

Cognitive, Behavioral and Cognitive-Behavioral therapies in the treatment of Post-Traumatic Stress Disorder

Terapias cognitiva, comportamental e cognitivo-comportamental no tratamento do transtorno do estresse pós-traumático.
Terapias cognitivas, conductuales y cognitivo-conductuales en el tratamiento del trastorno de estrés postraumático.

RESUMO

Objetivo: Compreender as características, aplicações e limitações dos tratamentos recomendados pela APA com mais evidências científicas para o TEPT em adultos. **Método:** Revisão Integrativa da literatura utilizando as bases de dados PubMed, PepSIC, Medline e Scielo. **Resultados:** 12 artigos apontando que os tratamentos mais citados na literatura foram a Terapia de Exposição e a Terapia do Processamento Cognitivo, embora a Terapia Cognitiva Comportamental. **Conclusão:** Evidencia-se a necessidade da unificação e da reformulação dos tratamentos atuais, assim como ampliá-los com intervenções baseadas no presente na tentativa de individualizar os tratamentos e evitar o alto índice de abandonos.

DESCRITORES: Terapia Cognitiva; Terapia Comportamental; Terapia Cognitivo-Comportamental; Transtorno do Estresse Pós-Traumático.

ABSTRACT

Objective: To understand the characteristics, applications and limitations of treatments recommended by the APA with more scientific evidence for PTSD in adults. **Method:** Integrative literature review using PubMed, PepSIC, Medline and Scielo databases. **Results:** 12 articles pointing out that the most cited treatments in the literature were Exposure Therapy and Cognitive Processing Therapy, although Cognitive Behavioral Therapy. **Conclusion:** The need to unify and reformulate current treatments is evident, as well as to expand them with interventions based on the present in an attempt to individualize treatments and avoid the high rate of abandonment.

DESCRIPTORS: Cognitive Therapy; Behavioral Therapy; Cognitive behavioral therapy; Post Traumatic Stress Disorder.

RESUMEN

Objetivo: Conocer las características, aplicaciones y limitaciones de los tratamientos recomendados por la APA con más evidencia científica para el TEPT en adultos. **Método:** Revisión integrativa de la literatura utilizando las bases de datos PubMed, PepSIC, Medline y Scielo. **Resultados:** 12 artículos señalando que los tratamientos más citados en la literatura fueron la Terapia de Exposición y la Terapia de Procesamiento Cognitivo, aunque la Terapia Cognitivo Conductual. **Conclusión:** Existe la necesidad de unificar y reformular los tratamientos actuales, así como ampliarlos con intervenciones basadas en el presente en un intento de individualizar los tratamientos y evitar la alta tasa de abandono.

DESCRIPTORES: Terapia Cognitiva; Terapia de comportamiento; Terapia de conducta cognitiva; Trastorno de estrés postraumático.

RECEBIDO EM: 05/07/2023 APROVADO EM: 15/08/2023

How cited: Regis TM, Pucci SHM. Cognitive, Behavioral and Cognitive-Behavioral therapies in the treatment of Post-Traumatic Stress Disorder. Saúde Coletiva (Edição Brasileira) [Internet]. 2023 [acesso ano mês dia];13(88):13427-13446. Disponível em:

DOI: 10.36489/saudecoletiva.2023v13i88p13427-13446



Tayná Martins Regis

Especialista em terapia cognitivo-comportamental faculdade de ciências médicas da santa casa de São Paulo
ORCID: 0009-0002-4242-164X



Prof Dr Silvia H. Modenesi Pucci

Faculdade de ciências médicas da santa casa de São Paulo
ORCID: 0000-0003-2258-007X

INTRODUCTION

PTSDD is classified in the Diagnostic and Statistical Manual of Mental Disorders DSM-5-TR 1 as a set of signs and symptoms related to a traumatic event, such as exposure to actual or threatened death, serious injury, or sexual violence, as well as experiencing repeated or extreme exposure to aversive details of the traumatic event. The symptom clusters nightmares and flashbacks, hyperarousal and reactivity, avoidance, and negative cognitions/depressed mood are specific symptoms of PTSD.² The symptoms of nightmares and flashbacks, also known as reliving/re-experiencing, are involuntary and vivid recollections of the disturbing event, which range from distressing intrusive memories to dissociations that lead to re-enactment of the traumatic event.³ Hyperarousal corresponds to symptoms related to physiological reactions to danger such as hypervigilance, jumps, insomnia and irritability, while, on the other hand, avoidance symptoms are efforts to avoid distressing thoughts and feelings about the traumatic event and also people, places and situations that trigger these memories.

Thus, PTSD manifests an exaggerated reaction due to an erroneous perception of threat capable of producing physical and psychological stimuli in the face of the presented stimulus. There are numerous psychological treatments for PTSD that are similar in trying to turn off the individual's threat mode, while what differs them is the way that this mode will be deactivated. The United Nations Organization⁴ recommends Cognitive-Behavioral Therapy as one of the main treatments for PTSD, in addition to Eye Movement Desensitization and Reprocessing and selective serotonin reuptake inhibitor antidepressant medication. Accordingly, the APA⁵ in the Clinical Practice Guideline for the Treatment of PTSD in Adults recommends evidence-based treatments

such as Cognitive-Behavioral Therapy, Cognitive Processing Therapy, Cognitive Therapy, and Prolonged Exposure. Global mental health epidemiological surveys⁶ on trauma and PTSD indicate that a majority of adults will experience a traumatic event at some point in their lives and risk factors⁷ for the development of the trauma, as well as having already had some other trauma previously or having gone through a history of early stress, lower education and family psychiatric history.

The present study aimed to carry out an integrative literature review on which are the treatments with more evidence of Cognitive, Behavioral and Cognitive-Behavioral Therapies for PTSD in adults. In addition, understanding the characteristics, applicability and limitations of the treatments recommended by the APA 8 with more evidence for the treatment of PTSD in order to discuss directions for future research.

METHOD

A literature review describes a search of published works that provide an examination of the literature covering specific subjects⁸.

Pico Strategy

The PICO strategy that is used to assist narrative reviews and bibliographic surveys due to its simplicity and easy operation¹⁰ was used in the present work, using as Q – What are the characteristics, applicability and limitations of the Cognitive, Behavioral and Cognitive-Behavioral Therapies treatments recommended by the APA 8 with more evidence for the treatment of PTSD? I- Cognitive and Behavioral Therapies C- Cognitive-Behavioral Therapy O- Cognitive-Behavioral Therapy is more effective in treating PTSD in adults.

Descriptors and Databases

The following databases were used: PubMed, PepSIC, Medline and Scielo, from January 15th, 2023 to March

31st, 2023, with the terminologies registered in the Health Sciences Descriptors (DeCs): “Terapia Cognitiva” AND “Terapia Comportamental” AND “Terapia Cognitivo-Comportamental” AND “Transtorno do Estresse Pós-Traumático” e nos descritores da Medical Subject Heading (MeSH) “Cognitive Therapy” AND “Behavioral Therapy” AND “Cognitive Behavioral Therapy” AND “Traumatic Stress Disorders”.

Inclusion and Exclusion Criteria

The sample consisted of adults diagnosed with PTSD, treated with Cognitive, Behavioral and Cognitive-Behavioral Therapies in research published in the last five years, indexed and published in English, Portuguese and Spanish, and that were available in full for reading. In addition, to correspond to the adult sample, the author Papalia 11 was used as a theoretical reference. Not respecting the present criteria, the materials were excluded.

Procedures

The procedures were based on three stages, where the first corresponded to the launch of the descriptors in the respective databases, the second stage in the application of the inclusion and exclusion criteria, plus the reading of the titles of the articles, and the third and last stage, the reading of the summaries/abstracts of the works.

In the PubMed database with the descriptors, 160 results were located in the first stage. In the second stage, 33 results articles were selected and in the third and last stage, 10 articles were selected.

In the PepSIC database with the descriptors, 45 articles were identified. In the second stage, 1 article was selected. In the third step, no result article was selected.

In the Medline database, with the descriptors, 372 results were identified, in the second stage, 26 outcome articles were identified and, in the third and

Revisão Integrativa EN

Tayná M. Regis, Sílvia H.M. Pucci

Cognitive, Behavioral and Cognitive-Behavioral therapies in the treatment of Post-Traumatic Stress Disorder

last stage, 0 outcome articles remained that responded to the objective of this research.

In the Scielo database, with the descriptors, 6 results articles were found. In the second stage, 2 articles were se-

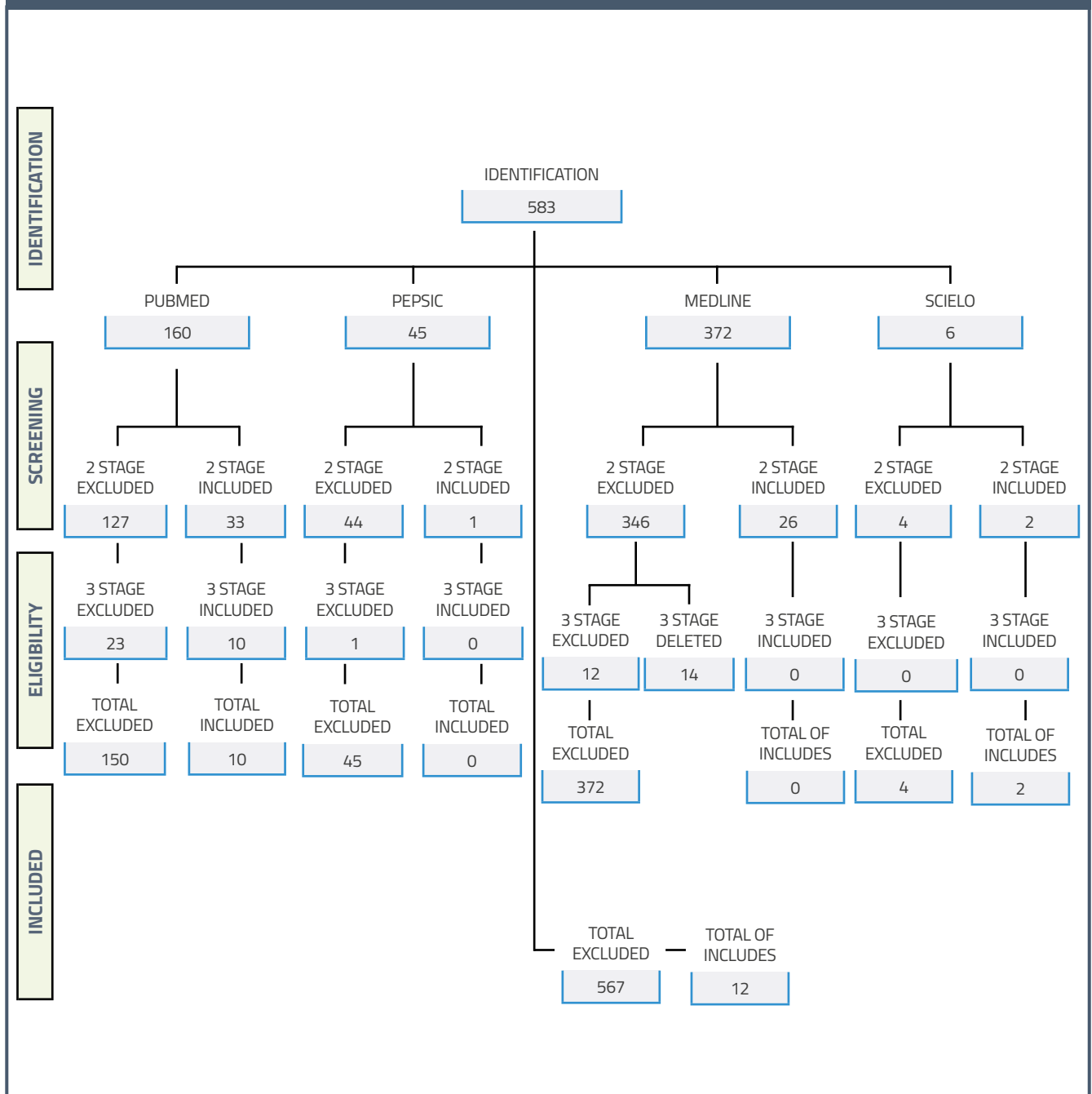
lected. In the third and final stage, there were 2 articles of results that responded to the objective of this research.

Below are the steps and the respective results found in each database through the PRISMA diagram.

RESULTS

In view of the research results for current treatments of Cognitive, Behavioral and Cognitive-Behavioral Therapies for PTSD in adults, 12 articles

Figure 1. PRISMA diagram of the number of articles from identification, sorting and inclusion



Source: (REGIS; PUCCI, 2023)



of results were identified in this integrative literature review, which were described in the table below.

DISCUSSION

Based on the results found in this review, on the characteristics of the most effective treatments recommended by the APA⁸ of Cognitive, Behavioral and Cognitive-Behavioral psychotherapies for PTSD in adults, it was found that the most cited results in the literature and based on evidence are Prolonged Exposure Therapy (PE), or Exposure Therapy, and Cognitive Processing Therapy (CPT).

PE is a behavioral psychotherapy treatment that uses the exposure of traumatic memories as one of the main

components of the intervention.¹² The result article¹³ identified by the present research that presented PE as the main basis of treatment for two groups of active members of war combat veterans, one of them using interventions based on the Theory of Inhibitory Learning. According to the literature, interventions based on the Inhibitory Learning Theory generally aim to help the extinction process by favoring the learning that aversive events cannot always occur as expected. Therefore, in agreement with the literature¹⁴, without this learning the new behavioral responses tend to be dysfunctional again. In this same reasoning, it is understood that persistent and generalized fear can be reduced with the learning of extinction by repeated exposures and inhibitory signals.¹⁵ Interven-

tions based on the Inhibitory Learning Theory used in this present research in the essay¹³ were imaginary exposure, homework assignments and feedback, increased social support, brief review of traumatic events, and three post-treatment booster sessions. As a result, both treatments significantly reduced PTSD symptoms mid-treatment and kept the veterans in a state of remission through month⁶. However, advantageously, there may also be a decrease in avoidance and an increase in engagement by favoring greater focus on treatment.

Another essay³ that composes the result of the present research and that used the confrontation of traumatic memories was based on the Emotional Processing Theory demonstrated in the literature.¹⁶ The Emotional Processing Theory, as

Scoreboard							
YEAR	AUTHOR	COUNTRY OF STUDY	GENDER/SAMPLE COUNTRY	METHODOLOGY	SAMPLE	TYPE OF TRAUMA	RESULTS
2022	Bisson et. al.	U.K	Not informed	Pragmatic, multicenter, randomized, controlled non-inferiority trial (RAPID)	196	-	Internet-guided CBT-TF for PTSD was not inferior to CBT-TF
2022	Peterson et. al.	USA	USA	Randomized Clinical Trial	120	Active Military and War Veterans	Although the strongest PTSD outcomes and lowest dropout rates were found using the Cognitive Processing Therapy (CPT) home delivery format, it was the least acceptable treatment for patients
2022	Schnurr et. al.	USA	Both/ USA	Randomized Clinical Trial	916	War Veterans	Although the strongest PTSD outcomes and lowest dropout rates were found using the Cognitive Processing Therapy (CPT) home delivery format, it was the least acceptable treatment for patients

Revisão Integrativa EN

Tayná M. Regis, Sílvia H.M. Pucci

Cognitive, Behavioral and Cognitive-Behavioral therapies in the treatment of Post-Traumatic Stress Disorder

2021	Jericho et. al.	Australia	Both/-	Systematic review and network meta-analysis	5775	-	Superior effectiveness of Metacognitive Therapy (MCT), Cognitive Processing Therapy (CPT), and written exposure therapies relative to other psychotherapies
2021	Resick et. al.	USA	Not informed	Randomized Clinical Trial	127	US military personnel on active duty in the Afghan and Iraq wars	Cognitive Processing Therapy (CPT) tailored to more sessions in treatment reduces PTSD treatment non-response variables
2021	Böttche et. al.	Germany	Both/Arabic	Randomized Clinical Trial	224	Post-armed conflict	TF-short based on an Internet-based technique TF-reg proved to be effective for the treatment of PTSD
2020	Stevens et. al.	USA	Male/USA	Randomized Clinical Trial	162	Soldiers from the Iraq and Afghanistan wars on active duty	Both PE and VRE are effective in treating PTSD and reduce avoidance
2020	Duran et. al.	Brazil	Both/Brazil	Randomized Clinical Trial	95	-	TBCT decreases self-blaming beliefs
2020	Stefanopoulou et. al.	England	Not informed	Systematic review	-	Trauma survivors of bereavement, rape, and/or similar events	Cognitive-Behavioral Therapy (iCBT) delivered digitally is more effective in reducing PTSD symptoms than expressive writing, mindfulness psychoeducation, cognitive tasks, and psychosocial interventions
2018	Thompson-Hollands et. al.	USA	Both/USA	Randomized Clinical Trial	126	Veterans and civilians with a variety of traumas (vehicle accidents, combat, disasters, and sexual abuse)	Written Exposure Therapy (WET) is not a treatment that is inferior to Cognitive Processing Therapy (CPT) with regard to PTSD symptoms



2018	Peterson et. al.	USA	Not informed/ USA	Randomized Clinical Trial	200	Active Military and War Veterans After the 9/11 Attack	The Mass Prolonged Exposure (Massed-PE) and the Intensive Outpatient Prolonged Exposure Treatment Program (IOP-PE) are not accessible to active-duty military personnel
2018	Holliday et. al.	USA	Both/USA	Randomized Clinical Trial	32	Veterans of wars, Gulf War, Vietnam and Iraq with sexual trauma	After Cognitive Processing Therapy (CPT) treatment, only change in self-blame temporally preceded changes in PTSD symptoms

Source: (REGIS; PUCCI,2023)

well as the Inhibitory Learning Theory, also proposes that avoidance makes emotional processing impossible, together with habituation to fear, contributing to the maintenance of PTSD symptoms. In this essay 3 In the present research, the standard PE protocol was compared with Virtual Exposure Therapy (VRE), or Virtual Exposure Reality, which superimposes situations related to trauma in the visual and auditory field in a three-dimensional way. Both PE and VRE were similar and achieved a reduction in avoidance/numbing symptoms, and consequently the other symptoms. This result is in line with the literature¹⁷ since avoidance symptoms are cognitive, emotional and behavioral efforts made to reduce the suffering or anguish of spontaneous re-experiencing the trauma that generate associated autonomic hyperstimulation. In the after-treatment of the assay discussed³, gains extended to symptoms of hyperarousal. This result is consistent with the aforementioned Emotional Processing Theory, since coping with the fear of traumatic memories weakens the likelihood of recurrence of avoidance/numbing symptoms due to habituation/new le-

arning. In addition, habituation/new learning also weakens the likelihood of recurrence of the hyperarousal symptom due to the decrease in the reflex reaction that the situation or memory of the trauma can evoke. Therefore, both groups of symptoms are worked on simultaneously, because when facing fear, and not avoiding traumatic memories, it can evoke the symptom of hyperarousal as a response to exposure. Symptoms of Hyperarousal³ gradually decreased with exposure over the course of treatment.

Another randomized controlled trial 18, as a result of the present research, PE was compared with TLC. CPT is a Cognitive-Behavioral psychotherapy designed to treat trauma-related negative beliefs in PTSD in adults¹⁹ which confirms that treatment gains can be sustained for up to 10 years after treatment. In the essay discussed in the present study¹⁸ cognitive restructuring was used through writing, reading aloud and the challenge of maladaptive beliefs to more generalist or realistic beliefs about oneself/others/world, in addition to the feeling of guilt related to the trauma through Socratic dialogue and worksheets. As a result of the single greater improvement in EP

than in TLC, it was concluded that both treatments were effective during the trial. Despite this, post-treatment CPT had greater remission of PTSD symptoms and loss of diagnosis than PE. This result secondarily suggests that direct intervention on cognitions could lead to more lasting changes in the remission of PTSD symptoms, which seems to indicate that treatments with greater emphasis on the cognitive component, in relation to the behavioral one, are more efficient in remitting symptoms in the long term. Above all, in this trial, abandonment was found to be a treatment limitation in both groups, although more so in the EP group.

This research identified as a result article ¹⁹ the trial that used CPT treatment as a control, and Behavioral Written Exposure Therapy (WET), or Written Exposure Therapy as the main intervention. WET is a brief treatment for PTSD. Although with fewer sessions compared to CPT, the result showed that WET can be considered a viable option in the treatment of PTSD. In literature²⁰ the same favorable result was found for the treatment of WET exposure as non-inferior to CPT.

This result is contrary to a secondary result of the test previously exposed in this research¹⁸ which revealed longer-lasting missed diagnosis in CPT compared to PE. On the other hand, in this test¹⁹ it was shown that the remission of emotional arousal and depressive symptoms in behavioral treatments is both congruent when compared to treatment that focuses on the cognitive component. Although the result of this study¹⁹ emphasizes the remission of symptoms in both treatments, there was a high dropout rate as a limitation of both treatments.

The other systematic review and meta-analysis study²¹ identified in this present research aimed to compare CPT with Metacognitive Therapy (MCT), or Metacognitive Therapy, of Cognitive Therapy and more treatments. The result showed that MCT was slightly more effective than CPT and other psychotherapies in reducing PTSD symptoms and patient acceptability. Metacognitive psychotherapy is an approach to regulating the thought patterns such as worrying, ruminations and threat monitoring that maintain PTSD symptoms. Elimination of worry and rumination and increased metacognitive flexibility allows for the natural process of returning to normal cognition.²² The compilation of techniques is demonstrated by with the practice of mindfulness detachment when it recommends the avoidance of intrusive thoughts related to the trauma, while, on the other hand, beliefs, worries and ruminations are challenged. In this sense, attention previously directed to intrusive thoughts is redirected to external and relevant aspects of the environment not related to the trauma. However, for the author of the study discussed in this present research²¹ this result was not methodologically reliable in the studies analyzed in their review. Until the moment of this study, there are no other studies comparing these two treatments in the databases.

Another result²³ using CPT was the randomized controlled trial that

investigated whether changes in negative cognitions related to military sexual trauma and feelings of self-blame would be predictive in the treatment of PTSD symptoms using CPT as the main intervention. Due to the small sample size (n=35) it was not possible to associate these symptoms with the remission of depressive symptoms in PTSD and, for this reason, there was no conclusion of this research.

Comparing the results of this present research favorable to both PE and CPT in the remission of PTSD symptoms - being the result of PE³, of CPT¹⁸ and MCT²¹ it is understood that there is similarity between the results regarding coping with traumatic memories, whether coping with PTC and MCT through memories of events plus evocation of cognitions for cognitive restructuring and PE through imaginary or real exposure. With these findings, the similarity between these treatments is understood in terms of coping with traumatic memories, while the difference is in the specific change in symptoms, with greater remission of depressive symptoms in treatments with greater emphasis on the cognitive component such as CPT, as symptoms of avoidance/numbing and hyperarousal disappear, there is greater emphasis on behavioral and exposure-based treatment such as PE. Thus, it lacks a possibility of treatment with a more comprehensive remission, and, moreover, efficient, in the improvement of the other symptoms of PTSD in adults, such as re-experience, dissociative amnesia, difficulty concentrating and insomnia. In addition, it is necessary to reformulate such treatments, cognitive and behavioral, presented in this present research, together with interventions based on the present and future and not only on exposure or cognitive restructuring of traumatic events. As suggested in the literature²⁴ who used the Imagery Test Therapy (IRT), which obtains from the imagination for new content outcomes of the nightmares of re-experiencing symptoms in PTSD. Likewise, it is pro-

posed that grounding techniques, among other interventions based on the present, can be better studied for this purpose.

In this path of reformulation, Cognitive-Behavioral Therapy focused on trauma unified the interventions of Cognitive and Behavioral Therapy treatments, but they are still limited to interventions with more emphasis on past experiences. According to the literature²⁵, the combination of PE with cognitive restructuring enhances the treatment of PTSD in adults. Based on this combination, trauma-focused Cognitive-Behavioral Therapy, except CPT which maintains an emphasis on the cognitive component, is an additional option for treating PTSD in adults. Another result of this present research that used Cognitive-Behavioral Therapy was the pragmatic, multicenter, randomized and controlled non-inferiority study (RAPID)²⁶ that used face-to-face, or face-to-face, Trauma-Focused Cognitive Behavioral (TF-CBT) compared to the same intervention delivered digitally. Internet-guided TF-CBT was not inferior to face-to-face CBT-TF in reducing PTSD symptoms 16 weeks after randomization. There was also a limitation of the study in not informing which symptoms were reduced and, as a secondary result, it was revealed that after 52 weeks of treatment, continuous improvements in the face-to-face TCC-TF group were not found in the face-to-face group. Internet-guided CBT-TF, who returned with symptoms of depression and anxiety, alcohol use and social support. Another result identified by the present research was the systematic review²⁷ on Internet-Based Cognitive Behavioral Therapy (iCBT), or Cognitive-Behavioral Therapy (delivered digitally), compared to cognitive tasks and Expressive Writing (EW), among other non-Cognitive-Behavioral interventions. The iCBT result was obtained with greater efficiency in reducing PTSD symptoms - however, there is a limitation of the study not informing which symptoms. The iCBT interventions are the same as CBT, or face-to-face Cog-

nitive-Behavioral Therapy, but adapted for the internet. Finally, another research that covers Cognitive-Behavioral Therapy (delivered over the internet) in the treatment of PTSD included in this research was the randomized controlled trial²⁸ for 224 civilians from Arabic-speaking countries with interventions of written self-confrontation of the traumatic event, reflection and meaning of trauma for broader cognitive processing. As a result, it is understood that it can be an alternative for a brief and punctual treatment for places that are experiencing armed conflict. Although this result appears to be a prominent finding, it is limited due to the shortening of treatment and the result does not have the potential to be generalized to other samples. Again, there is a limitation of the study in not informing which symptoms the reduction of symptoms was obtained.

The randomized controlled trial included in this present research²⁹ compared PE with Trial-Based Cognitive Therapy (TBCT), or Procedural Cognitive Therapy (TCP), which presents preliminary results for the treatment of PTSD in adults. As a result, it was found that TBCT excelled in reducing depressive symptoms and lower dropout rate. Therefore, TBCT may be a promising alternative for the treatment of PTSD. As a treatment limitation, TBCT with an emphasis on cognitive components results in only part of PTSD symptoms in adults. No other TBCT trials for the treatment of PTSD in adults were found in the literature to perform the comparison.

In the final analysis of CPT and PE, regarding the abandonment of both treatments, the randomized controlled trial presented in this present research³⁰ who used the CPT treatment in the three modalities at home, in telehealth and in the office. As a result, although with 57% dropout in CPT treatment across all modalities, telehealth CPT is considered to be more efficient for treating PTSD in adults. From this result, it is understood that the treatment modality influences

the treatment dropout rate since the treatment was the same. As a limitation of the study, the absence of a description of the symptoms that resulted in remission was verified. As a limitation of the treatment, a significant dropout rate was obtained, as identified in the results previously presented in this research with WET,¹⁹ CPT, PE¹⁸ and CPT.

From this angle, even though the articles included in this review followed the recommendations for evidence-based treatments for PTSD in adults through Division 12 of the Society of Clinical Psychology⁸ a significant abandonment behavior in treatments is also identified in both veterans and civilians. Faced with this problem, in order to reduce dropout rates, the literature suggests that the treatment characteristics can be defined according to the patient's preferences.³¹ Another result³² that also evidences abandonment described in this present research was the randomized controlled trial that used CTP as the only treatment with the objective of predicting pre-treatment factors, the therapeutic response and duration of treatment to achieve a good end-state of PTSD symptoms. As a result, as well as the limitation of treatment, they concluded that not individualizing treatment according to the patient's needs may be a possibility of giving up PTSD treatments in veterans. In agreement with this possibility of abandoning the test³ previously presented in this research, also understands that the treatment should not be purely focused on the remission of symptoms, but also on the psychological characteristics, life history, among other singularities, and finally be possible to define a type of treatment with more acceptability.

CONCLUSION

Cognitive-Behavioral Therapy proved to be the most effective treatment alternative for the remission of most PTSD symptoms in adults, such as avoidance/numbing and depressive symptoms.

In order of the most evident publications in the present review study, the Prolonged Exposure Therapies (PE), from Behavioral Therapy, and the Cognitive Processing Therapy (CPT), from Cognitive Therapy, were the most evidenced as the most recommended treatments for PTSD, followed by the digitally delivered Trauma-Focused Cognitive Behavioral (TF-CBT) from Cognitive-Behavioral Therapy. In addition to standard treatment, several variations of EP and CPT treatments have also shown efficacy such as in group, written exposure, and virtual reality protocols. Other psychotherapies such as Metacognitive Therapy (MCT) and Trial-Based Cognitive Therapy (TBCT) may become promising alternatives for the treatment of PTSD in adults.

Although this review presented the most recommended treatments for PTSD in adults, it identified limitations in the remission of other PTSD symptoms such as re-experiencing, dissociative amnesia, difficulty concentrating and primary insomnia. In addition, a high dropout rate was also identified in most of the studies identified in this review. Future research is needed to examine these limitations and, for that purpose, it is suggested to unify and reformulate current treatments together with the possibility of expanding them with interventions based on the present and the future. As well as understanding beyond the relationship of interventions with symptoms, such as personality, social and life history influence.

REFERENCES

1. American Psychiatric Association. Manual Diagnóstico e Estatístico de Transtornos Mentais: DSM-5-TR Text Revision. 5ª ed., Porto Alegre: Artmed, 2022
- Thiel F, Ein-Dor T, Dishy G, Rei A, Dekel S. Examinando agrupamentos de sintomas de transtorno de estresse pós-traumático relacionado ao parto [Prim Care Companion CNS Disord]. 2018 set [citado 2023 abr 4];20(5):18-02322 Disponível em: <https://doi.org/10.4088/PCC.18m02322>
2. Stevens ES, Bourassa KJ, Norr AM, & Reger GM. Estrutura do Grupo de Sintomas do Transtorno de Estresse Pós-Traumático na Terapia de Exposição Prolongada e Exposição à Realidade Virtual [Jornal de estresse traumático]. 2020 out [citado 2023 abr 4];34(2):287-297. Disponível em: <https://doi.org/10.1002/jts.22602>
3. World Health Organization. Who releases guidance on mental health care after trauma. Media Centre. 2013. Disponível em: OMS divulga orientações sobre cuidados de saúde mental após trauma (who.int)
4. American Psychiatric Association. Clinical Practice Guideline for the treatment of Posttraumatic Stress Disorder[APA]. 2017. Disponível em: <https://www.apa.org/ptsd-guideline/treatments/>
5. Watson, P. Public Mental Health Priority[Current Psychiatry Reports]. 2019 jun [citado em 2023 abr 4]; 21:61. Disponível em: <https://doi.org/10.1007/s11920-019-1032-1>
6. Brewin CR, Andrews B, Valentine JD. Meta-Analysis of Risk Factors for Posttraumatic Stress Disorder in Trauma-Exposed Adults[Jornal de Consultoria e Psicologia Clínica]. 2000 [citado em 2023 abr 4];68(5), 748-766. Disponível em: <https://psycnet.apa.org/doi/10.1037/0022-006X.68.5.748>
7. American Psychiatric Association. Division 12. Society of Clinical Psychology. APA Disponível em: Transtorno de Estresse Pós-Traumático | Sociedade de Psicologia Clínica (div12.org)
8. Galvão MCB, Ricarte ILM. Revisão Sistemática da Literatura: conceitualização, produção e publicação [Logeion: Filosofia da Informação]. 2019 set [citado em 2023 jul 4];6(1):57-73. Disponível em: <https://doi.org/10.21728/logeion.2019v6n1.p57-73>
9. Araújo WCO. Recuperação da informação em saúde: construção, modelos e estratégias [Convergências em Ciência da Informação]. 2020 jul [citado 2023 abr 4];3(2):100-134. Disponível em: <https://seer.ufs.br/index.php/conci/article/view/13447>
10. Papalia DE, Feldman RD Desenvolvimento Humano. 14ª ed. Porto Alegre: Artmed, 2021
11. Paiva J, Melani M, Gonçalves MR, Luz MP, Mendlowicz MV, Figueira I, Arcosy CV, Ventura P, et al. Predictors of response to cognitive-behavioral therapy in patients with posttraumatic stress disorder: a systematic review[Jornal Brasileiro de Psiquiatria]. 2022 jun [citado 2023 abr 4];71(2):149-60. Disponível em: <https://doi.org/10.1590/0007-0189.2023v71n2p149-60>
12. Peterson A, Foad E, Blounta T, McLeane C, Shaha D, Young-McCaughana S, et al. Terapia intensiva de exposição prolongada para transtorno de estresse pós-traumático relacionado ao combate: desenho e metodologia de um ensaio clínico randomizado [Contemporary Clinical Trials]. 2018 set [citado em 2023 abr 4];72: 126-136. Disponível em: <https://doi.org/10.1016/j.cct.2018.07.016>
13. Craske MG, Treanor M, Conway CC, Zbozinek T, Vervliet B. Maximizing exposure therapy: an inhibitory learning approach[Behav. Res. Ther]. 2014 jul [citado em 2023 abr 4]; 58:10-23. Disponível em: <http://dx.doi.org/10.1016/j.brat.2014.04.006>
14. Oliveira AAM, Oliveira AV, Oliveira AD, Oliveira AB, Ressler KJ. Aumento da Extinção e Aprendizagem Inibitória em Transtornos Relacionados à Ansiedade e ao Trauma [Annu. Rev. Clin. Psychol]. 2019 mai [citado em 2023 mai 8];15(14):1-14. Disponível em: <https://doi.org/10.1146/annurev-clinpsy-050718-095634>
15. Foa EB, Kozak MJ. Processamento emocional do medo: exposição a informações corretivas[Psychological Bulletin]. 1986 [citado em 2023 mai 8];99(1):20-35. Disponível em: <https://doi.org/10.1037/0033-2909.99.1.20>
16. Figueira I, Mendlowicz M. Diagnóstico do Estresse Pós-Traumático[Revista Brasileira Psiquiatria]. 2003 jun [citado em 2023 maio 8];25:12-6. Disponível em: <https://doi.org/10.1590/S1516-44462003000500004>
17. Schnurr, PP, Chard KM, Ruzek JI, Chow BK, Resick PA, Foa EB, Marx BP, Friedman MJ. Comparação da Exposição Prolongada vs Terapia de Processamento Cognitivo para Tratamento do Transtorno de Estresse Pós-Traumático entre Veteranos dos EUA: Um Ensaio Clínico Randomizado[JAMA Network Open]. 2022 jan [citado em 2023 maio 8];5(1):e2136921. Disponível em: <https://doi.org/10.1001%2Fjamanetworkopen.2021.36921>
18. Thompson-Hollands J, Marx B, Lee D, Resick P, & Sloan D. Ganhos de tratamento a longo prazo de um breve tratamento baseado em exposição para TEPT[Depress Anxiety]. 2018 ago [citado em 2023 mai 8];35(10):985-991. Disponível em: <https://doi.org/10.1002/da.22825>
19. Sloan DM, Marx BP, Lee DJ, Resick PA. A Brief Exposure-Based Treatment vs Cognitive Processing Therapy for Posttraumatic Stress Disorder[JAMA Psychiatry]. 2018 mar [citado em 2023 mai 8];75(3):233-239. Disponível em: <https://doi.org/10.1001/jamapsychiatry.2017.4249>
20. Jericho B, Luo A, & Berle D. Trauma-focused psychotherapies for post-traumatic stress disorder: A systematic review and network meta-analysis[Acta Psychiatrica Scandinavica]. 2021 set [citado em 2023 mai 8];145(2):1-24. Disponível em: <https://doi.org/10.1111/acps.13366>
21. Wells A, Sundeep S. Terapia metacognitiva para TEPT: uma investigação preliminar de um novo tratamento precoce[Jornal of Behavior Therapy and Experimental Psychiatry]. 2004 dez [citado em 2023 mai 8];35(4):307-318. Disponível em: <https://doi.org/10.1016/j.jbtep.2004.12.001>

doi.org/10.1016/j.jbtep.2004.07.001

22.Holliday R, Holder N, Surís S. Reduções nas cognições de auto-culpabilização predizem melhorias no TEPT com a terapia de processamento cognitivo para TEPT relacionado a trauma sexual militar[Psychiatry Research]. 2018 mai [citado em 2023 mai 8];263:181–184. Disponível em: <https://doi.org/10.1016/j.psychres.2018.03.007>

23.Kunze AE, Lancee J, Morina N. Efficacy and mechanisms of imagery rescripting and imaginal exposure for nightmares: study protocol for a randomized controlled trial[Trials]. 2016 set [citado em 2023 mai 8];17:469. Disponível em: <https://doi.org/10.1186/s13063-016-1570-3>

24.Bryant RA, Moulds ML, Guthrie RM, Dang ST, Mastrodome-nico J, Nixon RDV, Felmingham K.L., Hopwood S. A randomized controlled trial of exposure therapy and cognitive restructuring for posttraumatic stress disorder[Journal of Consulting and Clinical Psychology]. 2008 [citado em 2023 mai 8];76(4):695–703. Disponível em: <https://doi.org/10.1037/a0012616>

25.Bisson JJ, Ariti C, Cullen K, Kitchiner N, Lewis C, Roberts NP, et al. Terapia cognitivo-comportamental guiada, baseada na internet, para transtorno de estresse pós-traumático: estudo pragmático, multicêntrico, randomizado e controlado de não-inferioridade (RAPID)[Int. J. Environ. Res. Public Health]. 2022 jun [citado em 2023 mai 8]; 377:e069405. Disponível em: <https://doi.org/10.1136%2Fbmj-2021-069405>

26.Stefanopoulou E, Lewis D, Mogol MA, Larkin J. Intervenções digitais para sintomas de TEPT na população geral: uma revisão[Psychiatric Quarterly]. 2020 mai [citado em 2023 mai 8];91: 929–947. Disponível em: <https://doi.org/10.1007/s11126-020-09745-2>

28.Böttche M, Wagner B, Vöhringer M, Heinrich M, Stein J, Selmo P, Stammel N, et al. Apenas uma técnica cognitiva também é eficaz? Resultados de um ensaio clínico randomizado e controlado de duas versões diferentes de uma intervenção cognitivo-comportamental baseada na internet para transtorno de estresse pós-traumático em países de língua árabe[Revista Europeia de Psicotraumatologia]. 2021 jun [citado em 2023 mai 8];12(1):1943870. Disponível em: <https://doi.org/10.1080/20008198.2021.1943870>

29.Duran E, Corchs F, Vianna A, Vianna A, Araújo A, Del Real N, et. al. A randomized clinical trial to assess the efficacy of trial-based cognitive therapy (TBCT) compared to prolonged exposure for post-traumatic stress disorder: preliminary findings[Int. J. Environ. Res. Public Health]. 2020 jun [citado em 2023 mai 8];19(12):7514. Disponível em: <https://doi.org/10.3390/ijerph19127514>

30.Peterson AL, Mintz J, Moring JC, Straud CL, Young-McCaughan S, McGeary CA, Terapia de processamento cognitivo em consultório, em casa e por telessaúde para transtorno de estresse pós-traumático em veteranos: um ensaio clínico randomizado[BMC Psychiatry]. 2022 jan [citado em 2023 mai 8];22: 41. Disponível em: <https://doi.org/10.1186/s12888-022-03699-4>

31.Foa EB, Oliveira PC, Zang Y, Rosenfield D, Yadin E, Yarvis JS, et al. Efeito da terapia de exposição prolongada administrada ao longo de 2 semanas vs 8 semanas vs terapia centrada no

presente na gravidade dos sintomas de TEPT em pessoal militar. [JAMA]. 2018 jan [citado em 2023 mai 8];319(4):354-364. Disponível em: <https://doi.org/10.1001/jama.2017.21242>

32.Resick P, Wachen J, Oliveira D, Young-McCaughan S, Yarvis J, Kristi P, et al. Terapia de Processamento Cognitivo de Duração Variável para transtorno de estresse pós-traumático em militares da ativa: desfechos e preditores[Behaviour Research and Therapy]; 2021 jun [citado em 2023 mai 8];141:103846. Disponível em: <https://doi.org/10.1016/j.brat.2021.103846>