an individual's emotional reactions to anxious situations could be modified to achieve emotional well-being and psychological flexibility.

Study 1 of the article focused on emotion regulation and satisfaction in life in SAD. The authors noted that the subjective well-being of patients was associated with several positive outcomes. The research also indicated that subjective well-being was a crucial part of satisfaction in life, and it was divided into affective and cognitive components. Affective components comprised satisfaction in life, while cognitive components involved positive and negative emotions. Within the context of clinical literature, the article highlighted the importance of understanding psychosocial interventions. For instance, the use of CBT is useful to in the improvement of an individual's satisfaction but only to the point of reducing problematic situations. CBT could be used to improve life satisfaction beyond the mere reduction of problematic situations.

Medics in psychological disorders have observed that anxiety disorders compromise the quality of life as well as the psychosocial functioning of victims. All individuals with the SAD condition were rated as 'lowly functioning' on the scale of the quality of well-being and reported dissatisfaction with several aspects of their lives. Moreover, the article established that a similar study with adults afflicted with SAD also reported dissatisfaction in social functioning. In the current study, it was deduced that the improved outcomes of a patient, including good health, were associated with emotional regulation.

One of the significant strengths of the article is that it addressed social anxiety disorder (SAD) in great detail. Also, the relationship between satisfaction with life and subjective well-being of SAD patients or individuals was explored. Through statistical data presentation, emotion regulation was discussed using the cognitive reappraisal and the expressive suppression approaches. While discussing the emotion regulation, the authors relied to a large extent, on the empirical evidence from reliable researchers such as the Farmer and Kashdan. The third strength of the article is that statistical evidence was used to explain satisfaction via the cognitive and affective components. The juxtaposition of the affective and cognitive components gave a definite impact on the use of CBT on satisfaction with life in individuals experiencing SAD.

The method was also a strength of this research paper. The experiment used heterogeneous participants with mixed ratios of men and women, Caucasian, Latino, Asian, and Filipino. Also, the authors heavily relied on the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) of the American Psychiatric Association for the criteria for the diagnosis of generalized SAD. The article further employed the correct procedure to build its arguments. Health Control (HC) participants and the individuals with SAD were subjected to diagnostic screening before selection. The move was intended to ensure a flawless step-by-step procedure.

The use of the Emotion Regulation Questionnaire (ERQ) enabled the researchers to validate the differences in individual measures of both the cognitive reappraisal and expressive suppression. The measuring instruments used in the study were accurate, thus improving the precision, validity, and reliability of results, findings, and deductions. Lastly, the article explained the essence of CBT intervention in the management of Social Anxiety Disorder.

This explanation validated the significance of the study as it was based on the application of CBT to individuals with SAD and the overall impact on satisfaction with life.

Although the article had the above strengths, it was characterized by the following shortcomings. Conducting the research and the associated experiments was relatively expensive, thus called for the researchers to use large sums of money. Additionally, the procedure was time-consuming because the participants in the tests had to be allocated specific amounts of time to study their behavioral changes over a specific period. As noted, it was inappropriate to give a short measure of time to observe behavioral changes, especially as it related to emotion regulations of the patients subjected to CBT. Another weakness of the article is that it mainly relied on CBT for the treatment of the SAD. On the one hand, emotion regulation is believed to be a transdiagnostic factor for the most mood and anxiety disorder and this restricted to the reliability of the study in terms of the results that are specific to SAD.

Furthermore, the article also failed to satisfactorily draw a proper distinction between the cognitive reappraisal and the expressive suppression as they were used in the emotion regulations.

Based on the finding, it was clear that treating social anxiety disorder with CBT improved the emotional conditions of the patients. When CBT was regularly administered to the individuals suffering from SAD, it resulted in positive emotion regulation observations, thus increased the satisfaction with life of the patients. The authors noted that CBT was an analytical method in emotion regulation and should be used appropriately to bring the desired

change in the mental state of feelings, thoughts, and the attitudes of the individuals with SAD.

2. Trajectories of change in emotion regulation and social anxiety during cognitive-behavioural therapy for social anxiety disorder (Goldin, Lee, Ziv, Jazaieri, Heimberg, Gross, 2014)

In the research paper, the writers' aim was to show clinicians whether cognitive behavioural therapy is effective in the management of anxiety disorder in a society. By monitoring weekly changes in the regulation of emotions, the writers argue that clinicians could predict whether there is any decrease in social anxiety. They go ahead to argue that social anxiety disorder can decrease through cognitive behavioural therapy by training an individual in skills of emotion regulation. Social anxiety disorder can be defined as intense fear or anxiety of being rejected, negatively evaluated or judged in performance situation or social setting. It is also known as social phobia. Cognitive behavioural therapy, on the other hand, is another word for psychotherapy and it helps people in developing skills that are essential for them to be healthy and remain healthy. Emotion regulation, however, is managing feelings and thoughts from driving behaviour. In this paper, the focus is on evaluating the change in social anxiety through cognitive behavioural therapy by training emotion regulation.

The frequent weekly changes in expressive suppression and success and cognitive reappraisal were examined through randomized controlled trials of anxiety disorder in the society's cognitive behavioural therapy. They also examined social anxiety intensity among individuals who were undergoing the sixteen sessions per week. In their research, they were expecting the variables to be different between pre-to-post therapy and the waitlist. Another

variable they expected was a differential trajectory during therapy and recovery during the therapy. Another expectation of the researchers was subsequent changes weekly on social phobia from changes that occur weekly in emotion regulation. They also expected a change in social anxiety both during, and after therapy.

During the cognitive behavioural therapy, granger casualty analysis showed that reappraisal success increase was followed by a reduction in social anxiety disorder. Cognitive behavioral therapy (CBT) had no effect on expressive suppression but it was seen to decrease social anxiety and the success of the reappraisal and its frequency was increased.

The reasons for measuring the change that is experienced during therapy on a patient are many. Measuring change during therapy will enable the therapist to assess the way the psychological functioning of their patients is progressing. According to the progress, they are able to modify treatment to be specific to the patient or shift it. Another reason is to provide an understanding of how the interventions work and for whom they are the best fit and why. It might also lead to higher accountability in the way the clinicians deliver assessment and treatment. The efficacy of psychotherapy will be demonstrated to patients, and insurance companies.

In psychological disorders, one of the best recommended psychosocial approaches is the cognitive behavioral approach. The reason behind this is because its primary focus is on solutions and challenges the patient to change patterns of behavior that are destructive and challenge cognitions that are distorted. Behavior, according to cognitive behavioral therapy, is influenced by perceptions and thoughts. Therefore, the aim of CBT is to establish the thoughts or perceptions that might be harmful and employ mechanisms to challenge and conquer them if they are not an accurate depiction of real life. CBT is the best intervention,

especially for anxiety and mood disorders. In the mechanism, change in the regulation of emotion is key however, the changes that occur after every session are not well understood.

Emotion regulation has been used greatly with a social anxiety disorder. This disorder is said to start early in life before any other disorder such as other anxiety disorders, depression and substance, and drug abuse manifests itself. Social anxiety disorder is associated with impaired functioning at school, work, and social settings. In cases where there are social-evaluative situations, a person with a social anxiety disorder will be afraid of embarrassment and humiliation excessively. Another trait in people with a social anxiety disorder is exaggerated emotional reactions and mal-adaptive emotion regulation. Some of the maladaptive forms of regulating emotions are expressive suppression. An individual with a social anxiety disorder has poor techniques for regulating adaptive emotions such as cognitive reappraisal. Social anxiety disorder is the problematic interactions between cognition and emotion, and they persist until they are treated. A significant change in the severity of symptoms of social anxiety disorder in both groups and individuals shows that CBT has been seen to be efficient as a psychosocial approach.

In order to investigate how cognitive processes, change after every week of social anxiety disorder treatment by cognitive behavioral therapy, changes specific to emotion regulation in clinical treatment have started to be quantified. Cognitive reappraisal and expressive suppression frequency were measured by the use of Emotion Regulation Questionnaires. A more developed variant of the Emotion Regulation Questionnaire found that in reducing the severity of the social phobia symptoms individual CBT increases the self-efficacy of cognitive reappraisal. In the first questionnaire, there was a correlation in cognitive reappraisal in pre-to-mid-CBT and pre-to-post-CBT SAD. In addition, it was realized that

group CBT led to no changes in expressive suppression use but there is a linear increase in the habitual usage of cognitive reappraisal. The first factual support for the emotion regulation role change in CBT for social anxiety disorder is provided by the two mentioned studies.

In the study, the main objective of the researchers was to find out any social anxiety changes during CBT for social anxiety disorder. Changes in cognitive reappraisal frequency use and usage of expressive suppression and their success were also among the goals. The study had five hypotheses. The first; the expectations were enhancement in the success and frequency of cognitive reappraisal and a decrease in expressive suppression as well as a decrease in social phobia too. The second; enhancement of success and frequency of cognitive reappraisal weekly, decrease in suppression expressively, and a social phobia decrease to indicate a linear trajectory. The third; social anxiety and increases in cognitive reappraisal would covary inversely. The fourth hypothesis expected that during CBT, changes that occur weekly in cognitive reappraisal would indicate a succeeding change in social phobia using the Granger casualty analysis. The fifth hypothesis and the last expected that there would be a prediction of pre-to-post-CBT decrease in social anxiety by the enhancement of the cognitive reappraisal frequency and success and a higher inverse covariation of social phobia with the two.

The method used in the research involved a hundred and ten people who underwent the Anxiety Disorder Interview Schedule. These people were supposed to pass a criterion to establish whether they were feasible for diagnosis. The people were supposed to have no history of cardiovascular or neurological disorders that would influence blood flow in the cerebral area and psychological functioning; they were supposed to have no report of current

psychotherapy or pharmacotherapy or past CBT. This was an exclusion criterion and it also involved passing a magnetic resonance screening for safety. They were also required to be right handed and therefore anyone who was left handed was disqualified from the study. The method used for disqualifying the participants was based on the Edinburgh Handedness Inventory. From the hundred and ten selected people, seventy-five met the diagnostic criteria and they were assigned to immediate CBT others were put on wait lists and were offered CBT after a period. Fifty patients completed the CBT since there were some dropouts. Participants handed in a written informed consent form and they were supposed to pass a screening over the phone before face-to-face clinical interviews. After assessments, the patients were designated to CBT or waiting list randomly. Social anxiety and emotion regulation weekly change was investigated by getting the repeated weekly clinical symptoms measurements, and processes of regulation of emotions in the process of social anxiety disorder treatment. On a scale of 0% to 100%, frequency of cognitive reappraisal on a weekly basis and its successful use and expressive suppression was assessed during social situations patients encountered in a week.

For social anxiety disorder, CBT for individuals is in sixteen sessions and in the early phase, the therapist covers psychoeducation about social anxiety disorder, cognitive restructuring training, and orientation to CBT with his patient. In the last phase, the patient is exposed to social situations that they fear during the sessions and as homework, they do examinations and reconstruction of core beliefs and engage in the repression of relapse and termination. In analyzing the data, in the first hypothesis, the intent-to-treat analysis method was used. The second hypothesis used confirmatory factor analysis. In order to examine longitudinal relationships, the third hypothesis used a multivariate multilevel model. The fourth hypothesis, Granger casualty analysis was used to determine whether emotion regulation at

different times of the week predicted a subsequent change in social anxiety. The fifth hypothesis was analysed with the use of linear regression.

In the preliminary analyses, for the first hypothesis, pre-post CBT change was conducted in groups to examine change goals in social anxiety and regulation of emotion. The second hypothesis used approaches of change in the CBT process, and they included multivariate multilevel models. The third hypothesis made use of response covariation during CBT in order to establish the patterns of covariation across the weekly sessions in social anxiety and regulation of emotion. The fourth hypothesis used changes that were experienced weekly in emotion regulation to predict its following weekly social phobia. The findings were that there was a prediction by reappraisal success of a succeeding rate of social phobia. In addressing the fifth hypothesis prediction of CBT, outcomes used linear regression in the prediction of post-CBT reduction of the severity of the symptoms of social anxiety.

A decrease in social anxiety in regard to changes in pre-to-post CBT is evident as indicated in the first hypothesis. CBT showed a greater reappraisal success and reappraisal frequency as compared to the waiting list. In expressive suppression, no change is realized. In the analysis, there was an increase in the appraisal frequency, and appraisal success, suppression frequency was seen to decrease, and success of suppression did not change. During the course of the treatment, social anxiety was seen to decrease. There is a suggestion by cognitive behavioral models for CBT to increase cognitive reappraisal methods that adaptive and reduce the usage of expressive suppression that is maladaptive. The patterns of change in the process of CBT indicate rates of change that are differential in the processes of reappraisal and suppression. Between and within therapy sessions, the use of reappraisal can translate to changes in enhancing the chances of successful experience. In reappraisal implementation, it

is important for a person to note that greater success is not necessitated by a greater frequency of using the reappraisal strategy. The success of reappraisal in a patient is a combination of the tenacity and willingness of the patient in implementing emotional reactions reappraisal, and the psychotherapist's skill to tailor exposure progression, which fully supports each patient's learning and self-efficacy. Expressive suppression which translates to not sharing a person's emotions decreased remarkably during CBT due to the emphasis put on expressing emotions, creating awareness on emotions, and restructuring of the cognitive. CBT is purported by some models that it facilitates the use of cognitive reappraisal for working with emotions and discourages the reliance on expressive suppression. It is claimed to encourage the usage of adaptive emotion regulation.

CBT for social phobia uses two distinct techniques to deal with social anxiety. The first technique involves the increased usage of reappraisal success and the second one involves a reduced usage of the frequency of expressive suppression. The study had strengths. The strengths include have a rich set of mechanisms of treatment such as application of logic by the patient under treatment and regulating the thinking of the patient as well as restructuring it. With this type of approach, the patient is not under the influence of external modifiers hence the outcome of treatment can be long lasting. The clinician usually takes the treatment through a series of processes and this makes it easier for the patient to adapt and for the clinician to follow up. If the one step in the series is skipped the process cannot be successful and therefore, they used a workbook for the patient and a clinician's guide. With this in place following up through the process is easy. The treatment process is also in phases which makes the simple task to be dealt with early during the process and the once which are a bit complex follow later in the treatment process. It is easy to know whether the treatment process needs any modification from the beginning if the patient is not responding well. The

social settings that the patient is exposed to are regulated such that at the onset of the treatment the patient is not under intense situations.

However, the study has limitations such as having used weekly changes during the individual's CBT. Because of using weekly changes, the conclusions drawn from the study are limited to temporal resolution, specific processes of emotion regulation and the measurement mode. For the study to produce valid results there is need for a prolonged assessment other than just basing the argument on weekly sessions. There is need to establish whether the results will be long term and therefore the study should do a follow up on the patients to know the rate of success or failure. Another limitation is that the study used only one type of psychotherapy. Another need for various types of study is to compare the effectiveness of cognitive behavioral therapy to other types of psychotherapy.

In conclusion, from the research paper, a clinician gets weekly evaluations of cognitive reappraisal that is self-reported as an empirical basis to show whether the trajectory indicates any reductions in the symptoms of social anxiety or not. If it does not provide a reduction in the symptoms, the clinician should create conditions within or outside the sessions that should enhance successful reappraisal. The clinician should also ensure that the patients' awareness of when they have successfully implemented reappraisal approaches.

3. Emotion Differentiation and Emotion Regulation in High and Low Socially Anxious Individuals: An Experience Sampling Study (Skytte, Morten, Jensen, 2014)

Social Anxiety Disorder (SAD) is a common social disorder that have a negative impact on the quality of life of an individual suffering from it. The study has discussed the SAD, its

underlying causes, association of personality traits, the emotion regulation and emotion knowledge with SAD. They have discussed the important terms and concepts in detail, given evidence from the literature about the link between different concepts, traits, regulation mechanism, and emotion knowledge.

SAD is associated with difficulty in maintaining social relationships and leads to loneliness, diminished positive emotions, and poor quality of life. This article focused on the relationship between emotion knowledge and emotion regulation strategies and SAD. Emotion regulation can be maladaptive or adaptive depending upon the strategy used. For example, expressive suppression refers to suppressing the emotion-expressive behaviour; and experiential avoidance means avoiding the emotions on internal experiential event. These two strategies are maladaptive if they are employed inflexibly. It has been found that the sufferers of SAD use these two strategies more often in their lives. Similarly, the other regulation strategy could be changing the thought process or patterns in a certain situation that alter the emotional impact of the situation or an event. This ability is termed as cognitive reappraisal and it is associated with good quality of life.

According to the authors, various factors determine how individuals regulate their emotions. Some individuals could differentiate between distal antecedents. Distal antecedents are personality traits and IQ that have influence on emotion knowledge. Emotion knowledge means ability of an individual to identify his/her own and other's expressed and experiential emotions and knows which emotions are appropriate in different contexts. Recent studies have confirmed that sufferers of SAD have poor emotion knowledge. They don't do well with their emotions and hence could not regulate them well. They also lack in another

component of emotion knowledge called emotion differentiation which means ability of an individual to differentiate between positive and negative emotions.

The adoption of maladaptive emotion regulation has negative impact on the quality of life. For example, the emotion suppression regulation leads to increased negative experience and poor well-being. They also exacerbate other negative anxiety related pathology. The number of positive events in a day are associated with the adoption of maladaptive emotion regulation in that day.

The authors have mapped different studies in a coherent way and linked every concept with each other in a rational manner. Every line ended with a new concept and next line defined that new concept in a most appropriate way. For example, the statement that different factors influence emotion knowledge and in the very next line the authors have defined what emotion knowledge is. This increased the readability of literature review and it became easier for the reader to relate every concept with each other rather than struggling to find their relationship. Similarly, the authors have intrigued the need of current study from the previous literature and chalked out the gaps in existing literature. For example, the authors have emphasized on the importance of context in execution of any emotion. The reader also believed in the contextual importance of any emotion.

There were three aims of this study. The first aim was to explore if the emotional characteristics of SAD were to be found when measured both at the trait and state (daily) level. The second aim was to find when HSAs (Individuals High in Social Anxiety) engaged in maladaptive emotion regulation compared with LSAs (Individuals Low in Social Anxiety) and the third aim was to find when HSAs experience poor daily quality of life.

The aims were aligned with the research objective and the hypothesis were posited from the literature review. The authors have integrated all the concepts in the hypothesis and linked them in a coherent manner. The flow of logical was maintained and aims were achievable.

The authors have used experience sampling method for achieving aims and objectives of the study. The participant of study was chosen from 1181 1st year college students. 531 students agreed to participate in the research. The volunteer students were evaluated on The Liebowitz Social Anxiety Scale (LSAS). The students were divided into two groups HSAs and LSAs based on their score in LSAS. The minimum score for inclusion into HSA was 47 and the maximum score for inclusion into LSA was 21. As a result, 261 students were given diaries to fill out their entries for 11 days.

The use of experience sampling method was used to measure the aim of the study. The experience and feelings of participants were required to be collected on daily basis so that the actual experience and use of adaptive, maladaptive and cognitive reappraisal could be measured. Previous research on similar topic has also used this method.

Furthermore, the authors have used LSAS for evaluation of social disorder. They have used 47 as minimum LSAS score for putting an individual in HSA region. However, the cut-off score for moderate social anxiety disorder is 55 and for some clinicians the minimum score for lying in HSAs 60, below 55 indicates the absence of SAD. Furthermore, the authors have not provided the average LSAs and HSAs scores to get more understanding of the sample. Hence, the selection of sample population could have been improved and participants with least score of 55 should have been taken into the HSAs. Furthermore, as it was discussed

that the emotion regulation strategies are context dependent the authors did not provide in context of the population.

The researchers have used measures from existing literature. They have used LSAS for social anxiety. Expressive suppression and cognitive reappraisal were measured by Emotion Regulation Questionnaire (ERQ). Furthermore, the authors have used multi-level linear modelling for testing of hypothesis. Additionally, the Acceptance and Action Questionnaire (AAQ) listed items that were contributory in the assessment of experiential avoidance. In this research, data was organized at two levels. First level was variables within person i.e. individual's daily record and second level was trait measures.

164 participants responded to the questionnaires and filled them regularly. Among them 75 were LSAs and 89 were HSAs. The HSAs mainly consisted of women and LSAs consisted of older among the sample. The results showed that the HSAs were characterized with poor emotion clarity, they leaned towards expressive suppression, avoided experiential emotion and used cognitive reappraisal less. As a result, they had fewer positive experiences and less satisfied life.

Similarly, the between-group differences showed that the HSAs scored high on daily social anxiety. Likewise, whenever LSAs used expressive suppression they scored low on positive emotion differentiation. On the contrary, the participants having good negative emotion differentiation used cognitive reappraisal more often. On some occasions, cognitive reappraisal was also found in HSAs.

HSAs experienced poor quality of life and less positive experience. This was particularly true for the days they exhibited expression suppressive emotion. On the other hand, LSAs had positive daily life and used cognitive reappraisal more often.

The authors have used standard tests and analysis techniques to produce the results. They have even taken care of validity of data. The results of different aims were discussed separately. However, the authors have not explicitly written whether the hypothesis have been accepted or rejected. All the hypothesis was accepted.

The results of study were aligned with the existing literature. For example, it has been confirmed that HSAs had poor emotion clarity, exhibited expression suppressive emotion and used less cognitive reappraisal as compared to LSAs. It was also important to find the reasons of less use of cognitive reappraisal by SAD sufferers and the association between cognitive reappraisal and reduced late brain response could have been reported. The authors of under review research should have considered this aspect of SAD sufferers as well along with context of the situation.

The study has five strengths. The first strength of the study was using experience sampling model which has increased in recent pasts and has provided good results especially in the field of psychology. Therefore, it was appropriate to use this method as the aim was to find the relationship between emotional differentiation, emotion regulation, and SAD through cross sectional study. The second strength of the study was using The Liebowitz Social Anxiety Scale (LSAS) for evaluation of social anxiety disorder. It is a good and accepted scale and it divides the study population in two groups of LSA and HSA. The third strength was multi-level linear modelling for testing of hypothesis. This is a good technique when data

is organised at more than one level. In relation to that the data was organized at two levels in the research. The fourth was that the authors have used standard tests and analysis techniques to produce the result. The authors have presented the results in more than one form for better understanding. They have used narration, charts, and table for representation of results. The fifth and the last benefit of the study was that the literature was adequately searched and mapped in this study. The authors have defined every concept that increased the coherence and logical flow.

The study has some limitations. One of the limitations was the selection of the participants among the first-year college students. Another limitation was that the research could have been further improved by careful selection of participants. Addition to these limitations the reasons of positive experience could have been considered in the research because the positive emotion expression contributes towards expansion of positive experience. Moreover, Although, the literature review is well-written, and authors have linked the concepts. However, it could have been better if the authors have critical analysed the validity of previous research and used more recent articles (within five years of writing that article). Most of the cited studies are older than five years.

In conclusion, it was an interesting research that explored the situation when SAD led to difficulty in emotion regulation that resulted in poor quality of life. The ability of emotion differentiation (both positive and negative) influenced the emotion regulation in a different way for HSAs and LSAs. Additionally, the authors were successful in achieving their aims and objective by using appropriate research methodology. The authors have presented results in an attractive manner. The findings of study were discussed according to the aims of study which engaged the reader.

4. Social Anxiety and Emotion Regulation Flexibility: considering emotion intensity and type as contextual factors (O' Toole, Zachariae, Mennin, 2017)

Social anxiety is defined by an extreme phobia of negative evaluation, judgment, and rejection, which causes the victims of this disorder to withdraw from social settings that can stimulate these anxieties. Social anxiety is characterized by visible anxiousness distinctions such as profound sweating while the invisible characteristics include nausea and increased heart rates when introduced to dreaded situations. According to research, at least 15 million Americans have been diagnosed with this condition prompting drastic action from different stakeholders. The study by O'Toole, Zachariae, and Mennin can be applauded since it was published at a time when social anxiety awareness is vital and determining how to handle individual suffering from this disorder is critical. As such, this research can provide as an instrumental tool in enhancing mechanisms to manage social anxiety cases.

The authors performed research to highlight emotion regulation flexibility in social anxiety individuals further. Underscoring emotion type and varying emotion levels as the two main contextual factors, the authors set out to explore the flexibility of emotion regulation in socially anxious people.

The researches sourced 260 first-years students to participate in the study. Out of this number, 131 participants indicated a maximum score of 21 on the Liebowitz Social Anxiety Scale while the remaining 131 students reported a minimum score of 47. According to the researchers, twenty-one represented the lower quartile of the Liebowitz Anxiety Social Scale, and forty-seven represented the upper quartile of the Leibowitz Social Anxiety Scale. The

article further suggests that from the total participants, 164 students documented at least one record. Eighty-nine participants recorded high social anxiety (HSA) with the remaining 75 reporting low social anxiety (LSA).

The engagement with the participants was consistent for eleven days, whereby the students were asked to fill out online questionnaires daily. Additionally, emails were sent every morning to participants to remind them to fill out their daily forms with follow up emails being sent in the evening in case a response had not been reported. Before commencing the research, the authors required every participating student to sign a consent form while the researchers acquired ethical approval to employ their research processes.

The questionnaires submitted measured social anxiety traits on various levels. As reported by the authors, twenty-four items highlighting fear and avoidance of defined situations, which were included in a student modelled version of the Leibowitz Social Anxiety Scale. The readings on the LSAS ranged from none to severe and never to usually for fear and avoidance, respectively. An Emotion Regulation Questionnaire was used to assess expressive suppression and cognitive reappraisal as social anxiety traits. The items on this questionnaire range from strongly agree to strongly disagree. Additionally, the Acceptance and Action Questionnaire listed items that were contributory in the assessment of experiential avoidance as the third social anxiety trait.

On the questionnaires, the research demanded that the students should highlight their most intense feelings of the day and definitively explain them on the questionnaires. The authors state that these intuitions were characterized by intense feelings of both positive and negative emotions. Further, the authors stipulate that participants provided the daily strategies that they

employed to deal with negative emotions. The distinguished feelings that were assessed included enthusiasm, happiness, pride, curiosity, and amusement. On the other hand, the negative emotions that were evaluated were guilt, nervousness, sadness, shame, and anger.

The analytical process was intense and thorough, ensuring that no participant's data were excluded. The authors categorically arranged the collected information into two groups. The first group placed daily records with individuals while the other group synthesized multistage linear models that included daily data from all the participants. Multiple variables were applied depending on the primary factor being investigated. Therefore, the analytical approach established a concrete research procedure that ensured research-based results that further underpinned the study's objective.

Before highlighting the results of the study, it is essential to note that the number of women who filled at least one record was on a high, recording at a high 64%. Additionally, the age of the participating students ranged between 18 and 54 years resultantly providing a mean age of 22.4 years. The male population underpinned lower cases of LSA demonstrated by 45% of the total participants. Further, female participants recorded the highest incidents of HSA recording up to 73% of the overall population results. The authors further underscored that people portraying symptoms of HSA and LSA both demonstrated similar characteristics of cognitive reappraisal. However, a distinction was observed with regards to expressive suppression and experiential avoidance, whereby LSAs used less experiential avoidance and expressive suppression compared to HSAs. In addition, negative influences across daily activities were experienced by HSAs. Consequently, positive energies were experienced by LSAs across everyday occurrences, with older people mainly defining the LSA category.

The article's discussions and conclusion were consistent with the results of the study. It follows that individuals with high social anxiety were victims of the negative effect of daily occurrences. This is as a result of their overly cautious nature where they are incredibly aware of other people's behavior towards them, which is mainly preceded by assumptions of judgment and rejection. As such, they tend to avoid social gatherings and performance interactions. Therefore, the lack of a properly established social life may underscore an antisocial experience that may be accompanied by loneliness, sadness, and resentment, which brood other negative feelings.

Furthermore, the researchers underpinned that when intensified emotional situations were presented, HSAs substantially employed experiential avoidance, which contrasted with LSAs' response. The authors, underscoring previous cognitive studies, highlighted that the repeated use of experiential avoidance as a response mechanism cultivated negative feelings in the long run. Further research indicates that avoiding present, yet recurring emotions can prove problematic by increasing the chances of unwarranted psychological and physiological challenges. Consequently, the study demonstrates that emotions need to be consciously faced, to enforce better insight into the inhabited needs present in the feeling and evoke a much productive response mechanism.

The study also underscored the response of socially anxious people regarding different emotions. According to the derived results, feelings of increased guilt, nervousness, and sadness triggered elevated the use of experiential avoidance while the response to anger and shame remained constant regardless of the potency. Therefore, the authors conclude that these three emotions elicit a magnified reaction in socially anxious individuals as compared to other pessimistic feelings.

The authors concluded the article by establishing that social anxiety can be treated by primarily focusing on remedying experiential avoidance through tailored therapies. By employing multiple therapy techniques, psychologists and other medical professionals can promote better response techniques in their patients to instigate positive emotions, especially in HSAs. To answer their topic of discussion, the researchers defined that people with both high and low social anxiety employed expressive suppression and cognitive reappraisal dissimilarly in the face of negative emotions. However, when compared to LSAs, the application of experiential avoidance was more in HSAs when introduced to amplified intensities of negative emotion. The response was found to be consistent with HSAs disposition of wanting to minimize the experiences of sadness, nervousness, and guilt. Conclusively, evidence from the article underpins that individuals suffering from social anxiety circumvent negative emotions by reinforcing inflexible emotion regulation.

The study has strengths. One of the advantages the study had was that the use of online questionnaires stood out as a practical approach to collecting data. Questionnaires have been known to establish a much intimate relationship with participants which enhances results. As such, questionnaires provided a safe environment for the students to provide accurate and reliable data without the fear of judgment, which portrays as a predominant trait of social anxiety. Additionally, this questionnaire model offers a practical method of determining trait levels since it dictates a wide range of expressions from which the participants could highlight a definitive response of their feelings and behaviours.

Another advantage underpinned by the study was the constant reminder by the research team to participants to submit their daily reporting. This approach ensured that all the necessary

data was input, which drew consistency in the study, thus reinforcing the final findings. In addition, the approval of the study techniques provided that the survey used ethical and acceptable processes that did not instigate harm on the participants and produced reliable results.

The study has also some weaknesses. The questionnaires stipulated that students should indicate their most intense feelings of the day and consequently provided them with a list of five negative emotions and a similar number of positive feelings to choose from. This limited the expressing the participants' actual emotions.

The method of choosing participants, which included voluntary submission in a rather diverse population, may have proven to be useful since it incorporated a lot of people, which was instrumental in providing more accurate results. While this technique may present as a strength, a critical analysis into this method would highlight a deficiency in the expected results since the outcome is very general.

During the evaluation discussion and before the defining of the results, the authors noted that the obtained results highlighted a significantly higher number of the female population compared to the male number of participants. This misrepresentation of the population uncovered a limitation in the determination of equality measures when selecting participants.

The concluding results by the study indicated that three emotions, namely guilt, nervousness, and sadness, produced an exaggerated response as emotions of negative feelings increased compared to other negative emotions. While this was a compelling discovery, however, the

justification of the three pronounced emotions was not consciously defined or explained in the article and that stimulates suspense in the literature, which resultantly highlights as a shortcoming by the authors.

5.Trait and Daily Emotion Regulation in Social Anxiety Disorder (Blalock, Kashdan, Farmer, 2016)

Emotion regulation strategy is a wide area within mood and anxiety disorders. Despite this fact, there is a few studies that investigate individuals with social anxiety disorder (SAD) versus healthy control group. Most studies in the field focused on emotion recognition, interpretation and experience whereas disregarding how emotions are changed.

Blalock et al. (2016) carried out an investigation expanded previous study by employing an experience sample design in order to evaluate use of emotion regulation strategy in individuals suffering from SAD and healthy adults group who were matched demographically. End of days reports were used as well as primal trait questionnaires over 14 days.

The authors (2016) had an opportunity to assess how overall sense of emotion regulation and daily report of emotion regulation method interconnected, as well as, their effectiveness in estimating daily positive and negative emotional experiences. From this construction, they conducted four hypotheses. The first; expectation was that trait levels in emotion regulation, particularly lower reappraisal and higher suppression of both positive and negative emotions was estimated by a diagnosis of SAD. The second; every day levels of emotion regulation were estimated by a diagnosis of SAD. Third hypotheses expected that a diagnosis of SAD would measure the degree to what type of emotion regulation estimated every day emotional experience. The fourth hypothesis and the last expected that there would be an association

between report of trait emotion regulation and every day emotion regulation usage. Indeed, the authors had expectations related to individuals suffering from SAD to usually report and have an experience regarding emotion regulation difficulties. However, their principal emotion regulation usage might have been weaker for positive compared to negative emotions. And this assumption is suited to the previous study by Kashdan et al. (2013) supporting that the two well predictor of were not the existence of anxiety. Instead, it was anxiety avoidance and deficiency of positive emotions through the everyday social interactions.

The method used in the research involved 86 people divided into individuals suffering from generalized SAD and healthy controls (HC). However, three people with SAD and four healthy controls were not included to the study because of inadequate experience sampling data. For this reason, there were 40 people with SAD and 39 healthy controls who did not have problem regarding being matched on three factors including age, gender, and ethnicity. Most of the participants were female, 64.6 %.

Individuals were selected from the community in the Northern Virginia via online advertising. When possible participants were called to state wish to take a place in the analyse, a research assistant who was trained concluded first phone screening and planned in person meeting with potential participants who would have been in the SAD or health control groups.

In the SAD group, if there were other comorbid psychiatric conditions, generalised SAD must be the primary. Because of the worry about the risk and the validness of reports, exclusion criteria included three major factors consisted of comorbid substance dependence,

symptoms of psychosis, and active suicidal thought. For healthy control groups, the inclusion criteria were only not to have Axis I diagnosis. Thus, 36 individuals were removed from the sample group because they met this exclusion criteria.

Individuals were instructed to complete experience sampling inputs for the sequent 14 days. Individuals were requested to entered into an online web portal from six p.m. to next noon for the end of day inputs. The time chosen was preferred to near the bed time and the waking time in order to decrease memory biases. There were lots of attempts such as brief measurements and encouragement-based award in order to get better outputs.

In the measurement of the study, the Structured Clinical Interview for DSM-IV Axis I Disorders (SCID- I/NP) was used by a clinical psychology student who had doctoral level for the clinical interview. It was employed to evaluate SAD, mood disorders and another Axis I disorder. In order to examine usual emotion regulation strategy use, individuals were asked to complete 10 item Emotion Regulation Questionnaire (ERQ). The benefit of this measure was that it provides an opportunity in order to understand the individuals' tendency towards employing emotion suppression and cognitive reappraisal in a better way. 36 item Difficulties in Emotion Regulation Scale (DERS) in order to assess personal discriminations in the perceived challenges related to regulating emotions was used. Six significant aspects of challenges were better understood by six subscales. These aspects were nonacceptance of emotional responses, issues joined in goal directed behaviour, impulse control difficulties, deficiency of emotional control awareness and clarity and, restricted access to emotion regulation strategies, respectively. In the measurement of daily emotion experiences, individuals assessed how much word regarding emotion chosen from the Positive and Negative Affect Schedule- Expanded Form (PANAS-X) explained their experiences

regarding emotion. Participants were asked to define emotion regulation strategies that they used during the course of every day with a modified type of the ERQ items. The authors have selected two items including one positive and one negative from the reappraisal and suppression.

It has been found that SAD group informed that they had higher degree of negative emotions and less quantity of positive emotions during 14 days experience sampling period. In tested hypothesis 1, they found that SAD group had higher employing of emotion suppression than health control participants. They also reported that they employed less cognitive reappraisal in order to make a change in their emotional stages. In order to test hypothesis 2, the rate of variables was evaluated by the researchers and it was explained by between persons factors in their every day because there were huge variabilities.

They created multilevel models that were used to test hypothesis 3. The findings showed that when participants used lower daily positive suppression, more daily negative suppression and daily positive reappraisal, their positive emotions were greater. There was not found any associations for negative emotions but across all individuals who participated in the study, it has been found that negative emotions were higher when greater daily positive suppression, less daily negative suppression and less daily positive reappraisal were employed.

In the last hypothesis, they preferred to use multilevel models. This model was used to assess every four-trait level emotion regulation strategy, diagnostic group and their associations with each other.

The aim of this study was to evaluate if and how people dealing with SAD were different compared to health adult population from the point of characteristic sense of emotion

regulation strategies, every day usage of these strategies and the impacts of these strategies on every day emotions. The outputs provide supports to the transdiagnostic state of difficulties of emotion regulation because people with SAD usually tended to employ fewer healthy emotion regulation strategies. Recent research in the literature was expanded by this study because people suffering from SAD showed the identical pattern of growing emotional suppression and declined emotional reappraisal in their everyday lives, in contrast to healthy population. Also, every day positive and negative emotions were better estimated by daily emotion regulation use rather than trait emotion regulation.

There were outcomes related to the comparison trait and state emotion regulations. This study focused on evaluating the associations between one-time retrospective reporting whole emotion regulation to daily, using of emotion regulation within contextualised report. Another finding of the study was that emotion regulation measured emotion regulation on an everyday level intensified to estimate the emotional condition of people who both suffering from SAD and without SAD.

It also has been found some results regarding the impacts of emotion regulation on daily emotions in SAD. People with SAD inform emotion regulation difficulties to the extent of trait and daily and this ensures a specific area where emotion dysregulation rises. Actually, past research with this people who participated in this study has already indicated that people suffering from SAD own fewer positive emotions and further negative emotions.

Overall, this study can be capturing the specific affective estimating misconceptions of people with SAD. According to the authors, the tendency to assume how these people will deal with stressful life events in future is not open to objectivity. It ends in overthinking of

negative situations related to the way will be sealed with and undervaluing of prospering coping pleasure.

The study has both strengths and limitations. One of the significant strengths of the study was the method. The experiment used heterogeneous participants with mixed ratios of women and men, Caucasian, Latino, Asian, and Asian-American. The second strength of the article was the usage of Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) of the American Psychiatric Association for the criteria for the diagnosis of generalized SAD. Another strength of the study was the statistical data presentation. These provided reliability and validity to the study. Additionally, usage of different type of measures such as ERQ, DERS, PANAS-X was other benefit of the study.

Lastly, exclusion and inclusion criteria were other strength of the study. On the one hand, inclusion criteria show the eligibility of the study and it also demonstrated that the features of target population in the study. On the other hand, exclusion criteria prevent the risk factors related to the comorbidities with other disorders in the research as it has been clearly seen in this study.

The study also has limitations. One of the limitations was the usage of self-reporting for emotion regulation usage and positive and negative emotions. For this reason, data collection was also subjective. Another weakness of the study was descriptive connects of emotion regulation usage and positive and negative effects in people who suffered from SAD and who were not with SAD. This limited the study so other aspect might be focused in order to expand the area.

DISCUSSION

While the social anxiety disorder (SAD) has showed an increase progressively all over the world every year, understanding the effect of emotion regulation strategies on the disorder becomes more important. It is believed that the use of dysfunctional emotion regulation strategies included higher expressive suppression and lower cognitive reappraisal are one of the core mechanisms in the maintenance of anxiety and mood disorders, including SAD. In the literature, the process model of emotion regulation pioneered by Gross (1998) has an essential role to understand the contribution of these strategies. Additionally, a current research conducted by Gross (2015) suggested the idea by showing people who had great social anxiety symptoms demonstrate lower usage of functional strategies such as reappraisal and employ more dysfunctional strategies like suppression. Additionally, cognitive behavioural therapy (CBT), which is considered to be the most effective psychological treatment by the most psychologists, has an essential role to understand the effect of two particular parts of emotional regulation in the treatment of SAD. Therefore, dysfunctional

emotion regulation is an obvious issue in the disorder and needed to be considered and evaluated.

The literature review has attempted to understand the role of employing of emotion regulation strategies in SAD and the effect of CBT on the evaluation of emotion regulation by focusing on measuring changes in SAD during the therapy, intensity among individuals and overall satisfaction of a client with five papers. Four questions have been settled at the centre of this study. Firstly, what the influence of CBT on emotional regulations included expressive suppression and cognitive reappraisal, their relations with the satisfaction of the patients' lives, and the change in the intensity of social anxiety symptoms are. Secondly, the relationship between emotion knowledge and emotion regulation strategies and SAD. Thirdly, exploring emotion flexibility in socially anxious people and lastly, evaluating use of emotion regulation in people with SAD. All studies have common strengths that increase their effectiveness.

Methodologically, all five studies were evaluated by quantitative method using between groups t-tests, Granger causality analysis, linear regression, multilevel linear models, and hierarchical linear modelling.

The four studies relied on the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) of the American Psychiatric Association for the criteria for the diagnosis of SAD. Only one study did not mention about that (Toole et al., 2017).

Additionally, the measuring instruments such as Emotion Regulation Questionnaire and Liebowitz Social Anxiety Scale (LSAS) was also beneficial for the studies.

4.1 Limitations:

The studies selected has some weaknesses. Some limitations need to be addressed.

The study of Goldin et al. (2014) have argued that SAD can reduce through CBT by training an individual in skills of emotion regulation. The authors have used weekly changes through the sixteen sessions per week. However, because of using weekly, the conclusions drawn from the study are limited to temporal resolution, specific processes of emotion regulation and the measurement mode. For the study to produce valid results there is need for a prolonged assessment other than just being the argument on weekly sessions. There is need to establish whether the results will be long term and therefore the study should do a follow up on the patients to know the rate of success or failure. Another limitation is only using one form of psychotherapy. By using just one type of psychotherapy, the findings tend to be narrow and studying social anxiety becomes limited. Patients should be introduced to different kinds of psychotherapy to establish which is more effective in the treatment. Another need is to use different types of therapies in order to compare the efficacy of CBT to other forms of psychotherapy. The different methods of treatment can be used together to conveniently and effectively treat social anxiety disorder. Therefore, future studies should do a comparison of different types of emotion regulations.

On the other hand, the study of Jazaieri et al. (2017) has some limitations. Firstly, the procedure used in the study was loss of time because of the limited time to observe the behavioural changes of the participants. A longer time is needed to measure the change in the behaviour because socially anxious people are motivated by negative emotions rather than positive emotions. And they cannot have conscious related to this. Therefore, in order to

understand change pattern in the study better, the study needs to be expanded time period in the therapy sessions. Secondly, the study mainly relied on CBT for the treatment of the SAD. There is a need to add another therapy in the study to show the evidence that prove the effect of CBT for SAD and the reliabilities of the outputs from the use of emotional regulations included expressive suppression and cognitive reappraisal. Thirdly, issues with emotion regulation is transdiagnostic process for mood and anxiety disorders. Therefore, there is a need to understand if the outcomes of the research are specific to SAD.

Given that issues with emotion regulation are thought to be a transdiagnostic characteristic of most mood and anxiety disorders. Thus, future studies should focus on taking advantage from inclusions of people suffering from other psychiatric disorders to specify if the variances measured in this study are particular to individuals with SAD or they can be generalizable across mood and anxiety disorders.

Another weakness was that the study did not provide convenient difference between two emotion regulation strategies. The study rightly mentions that cognitive reappraisal gave more positive results than expressive suppression as applied in the concept of emotion regulation and satisfaction with life but did not explain the rationale under which these findings were accurate. For example, the authors did not tell the reasons why the expressive suppression was not as suitable as cognitive reappraisal by highlighting that the former was only used to suppress or hide emotions, which were likely to erupt after some time. On the impact of CBT on emotion regulation and satisfaction with life, the study did not give the conditions under which the individuals suffering from SAD should be subjected to CBT so that optimum results could be achieved.

The study of Skytte et al. (2014) has also some limitations. One of the issues related to the study was the type of participants. The moods and hence emotion regulation strategies could be influenced by the routine of students such as during exams or other such kind of stressful days, the behaviour of students may change. Similarly, in any circumstances the response of an individual may differ depending upon the context. Furthermore, the research could have been further developed by careful selection of participants. The minimum score for high social anxieties (HSAs) could have been set at 55 and the average HSAs score could have been mentioned. Additionally, the reasons of positive experience could have been considered in the research. The positive emotion expression contributes towards expansion of positive experience. The authors of under review have not considered this fact too. These are important aspect and contributors of SAD. The inclusion of reasons of positive and negative experience could have increased the authenticity of this research. Because the reasons of positive and negative experiences were found prior to the under-review paper.

The fourth study conducted by Toole et al. (2017) has weaknesses. The questionnaires restricted the participants to express their emotions in terms of presenting a list of five negative emotions and positive emotions. However, the list of emotions, perhaps, close-knitted and did not necessarily cover all vital angles of emotions such as apathy and courage, which are characteristic in defining human emotion and especially when quoting social anxiety. The questionnaire would have been more efficient had it allowed the participants to dictate their feelings without choosing from a few given choices.

The method of choosing participants which involved submission voluntarily has limited the study because it actually does not explain the influence of several potential determinants such as the race, social background, and other defining contributors.

The last study designed by Blalock et al. (2016) includes limitation. The weakness was using of self-reporting in the study. Collecting information about cognitions or emotions is only functional if participants are willing to reveal them to the studies. Therefore, participants can try to give the true answers they consider the researchers are asking for and try to give the most acceptable responses by the society. And this can lead to distrusted responses.

4.2.Future

The future studies specifically need to be focused on the emotion regulation strategies in individuals with SAD. Because emotion regulation is a transdiagnostic factor, future studies should compare SAD with other disorders in order to find out whether the results were specifically related to the social anxiety disorder.

In the literature almost, no research has analysed how the usage of emotion regulation strategies inclusive of circumstances of SAD affects life satisfaction, and the extent to which therapy affects the relation between emotion regulation and life satisfaction. Thus, there is a need to focus on this area of the studies.

CONCLUSION

To sum up, individuals with SAD have an intense fear or avoidance regarding the social situations drives the anxiety. SAD is also associated with the dysregulation in emotion regulation. Specifically, two parts of the emotion regulation strategies included expressive suppression and cognitive reappraisal are associated with the dysfunction in SAD. The aim of this review is how the use of emotion regulation strategies is important to understand social anxiety disorder. The influence of cognitive behavioural therapy (CBT) on measuring change and two definite forms of emotional regulations in individuals with SAD are also evaluated in the study.

REFERENCES

- American Psychiatric Association. (2013). *Diagnostic and Statistical Manual of Mental Disorders (5th ed.)*. Washington, DC: American Psychiatric Association
- Beck, A. T., (1976). *Cognitive therapy and the emotional disorders*. New York: Meridian.
- Blalock, D. V., Kashdan, T. B., & Farmer, A. S. (2016). Trait and Daily Emotion Regulation in Social Anxiety Disorder. *Cognitive Therapy and Research*, 40: 416-425. doi: 10.1007/s10608-015-9739-8
- Boden, M. T., John, O. P., Goldin, P.R., Werner, K., Heimberg, R.G., & Gross, J. J. (2012). The role of maladaptive beliefs in CBT: Evidence from social anxiety disorder. *Behav Res There* 50(05), 287-291. doi: 10.1016/j.brat.2012.02.007
- Bosse, T., Pontier, M., & Treur, J. (2008). A Computational Model based on Gross' Emotion Regulation Theory.

- Farmer, A. S., & Kashdan, T. B. (2012). Social anxiety and emotion regulation in daily life: Spillover effects on positive and negative social events. *Cognitive Behavior Therapy*, 41(2), 152-162. doi: 10.1080/16506073.2012.666561
- Goldin, P. R., Lee, I., Ziv, M., Jazaieri, H., Heimberg, R. G., & Gross, J. J. (2014). Trajectories of change in emotion regulation and social anxiety during cognitive-behavioral therapy for social anxiety disorder. *Behaviour Research and Therapy*, 56, 7-15. doi: 10.16/j.brat.2014.02.005
- Gross, J. J. & John, O. P. (2003). Individual Differences in Two Emotion Regulation Processes: Implications for Affect, Relationships, and Well-Being. *Journal of Personality and Social Psychology*. 85(2). 348-362. doi:10.1037/0022-3514.85.2.348
- Gross, J. J., & Thompson, R. A. (2007). Emotion regulation: Conceptual foundations. In J.J. Gross (Ed), *Handbook of emotion regulation* (pp.3-24). New York: Guilford
- Gross, J. J. (1998). The Emerging Field of Emotion Regulation: An Integrative Review. *Review of General Psychology*. 2(3), 271-299.
- Heimberg, R. G., (2002). Cognitive bahvioral therapy for social anxiety disorder: Current status and future directions. *Biological Psychiatry*, 51, 101-108
- Hofmann, S. G. (2007). Cognitive factors that maintain social anxiety disorder: a comprehensive model and its treatment implications. *Cognitive Behavior and Therapy*, 36(4), 193-209. doi: 10.1080/16506070701421313
- Hofmann, S. G., & Dibartolo, P.M. (2014). Social Anxiety: Clinical, Developmental, and Social Perspectives. 3, p.520.
- Hofmann, S. G., Heering, S., Sawyer, A.T., Asnaani, A. (2009). How to Handle Anxiety: The Effects of Reappraisal, Acceptance, and Suppression Strategies on Anxious Arousal. *Behav Res Ther'* 47(5). 389-394. doi: 10.1016/j.brat.2009.02.010

- Hofmann, S. G., Sawyer, A. T., Fang, A., & Asnaani, A. (2012). Emotion dysregulation model of mood and anxiety disorders. *Depression and Anxiety, 29*(05), 409-416. doi: 10.1002/da.21888
- Jazaieri, H., Goldin, P. R., & Gross, J. J. (2017). Treating social anxiety disorder with CBT: Impact on emotion regulation and satisfaction with life. *Cognitive Therapy and Research, 41*(3), 406-416. doi: 10.1007/s10608-016-9762-4
- Jazaieri, H., Morrison, A.S., Goldin, P. R., & Gross, J.J. (2015). The Role of Emotion and Emotion Regulation in Social Anxiety Disorder. *Current Psychiatry Reports, 17*:531. doi :10.1007/s11920-014-0531-3
- Juretic, J., & Zivcic-Becirevic, I. (2013). Social anxiety, beliefs about expressing emotions, experiencing positive emotions. doi: 105772/55110
- Kessler RC, Ruscio AM, Shear K, Wittchen HU. (2010)/ Epidemiology of anxiety disorders. *Curr Top Behav Neurosci. 2*:21–35. doi: 10.1007/7854_2009_9.
- O'Toole, M. S., Zachariae, R., & Mennin, D. S. (2017). Social anxiety and emotion regulation flexibility: considering emotion intensity and type as contextual factors. *Anxiety, Stress, & Coping, 30*(6), 716-724. doi: 10.1080/10615806.2017.1346792
- Skytte, M., Morten, O. T., & Jensen, B. (2014). Emotion Differentiation and Emotion Regulation in High and Low Socially Anxious Individuals: An Experience-Sampling Study. *Cognitive Therapy and Research, 38*, 428–438. doi: 10.1007/s10608-014-9611-2
- Tugade, M. M., & Fredrickson, B. L. (2007). Regulation of Positive Emotions: Emotion Regulation Strategies that Promote Resilience. *Journal of Happiness Studies, 8*:311-333. doi:10.1007/s10902-006-9015-4
- Werner, K. H., Goldin, P. R., Ball, T. M., Heimberg, R. G., & Gross, J. J (2011). Assessing emotion regulation in social anxiety disorder: The emotion regulation interview. *Journal*

of Psychopathology and Behavioral Assessment, 33:346-354 doi: 10.1007/s10862-011-9225-x

