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Review Article

Cognitive Behavioral Psychotherapy as Therapy to Adults with Post-Traumatic Stress Disorder

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Abstract: Post-Traumatic Stress Disorder (PTSD) is psychological trauma that effects on somatic, cognitive-affective, and behavioral. The goals of treatment to persons who have PTSD to decreasing functional impairment, building resilience, reducing symptom severity, preventing relapse, modifying pathogenic fear, preventing the occurrence of comorbid disorders and treating also improving the quality of life of patients. There are many types of psychotherapy, the type which retrieves acknowledgment that applicable treatment is Cognitive Behavioral Therapy (CBT). The purpose of this paper is to provide and highlight the information about risk factors and effect of PTSD in adults and the effectiveness of CBT for adults with PTSD. The literature review showed the risk factors to develop PTSD and when PTSD was noted symptoms that affect life that needs for intervention to decrease these symptoms and to prevent the problem to develop and showed the effectiveness of CBT on adults with PTSD in a different form according to articles that found it.

Keywords: Post Traumatic Stress Disorder, Cognitive Behavioural Therapy, Cognitive Therapy, Treatment Effectiveness, Adult

1. Introduction

Post-Traumatic Stress Disorder (PTSD) severe and chronic disorder that develops when some people exposure to an event that considers traumatic, this event implicate threatened injury to same people or others [1]. Van der Kolk et al. [2] described PTSD as psychological trauma that effects on somatic, cognitive-affective, and behavioral. Post-Traumatic Stress Disorder (PTSD) in 1980 that diagnostic category was established in 3ed edition of Diagnostic and Statistical Manual of Mental Disorders (DSM-III) [3]. In DSM-V that published in 2013 PTSD included under new title Trauma and Stressor Related Disorders and diagnostic criteria was exposure to actual or threatened death and serious accident that must result from one or more of the following, directly experiences the traumatic event, witnesses the traumatic event in person, indirect by discovering that the traumatic event occurred to a close family member or close friend and experiences to extreme exposure to bad details of the traumatic event [4].

The symptoms that occurs after exposure to traumatic event and considered as criteria for diagnosis are intrusion symptoms as nightmares, dissociative reactions (flashbacks), intense or prolonged distress after exposure to traumatic reminders and symptoms of avoidance of distressing trauma-related stimuli after the event like (people, places, conversations, activities, objects, situations) and other symptoms of negative alterations in cognitions and mood that began or worsened after the traumatic event (usually dissociative amnesia, not due to head injury, alcohol or drugs), persistent inability to experience positive emotions [4]. Furthermore, the symptoms of alterations in arousal and reactivity shown as aggressive behavior, self-destructive behavior, hypervigilance, exaggerated startle response, sleep disturbance, and problems in concentration and to diagnosis of PTSD should this symptoms persistence more than one month and that affect to distress or functional impairment and finally should not due to medication, substance or another medical condition [4].

The traumatic events that may affect to develop PTSD such as exposure to actual or threatened death, combat exposure,

sexual violence, terrorist attack, serious accident, natural disaster and motor vehicle accidents [5] [6]. however, the goals of treatment to persons who have PTSD according to practice guideline for the treatment of patients with acute stress disorder and PTSD that published in 2004 by APA that included, decreasing functional impairment, building resilience, reducing symptom severity, preventing relapse, modifying pathogenic fear, preventing the occurrence of comorbid disorders (depression, other anxiety disorders, substance abuse, bipolar disorder) and treating also improving quality of life of patients [6].

There are many studies and guidelines (American Psychiatric Association, UK National Institute of Clinical Excellence, Australian National Centre for PTSD and British Association for Psychopharmacology) that reported about treatment options to PTSD that including pharmacological therapy, psychotherapies and may combinations of the two [4] [8]. However, some symptoms have resistant to pharmacological treatment so they shift to psychotherapies [1]. There are many types of psychotherapy, the type which retrieves acknowledgment that applicable treatment is Cognitive Behavioral Therapy (CBT) [9] [10].

Aaron T. Beck, the psychiatrist who developed cognitive therapy in 1960, used this therapy to treat depression and he aimed to solve the problem and adjusting dysfunctional thinking [10] [11]. Cognitive Behavioral Therapy (CBT) that therapy uses to treat many disorders such as depression, anxiety disorder (panic disorder), phobia, obsessive-compulsive disorder, post-traumatic stress disorder, personality disorders, eating disorders and insomnia [10] [12].

According to British Association for Behavioural and Cognitive Psychotherapies [13] defined the CBT that is a therapy uses the talking as a therapy, CBT is combined with two therapies which are cognitive therapy (CT) and behavioral therapy (BT), which CT works on thought and believe in the person and BT works on the action of person. The aim of this therapy to change thought that lead change behavior that unhealthy [11] [14], moreover, according to Centre for CBT Counselling [15] reported that techniques of CBT used to decrease the sense of threat by changing the thought of what is fear from and improve strategies for that.

There are many forms of CBT to treat different disorders such as cognitive processing therapy (CPT), cognitive therapy (CT), cognitive restructuring (CR), Prolonged Exposure Therapy (PE), and Trauma Focused Cognitive Behavioral Therapy (TFCBT) [5] [16]. That this forms of CBT involve many components of techniques to therapy includes, exposure to trauma reminders, cognitive restructuring, imagery rescripting, education about common reactions to trauma, relaxation training, identification and modification of cognitive distortions, post-traumatic growth, graduated exposure to avoided situations, and trauma re-experiences [17] [18]. These therapies could be done in a variety of settings including schools, clinics hospitals, and community centers [19]. Furthermore, these therapies could be done on sessions more than one session in a week and that period more than one hour for each session [20].

According to searching, there are studies and guidelines supported CBT used for PTSD, these studies were done in many countries that exposed to events like natural disasters and wars, and there are other studies applied on people who have PTSD related to different events, through searching not found studies talk about CBT and PTSD in Arab world and special in Jordan but found many studies in Iran. The purpose of this paper is to provide and highlight the information about risk factors and effect of PTSD in adults and the effectiveness of CBT for adults with PTSD.

2. Search Strategy

The electronic databases that were searched were as follows: CINAHL, EBSCO, PUBMED, MEDLINE, the PILOTS database, the Cochrane Library and Ovid database as well as Google Scholar from January 2004 to March 2014 and some websites Beck Institute, Post Traumatic Stress Disorder, British Association for Behavioural and Cognitive Psychotherapies and Canadian Mental Health Association, with the following combination of keywords: Post Traumatic Stress Disorder; Cognitive Behavioural Therapy; Cognitive therapy; Treatment effectiveness; Adult.

3. Literature Review

All people have a risk to face stress event or traumatic event but that depend on the nature and degree of the traumatic event, there are many studies showed that all persons prone to PTSD-related traumatic event and threaten situation [21]. In America 7.7 million of adults that PTSD affect to this adult [22]. Furthermore, Saberi, Abbasian, Kashani, and Esfahani [23] reported the prevalence of people who develop PTSD in the community was 5%-10%. Moreover, eight percent of the general population that incidence of PTSD and seventeen percent in the active military and veteran population [24].

3.1. Risk Factors

There are risk factors that increase the prevalence of incidence to develop PTSD that included, gender that female has high prevalence of incidence as shown 60% and more of males and 51% of females exposure to one stress event at least in life [23] and Bisson [25] reported that the prevalence to develop PTSD in woman higher than men 10% of women and 5% of men. Affected to disasters [26], less knowledge affected by lower education, previous psychiatric illness (depression, anxiety), loss of something important, older or younger age at trauma, less social support, degree of exposure to the disaster and low of using to coping, these risk factors shown in more than one study and from different areas, cultures and circumstances [27]-[31].

Ribeiro et al. [30] studied effect violence as a risk factor for people who live in Rio de Janeiro and São Paulo, through did 3744 interviews that 63.06% from Rio de Janeiro and 59.4% from São Paulo faced assaultive violence related to that 8.7% in Rio de Janeiro and 10.2% in Sao Paulo developed PTSD. There are many jobs that suspect the person who works on to

exposure events that affect to increase incidence to PTSD such as military personnel, police and fire officers, drivers, volunteer rescue workers without any formal training and rescue workers who help people in disaster, commercial motor vehicle drivers and medical teams [29] [32].

The type of job considered the risk factor and another traumatic event that affect to incidence PTSD and there are studies shown that veterans and who participate in wars are most common to develop PTSD [33]. Moreover, Ulmer et al. [14] reported that soldiers who participated in wars in Iraq and Afghanistan that prevalence 21% of these soldiers were diagnosed with PTSD. Furthermore, two to twelve percent of veterans who participated in Gulf and Iraqi wars diagnosed with PTSD [34]. More than that, the South African National Defense Force peacekeeping force veterans that served in Rwanda shown 26% of them diagnosed with PTSD and 22% of Nigerian Army peacekeeping force in Sierra Leone [35]. Moreover, veterans of Vietnam war prevalence 2.2% to 15.2% that had PTSD [36]. The Lebanon war that occurred in 1982 left behind the higher prevalence of veterans affected by PTSD 65% [37].

On the other hand, Saberi et al. [23] examined the incidence and develop of PTSD on a group of Iranian commercial motor vehicle drivers, the study was included 424 drivers that result from this study was 20% of Iranian professional drivers who following road traffic collisions had PTSD. Furthermore, there are two studies found effect the Sichuan earthquake to develop PTSD by presented 9.4% to 45.5% of survivors that complained of PTSD [31] [38].

3.2. Effect Post Traumatic Stress Disorder on Life

The PTSD affects on different parts of persons on activities everyday basis, job, and relationships, there are studies that aimed to explore these effects and most of them are about veterans that will be explained in this paper. O'Connell, Kasprow, and Rosenheck [39] reported that rate of unemployment and homelessness increased in veteran had PTSD and that PTSD can affect on social material condition as Cohen, Zerach, and Solomon [40] reported that the marital instability increase in persons with PTSD. Moreover, there are problems with PTSD which are occupational functioning, marital function, family function, social and interpersonal functioning and increased incidents of violence [31]-[34].

Furthermore, PTSD could cause other problems that affect on mental health and problems which accompanied with PTSD such as substance abuse, alcohol abuse, eating disorders, depression, suicidal thoughts and actions generalized anxiety disorder[44]. However, Dobry and Sher [45] reported PTSD increase the probability of cardiovascular disease, musculoskeletal conditions and poorer health-related quality of life. Moreover, Richardson, Pekevski, and Elhai [46] conducted and examined the relationship between PTSD and four significant health conditions (gastrointestinal disorders, musculoskeletal problems, headaches, and cardiovascular problems) on Canadian peacekeeping veterans with service-related disabilities, the result was gastrointestinal disorders, musculoskeletal problems and headaches related to PTSD but not to cardiovascular problems.

Furthermore, there is a relationship of re-experiencing symptoms (suicidal ideation and behavior) with combat-related PTSD in male Vietnam combat veterans with chronic PTSD [47]. PTSD problems that affect to physiological and psychological as mentioned above and need intervention to resolve these problems, as mentioned in the introduction there are psychotherapies intervention that included the CBT and this therapy involve more than one form that used in many disorders [48], for PTSD there are many studies used of CBT that form such as Cognitive Processing Therapy (CPT), Prolonged Exposure Therapy (PE), Cognitive Therapy (CT), Trauma-Focused Cognitive Behavioral Therapy (TFCBT) [5]. These CBT forms that goal to reduce re-experiencing, avoidance, negative cognitions, arousal, working through trauma-related memories and emotions and teaching better methods of managing trauma-related stressors [49].

3.3. Effectiveness of Cognitive Behavioral Therapy

There were studies that supported the effectiveness of CBT for PTSD, which 44 to 60% of people had PTSD improved from symptoms of PTSD by used CBT [50]. According to Jean et al. [51] was reported that CBT was an effective way of treating patients who had PTSD by used CBT for 2 years as a follow-up study. Sijbrandij et al. [52] conducted by evaluating the efficacy of brief CBT for patients with acute PTSD by comparing two groups first group of patients who gained brief CBT and the second group on waiting list that comparison group, the CBT in this study consisted of four weekly sessions containing education, relaxation exercises, imagine exposure and cognitive restructuring, the result of this study was that the group who gained CBT showed fewer symptoms of PTSD than the comparison group.

Furthermore, Ahmadizadeh et al. [33] used CBT to improve the quality of life in veterans after Iran-Iraq war by separating to four equal interventional groups, these interventions were problem-solving therapy, exposure therapy, combined therapy and control group and this study showed that CBT improve the quality of life of these veterans who had PTSD. Moreover, CBT helped to reduce PTSD-related sleep disturbances in veterans and this intervention was accepted to veterans with PTSD and effects for insomnia severity, sleep quality and PTSD symptoms [14]. In addition, CBT in the group helped to reduce in PTSD symptoms by used treatment gains that maintained over a 3 month period both in a clinical interview and self-report measures and patients reported satisfaction with Group CBT [53].

Moreover, Hinton, Hofmann, Pollack, and Otto [54] conducted a study that examined the efficacy of CBT for Cambodian refugees with pharmacology resistant PTSD, the study contains 12 patients, the result was a reduction of PTSD severity by CBT was significantly by improvement in orthostatic panic and emotion regulation ability. Furthermore, the treatment of CBT was effective because it reduced symptoms of PTSD and depression as well as significant emotional and social disturbances in functioning, which result

through study that aimed to shown effectiveness of CBT for PTSD and related symptoms in survivors of the 9/11 terrorist attack on the World Trade Center, that CBT included 12 to 25 sessions [55].

According to Lowinger [56] reported reduced the symptoms of flashbacks, sleep problems, and concentration difficulty by using the CBT with New York transit workers who experienced a traumatic incident on the job, the CBT included training skills and education, workers get highly motivated to return to work, value their jobs, enjoy their employment and wishful to back to work as soon as possible. However, National Institute of Health and Clinical Excellence (NICE) guideline of PTSD reported that most effective approach for PTSD is Trauma-Focused Cognitive Behavioral Therapy (TFCBT), Prolonged Exposure Therapy (PE) and Cognitive Processing Therapy (CPT), TFCBT helps an individual come to terms with a trauma through exposure to memories of the event [57].

However, Bisson et al. [57] found that TFCBT showed that effective on people who had PTSD by decrease symptoms of PTSD, this result supported according to analysis 38 randomized controlled trials studies of psychological treatments for PTSD that included 25 studies about TFCBT and other psychological treatments. In addition, TFCBT used to decrease on negative trauma-related PTSD symptoms and change in negative appraisals predicted symptom, that result by investigated the change cognitive symptom by TFCBT for PTSD on an outpatient clinic in United Kingdom National Health Service [58].

On another hand, CPT that effective on hopelessness symptoms in adult women with PTSD related to sexual assault, which used by targeting maladaptive cognitive that associated with PTSD symptoms and used PE as habituation mechanism to change maladaptive cognitive [59]. The effectiveness of CPT that showed on PTSD caused from military sexual trauma in veterans by reduced self-reported PTSD symptoms and depressive symptoms in those veterans [60]. Moreover, Rauch, Sheila, Eftekhari, and Ruzek [61] reported that PE is a gold standard treatment for PTSD that effectiveness in reducing PTSD symptoms which content anger, guilt, negative health perceptions and depression in veterans and military personnel even among complex and comorbid patients and PTSD.

4. Summary and Conclusion

Post Traumatic Stress Disorder (PTSD) is a series disorder that affects psychological and physical approach and different the severity of disorder and ways to deal with PTSD to reduce the symptoms, the purpose of this paper to provide and highlight about risk factors and effect of PTSD in adults and the effectiveness of CBT for adults with PTSD. Mentioned in the literature review the risk factors to develop PTSD and when PTSD was noted symptoms that affect life that needs for intervention to decrease these symptoms and to prevent the problem to develop.

The intervention that used in PTSD according to guidelines and articles, the pharmacological and psychotherapies in this paper the psychotherapies talked about and special CBT to adults with PTSD, CBT is the most psychological treatment used for PTSD and can be used in children and adolescents either in adults. There is more than one form of CBT that used in PTSD, according to the result of searching the most CBT that used in adults with PTSD was PE, CPT and few articles about TFCBT used with adults who had PTSD.

In the literature review showed the effectiveness of CBT on adults with PTSD in different form according to articles that found it, the most of article that found that treated the veterans and soldiers, limited in sample size that small and not compared the different form of CBT for PTSD, there are lack of articles that can access about traumatic that product from sexual assault and natural disaster in adults. In general, according to guidelines and articles the CBT with a different form that effective therapy to people who had PTSD.

Recommendations

The recommendations that highlights by many guidelines such as National Institute of Health and Clinical Excellence (NICE) and articles included that CBT is the most studied treatments in the general population and current guidelines recommend it as a first-line treatment for patient exposure to traumatic event as early intervention to decrease probability to developing the disorder and can prevent PTSD in earlier stages when therapy is given over a few sessions beginning 2-3 weeks after trauma exposure.

Treatment PTSD with exposure therapy was recommended as a program that combines PE and CPT and recommends the use TFCBT for patients with an acute stress disorder that reducing the probability of developing PTSD and reducing PTSD symptoms. Furthermore, recommendations that in the future researchers suggested that CBT used for the victims of different traumas in all ages and in both genders and for more studies in developing countries following disasters that affect huge populations.

The limitation of studies should decrease that sample size was small, do studies in different traumatic event and compare between CBT forms in treat PTSD, furthermore, in Jordan there are not found study of CBT and PTSD, so this problem should be added in the recommendation to be done in Jordan as an area surrounded by events that have impact.

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