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**COPEING WITH POST-TRAUMATIC STRESS IS NOT JUSTIFIED BY CRIME**



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**Abstract**

In addition to emotions of helplessness, terror, and dread, intense sentiments of rage have the ability to emerge as a response to traumatic experiences. Indeed, irritability and outbursts of anger are listed as one of the arousal symptoms of posttraumatic stress disorder (PTSD) in the Diagnostic and Statistical Manual of Mental Disorders (4th edition, text rev., American Psychiatric Association, 2000). This definition is found in the Diagnostic and Statistical Manual of Mental Disorders. In addition, Novaco and Chemtob (1998) noted out in their review on anger and PTSD that early findings revealed anger as a prominent component of posttraumatic stress responses. This was mentioned in their discussion of how anger and PTSD are related to each other.

**Keyword:** PTSD, Mental Disorders, Statistical Manual, posttraumatic stress disorder,

**Introduction**

An increasing number of studies have demonstrated, over the course of the past decade and a half, that anger is significantly increased following traumatic events and that the level of anger

is strongly correlated with the severity of PTSD (e.g., Chemtob, Hamada, Roitblat, & Muraoka, 1994; Riggs, Dancu, Gershuny, Greenberg, & Foa, 1992; Schuzwohl & Maercker, 2000). These findings have notable research conducted by Novaco and Chemtob (2002) investigated whether or not removing items from PTSD scales that measured anger and irritation would have an effect on the link between anger and the symptoms of PTSD. They discovered that the association was almost just as strong as it was when they used the complete PTSD measures, which suggests that the correlation was not an artefact caused by the research methodology. A recent meta-analysis found that anger and the severity of post-traumatic stress disorder (PTSD) are strongly correlated, with a mean effect size of  $r=.48$ ; that the correlation is significantly higher with increasing time since the event; and that the correlation is highest in samples with military war experience, with  $r=.56$ . This finding was based on the results of a sample of people who had gone through combat in the military (Orth & Wieland, 2006). Nevertheless, the link is robust in populations that suffered various traumatic events (such as criminal victimisation, technical catastrophe, and health trauma), with values ranging from  $.30$  to  $.48$  for the correlation coefficient.

To determine whether anger and PTSD symptoms reciprocally predict each other, whether anger and PTSD symptoms increase as a function of each other, whether anger and PTSD symptoms increase as a function of each other, or whether the relation is spurious because of third variables that affect both anger and PTSD symptoms. The information that has been gathered from longitudinal and therapy research, which will be discussed further below, does not let us to draw any definitive conclusions about the chronological order of rage and PTSD symptoms. Therefore, the purpose of this study was to evaluate the temporal sequence of anger and PTSD symptoms after a traumatic incident in order to better understand the relationship between the two.

There have only been a few of research on rage and PTSD that have used longitudinal designs up to this point. Some of the studies found that anger predicted the severity of PTSD at subsequent assessments (Ehlers, Mayou, & Bryant, 1998; Feeny, Zoellner, & Foa, 2000; Riggs et al., 1992). However, the effect size was small in Ehlers et al(1998) 's study, and PTSD severity at the prior assessment was not controlled for in Riggs et al(1992) 's study. Other research (Andrews, Brewin, Rose, & Kirk, 2000; Zoellner, Foa, & Brigidi, 1999) found that

anger did not substantially predict the degree of PTSD that would develop in the future. It is important to note that none of the research evaluated whether or not the severity of PTSD may predict rage in future evaluations. The results of therapy studies may provide more evidence on the connection between PTSD symptoms and feelings of rage. Cahill, Rauch, Hembree, and Foa (2003) found that three different treatments for PTSD resulted in a significant reduction in anger. In contrast, Foa, Riggs, Masie, and Yarczower (1995) reported that anger was not significantly reduced by treatment for PTSD. In their study, they found that anger was not significantly reduced by treatment for PTSD. Anger management therapy was studied by Chemtob, Novaco, Hamada, and Gross (1997) in Vietnam veterans suffering from post-traumatic stress disorder (PTSD). When contrasted with the standard care con. therapy for rage led to a higher decrease in the frequency of reexperiencing symptoms than did traditional treatment. Finally, research that investigated the moderating influence of pretreatment anger on the effectiveness of PTSD therapy showed either no significant findings (Cahill et al., 2003; Pitman et al., 1996) or only questionable results (Cahill et al., 2003). (Foa et al., 1995; Taylor et al., 2001). To conclude, the findings of treatment trials have been contradictory, which makes it impossible to draw definitive conclusions about the time order in which PTSD symptoms and rage manifest themselves.

Which psychological mechanisms can possibly account for the connection between symptoms of post-traumatic stress disorder and anger? Chemtob, Novaco, Hamada, Gross, and Smith (1997) came up with the hypothesis that people who suffer from PTSD have a significantly lower threshold for perceiving situations as being threatening, and that the perception of threat activates a biologically predisposed survival mode that includes anger reactions. They tested their hypothesis using individuals who had been diagnosed with PTSD. Riggs and colleagues (1992) came up with the hypothesis that people who suffer from PTSD are driven to avoid experiencing emotions of dread, and that anger acts as a welcome distraction from painful memories that stimulate feelings of terror.

Traumatized individuals, for instance, ruminate about how the event could have been avoided or how life has changed as a result of it (cf. Ehlers et al., 1998; El Leithy, Brown, & Robbins, 2006). Another possible explanation comes from cognitive models of PTSD, which suggest that the severity of PTSD is correlated with rumination about the traumatic event and its

consequences. The cognitive and emotional components of a memory structure are both active concurrently when one ruminates, which enhances the links between the two. Therefore, ruminating may enhance feelings of depression (see Nolen-Hoeksema and Morrow, 1991), but it can also raise feelings of anger (Rusting & Nolen-Hoeksema, 1998).

Because it is believed that the trauma-related associative network is connected to both PTSD symptoms (such as intrusive memories) and anger eliciting memories, frequent trauma-related rumination may be able to increase the relationship between PTSD symptoms and anger. In the current study, we conducted an analysis of two different sets of longitudinal data that included victims of crime. In Study 1, the analyses were based on four repeated evaluations that took place during the first three months following the attack. In Study 2, the analyses were based on two assessments that took place around five and seven months after the assault. The statistical research was carried out with the assistance of cross-lagged regression analyses, which were based on structural equation modelling.

Events that are traumatic have the potential to develop a mental illness known as Post-Traumatic Stress Disorder, or PTSD for short. This disorder has a common name. This mental disease may be brought on by a variety of traumatic experiences, including war, rape, abuse or violent personal attack, natural catastrophe, domestic violence, accident, and so on. Debunking the concept of post-traumatic stress disorder (PTSD) becomes a vital undertaking due to the fact that the underlying cause of PTSD might be anything. The symptoms shift with time and differ from one individual to the next. However, the actual reason for PTSD is not yet fully understood by medical professionals. Therefore, the subject of whether or not PTSD may be used as a defence in legal proceedings has to be handled with the appropriate level of accuracy.

The writers of this piece have made it their mission to shed light on the mysteries surrounding PTSD symptoms and cases. The intricate medicolegal issues have been boiled down to their essentials in order to reawaken the audience and raise awareness about the need of an efficient legal system that can handle instances involving mental health and veterans.

## **POST-TRAUMATIC STRESS DISORDER AND HOW TO RECOGNIZE IT IN A HISTORICAL TRACE**

In the realm of law, post-traumatic stress disorder (PTSD) is most frequently mentioned as an element of a defence against criminal charges. It is also frequently utilised as an element of a defence strategy against insanity or diminished capacity, or as a mitigating factor during the sentencing process. A diagnosis of post-traumatic stress disorder (PTSD) may have a material impact on the result of a case. The majority of people who suffer from PTSD are veterans who have served in the military. In contrast to other mental diseases, post-traumatic stress disorder (PTSD) is used in legal proceedings not just by defence attorneys but also by attorneys representing the prosecution. The existence of post-traumatic stress disorder (PTSD) in a victim, for example in the form of "rape trauma syndrome," may be cited by the prosecution as evidence supporting the actual occurrence of the alleged criminal act. This may be the case if the victim has been diagnosed with "rape trauma syndrome." Pitman, in 1996, conducted a literature analysis on the subject of post-traumatic stress disorder (PTSD), and he defined the criteria that characterised PTSD as it relates to criminal defence.

Even before post-traumatic stress disorder was classified in the DSM and ICD, traumatic stress was acknowledged as a valid insanity defense.

### **POST TRAUMATIC STRESS DISORDER AS INSANITY DEFENSE**

One of the basic exceptions to the rule of criminal responsibility is insanity. Insanity is included as a possible defence in Section 84 of the Indian Penal Code, which was enacted in 1860[6]. The text of Section 84 states, "Act of a person of unsound mind.—Nothing is an offence which is done by a person who, at the time of doing it, by reason of unsoundness of mind, is incapable of knowing the nature of the act, or that he is doing what is either wrong or contrary to law." There is no offence that can be committed by a person who, at the time of doing it, because of unsoundness of mind, is incapable of knowing the nature of the [7] It is at this point that the mens rea concept comes into play. Traumatic stress syndromes, such as traumatic neurosis of war, were effectively given as foundation for criminal defences long before post-traumatic stress disorder (PTSD) was recognised as a formal diagnosis.

The fact that many jurisdictions utilise a variety of methods to determine sanity has significant repercussions for defendants who have been diagnosed with post-traumatic stress disorder (PTSD). Individuals suffering from combat-related PTSD may be cognitively aware of their

actions when they psychologically relive the traumatic event(s), but they may be unable to control their behaviour. This is because, during the interview and clinical observation, people with PTSD frequently believe they are in combat and react with violence as they would in a real combat situation. As a result, persons in this category may be able to get an acquittal in a country that has maintained the violation component of the insanity defence. [9] In matters involving insanity, the burden of evidence may be divided into two parts: the first is the burden of production, and the second is the burden of persuasion. Before a criminal conviction may be secured, the burden of production falls with the prosecution, which must demonstrate beyond a reasonable doubt that the accused committed the crime. However, the burden of persuasion may fall not only on the accused but also on the prosecution in certain cases. Because the accused bears the burden of proof, it is their responsibility to provide evidence that casts reasonable doubt on their mental capacity. Therefore, even if a diagnosis of post-traumatic stress disorder (PTSD) is acknowledged as a legitimate basis for the insanity defence in the context of a test of insanity and some evidence exists regarding the necessary linkage of the mental disorder to a cognitive or volitional impairment, the courts differ on whether the prosecution of the accused bears the burden of persuasion, which is a distinction that can lead to very different results. This difference can have a significant impact on the outcome.

## **REVIEW OF LITERATURE**

Brunet et al. (2001) and Ford et al. (2015), victims of violent crime experience a severe disruption in their sense of safety, security, predictability, and control. This disruption is an essential component of the crisis state that these victims find themselves in. To be more specific, a crisis develops when a person's efforts to lessen the danger posed by the stressor are unsuccessful, and the individual is unable to reestablish safety, security, or control of the situation (Roberts, 2002; Santiago et al., 2013). As a consequence of this, an individual will feel as if they are in constant danger, which will lead to hostile and unfavourable assessments of themselves, others, the world, and the future (Ehlers & Clark, 2000; Beck et al., 1979). As a consequence of this, victims may have difficulty accepting the possibility that they would get assistance from a third party, which in turn lowers their degree of participation in the therapeutic process (Seguin et al., 2006; Shea, 2005). Therefore, the clinician has to first establish a rapport with the client in order to elicit therapeutic involvement, and then they need

to gather as much information as they possibly can in order to carry out the most appropriate evaluation. Establishing and maintaining rapport should continue to be a top concern throughout the whole process (Yeager & Roberts, 2015). According to Shea (2005), the capacity of the therapist to create rapport with the victim is determined by a number of characteristics, and these qualities are significant in the process of eliciting therapeutic involvement.

According to Yeager and Roberts (2015), effective crisis workers have three characteristics in common: empathy, authenticity, and warmth. These characteristics allow them to effectively create rapport with victims of a crisis. Survivors will report feeling more comfortable and, as a result, will be more inclined to divulge information as a result of the engaged and non-judgmental attitude of the professional (Walsh et al., 2003). As a result, demonstrations of empathy, authenticity, and warmth might lessen the victim's sense of isolation, which in turn increases their faith in the clinician's capacity to assist them (Seguin et al., 2006; Shea, 2005). The victim's emotional privacy should be respected, and the therapist should be cognizant of the person's limits and follow that person's pace (Shea, 2005) in order to provide a safe atmosphere for the victim. In particular, restoring the victim's sense of control and respect, both of which had been compromised by the traumatic stressor in the past, is an effective way to empower the victim. As a result, victims grow more at ease with giving information as long as the therapist continues to show empathy, authenticity, and warmth, and as long as they continue to respect boundaries (Shea, 2005). Because the physician is so patient, a rapport is able to develop with the patient, and the patient's credibility in the eyes of the patient also grows as a consequence (Roberts and Yeager, 2009).

Shea, 2005, In turn, portraying professional competence may transmit safety, to the point that the victim feels comforted by the clinician's competences and feels as if he or she is in excellent hand. The nature of the therapeutic interaction has to be collaborative in order to offer the victim with a feeling of self-efficacy and control, as well as to give them influence over the therapeutic process, which is why they need to have control over it (Roberts & Yeager, 2009). As a result, the intervener has to steer clear of assuming control and instead provide adaptable solutions that take into account the survivor's specific predicament (Shea, 2005). The role of the intervener is analogous to that of a scaffold, in that they provide the victim with instruments and resources that expand their repertoire of coping strategies. This, in turn, results in the victim experiencing

a greater sense of control and self-efficacy over the outcome of the crisis (Roberts & Yeager, 2009).

## **RESEARCH METHODOLOGY**

### **BACKGROUND TO THE EMPIRICAL STUDIES**

#### **The epidemiology of posttraumatic stress disorder**

The following are the three most important issues that are addressed by epidemiological research: How prevalent is the illness in the population? Who is affected by this condition? Why does it happen? When doing research on the epidemiology of PTSD, the researcher must overcome two obstacles. The first step is to determine the level of trauma exposure, or to put it another way, to evaluate the level of trauma experience in accordance with criteria A in the DSM-IV. The identification of each individual instance is the second obstacle. Comparisons of cases to controls are at the core of epidemiological research. In this context, the term "case" refers to a person who satisfies the diagnostic criteria for post-traumatic stress disorder (PTSD). Because of the variety of symptoms that may accompany PTSD and the fact that the condition itself can be difficult to diagnose, researchers are need to conduct thorough examinations. Although the syndromes of post-traumatic stress disorder (PTSD) are fairly distinct and identifiable, as described in the DSM-IV (see Table 2), people who suffer from PTSD can vary greatly in their overall pattern of symptoms, the degree to which they are impaired, and the degree to which they show symptoms.

#### **Trauma prevalence**

The form of trauma that has been examined the most in relation to post-traumatic stress disorder (i.e., papers indexed in Entrez PubMed, June 2003) is war exposure, particularly that which was experienced by male Vietnam veterans. There are 1177 publications on this topic (Vietnam veterans: 629 articles; male Vietnam veterans: 543 articles). Another sort of trauma that is often researched is the aftereffects of childhood sexual and physical abuse in adulthood (sexual abuse: 197 articles; physical abuse: 91 articles). The third most frequent area of emphasis has been placed on physical and sexual assault, in particular with women as victims (physical assault: 86 articles; on women: 80 articles; sexual assault: 141 articles; on women: 133 articles).



The National Comorbidity Survey (Kessler, Sonnega, Bromet, Hughes, and Nelson, 1995) found that 60.7% of men and 51.2% of women had experienced at least one traumatic event at some point in their lives. This was determined by using the DSM-III-R criteria and a modified version of the Diagnostic Interview Schedule (DIS), which measured an extensive number of psychiatric disorders in addition to PTSD. The most recent research that looked at a large community sample of younger adults in the United States (aged 18–45) and examined DSM-IV-diagnosed PTSD by using the Distress Inventory for Survivors (DIS) and the Composite International Diagnostic Interview (CIDI), found that the prevalence of total traumatic events was 89.6%. (Breslau et al. 1998).

**The life-time prevalence of trauma and posttraumatic stress disorder (PTSD) in community samples from the general population**

Sample features	Exposure to at least one traumatic event %			Prevalence %			Risk of PTSD after exposure to trauma %	Reference
	Male	Female	Total	Male	Female	Total		
<b>USA</b> community sample 2493 persons				0.5	1.3	1.0		Helzer et al. 1987
<b>USA</b> community sample 2985 persons aged 18-95			2.3	0.9	1.7	1.3		Davidson et al. 1991
<b>USA</b> national sample 4,008 women aged 18 -		68.9	68.9		12.3	12.3	17.9	Resnick et al. 1993
<b>USA</b> national sample 5,877 persons aged 15-54	60.7	51.2	55.8	5.0	10.4	7.8		Kessler et al. 1995
<b>USA</b> community sample 2181 persons aged 18-45			89.6			8.3	9.2	Breslau et al. 1998
<b>Germany</b> community sample 3021 persons aged 14-24	25.2	17.7	21.4	1.0	2.2	1.3	7.8	Perkonig et al. 2000
<b>Sweden</b> national sample 1,824 persons aged 18-70	84.8	77.1	80.8	3.6	7.4	5.6	6.9	Frans et al. 2003

Both the kinds of traumatic experiences that are most closely linked to PTSD and the sociodemographic factors that are connected with it are not well understood. It has been

hypothesised that certain traumatic experiences, such as sexual abuse, are more likely to result in post-traumatic stress disorder (PTSD) than others, and that the perceived severity of the traumatic event might be a primary component in the development of PTSD (cf. Norris, 1992). There have been reports of gender differences in the risk factors for post-traumatic stress disorder (PTSD), with combat experience being the most usually connected factor in males, while rape and sexual assault carry larger risks in women (Kessler, Sonnega, Bromet, Hughes, and Nelson, 1995). Therefore, gender disparities may, at least in part, represent exposure to different kinds of traumatic events or exposure rates, or, alternatively, they may reflect differential impacts of the perceived impact of the event.

## **DATA ANALYSIS**

### **THE EMPIRICAL STUDIES**

#### **General aspects of the method in Studies I, II, and III**

##### **Samples**

The sample for all three investigations included 3,000 people: 1,500 men and 1,500 women, with ages ranging from 18 to 70 years old. These people were chosen at random from the general population in Sweden by making use of a population-based register run by the Sema Group. Each participant was sent an explanation letter, a questionnaire, a separate identification sheet, two postage-paid return envelopes, and a questionnaire, which are all described further down in this article. The purpose of the study was explained in the letter, and participant anonymity was ensured. In order to protect the respondents' privacy, we requested that they send the questionnaire and the ID sheet back in two different envelopes. After a period of three weeks, those who had not yet responded received a courtesy reminder in the mail. The surveys and pre-paid return envelopes were resent to nonrespondents after a period of six weeks, and then another reminder was sent to them after an additional two weeks had passed.

It was requested of the respondents that they provide their names and addresses, along with their willingness or unwillingness to be contacted in the future. In order to analyse the test-retest reliability, the questionnaire was sent to the 157 individuals who responded to the survey six months following the original evaluation. In addition, they filled out the PTSD checklist (PCL) (Blanchard, Jones-Alexander, Buckley, and Forneris, 1996; Weathers, Litz, Herman, Huska,

and Keane, 1993), which is a questionnaire that is used in the diagnosis of PTSD and has been validated against the CAPS (Blake et al., 1990). This questionnaire was developed by Blanchard, Jones-Alexander, Buckley, and Forneris. As a result, the responses from the second cohort's questionnaire were used in an investigation of the test-retest reliability and validity of the questionnaire (also known as sensitivity and specificity). Seventy-five participants, or 2.5 percent of the total, returned their ID papers but declined to take part in the research. Eight participants, or 0.26 percent of the total, had relatives who thought they were too sick to take part in the study. It was not possible to get in touch with sixty-six persons (2.2%) via the mail, thus their surveys were returned as undelivered. It was not feasible to make sense of the responses provided by five responders (0.16%), while 1,022 individuals (34% of the total) did not provide any feedback at all. Therefore, a total of 30 1 824 people (60.8% of the population) met the requirements for the analyses (863 males and 961 women, with a mean age of 42.99 and a standard deviation of 14.85).

The second sample, which was solely utilised in research III, was processed exactly the same as the first, with the exception that TRA-related items were left out (see 3.3.2). This sample included 1,000 adult males and 1,000 adult females, ranging in age from 18 to 70 years old, and was randomly chosen from a population-based registry in Sweden that included the greater Stockholm region (Enator). 1,207 persons' questionnaires could be interpreted, which is a 60.4% response rate.

### **Questionnaire design and diagnostic process**

The questionnaire was divided into two portions with their own specific questions. The first section of the report was devoted to providing a descriptive analysis of the following sociodemographic factors: gender, age, place of residence (city, urban vs. countryside, rural), educational level (low, medium, and high, corresponding to 1–9 years of elementary school, high school or trade school, and university or university college training, respectively), and immigration status (whether the respondent was born in the United States or somewhere else), and immigration status.

The diagnosis was presented in the second segment. The DSM-IV was used as a guide for the diagnostic process. To begin, in order for the individual to satisfy criteria A, they needed to

confess that they had gone through, observed, or been faced with an occurrence that included real or threatened death or significant harm, or a danger to the bodily integrity of themselves or others. In addition to this, the individual's reaction had to be described as "extreme dread, helplessness, or terror." After that, there was a series of true/false (yes or no) questions that used all of the DSM-IV items for criterion B–D. If at least one of the five different kinds of questions that were asked revealed that a symptom of reliving the traumatic experience was present, then criterion B was satisfied. The first category was comprised of inquiries on "intrusive pictures, ideas, or perceptions." The second re-experience question asked the subject whether or not they had been having disturbing nightmares about the traumatic event. A third inquiry inquired about whether or whether the individual had any sensations that the horrific experience was happening again. The fourth question questioned the presence or absence of psychological suffering in circumstances that were analogous. Last but not least, we investigated whether or whether there were any physiological responses to trauma-related stimuli.

In order to satisfy the avoidance/numbing criteria, also known as criterion C, at least three symptoms have to be validated on a constant basis. The first round of inquiries focused on the avoidance of ideas, emotions, and discussions that were connected to the traumatic experience. In order to have a better idea of the second symptom, the participants were asked whether they tried to steer clear of things, locations, or persons that brought up memories of the traumatic event. The inability to remember a crucial feature of the traumatic event was the third symptom that was investigated, and the lack of interest in taking part in significant activities was the fourth symptom. The fifth and sixth sets of questions confirmed that the respondent was experiencing emotions of separation from other people as well as limited affect or 31 numbness, respectively. At last, the participants were questioned on whether or not they had a perception of a limited amount of time remaining.

If at least two signs of increased arousal were recorded, then Criterion D was considered to have been satisfied. The following topics were covered in the questionnaire: having trouble falling asleep or staying asleep, having outbursts of rage or impatience, having trouble focusing, and being hypervigilant. The last question that was asked of the participants was whether or not they experienced an excessive startle reaction.

In order to meet the requirements of criteria E, the length of the disruption required to be more than one month.

If the individual stated that they had suffered significant distress or functional impairment in at least one of the three life areas, then the criterion F was considered to have been satisfied (personal, social, or professional life).

Therefore, the assessment of event prevalence and PTSD symptoms were handled in separate sections of the questionnaire. This was done rather than instituting a method that required the subject to make a connection between a specific traumatic event and PTSD symptoms, such as the DIS, which was utilised in the research project dealing with the Epidemiologic Catchment Area (Helzer, Robins, and McEvoy, 1987). The Dissociative Identity Scale (DIS) has been criticised due to the fact that the traumatic event and PTSD are not evaluated independently from one another. Instead, the events that induce the symptoms of PTSD are required to be subjectively perceived as being related to the traumatic event that preceded the symptoms. This requirement has led to the DIS coming under fire.

The categorical definitions of symptoms in DSM-IV call for a categorical assessment arrangement, which verifies the presence or absence of the events or symptoms. The alternatives for answers on the questionnaire were "yes" or "no," which were appropriate response choices since these definitions call for categorical assessment arrangements.

### **Trauma event evaluation**

Seven distinct traumatic experiences were evaluated using true/false alternatives as part of the process of assessing trauma experiences. If the real option was chosen, the next set of questions focused on the depth of the trauma that was experienced. This was measured on a scale of ten points that ranged from "no distress" (1) to "highest anguish" (10). Robbery, physical assault, sexual assault (including any sort of unwanted sexual interaction), abrupt unexpected loss of a loved one (tragic death), military experience, and TRAs were all regarded as traumatic experiences. A blank field was provided for "other traumas," and it was expected for the slot to be evaluated appropriately. Every single person who mentioned a "other trauma" also mentioned at least one other painful experience in their report. As a result, the variable "other

traumas" was used in the process of calculating the frequency of traumatic experiences as well as the severity of those experiences, but it is not reported separately.

### **Psychometric qualities and characteristics**

The test-retest reliability of the questionnaire was determined to be 0.86 (n=157) after being administered over a period of six months.

Using the PCL (Weathers, Litz, Herman, Huska, and Keane, 1993) as a point of reference, the sensitivity of the questionnaire was estimated to be 100% (19 of 18), while the specificity was estimated to be 99% (136 of 137) for the DSM-criteria IV's B–D (n=155). Diagnosis based on the questionnaire resulted in one false positive and one false negative. A total correlation of 0.93 was found between the PTSD assessment tool known as the CAPS and the PCL, which is considered to be one of the most reliable tools available (Blanchard, Jones-Alexander, Buckley, and Forneris, 1996). Accordingly, it was determined that the questionnaire has adequate psychometric qualities (see to Mueser et al., 2001 and Ventureyra, Yao, Cottraux, Note, and De MeyGuillard, 2002 for references).

### **An examination of the attrition rate**

50 non-responders were chosen from the group of 1,022 non-responders to participate in a telephone survey approximately six months after the final reminder was sent out. These non-responders were matched to the original sample in terms of sex, age, and place of residence (urban or rural). There were 25 men and 25 women chosen for the survey, and their ages ranged anywhere from 18 to 70 years old on average. If a subject did not want to participate (n = 8) or could not be reached by phone, another subject who fulfilled the criteria was selected from the list of non-responders. Those that were selected were first asked whether they would be willing to answer a few quick questions from the questionnaire if they were chosen. The individuals who gave a favourable response were then questioned whether or not they had been through any traumatic experiences. If they said that they had, then we questioned them about whether or not they had been unable to finish the questionnaire because they were significantly distressed or hindered when they were reminded of the traumatic event. If the answer to the previous question was "yes," our next line of inquiry was to determine whether or not criterion F was met by inquiring as to whether or not the individual experienced significant distress or impairment

in social, occupational, or any other significant aspect of day-to-day functioning. Therefore, the trauma experience, confessing to acute anguish, and functional impairment were the surrogate markers for the diagnosis. As a result of the attrition analysis, the estimated PTSD prevalence (6.0%) came out to be the same as the level found in the epidemiological research, which suggests that the sample was representative of the community as a whole.

**The studies suffer from a number of methodological flaws.**

When doing epidemiological research on PTSD, obtaining a history of lifetime trauma presents a number of challenges in their own right. In the overall trauma evaluation, we did not ask the subject to describe the sequence of the events in chronological order. Instead, in the event that the subject had experienced many traumatic incidents, we asked them to score solely the emotional effect of each traumatic event. As a result, we are unable to assess the influence that the order of 33 traumas has on the development of PTSD (for example, whether the first or most recent incident is responsible for the development of PTSD, or if the trauma order has any effect at all, or whether there are cumulative effects).

**CONCLUSIONS**

Around one in ten traumatic experiences will result in post-traumatic stress disorder (PTSD), giving Sweden a lifetime prevalence of 5.6% for the condition. Traumatic experiences are widespread in the Swedish community, as is PTSD. The ratio of females to males is two to one. When there is a significant emotional effect linked with the traumatic event, the likelihood of developing PTSD goes up significantly. The likelihood of getting PTSD is increased not just by moderate but also by severe TRAs. It suggests that women are more susceptible to the disturbing effects of a particular traumatic event than males are. This might point to a higher susceptibility in females, which would explain for some of the variations between the sexes. The PTSD symptomatology may be explained for just as well using any of the factor analytic models that have so far been reported in the scientific literature; the DSM-IV does not give a better match to the data than any of the other models. It is possible that the prefrontal and paralimbic cortices are responsible for mediating the anxiolytic impact of SSRIs on the symptoms of PTSD. The data imply that therapy with SSRIs may restore the abnormalities in

rCBF that are produced by provocation in regions of the brain involved in memory, emotion, attention, and motor control.

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