International Journal of Engineering, Management and Humanities (IJEMH)
Volume 4, Issue 1, pp: 232-238 www.ijemh.com

Psychological Therapies on Post-Traumatic Stress Disorder (PTSD)

Sampritha Thangavel

Date of Submission: 02-02-2023 Date of Acceptance: 14-02-2023

I. Introduction

"Posttraumatic stress disorder (PTSD) is a psychiatric disorder that can occur in people who have experienced or witnessed a traumatic event such as a natural disaster, a serious accident, a terrorist act, war/combat, rape or other violent personal assault",(American Psychological Association). PTSD can range from mild to severe depending on the effect and the influence of the trauma on the patient. It is also said that PTSD is prone to revictimization and retraumatization (Duckworth & Follette, 2012).

Symptoms which are common to the diagnosis of PTSD are violence towards self and others, non-suicidal self-injury and suicide. American Psychiatric Association classifies the symptoms into 4 main categories which are intrusive thoughts; flashback of the distressing event being experienced and felt as if it's happening for real. Avoiding reminders; they avoid any places, people or objects that strikes a card in their memory. Negative thoughts and feelings; they might associate everything related about them for example their own personality negatively (negative cognitive triad). Arousal and reactive symptoms; they might have sudden outbursts and may behave in self destructive way. The diagnosis of PTSD is made based on symptoms that last for more than a month. Hence, taking up appropriate treatment at the very beginning of the diagnosis is very important regardless of the severity.

Post Traumatic Stress Disorder, is faced by various people all around the globe. Both men and women, regardless of the gender face PTSD. Disorders of anxiety are one of the most frequently occurring disorders in the United states, with 18.1% of the population facing it, which is 40 million adults at the age of 18 and older (Anxiety and Depression Association of America- ADAA). Experiencing trauma has become one of the major obstacles in the lives of many young adults. They face tremendous amounts of problems and fight battles either within themselves (loss of a family member, sexual assault, parental influences on the child) or against the factors causing it, almost every single day of their lives.

This disorder is more common in women than men with 10.4% among women compared to 5% in men. With having such strong concrete evidence of how serious PTSD could be, it is as equally important to seek for the best way of treating it. People are different in many different ways (gender, age, culture) and face problems in their lives which are very subjective in nature. Seeking a generalized solution on what is the best treatment, is tremendously important as facts states that in few decades PTSD might become a major problem around the globe (NCBI).

As this area is subjective and majorly depends and varies from culture to culture and the individual, I will be taking researches done with a large sample across the world so that generalizing the results would be easier and more valid. It will be a meta-analysis/ literature review. Secondary research data would be considered as the results, appropriately answering the research question "What are the psychological therapies effective in treating PTSD?". Meta-analysis would do more justice to the validity because when primary research is conducted it is a challenging and tedious task to collect it from a huge sample across the globe within a limited amount of time. In this essay four of the eight treatment options recommended by the APA will be discussed. The four treatment types are Cognitive

Behavioural Therapy (CBT or CT), Eye Movement Desensitization and Reprocessing (EMDR), Narrative Exposure Therapy (EDMR), and Prolonged Exposure. An average of three researches will be used to discuss of each of these

treatment options. Based on the available literature and evaluation, a conclusion will be formed regarding the effectiveness of these treatments for PTSD.

Breaking down the problem - Cognitive Behavioural Therapy

"Cognitive behavioural therapy (CBT) is a form of psychological treatment that has been demonstrated to be effective for a range of problems including depression, anxiety disorders, alcohol and drug use problems, marital problems, eating disorders and severe mental illness" (American Psychological Association). CBT works in such a way that it helps the patients or the people suffering from PTSD to solve their hassles by handling them in a more positive way by enabling them to break down the problem at hand. People with PTSD usually have faulty thinking patterns or negative patterns (negative thoughts), CBT here tries to change these patterns and improves the concept of positivity in them. CBT focuses on the current issues rather than what he/she faced in the previous distressing event. The general advantage of the CBT is that it is less time consuming, has more flexible strategies and prepares clients for life after therapy. It can be useful in cases where medication does not show efficient results. The disadvantages are that for patients with severe health conditions the sessions may not be always suitable because they might require medications.

Furthermore, it focuses only on the person's thoughts and relative behaviour but not the other outside factors that might have influenced on the person's mental health (eg: family).

A meta-examination was conducted by Harvey et al (2002) which demonstrated that CBT was a powerful treatment for PTSD brought about by different injuries. For attack, an examination done by Resick, Nishith, Weaver, Astin and Feuer (2002) and Resick and Schnicke (1992) proposed CPT (intellectual handling treatment) as a mix of delayed presentation and that it depends on five noteworthy psychological topics which are regard, trust, security, power, and closeness (Resick&Schnicke, 1992) and asserted it to be the significant perspective to the subjective mapping of individuals/members who have been assaulted. At first the correlation between the control gathering and the CPT bunch on the mean indication decrease on the Strategic Communication Laboratories (SCL-90) was 40% contrasted with 1.5% for shortlist controls. Resick et al completed an improved examination which managed the correlation of CPT with PE (delayed presentation) with MA (insignificant consideration) filled in as a holding up rundown control. The investigation comprised of one hundred and seventy-one female assault exploited people who were randomized into either of the three conditions and 121 of the 171 patients finished treatment. There were two medications (dynamic) incorporated a 13 hours treatment which was directed two times every week.

The results showed that the active treatment in intention-to-treat (every patient randomized to the clinical study should enter the primary analysis) was better compared to the waitlist conditions and the differences between the active treatments were very slight but CPT showed a larger reduction in terms of guilt of the participants. The disadvantages of the study done by Resick et al is that there was lack of objective assessment and instruments to evaluate PTSD. As assault is majorly focused on woman in most of the researches, it cannot be generalised to men. Participants were permitted and were encouraged to seek individual treatment. This shows that ethical considerations were taken into account but the number of individuals who did so was not reported which questions the credibility of the research. A study done by Marks et al (1998) on mixed trauma participants further supported effectiveness of CBT.

A research was conducted by Tarrier, Sommerfield, Reyolds, and Pilgrim (1999) where they studied chronic PTSD patients. These patient's symptoms were monitored for 4 weeks (daily). Among the total sample (patients), 12 out of 83 did not receive any further treatment because over the monitoring period they showed improvement. Their improvement for the 3 months and 12 month follow up was maintained. The other 71 patients who showed PTSD were randomly segregated to one of the following therapies, imaginal exposure or cognitive therapy at the end of their monitoring period. The results showed that cognitive therapy and imaginal exposure was equally effective for PTSD after doing a follow up for 6 to 12 months but there was a significant evidence found after the 5-year follow up by the same researchers, which proves that cognitive therapy is better. It showed that the patients who received CBT treatment showed lower symptoms and lower depression that the patients who went through exposure therapy. They also found that none had PTSD in the CT group whereas in the exposure group 29% had PTSD. The major advantage was that a 5 year follow up was done increasing the reliability of the results. Contrastingly, numerous patients dropped out during the follow up and hence the data could not be evaluated . Additionally only a small sample

size from a restricted geographical location was used and thus the sample to population generalizability is low .

CBT has also been proven to be more effective in treating participants who have suffered PTSD due to road traffic accidents than other treatments. A research was done by Ehlers et al where 97 patients were recruited through media. These participants were selected based on the criteria of experiencing PTSD for 6 months after RTA (road traffic accidents). A three week monitoring phase was conducted for the participants. Eighty seven participants who showed no recovery during the monitoring phase were divided into 3 groups, cognitive therapy, as self-help booklet and repeated assessment. The self-help booklet had instructions and mostly consisted of CBT principles. The results proved that in terms of reduction of symptoms of depression, anxiety and PTSD, CT was more effective. After the follow up, only 11% of cognitive therapy patients suffered from PTSD compared to that of 61% of patients under self-help booklet and 55% of patients from repeated assessments. The participants were randomly divided into the groups reducing the possible researcher bias. The learning capacity of the participants would be very subjective hence questioning the reliability of the results obtained in that group.

From these researches we can conclude that CBT is proven to be effective in treating different types of trauma caused by various factors but there are limitations which should be taken into consideration and given thought to when taking CBT as the therapy.

Creating positive impact- Narrative Exposure Therapy

Narrative exposure therapy is a treatment for trauma disorders, particularly in individuals suffering from complex and multiple traumas (American Psychological Association). It is most commonly and frequently used in the case of refugees. It can be provided as groups (number of 10) or individually. This treatment is conditionally recommended for the treatment of PTSD. The patient initially narrates his/her experience in the chronological order mainly focusing on the traumatic events experienced but the positive events are also included. By narrating the cognitive events, it is believed that the patient's experience and memories related to trauma is understood clearly. The therapist in order has to show certain behaviour to bring out maximum effectiveness, for example active listening, , therapeutic alliance , compassionate understanding and unconditional positive regard. NET is different from other treatments in such a way that the therapy recognises and creates an account of the events that happened in such a way that this has a positive self impact on the patient.

Various studies are being performed by researches to investigate the effectiveness of NET, usually for refugees as this method is made in such a way that it helps them. Adenauer et al (2011) conducted a randomized controlled treatment trial in patients with chronic PTSD and compared with the WLC group (waitlist control group) that assessed changes in affective stimulus processing as a result of NET. Thirty four refugees diagnosed with PTSD were randomly divided to either NET or WLC. They conducted a pre-test with a follow up study being conducted after 4 months. It included neuromagnetic oscillary brain activities (visuals that are steady evoking ssVEF) and assessment of linical variables that resulted from exposure of aversive pictures more than neutral ones. The results were that PTSD and the depressive symptoms scores were diminshed in the NET group. The symptoms sustained in the end too in the WLC. According to the results, towards the aversive pictures the NET causes increased activities which are top-down regulation of attention . This allows the patients under NET to further comprehend and evaluate the actual danger of the current situation. This shows that NET can be effective in terms of improving cognition of the PTSD patients. The major limitation of the study is the loss of Magnetoencephalography (MEG) data sets of 15 participants after randomization procedure. The major reason for the loss is that the particpants' refusal of MEG assessment, participants' inability to complete due to the deportation as a result of denial of asylum by the German authorities and poor quality (MEG) data. Another major limitation was that a large number of participants were under antidepressant and neuroleptic medication which could potentially distort the findings and the conclusion. Language barriers stand as a major barrier in communicating with the refugees.

Stenmark et al conducted a randomized controlled multicenter study about treating

PTSD within the general health care system in Asylum seekers and refugees . NET and TAU (treatment as usual) were compared in 11 general psychiatric health care units in Norway. There were 81 participants, 51 for NET and 30 for TAU were

assessed with Hamilton rating scale and Clinician Administered PTSD Scale. Mini-International Neuropsychiatric Interview was conducted before treatment, after one month and at the end of six months after the completion. The results showed that NET gave a higher symptom diminishment compared to TAU and participants diagnosed with PTSD symptoms was also less comparatively. In this study it is shown that both can be effective in symptom reduction but NET has a greater effect. Even though the results were satisfactory it was less positive when compared to other trials. In terms of improvement of symptoms there was less difference shown in those of the comparator groups. Another major drawback was that the refugee status was awarded more to the NET participants which could have lead to the alleviation of symptoms in the NET group.

From this we can conclude that NET is effective for certain type of depression/PTSD

(in case of refugees for example) but it has its own limitation as mentioned above.

Processing the memory- Eye Movement Desensitization and Reprocessing

In 1987, eye movement desensitization and reprocessing (EDMR) were introduced as a concept and was developed by Shapiro (2011). It is a therapy for posttraumatic stress disorder (PTSD) which was guided by a model called Adaptive Information Processing model which was also introduced by Shapiro (2007). This model takes into consideration the symptoms of PTSD and other disorders which are caused by past traumatic experiences that continue to disturb the individual. This is because the memory was inadequately processed.

This therapy mainly focuses on the memory directly this reduces the effect of the symptoms. It consists of the 8 phases, which are History-taking, Preparing the client, Assessing the target, Memory, Processing the memory to adaptive resolution and Evaluating treatment results.

Kullack&Laugharne (2016) conducted a case study which is based upon the effect of EMDR protocol on alcohol and substance dependence for 4 clients who attended a PTSD clinic in Australia. All four patients were interviewed and assessed through Mini

International Neuropsychiatric Interview. The interview was conducted before, immediately and 12 months of therapy. Out of the four patients, three patients met criteria for alcohol dependence and only one met for substance dependence. In the 12-month follow up after the EMDR treatment, diagnostic criteria for only alcohol dependence was met only by one patient, none for substance dependence. In summary, the participant's PTSD symptoms improved, reducing from 55.25 to 21.25 PTSD Checklist-Civilian Version scores. One of the major drawbacks of the study was that the number of participants was very small reducing the generalizability and there was no control group which reduces the extent to which the results obtained can be compared.

An 18-year-old women named Sofia (Mexican) who dealt with emotional and behavioural torment related to sexual abuse caused by a family member, was taken as a participant in a study conducted Aranda et al (2015). She received 11 weekly sessions consisting of eight-phase and three-pronged protocol of the EMDR therapy. The patient's complains were assessed using quantitative and qualitative measures. Posttraumatic Stress Global Scale (PSGS) and Beck Depression Inventory-2 (Spanish version) were the psychological measures. As a result, Sofia's score on the PSGS decreased from moderate/high to low. After treatment, she neither met the DSM-5 criteria nor the PSGS criteria for PTSD. Sophia's depressive symptoms were alleviated too. Physiological and Neuropsychological changes were also positive. Before the commencing of the therapy informed consent was given following the ethical considerations. The major drawback was that Sofia's parents refused to have another appointment with the therapist. Hence it was difficult to collect information and ensure Sofia's changes limiting the extent to which a follow up can be done. Another limitation of the study was the extreme difficulty/impossibility to control the confounding variables related to her improvements.

Like in any case study, there is limited generalizability.

Both domestic and international organizations recognize EMDR as an effective way to treat trauma. The American Psychiatric Association (2004) recommends EMDR as an effective treatment for trauma, California Evidence-Based Clearinghouse for Child Welfare (2010) for Trauma Treatment for Children stated that " EMDR and Trauma-focused CBT are considered "Well-Supported by Research Evidence" . Even though EMDR is said to be safer than prescribed medicines which can cause the most side effects, it is said to cause heightened awareness of thinking leading to light-headedness and can also cause vivid, realistic dreams. Usually EMDR consists of attending

numerous sessions which may be emotionally stressful in the short-run even though it's effective in the long run. Therapist's consultation should be carried out in order to know how to deal with these symptoms.

Dealing with trauma - Prolonged Exposure Therapy

Most of the people generally prefer to avoid any memory which reminds them of the trauma/distressing event they experience. Prolonged Exposure therapy is proof that this need not be the case. By facing these terrifying memories, a person can decrease symptoms of PTSD. Prolonged exposure teaches the individuals to slowly deal with their trauma related memories, feelings and situations (American Psychological Association). This type of treatment is strongly recommended by the American Psychological Association. For PTSD, PET is provided for a period of 3 months (which includes weekly sessions), approximately ranging from eight to fifteen session on the whole. Usually 60-120 minutes are required for each session and the session generally starts with conversations about patient's past. A technique to manage the anxiety is provided after the therapists continue the psychoeducation. Imaginal exposure and In vivo exposure are the two types of exposure; Imaginal exposure when the traumatic experience is described in detail using present tense with the assisstance of the psychotherapist and In vivo exposure is when patients are capable of facing the stimuli they fear of outside therapy sessions, which is assigned as homework.

A meta-analysis was done on Prolonged Exposure for PTSD by Powers et al (2010). Based on Foa, Rothbaum, Riggs, and Murdock (1991), the treatment method was manualized and all the PE vs. waitlist or psychological placebo among adults had a random controlled trial. A total of 13 studies and 675 participants were the final sample size. On both outcome measures (primary and secondary) in the primary analysis, PE showed a large effect. Even though there weren't significant differences between other treatment methods, average PE- treated patients responded better than 86% of patients in the control group comparatively at post treatment proving that Prolonged Exposure is highly recommended and effective. Generally meta-analysis has more statistical power as the statistical significance increases the validity. Especially in the cases of the efficacy and treatments the validity plays a major role. There is a possibility of selection bias and search bias as the researchers might search and select studies based on what result they desire to get which could potentially distort the results, and this plays a very important role in the area of efficacy and treatments.

A randomized Clinical trial was conducted for sexual abuse-related PTSD in adolescent girls by Foa et al (2013). The goal of the experiment was to evaluate the impact of counsellor-delivered PE vs. supportive counselling for adolescents with PTSD. A single-blind study consisting of 51 girls were used. Participants received 14, 60-90 minute sessions. Outcomes were assessed before treatment, 3 months after, 6 months after, and a 12 months follow-up was also carried out. PTSD symptom severity was evaluated using Child PTSD Symptom Scale–Interview. Secondary results of PTSD diagnosis were evaluated by the DSM-IV Schedule. The results were positive, supporting PE as they (participants) showed a greater improvements. Difference between treatments in improvement, 7.5; 95% CI, 2.5-12.5;

P<.001) and on all secondary outcomes (loss of PTSD diagnosis: difference, 29.3%, 95% CI, 20.2%-41.2%; P=.01; self-reported PTSD severity: difference, 6.2; 95% CI(confidence interval), 1.2-11.2; P=.02; depression: difference, 4.9; 95% CI, 1.6-8.2; P=.008; global functioning: difference, 10.1; 95% CI, 3.4-16.8; P =.008), statistically proving that adolescents girls with sexual abuse–related PTSD received a more prominent advantage from PE comparatively. As it's a randomized clinical trial the results would be less prone to selection due to the randomization which would eventually increase the reliability. It allows direction between the groups. The limitation is that the sample participating in the study could not represent the whole population, question the credibility and it is very time consuming and expensive.

Prolonged exposure has also been very effective in Veterans affairs care. A research was conducted by Eftekhari et al (2013) evaluating the effectiveness of PE applied for Veterans. PTSD is a very common mental disorder which people in this area recurrently face and PE has proven to be effective. The 1931 veterans were treated by 804 clinicians. Changes in PTSD were measured and assessed using Beck Depression Inventory 2 and PTSD checklist. Efeectiveness of PE with veterans was reported the largest evaluation in this study. PE with VHA (veteran's health administration) setting provides significant improvement in PTSD and depression symptoms. The results of this study show that PE can be effective to treat veterans in reality.

Even though PE was initially emerged for female survivors of sexual assault, it can also be effective enough for male veterans as well. One of the major advantages of the study is that clinicians

went through a 4-day training workshop and the sample size is also decently high. The study majorly focused on female veterans, showing gender bias and questioning the extent to which it can be generalized to men.

II. Conclusion

Taking into consideration all the treatment methods and the researches done in the area, a conclusion can be drawn to answer the question 'What are the psychological therapies effective in treating PTSD?'. Cognitive behavioural therapy seems to be the most effective therapy. Various sources and evidences exist for this particular treatment method covering several types/causes of PTSD like PTSD caused by sexual assault, RTA, etc. CBT doesn't require too many sessions like the others but does need the patient in the therapy for a longer period. Obviously there are various limitations to this therapy and concluding which treatment is the best for each type of trauma faced by an individual is very subjective. Most importantly, the culture, the geographical barriers and other differences do play an important role as it is very unique and specific to each culture. For example, in a collectivistic culture it might be easier to cope with trauma compared to individualistic cultures. Various aspects must be sought before indulging into assumptions and conclusions. As researches deals with humans , who are different in most of the psychological aspects, generalizing and concluding to one therapy wouldn't seem fair and justified enough. In this way, contingent upon the seriousness, the individual, specialist and the treatment which is available in that location, an individual is ought to consider moving ahead with that type of therapy.

Bibliography

[1]. Adenauer, H., Catani, C., Gola, H., Keil, J., Ruf, M., Schauer, M. & Neuner, F. (2011, 12). Narrative exposure therapy for PTSD increases top-down processing of aversive stimuli - evidence from a randomized controlled treatment trial. BMC Neuroscience,
[2]. 12(1). doi:10.1186/1471-2202-12-127
[3]. Bichescu, D., Neuner, F., Schauer, M. & Elbert, T. (2007, 09). Narrative exposure therapy for political imprisonment-related chronic posttraumatic stress disorder and depression.
[4]. Behaviour Research and Therapy, 45(9), 2212-2220. doi:10.1016/j.brat.2006.12.006
[5]. Bomyea, J. & Lang, A. J. (2012, February). Emerging interventions for PTSD: Future directions for clinical care and research. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3626560/
[6]. Burkeman, O. (2015, July 03). Why CBT is falling out of favour. Retrieved from https://www.theguardian.com/lifeandstyle/2015/jul/03/why-cbt-is-falling-out-offavour-oliver-burkeman
[7]. Clinical practice guideline for the treatment of posttraumatic stress disorder (PTSD): Eye movement and desensitization and reprocessing therapy (EMDR). (2017).
[8]. PsycEXTRA Dataset. doi:10.1037/e516172017-001
[9]. Cognitive-Behavioral Therapy of Patients with PTSD: Literature Review. (2015, January 13). Retrieved from https://www.sciencedirect.com/science/article/pii/S1877042814067639
[10]. Cognitive-Behavioral Therapy: Proven Effectiveness. (n.d.). Retrieved from https://www.psychologytoday.com/us/blog/anxiety-files/201111/cognitivebehavioral-therapy-proven-effectiveness
[11]. Facts & Statistics. (n.d.). Retrieved from https://adaa.org/about-adaa/press-room/facts-
[12]. statistics
[13]. Foa, E. B. (2013, December 25). Therapy for Sexual Abuse–Related PTSD in Adolescent Girls. Retrieved from https://jamanetwork.com/journals/jama/fullarticle/1793800?resultClick=1
[14]. Ginsburg, G. S. (2014, March 01). Follow-up of Treatments for Pediatric Anxiety. Retrieved from https://jamanetwork.com/journals/jamapsychiatry/fullarticle/1814942
[15]. Grech, P. &Grech, R. (2018, July 18). Narrative Exposure Therapy for Post-Traumatic Stress Disorder. Retrieved from https://www.omicsonline.org/open-access/narrativeexposure-therapy-for-posttraumatic-stress-disorder-2327-5162-1000264-103111.html
[16]. Harris, S., Kryskalla, J., Kern, S., Gray, D., Hauser, P., Fed, &Usn. (2017, December 15). How Effective Is Group Cognitive Behavioral Therapy to Treat PTSD? Retrieved from https://www.mdedge.com/fedprac/article/87815/ptsd/how-effective-groupcognitive-behavioral-therapy-treat-ptsd

[17]. Iribarren, J., Prolo, P., Neagos, N., &Chiappelli, F. (2005, December). Post-traumatic stress disorder: Evidence-based research for the third millennium. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1297500/-
[18]. Military & Veterans. DSM-5 Criteria for PTSD. Retrieved from https://www.brainline.org/article/dsm-5-criteria-ptsd
[19]. Narrative Exposure Therapy (NET). (2019). Retrieved 6 September 2019, from https://www.apa.org/ptsd-guideline/treatments/narrative-exposure-therapy
[20]. Phillips, K. M., Freund, B., Fordiani, J., Kuhn, R., &Ironson, G. (2009, August 01). EMDR Treatment of Past Domestic Violence: A Clinical Vignette. Retrieved from https://connect.springerpub.com/content/sgremdr/3/3/192
[21]. Prolonged Exposure (PE). (2019). Retrieved 6 September 2019, from https://www.apa.org/ptsd-guideline/treatments/prolonged-exposure Stenmark, H., Catani, C., Neuner, F., Elbert, T., &Holen, A. (2013, 10). Treating PTSD in refugees and asylum seekers within the general health care system. A randomized controlled multicenter study. Behaviour Research and Therapy, 51(10), 641-647.
[22]. doi:10.1016/j.brat.2013.07.002
[23]. Wagner, A. C., Torbit, L., Jenzer, T., Landy, M. S., Pukay-Martin, N. D., Macdonald, A., . . .
[24]. Monson, C. M. (2017, January 10). The Role of Posttraumatic Growth in a
[25]. Randomized Controlled Trial of Cognitive–Behavioral Conjoint Therapy for PTSD. Retrieved from https://pennstate.pure.elsevier.com/en/publications/the-role-ofposttraumatic-growth-in-a-randomized-controlled-trial
[26]. What Is Cognitive Behavioral Therapy? (n.d.). Retrieved from https://www.apa.org/ptsdguideline/patients-and-families/cognitive-behavioral.aspx
[27]. What Is Posttraumatic Stress Disorder? (n.d.). Retrieved from https://www.psychiatry.org/patients-families/ptsd/what-is-ptsd
[28]. (n.d.). Retrieved from https://psycnet.apa.org/record/1969-07765-001