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PSYCHOPATHOLOGICAL CONSEQUENCES OF TERRORIST ATTACKS IN ADULT VICTIMS AND THEIR TREATMENT: STATE OF QUESTION

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El objetivo de este trabajo es describir el estado actual de la investigación sobre las consecuencias psicopatológicas de los atentados terroristas en las víctimas adultas y su tratamiento. A partir de los resultados de revisiones narrativas y metaanalíticas de dicha investigación y de los estudios empíricos más recientes, especialmente, de los realizados con víctimas en España, se extraen once conclusiones sobre cuántas víctimas adultas desarrollarán trastornos psicológicos, qué trastornos psicológicos serán los más frecuentes, cuál será el curso de esos trastornos, qué tipos de víctimas se verán más afectadas y cuál será el tratamiento más adecuado para sus trastornos. Las conclusiones convergen en sugerir que, tras un atentado terrorista, tanto las víctimas directas como indirectas (y entre estas últimas, especialmente los familiares directos de los fallecidos y heridos en el atentado), necesitarán un seguimiento psicológico y una atención psicológica a corto, medio, largo y muy largo plazo.
Palabras clave: *Terrorismo, Víctimas, Trauma, Trastornos mentales, Tratamiento.*

The aim of this paper is to describe the current state of the research on the psychopathological consequences of terrorist attacks in adult victims and their treatment. From the results of narrative and meta-analytic reviews of this research and the most recent empirical studies, especially those carried out with victims in Spain, eleven conclusions are extracted on the number of adult victims that develop psychological disorders, the psychological disorders that are most common, the course of these psychological disorders, the types of victims that are most affected, and the most appropriate treatment for their disorders. These conclusions converge to suggest that, after a terrorist attack, both direct and indirect victims (and among the latter, especially the relatives of those killed and wounded in the attack), will need psychological follow-up and care in the short, medium, long and very long term.
Key words: *Terrorism, Crime Victims, Trauma, Mental disorders, Treatment.*

At the time of writing, the media are reporting on the terrorist attack in Ankara on March 13 2016, which resulted in at least 37 dead and 125 wounded, and the echoes can still be heard of the attack in the same city on October 10 2015 which caused 95 fatalities and 246 people injured, and those committed in Paris on 13 November 2015, in which 129 people died and over 350 were injured (El Mundo, 2015; Mourenza, 2015, 2016). Unfortunately, these attacks are not isolated events. In 2014, there were a total of 13,463 terrorist attacks in the world that killed more than 32,700 and wounded 34,700, and 9,400 people were abducted or taken hostage (National Consortium for the Study of Terrorism and Responses to Terrorism, 2015). These figures underline the fact that terrorism is a serious global problem today that affects a very large number of people each year in all regions of the world, and Spain is no exception. Over the past 48 years, in our country terrorism has killed at least 1,225 people and injured thousands (García-Vera et al., 2015). In fact, although no one has died in Spain in a terrorist attack since 2009, in 2015 at least seven Spaniards were killed in attacks abroad: two in the attack on March 18 at the National Museum of Bardo in the city of Tunis (Blanco, 2015), three in the Paris attacks (El Mundo, 2015) and two in the attack on December 11 at the Spanish Embassy in Kabul (González & Junquera, 2015).

RESEARCH ON THE PSYCHOPATHOLOGICAL CONSEQUENCES OF TERRORIST ATTACKS IN ADULT VICTIMS AND THEIR TREATMENT

In the past 15-20 years, the scientific literature on the psychopathological consequences of a terrorist attack on the people affected and their treatment has grown rapidly and prolifically, especially since the attacks of 11 September 2001 in New York and Washington DC (known as 9/11), which marked a turning point in the investigation, with a dramatic increase in the scientific publications on the subject. A search of the bibliographic database PsycINFO recovered, for the period 1990-2001, 32 publications (a range of 1-5 publications per year), while 513 were identified for the

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period 2002-2013 (a range of 26-71 per year)[1]. Moreover, this search only found 2, 3 and 5 publications in 1999, 2000 and 2001, respectively, while it located 26, 27 and 54 in 2002, 2003 and 2004. Although not all of these publications dealt with the 9/11 attacks, at least 39% did, so the studies of these attacks, together with those carried out on the attacks in other developed countries, especially those that occurred in the last 15 years in Israel, Europe (Spain, France, Ireland and the United Kingdom) and in the US; and in particular those that led to a high number of fatalities and injuries, such as, for example, the attack on 19 April 1995 in Oklahoma City, those of 11 March 2004 in Madrid (known as the attacks of 11-M), those of 7 July 2005 in London and, of course, those of 9/11 constitute the most solid empirical knowledge currently available on the psychopathological consequences of terrorism and its treatment. Thus, at the beginning of this century, a great deal of knowledge on both subjects came from the broader scientific literature on traumatic events (e.g., rape, physical abuse, sexual abuse, car accidents), including that dedicated to all types of disasters (e.g., wars, serious train, plane or boat accidents, fires, and earthquakes). Today, however, the corpus of empirical knowledge on the mental health problems in adults specifically caused by terrorism and on their treatment has allowed the realization of various narrative and meta-analytic reviews on the subject, such as, for example, those by DiMaggio and Galea (2006), García-Vera and Sanz (2016), García-Vera, Sanz y Gutiérrez (2016) and Gutiérrez Camacho (2015) on post-traumatic stress disorder (PTSD), the one by DiMaggio, Galea and Li (2009) on substance abuse, those by García-Vera and Sanz (2010) and Gutiérrez Camacho (2015) on depressive and anxiety disorders, the one by Salguero, Fernández-Berrrocal, Iruarrizaga, Cano-Vindel and Galea (2011) on major depressive disorder (MDD) and the one by García-Vera et al. (2015) on the treatment of these psychological disorders.

In addition, all of these reviews have focused primarily on studies that have evaluated the presence and treatment of diagnosable psychological disorders, rather than the mere presence or treatment of psychological symptoms, since without proper assessment of their severity, frequency, covariation and degree of interference, these may represent only the intense emotional responses that are part of the normal recovery process of people when faced with a traumatic event (Vázquez, Pérez-Sales & Matt, 2006). Therefore, the results of these studies largely confirm that the psychological alterations that are detected in people who have suffered a terrorist attack are clinically significant, and that the treatments that have been proven effective or useful, are so for alterations that are causing a significant deterioration in important areas of the person's activity (social, work, etc.).

The results of all of these reviews, together with the results of more recent empirical studies, coincide reasonably in indicating 11 conclusions on: (1) the number of adult victims who develop psychological disorders; (2) the most common types of psychological disorder; (3) the types of victims that will be most affected; (4) the most likely course of these disorders, and (5) the most appropriate treatment for these disorders, all of which will be detailed in the following sections.

HOW MANY VICTIMS OF TERRORIST ATTACKS DEVELOP PSYCHOLOGICAL DISORDERS?

1) Most adults affected by terrorism do not develop psychological disorders and manage to recover normally without problems.

The reviews agree that, even among the direct victims, who have the most psychological disorders, and taking into account the most common disorder, i.e., PTSD, the percentage of victims who do not have the disorder is greater than that of those who do, such that we can estimate that 60-80% of direct victims will not develop PTSD after a terrorist attack (DiMaggio & Galea, 2006; García-Vera & Sanz, 2016; García-Vera et al., 2016; Gutiérrez Camacho, 2015).

2) However, a significant percentage of adult victims develop psychological disorders, a percentage that is well above their prevalence in the general population, even multiplying this prevalence by 20 or 40, in the case of PTSD.

Focusing again on the direct victims and PTSD, the reviews indicate that 18-40% of them will develop the disorder (DiMaggio & Galea, 2006; García-Vera & Sanz, 2016; García-Vera et al., 2016; Gutiérrez Camacho, 2015). These percentages far exceed the prevalence of PTSD in the general population, which is estimated annually at 0.5%, 3.5% and 0.9% in Spain, the US and Europe, respectively (Haro et al., 2006; Kessler, Chiu, Demler & Walters, 2005; the ESEMeD /MHEDEA 2000 Investigators, 2004), so the prevalence of PTSD in direct victims would multiply by 36-80 its annual prevalence in the Spanish general population, by 5-11 in the US and by 20-44 in Europe.

WHAT KIND OF PSYCHOLOGICAL DISORDER IS MOST COMMON IN VICTIMS OF TERRORISM?

3) The most common psychological disorder after a terrorist attack is PTSD, but victims may present a variety of diagnosable psychological disorders. The most frequent are the following, in this order: MDD, anxiety disorders, especially generalized anxiety disorder and panic disorder with agoraphobia, and substance abuse or dependence disorders.

4) The percentages of victims who have these other disorders are well above their prevalence in the general population, even multiplying this prevalence by 5 or 10.

The reviews estimate that among direct victims, the average

[1] The search was conducted with the combination of the terms ("terrorist attack" or terrorism) and ("posttraumatic stress" or "post-traumatic stress" or "acute stress" or depression, depressive, anxiety, panic, alcohol or drug) in the summary and publication title fields.

prevalence of MDD is approximately 20-30% (García-Vera & Sanz, 2010; Gutiérrez Camacho, 2015; Salguero et al, 2011), that of generalized anxiety disorder is 7% and that of panic disorder is 6% (García-Vera & Sanz, 2010), while the prevalence of alcohol abuse in all types of victim would be 7.3% (DiMaggio et al., 2009). These figures far exceed those of the general population. For example, in Spain the annual prevalence of MDD, generalized anxiety disorder, panic disorder and disorders related to alcohol consumption is estimated at approximately 4%, 0.5%, 0.6% and 0.7% respectively (Haro et al., 2006), so the prevalence of these disorders in direct victims multiplies their prevalence in the Spanish general population by 5-7, 14, 10 and 10, respectively.

5) There is a high psychopathological comorbidity among the victims of terrorist attacks who have psychological disorders; for example, the simultaneous presence of PTSD and MDD is very common.

In the study by Miguel-Tobal, Cano Vindel, Iruarrízaga, González Ordi and Galea (2004) on 117 direct victims and relatives of those killed and injured in the attacks of March 11, it was found, 1 to 3 months after the attacks, that PTSD and MDD affected 36% and 31%, respectively, of the victims, but nearly 19% had both disorders simultaneously, so more than half of the victims who had PTSD also suffered from MDD.

The finding of this high comorbidity is important for prognosis and treatment, as comorbidity, especially that of PTSD with MDD, is associated with greater symptomatic severity, higher deterioration in the daily functioning and a more chronic course of symptoms and impairment (Kessler et al., 2005; Shalev et al., 1979).

WHAT TYPES OF VICTIMS PRESENT THE MOST PSYCHOLOGICAL DISORDERS?

6) Psychological disorders may appear in all types of victim, both direct (the wounded and survivors) and indirect (the relatives of those killed or injured in attacks, emergency, rescue and recovery personnel, and residents of the areas or cities affected by the attacks).

7) In all victims the prevalence of the disorders is above their prevalence in the general population.

8) The prevalence is higher among the direct victims and relatives of those killed and wounded than among emergency, rescue and recovery personnel or among people in the affected areas or cities.

If the average prevalence of PTSD among direct victims is 18-40%, the prevalence is about 17-29% among the relatives of the dead and wounded, 3-11% among residents of areas or cities affected and 5-12% among emergency, rescue and recovery personnel (García-Vera y Sanz, 2016; García-Vera et al., 2016; Gutiérrez Camacho, 2015), all much higher than the prevalence of PTSD of 0.5%, 3.5% and 0.9% found in the general population in Spain, the US and Europe, respectively.

WHAT IS THE COURSE OF THE PSYCHOLOGICAL DISORDERS IN THE VICTIMS?

9) A year after the attacks, their psychopathological consequences will have diminished considerably among the residents of the areas or cities affected and emergency, rescue and recovery personnel, but not much in those wounded by the attacks or the relatives of those injured or killed.

According to the meta-analysis by DiMaggio and Galea (2006), based on 18 studies, the majority cross-sectional, two months after the attacks an average prevalence of PTSD of 16% is observed among direct and indirect victims, which drops significantly to 14% after 6 months and again to 12% after a year.

However, these data must be clarified bearing in mind the types of victim and prioritizing the analysis of the results of longitudinal studies, which enable us to gain a better appreciation the course of a disorder. In this sense, the results of the review by García-Vera and Sanz (2016; see also García-Vera et al., 2016) indicate that 6-9 months after the attacks of 11-M, both among the residents of Madrid and the emergency and assistance personnel, a significant reduction was found in the frequency of PTSD (from 2.3% to 0.4% and from 1.2% to 0%, respectively), such that 6-9 months after the attacks, the percentage of people with PTSD in these two groups of victims was similar to its prevalence in the Spanish general population. In contrast, among the family members of those killed and injured in 11-M, the results are contradictory. In one study, the reduction in the frequency of PTSD was confirmed (from 28.2% to 15.4%), while in another no significant reduction was observed in the frequency of PTSD (from 34% to 31.3%) (García-Vera & Sanz, 2016). As for the direct victims of the 11-M attacks, the only longitudinal study published to date did not find, in the short or medium term, that over time a significant reduction occurred in the number of injured people who suffered PTSD; in fact, the percentage of injured people suffering this disorder 6 months after 11-M (34.1%) was almost equal to the percentage who were suffering after a month (35.7%), and only after a year could a significant reduction be seen in the prevalence of PTSD, which stood at 29%. However, despite these reductions, both among the relatives of the injured or deceased and among the direct victims, the prevalence of PTSD 6-9 months or a year after the attacks was still found to be well above its prevalence in the Spanish general population.

A similar pattern occurs in relation to the course of depressive and anxiety disorders in victims of terrorism. For example, longitudinal studies with direct and indirect victims of the attacks of 11-M have revealed that, 6-9 months after the attacks, there had been a significant reduction in the frequency of MDD among Madrid residents (from 8% to 2.5%) and emergency and assistance personnel (from 2% to 0%), while this reduction was lower among the families of those killed and injured (from 31.2% to 15.2%) and even lower among the injured victims (28.6% to 22.7%) (García-Vera & Sanz, 2010). Moreover, while among the residents of the affected city and emergency and rescue personnel these reductions meant that the prevalence

of MDD was similar to (or even lower than) the prevalence in the general population, these reductions did not mean that in the direct victims or the relatives the prevalence of MDD was similar to that of the Spanish general population, rather that, on the contrary, the frequency of the disorder in these two groups was still much higher (García-Vera & Sanz, 2010; Salguero et al., 2011).

10) Even in the very long term (5, 10 or 20 years after the attacks), there will be a very significant percentage of direct victims and relatives of the injured or deceased who continue to present psychological disorders.

A review of the studies of direct victims between 1 and 10 years after having suffered terrorist attacks has found that nearly 28% of those victims suffered from PTSD and 10% suffered from MDD (Gutiérrez Camacho, 2015; see also García-Vera et al., 2016), percentages which, although lower than those found between one month and one year after the attacks (41% and 24%, respectively), are much higher than those of the general population of Spain (0.5% for PTSD and almost 4% for MDD; Haro et al, 2006) and Europe (0.9% for PTSD and 3.9% for MDD; the ESEMeD/MHEDEA 2000 Investigators, 2004).

In fact, very long term psychological disorders may be more frequent depending on the circumstances in which the terrorist attacks occurred, the circumstances surrounding the victims after the attacks and the psychological care they may have received. For example, a recent study, in collaboration with the Association of Victims of Terrorism (AVT), with 507 direct and indirect victims (family members of those killed and injured) of all kinds of attacks in Spain, found that, an average of 21 years after the attack, 27% of victims suffered from PTSD, 18% MDD and 37% an anxiety disorder (Gutiérrez Camacho, 2015). The reasons why the victims of terrorism in Spain have such a high percentage of psychological disorders in the very long term (an average of 21 years after the attacks) may be varied, but we could offer a number of explanations, which are not mutually exclusive or exclusive of others, and presumably interact with each other to account for the high prevalence and have to do with historical factors related to the characteristics of terrorism in Spain, the support given to the victims of terrorism from Spanish society and the psychological attention they have received. Specifically, this high prevalence could be because Spanish victims have had: 1) an intense and repeated exposure to the attacks and major life stress behind them, in the form of direct or close exposure to other attacks, to news about attacks in the media, to street violence related to terrorism, to continued personal threats from terrorists or their environment, etc.; 2) little support from society, at least until very recently, and 3) inadequate psychological care, also at least until very recently.

According to López-Romo (2015), from 1991-2013 there were 5,113 *kale borroka* (street violence) attacks on companies in the Basque Country, in 2002 there were 963 people (politicians, judges, prosecutors, journalists, teachers, etc.) escorted due to having their lives threatened by ETA (not counting police officers, all of whom are targets of ETA), and from 1995-2000, there was an average of 804 terrorist attacks each year between actions of ETA and street violence. Moreover, during the "years of lead" of terrorism in Spain (1978-1988) there were more than 65 deaths per year due to attacks, more than one per week. Furthermore, according to data from a study by Martín Peña (2013), the psychological violence experienced by victims and those threatened by terrorism in the Basque Country was very high: 69% suffered social isolation, 68% experienced control and surveillance from people close to the terrorist environment, 74% received threats, 79% suffered scorn, humiliation and rejection, and 90% felt stigmatized. All of these data indicate, therefore, that the victims of terrorism in Spain, compared to victims of the attacks, for example, in the US, have experienced intense and repeated exposure to attacks and have subsequently suffered many stressful events related to them, which has probably aggravated their psychopathological consequences, since a greater exposure to trauma and a higher level of life stress afterwards are variables that have solid empirical support as risk factors for PTSD, for example (Brewin, Andrews & Valentine, 2000).

On the other hand, in Spain, during the 1970s, 80s and 90s, there was a lack of empathy, sensitivity and social support towards victims from society, such that there were times when they even had to "hide" and be almost ashamed of their status as victims, especially in the Basque Country and when direct victims belonged to the army or security forces (Calleja, 2006; López Romo, 2015; Rodríguez Uribes, 2013). For example, a study has revealed that for 76% of murders carried out by ETA during the years of transition (1978-1981) and 82% of those carried out during the years of democratic consolidation (1982-1995) there were no mobilizations of social support for the victims in the Basque Country, whereas, on the other hand, 100% of the murders of members of ETA were responded with demonstrations or strikes in support of the dead terrorists (López Romo, 2015). The lack of social support is precisely one of the risk factors strongly associated with PTSD (Brewin et al., 2000). Fortunately, with the founding in 1986 of *Gesto Por La Paz* [Gesture for Peace], an organization of civil society aimed to raise awareness and advocate an active social commitment of solidarity with the victims of terrorism, a systematic social response was initiated in support of the victims and in condemnation of terrorism, which became multitudinous after the murder of Miguel Ángel Blanco, PP councillor in Ermua, in 1997 (Rodríguez Uribes, 2013).

Finally, knowledge about the treatment of the mental disorders caused by terrorism was scarce in the 1970s to 1990s, and even when such knowledge was already available to the scientific and professional community (e.g., in the first decade of the 21st century), it was not properly put into practice by the health authorities. For example, according to the report by its director (Ferre Navarrete, 2007), the special plan for mental healthcare for those affected by the attacks of 11-M that was launched in Madrid between 2004 and 2006 hired twice the number of psychiatrists as psychologists, when currently the

treatment of choice for PTSD is psychological and not pharmacological (Australian Centre for Post-traumatic Mental Health [ACPMH], 2013; García-Vera et al, 2015; National Institute for Health and Clinical Excellence [NICE], 2005). In addition, this plan carried out, until December 2006, 3,243 first consultations and 14,497 monthly or bimonthly review consultations for the 3,234 patients treated, which represents an average of 4.5 monthly or bimonthly visits per patient and questions that such consultations could implement the psychological treatments that have currently been proven effective and useful for PTSD which involve a greater number of sessions and must be weekly (ACPMH, 2013; García-Vera et al, 2015; NICE, 2005). In fact, a recent study, in collaboration with the AVT, with a sample of 125 direct victims and relatives of those killed and wounded in the attacks of 11-M, found that an average of 8.6 years after the attacks, 33.6% of victims suffered from PTSD, 22.4% from MDD and almost 50% from an anxiety disorder, even though 70.4% of the victims had received some form of psychiatric or psychological treatment following the attacks, and 27.4% were receiving treatment at the time of participation in the study, the majority (58.4%) only psychiatric (Gutiérrez Camacho, 2016).

WHICH TREATMENT IS MOST APPROPRIATE FOR PSYCHOLOGICAL DISORDERS IN VICTIMS OF TERRORISM?

11) There are psychological therapies, particularly trauma-focused cognitive behavioural therapy (TF-CBT), that have been effective and useful in clinical practice for the treatment of PTSD and depressive and anxiety disorders from which victims of terrorist attacks may suffer, including those who suffer from such disorders in the very long term (15-25 years after the attacks).

As recently as 12 years ago, there were virtually no empirical studies published on the specific treatment of PTSD (or any other mental disorder) caused by terrorist acts, meaning that the recommendations on which treatments should be applied for the victims of terrorism were based on the literature on the efficacy and clinical utility of treatments for PTSD in people who had experienced other traumatic events, including war veterans, victims of physical violence or rape, refugees or survivors of accidents. Fortunately, this empirical literature is very copious and has allowed numerous revisions of experimental studies with control groups which offer solid conclusions about the treatments that have greater empirical support in terms of their efficacy for PTSD (e.g., ACPMH, 2013; Bisson et al, 2007; NICE, 2005) and on which clinical practice guidelines have been developed that are quite consistent in their treatment recommendations (e.g., ACPMH, 2013; NICE, 2005):

a) The treatments with the most empirical support are currently trauma-focused psychological therapies, in particular, exposure therapy, TF-CBT (which includes cognitive restructuring techniques together with exposure techniques), anxiety management training (or stress inoculation training) and EMDR (eye movement desensitization and reprocessing).
b) These therapies should be considered the treatments of choice for PTSD over other psychological therapies with some popularity (e.g., psychological debriefing) or drug therapies.
c) The pharmacological therapies should not be used as a routine first-line treatment for PTSD instead of trauma-focused psychological therapy, but they should be used when a patient does not want the psychological treatment or when, after application of the treatment in at least 12 sessions (usually lasting 50-90 minutes each), there has been no therapeutic benefits or they have been scarce.

Today, these recommendations can be clarified based on the scientific literature that has been specifically developed to assess the efficacy and clinical utility of different treatments in victims of terrorism. A recent review of this literature (García-Vera et al., 2015) indicates that, of the therapies of choice for PTSD that were named earlier, just TF-CBT and exposure therapy have been subjected to empirical study regarding their efficacy or clinical utility in adult victims of terrorist attacks suffering from such a disorder. The first of these is by far the most analysed (four efficacy studies, including three experimental ones, and three studies of clinical utility), and shows clearly positive and consistent results of efficacy and clinical utility. By contrast, exposure therapy has only had one single efficacy study and had lower results than those found for TF-CBT. For example, at post-treatment, only 17% of victims of terrorism with PTSD who received exposure therapy with a placebo drug improved clinically, and the percentage rose to 42% when this therapy was combined with paroxetine, but even so it was lower than the rates of clinical improvement that were found among the victims with PTSD who had received TF-CBT and ranged between 33% and 69%, with an average of 57.4%.

In summary, the results of the review by García-Vera et al. (2015) suggest that TF-CBT would be the therapeutic option of choice for the victims of terrorism who suffer from PTSD, at least until more studies and more favourable results on the efficacy of exposure therapy are published, until there are studies on the specific efficacy in victims of terrorism of other psychological therapies that have been proved effective for PTSD derived from other traumatic events (anxiety management training and EMDR), and, of course, above other psychological or pharmacological therapies that have not only never been tested with victims of terrorism but also lack adequate empirical support in terms of their efficacy for PTSD caused by other traumatic situations or they are less efficacious for it.

Corroborating the efficacy and clinical utility of TF-CBT for PTSD that the victims of terrorism may suffer, the results of three empirical studies recently conducted by the Complutense University of Madrid and the AVT with victims of all types of terrorist attacks in Spain (Cobos Redondo, 2016; Gesteira Santos, 2015; Moreno et al, 2016) and in which the efficacy and clinical utility was evaluated of a TF-CBT program with 16 sessions based on prolonged exposure therapy for PTSD by Foa, Hembree and Rothbaum (2007), but to which cognitive techniques were added for PTSD as well as other cognitive and

behavioural techniques for the treatment of other anxiety or depressive disorders that victims of terrorism may suffer alone or concurrently, indicate that:

a) TF-CBT is efficacious and clinically useful not only in victims of terrorist attacks who suffer PTSD, but also in victims who, in comorbidity with this disorder or alone, suffer MDD or anxiety disorders.

b) TF-CBT is also efficacious and clinically useful for victims of terrorism who suffer very long term PTSD, MDD and/or anxiety disorders, specifically an average of 18-20 years after suffering the attack.

c) TF-CBT is efficacious and clinically useful not only in the short-term (post-treatment and follow-up after one month) and medium term (follow-up after 3 and 6 months), but also long-term (follow-up after one year), such that keeps its therapeutic benefits at least until one year after application. For example, in the study by Cobos Redondo (2016) with 65 direct victims and relatives of those killed and wounded in terrorist attacks, if before receiving such therapy there were 65% of those victims suffering from PTSD and 46% suffering MDD, a year after completion of the therapy none of them suffered PTSD and only 3.5% had MDD.

CONCLUSIONS

The aim of this work was to present and analyse the most important conclusions that can be drawn from the scientific research published to date on the psychopathological consequences of terrorist attacks in adults and their treatment. From the results of different narrative and meta-analytic reviews of such research and the most recent studies, especially those carried out with victims in Spain, eleven conclusions can be drawn, which with a sufficient level of certainty, converge in affirming that, after a terrorist attack, both the direct and indirect victims (and among the latter, especially the relatives of those killed and wounded in attacks), need psychological monitoring and care in the short, medium, long and very long term. Although some aspects of these findings are still to be clarified, as well as many other aspects that were not included, these findings allow us to estimate after a terrorist attack how many adult victims will develop psychological disorders, which disorders are most frequent and what their course will be, what types of victims are most affected and what are the most appropriate treatment for their disorders, so this knowledge should inform the procedures of assessment, intervention and treatment that are implemented with the victims of terrorism.

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