COGNITIVE BEHAVIOURAL INTERVENTIONS FOR PERSONS LIVING WITH POST-TRAUMATIC STRESS DISORDER

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ABSTRACT
The purpose of this paper is to provide a description of specific clinical interventions that can be used by cognitive behavioral therapists working with clients who are experiencing post-traumatic stress disorder. Post-traumatic stress disorder (PTSD) is a stress-related disorder that may occur following exposure to a traumatic event. Cognitive behavioral therapy (CBT) is a structured psychotherapeutic approach built on a collaborative relationship between the client and the psychotherapist. One of the most effective PTSD management involves the use CBT techniques aimed at correcting the victims' erroneous cognitions and to engender emotional processing of the trauma. The paper reviews the literature on psychotherapy in PTSD and provides some practical ways for therapists to use when they are faced with patients having past-traumatic disorders.

Keywords: *psychotherapy, cognitive behavioral therapy, post-traumatic stress disorder*

INTRODUCTION

Mental disorders affect a great number of people worldwide. It is estimated that one quarter of the adult population of the United States suffer from a diagnosable mental disorder. (Khoury & Ammar, 2014). According to the World Health Organization (WHO), among the top 10 leading causes of disability in developing countries, four are mental illnesses. The importance of making mental health services more accessible to the population is vital in treating people with mental health problems. Studies indicate that only a small minority of people in the population develops post-traumatic stress disorder (PTSD) (Atwoli, Stein, Koenen, & McLaughlin, 2015) even though the vast majority are exposed to traumas at some time in their life (Benjet et al., 2016). This has raised questions about the individual differences in psychological vulnerability to PTSD. One prior consideration is the possibility that PTSD risk varies significantly by trauma type. Such differences have been documented, with highest PTSD risk thought to occur after traumas involving interpersonal violence (Caramanica, Brackbill, Stellman, & Farfel, 2015; Fossion et al., 2015). A related line of research suggests that trauma history is a risk factor for subsequent PTSD, with prior traumas involving violence again possibly of special importance (Lowe, Walsh, Uddin, Galea, & Koenen, 2014; Smith, Summers, Dillon, & Cougle, 2016). Victims of trauma feel depressed or anxious and they think about themselves and their life in a pessimistic, self-critical way. Psychotherapy is one of the treatment options that a person suffering from a psychological disorder has. Psychotherapy usually involves one-on-one session between a trained psychotherapist and a client during which the client's problems or stressors are discussed (Khoury & Ammar, 2014). The aim of psychotherapy is to resolve these problems in a way that will ensure a better quality of life for the client (Khoury & Ammar, 2014).

One of the most effective management for PTSD involves the use of cognitive behavioural therapy (CBT) aimed at correcting the victims' erroneous cognitions and to engender emotional processing of the trauma. Cognitive behavioral therapists believe that these negative thinking patterns actually cause the victims to feel depressed and anxious. Accordingly, when PTSD victims are able to think about their problems in a more positive and realistic way, they experience greater self-esteem, intimacy and productivity (Burns, 1990). CBT for persons with PTSD aims to correct the victims' erroneous cognitions and to engender emotional processing of the trauma (Jaycox et al., 2002). Furthermore, CBT helps the victims to learn to change the way they think, the way they believe, and the way they feel. CBT usually includes components of

having the clients expose themselves to memories of the trauma (Imaginal exposure) and to real life fearful situations real -life exposure), as well as cognitive restructuring. Therefore, the main focus of this review is to discuss how different cognitive behaviour therapy has been used in treating PTSD and how to best integrate and apply these approaches and techniques.

POST-TRAUMATIC STRESS DISORDER

The concept of trauma covers a wide range of life experiences. The definition of trauma according to the Diagnostic and Statistical Manual of Mental Disorders, fourth edition (DSM-IV) diagnosis for post-traumatic stress disorder (PTSD) is having or witnessing a life-threatening experience. In 2013, the American Psychiatric Association revised the PTSD diagnostic criteria in the fifth edition of its Diagnostic and Statistical Manual of Mental Disorders (DSM-5; 1). PTSD is included in a new category in DSM-5, Trauma- and Stressor-Related Disorders. The diagnostic criteria for PTSD in DSM-5 is an exposure to actual or threatened death, serious injury or sexual violation. Stress, on the other hand, is defined as being experienced when an individual is confronted with a situation that is appraised as personally threatening and for which adequate coping resources are unavailable. These two definitions, according to Comstock (2005), can include non-human related traumas such as natural disasters or accidents as well as any human-related abuse such as war experience, rape, domestic violence, assault, or childhood sexual or physical abuse or neglect.

The psychological effects of trauma have been described throughout military history. Da Costa syndrome (“soldier’s heart”), which is characterized by cardiac symptoms associated with irritability and increased arousal, was described in veterans of the American Civil War (Grinage, 2003). It was first identified during World War I, when soldiers were observed to suffer chronic anxiety, nightmares, and flashbacks for weeks, months, or even years following combat. This condition came to be known as “shell shock.” It resulted from brain trauma caused by exploding shells. During World War II, terms such as “combat neurosis” and “operational fatigue” were used to describe combat-related symptoms.

The Vietnam War significantly influenced the current concept of PTSD. It first appeared in the Diagnostic and Statistical Manual of Mental Disorders, third edition (DSM-III) (American Psychiatric Association, 1980). Since the DSM-III established criteria for the diagnosis of PTSD for traumatized adults, there has been increasing recognition that children also develop severe reactions to traumatization.

The DSM-IV-TR (APA, 2000) describes three cardinal sets of symptoms in PTSD:(1)a re-experiencing of the trauma (including memories, nightmares, and/or flashbacks);(2) avoidance of internal and external cues associated with the trauma(which can include feelings of numbness or detachment); and (3) increased arousal (including insomnia, irritability, impaired concentration, and hypervigilance).This means that a precipitating traumatic event is necessary, but not sufficient, to make the diagnosis of PTSD. The criteria for diagnosis specify factors concerning the victim’s perception of the trauma as well as the duration and impact of associated symptoms, including persistent experiencing of the traumatic event, marked avoidance of usual activities, and symptoms of increased arousal. According to the DSM-IV-TR (2000), before a diagnosis of PTSD can be made, symptoms must last for at least one month and must significantly disrupt normal activities. In persons who have survived a traumatic event, an anxiety syndrome that lasts for less than one month is termed “acute stress disorder.” This condition requires three more dissociative symptoms in addition to the persistent symptoms associated with PTSD. Symptoms of PTSD that last less than three months indicate an acute condition. A delayed picture occurs in patients who begin experiencing symptoms six months or more after the traumatic event.

The Diagnostic and Statistical Manual of Mental Disorders (5th ed.; DSM–5; American Psychiatric Association, 2013) on Posttraumatic Stress Disorder (PTSD) is included in a new chapter in DSM-5 on Trauma- and Stressor-Related Disorders. The DSM-5 pays more attention to the behavioral symptoms that accompany the PTSD. The DSM-5 lists four clusters instead of

three major symptom clusters for PTSD found in DSM-IV. The diagnostic criteria for PTSD in DSM-5 as exposure to actual or threatened death, serious injury or sexual violation. They are described as re-experiencing, avoidance, negative cognitions and mood, and arousal.

- Re-experiencing covers spontaneous memories of the traumatic event, recurrent dreams related to it, flashbacks or other intense or prolonged psychological distress.
- Avoidance — Avoidance refers to distressing memories, thoughts, feelings or external reminders of the event.
- Negative thoughts and mood or feelings — For example, feelings may vary from a persistent and distorted sense of blame of self or others, to estrangement from others or markedly diminished interest in activities, to an inability to remember key aspects of the event.
- Finally, arousal is marked by aggressive, reckless or self-destructive behavior, sleep disturbances, hypervigilance or related problems
- DSM-5 (APA, 2013) requires that a disturbance continue for more than a month and would eliminate the distinction between acute and chronic phases of PTSD. The disturbance, regardless of its trigger, causes clinically significant distress or impairment in the individual's social interactions, capacity to work or other important areas of functioning. It is not the physiological result of another medical condition, medication, drugs or alcohol

In a study of the psychological clients of trauma, Kessler and colleagues (1995) reported that a number of the traumas assessed were related to crime, either committed in childhood (child abuse, molestation, neglect) or adulthood (rape, physical assault, threat with a weapon).For example, rape was identified as the trauma most likely to lead to PTSD among men, as well as women, and 65% of men and 46% of women who identified rape as their worst trauma developed PTSD. The disorder may occur at any age, even in childhood. Symptom duration is variable and is affected by the proximity, duration, and intensity of the trauma as well as comorbidity with other psychiatric disorders. Foy (1992) suggests that biological factors may play a role in determining who develops PTSD after a traumatic event and who does not. However, Foy does not specify the nature of the biological factors involved. Litz, Penk, Gerandi, and Keane(1992) report in their study that between 60% and 100%of PTSD patients meet criteria for at least one other Axis I disorder, such as major depression and substance abuse.

Grinage (2001) reports that the patient's subjective interpretation of the trauma also influences symptoms. In patients who are receiving treatment, the average duration of symptoms is approximately 36 months. In patients who are not receiving treatment, the average duration of symptoms rises to 64 months. More than one-third of patients who have PTSD never fully recover (Grinage, 2001). Studies demonstrate that cognitive behavioral therapy (CBT) is effective in reducing the symptoms of PTSD and depression resulting from traumatic events (Jaycox, Zoellner, & Foa, 2002; Resick, 2002). Foa and Rothbaum (1991) compared 45 rape victims who were randomly assigned to stress inoculation training (SIT), prolonged exposure (PE), supportive counseling, and no treatment controls. They found SIT and PE clients significantly improved on measures of PTSD, depression, and anxiety, 50% of the SIT group no longer met the criteria for PTSD, while 40% of those treated with PE no longer met criteria for PTSD. In contrast, 90% of the supportive counseling group, and all the victims on the waiting list still had PTSD. Resick and Schnicke (1992) compared rape victims who received cognitive processing therapy (CPT) with a waiting-list comparison sample and found CPT to be highly effective.

COGNITIVE BEHAVIOURAL TREATMENT

Cognitive behavioral therapy (CBT) is a structured psychotherapeutic approach built on a collaborative relationship between the patient and the psychotherapist. It is a short-term treatment that requires an average of 12sessions. One of the main elements of CBT is psychoeducation, a

process by which a therapist provides the client with information about the process of therapy and about their condition (Khoury & Ammar, 2014).

Some of the elements of CBT include education on stress and strategies specific relaxation techniques such as deep breathing exercises and progressive muscle relaxation that clients can use on their own when feeling distressed. The therapist helps the patient set goals for treatment and along the sessions, progress is monitored. The cognitive aspect of this approach focuses on identifying the patient's maladaptive beliefs about themselves after which the therapist challenges these beliefs in the aim of replacing them with more adaptive ones. In the first step, the client's automatic thoughts is explored and the client is asked to recount recent negative events An automatic thought is the first thought a person has after a certain event. Patterns usually emerge, as patients tend to think in similar ways when faced with different situations. For example, if they fail a test, they might have the automatic thought 'I am a failure'. Through exploring the pattern in these automatic thoughts, maladaptive beliefs start to surface (Beck, 2011) Once the maladaptive beliefs are identified they are challenged and replaced with more adaptive ones. Challenging maladaptive beliefs is done through reality testing, an exercise during which the client is asked to present evidence for and against their beliefs to see whether they are correct or not. Client is then challenged to draw a pros and cons table and write down evidence for and against this belief. Once they realize that this belief is not supported by evidence, clients can then be taught how to replace that belief with a more adaptive one (Beck, 2011). The use of behavioral experiments in the form of homework can also help in that change. Completion of a mood log at home is incorporated when client notes situations that happen during the day and the resulting emotions and thoughts that accompany the event.

Stress Inoculation Training

Stress inoculation training (SIT) is a cognitive behavior treatment package originally developed by Meichenbaum (1985) for the management of anxiety to help clients master their fear by teaching a variety of coping skills. SIT (Kilpatrick & Amick, 1985) helps clients understand and manage their trauma-related fear reactions, which results in a decrease of avoidance behavior. SIT consists of three phases: education, training of coping skills, and application. It is comforting to individuals with PTSD to learn that their symptoms are in fact common reactions to a trauma.

The educational phase consists creating a working relationship with clients (Leahy & Holland, 2000; Resick, 2001). This is mainly done by discussing the various PTSD symptoms as well as other common reactions to trauma such as anger and guilt. Clients are given an explanation for their trauma symptoms based upon the two-factor theory (classical conditioning of fears and escape or avoidance of fear cues). They are taught to identify their different modes of responses, including emotions, behaviors, physical reactions, and thoughts. Although all PTSD symptoms are common reactions to trauma, each individual client responds in unique ways. Discussion emphasizes the client's own reactions to trauma. Diagnostic symptoms of PTSD and other common reactions such as feelings of being down, being depressed, or sadness are especially common as depressive-symptoms are explained. Careful attention is paid to suicidal ideation, and appropriate risk assessment is conducted, if any.

The second phase of SIT is the training of coping skills that include muscle relaxation and breathing control. Clients are first taught progressive muscle relaxation and are asked to practice this during and between sessions. The use of relaxing imagery is also introduced. During the relaxation training sessions, the therapist also helps clients identify where they tend to carry their stress and helps them identify cues that trigger fear reactions. Finally, the clients are usually trained in some form of brief relaxation that they can use quickly anywhere. The relaxation skills assist the person physically, emotionally, and cognitively.

Breathing retraining is taught to help the client manage anxiety and stress (Jaycox et al., 2002). The goal of breathing retraining is to slow down the breathing and separate breaths. The therapist explains how breathing influences the way the client feels. The therapist may instruct the client to take a normal breath and exhale very slowly, uttering the word "calm" to him/herself as the client exhales. Clients are encouraged to practice this skill daily. Thought stopping skill is also used to control anxiety (Resick, 2001). When clients begin to worry they are taught to say "stop" out aloud at first and eventually silently in order to stop circular thinking. They are then instructed to modify and redirect their negative thinking to problem-solving steps. This guided self-dialogue and cognitive restructuring helps clients to both assess the rationality of their beliefs and to replace their maladaptive thinking with more positive and adaptive cognitions. Finally, modeling and role-plays address behavioral avoidance. Modeling involves the demonstration of the desired coping behaviors in a feared or stressful situation such that the client can imitate them. Feedback and reinforcement can be used to maintain the desired behaviors. In the third phases of treatment, clients learn how to apply these coping skills step-by-step in daily situations that provoke anxiety.

Exposure-Based Treatments

Exposure therapies are designed to treat clients' fears and other negative emotional responses by introducing clients to situations that contributed to such problems (Corey, 2005).The therapist helps the PTSD client confront feared, but not dangerous, situations. The therapeutic goal is to activate trauma-related fear and then modify the pathological elements that are thought to maintain PTSD. This goal is achieved though repeated, prolonged confrontation of feared situations and images.

Real-Life (in vivo) Exposure to Feared Situation

By encouraging a person to repeatedly confront situations that she/he feels are dangerous, the situations themselves become increasingly less distressing as the anxiety response decreases. The realization about the safety of the situation is confirmed, and the belief that anxiety in the feared situation will continue forever is disconfirmed. Finally, real-life or *in vivo* exposure enhances self-control and competence (Jaycox et al., 2002). The therapist inquires about a variety of domains in a person's life, most especially on the trauma-related fears that are most disruptive in the client's life at present and what situations provoke the most anxiety. Both the client and the therapist monitor distress by using the Subjective Units of Discomfort Scale (SUDS). SUDS is rated on a 0 to 100-point scale, where 0 indicates "no discomfort at all" and 100 indicate "severe discomfort." Helping the client understand the scale gradations allows for better client–therapist communication as therapy progresses. A SUDs level is obtained for each item, and items are rank ordered. Together, the therapist and the client choose situations that moderate levels of anxiety (e.g., SUDS=50) for the initial exposure assignments. The client is instructed to remain in each situation for 30 to 45 minutes, or until her/his anxiety decreases considerably (at least 50%). Emphasis in these first exposures focuses on maximizing client success and further solidifies the exposure rationale as a basis for later, more difficult items. As therapy proceeds, items higher on the hierarchy of feared situations are approached. A good therapeutic rule of thumb is never allowing a client to attempt a task unless there is confidence that the client will succeed. At the end of therapy, SUDS scores are again obtained for each situation so that progress and areas that need further work can be discussed.

Prolonged Imaginal Exposure Therapy

During the therapy sessions, the clients are asked to close their eyes and to relive what happened to them aloud in the present tense with as much detail as possible, including sensory details (sights, smells, sounds, sensations) as well as emotions and thoughts. Prolonged exposure usually lasts approximately 45 to 60 minutes per session. The client is encouraged to repeat the story as often as necessary to allow for extended engagement with the memory and

the use of anxiety reduction. Following the reliving of the event, time is allowed for the client to discuss his/her reactions during and after the exposure.

Cognitive Processing Therapy

The cognitive processing therapy (CPT) was developed specifically as a combination treatment to treat specific symptoms of PTSD in sexual assault trauma survivors(Resick & Schnicke, 1992,1993)According to Resick and Schnicke (1992,1993), CPT was developed to facilitate the expression of affect and the appropriate accommodation of the traumatic event with more general schemas regarding oneself and the world. Resick and Schnicks (1992) argued that PTSD is not focused on one emotion, fear, but also other emotions, such as anger, humiliation, shame, and sadness that may also result from trauma. Resick and Schnicks (1992) believed that the traumatic event might become distorted (assimilation) in the victim's attempt to maintain old beliefs and schemas about themselves and the world.

Developed originally for use with rape and crime victims, CPT was adapted from basic cognitive techniques explicated by Beck and Emery (Resick, 2001).Whereas Beckian cognitive therapy usually focuses on challenging current maladaptive beliefs, CPT begins with the trauma memory and focuses on the feelings, beliefs, and thoughts that directly emanated from the traumatic event. The therapist then helps the clients examine whether the trauma appeared to disrupt or confirm beliefs prior to this experience and explores the extent to which the clients have overgeneralized (over-accommodated) the event to their beliefs about themselves and the world. Clients are then taught to challenge their own self-statements and to modify their extreme beliefs to bring them into balance. After an educational session in which the symptoms of PTSD are described and information and processing theory explained, clients are asked to consider and write about what the event meant to them. After reading and discussing the impact statement in session two with an eye toward identifying problematic beliefs and cognitions, clients are then taught to identify the connection between events, thoughts, and feelings and to practice these at home using worksheets. In the next two sessions of therapy the client is asked to recall the trauma in detail and to access their affect as well as their beliefs, and the client is asked to write an account of the event including thoughts, feelings, and sensory details. The client reads the account. The therapy then moves into the cognitive challenging phase. The therapist teaches clients to ask questions regarding their assumptions and self-statements in order to begin challenging them. Clients are then taught how to use worksheets to challenge and replace maladaptive thoughts and beliefs. In the final sessions, the therapy progresses systematically through common areas of cognitive disruption: safety, trust, control, esteem, and intimacy. Over-generalized beliefs on these themes are challenged with regard to both self and others (Resick, 2001).

Other cognitive behavior intervention

Deblinger, McLeer, and Henry (1990) have developed a 12-session cognitive behavior intervention program for the treatment of PTSD in sexually abused children. The program includes modeling/coping skills training and gradual exposure, followed by education/prevention training. In the modeling/coping skills part, the therapist models calm behavior to abuse-related disclosures. Coping skills training help the children to express their emotions effectively and cope with anxiety. Relaxation skills and mediated self-talking help children cope with abuse-related anxiety. The therapy also offers alternative exposure methods, such as imagery, doll play, drawing, reading, letter writing, poetry, and singing. The children are allowed to pick the exposure technique of their choice. This helps them regain a sense of control. The other part involves education/prevention training, which is provided to help the children make sense of their abusive experiences and to identify and respond more effectively to inappropriate advances and interactions in the future.

DISCUSSION AND CONCLUSION

Trauma can lead to long-lasting relational difficulties, and this is more likely to happen when the violence or trauma is committed in the context of human relationships. It is even more likely to happen if the violence is at the hands of a known person, such as a parent, a close relative, a sibling, or a spouse, and the stronger the relationship, the more the intense the betrayal, and the more difficulty the client has integrating what has happened into his/her life. Indeed, many areas of a person's life are affected by violence or other traumas (physical health, religious beliefs, cognitive functioning), and, consequently, the destruction of a relationship can be the biggest obstacle to healing. Although many survivors of trauma may long for connection, they may equally feel the "terror of being hurt again, rage at past perpetrators or traumatic events in life, or even despair at feeling isolated" (Comstock, 2005, p.199).

One of the roles of the therapist is to bring the clients into healing connection, where they begin to reconnect with themselves and bring themselves more fully into relationships with others. The attitude toward clients should be one of deep respect and mutuality, listening and participating in a mutual relationship with the client. Within a context of listening and responding, the therapist offers the clients an opportunity to feel safe and to fully represent their experience. Indeed, in counseling PTSD clients, the therapist should take the experience of the clients' shame or humiliation, experiences of being scorned, ridiculed, belittled, and ostracized, into consideration.

This paper clearly demonstrates the value of a structured, collaborative approach for alleviating symptoms of PTSD and related problems following any traumatic event. Indeed, the CBT model is an integration of cognitive, behavioral, affective, social, and contextual strategies for change. CBT deals with relationships, helping clients to be healed and to be connected to the other. This should be accomplished through the establishment of safety, trust and authenticity in the sessions. The cognitive behavioral therapist acts as a consultant, diagnostician, and educator. As a consultant, the therapist helps create behavioral experiments to test some of the dysfunctional beliefs of the client. As a diagnostician, the therapist takes into account the various sources of information and, judging against a background of knowledge, describes the nature of the problem and a strategy for intervention. As an educator, the therapist stimulates the client to think for himself or herself.

CBT implies that the actual traumatic event, the abuse and mistreatment received or experienced, is not the primary source of his or her emotional pain today. Although the initial abuse did cause a traumatic reaction and may have been physically and emotionally overwhelming, the event itself is not the primary source of the person's emotional state. The original trauma may have been physically painful but the body has healed. Rather, the source of our present pain is found in the interpretation we have given the event. Thus, CBT tries to help the individuals develop a renewal of mind. Albert Ellis, the founder of rational emotive therapy, clinically confirms that emotions are not caused by the event alone but also by the client's view of the event. He has formulated 10 irrational ideas (views) that lead to destructive feelings and even to mental illness (Linn & Linn, 1975). Ellis concludes that health returns when rational ideas replace irrational viewpoints. The bottom line of cognitive behavior is that the client who has had PTSD can be helped to love and accept himself/herself through the therapeutic process. It is this way that healing is effected and the client is freed from worries. Indeed, client education as an integral component in the CBT model for PSTD has many advantages: First, there are many traumatized individuals who know nothing about trauma and may not label what happened to them as traumatic. Second, they may have little or no understanding that their symptoms may be related to their past experiences. Third, education is the foundation for teaching specific skills that cover many domains, including self-care, life skills, coping skills, decision making, problem solving, social skills, and personal mindfulness. Education about trauma and its impact is therefore important and may effectively help the client to understand his/her reactions and to develop increased self-understanding and self-compassion. PTSD clients can manage their stress disorder if they are able to change their lifestyle and maladaptive thoughts and recognize

their own strengths and assets; they will become aware of the power they have to make decisions and choices.

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