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Full and subthreshold Post-Traumatic Stress Disorder seven years after a flooding in rescue squads[1]

Полное и частичное Посттравматическое Стрессовое Расстройство спустя семь лет после участия в командах по спасению жертв наводнения

Summary. Aims**:** In this study, we decided to evaluate after 7 years the frequency and severity of PTSD on ambulance personnel employed in assistance operation of 1996 Cardoso's flood. Methods**:** The ambulance personnel sample was formed by 34 subjects. The Clinician-Administered PTSD Scale for DSM-IV and the Davidson Trauma Scale were used for assessing diagnosis and PTSD symptoms, respectively. Results**:** In lifetime period, 52,9% (N=18) of patients, had full PTSD, 14,7% (N=5) subthreshold PTSD with impairment, 14,7% (N=5) subthreshold PTSD without impairment, and 17,7% (N=6) had no PTSD. In current period, 11,8% (N=4) of patients, had full PTSD, 11,8% (N=4) subthreshold PTSD with impairment, 17,6% (N=6) subthreshold PTSD without impairment, and 58,8% (N=20) no PTSD; 1 patient (female) had delayed onset full PTSD after 1 year, 1 (female) had delayed onset subthreshold PTSD with impairment after 2 year, and 2 patients (both males) had delayed onset subthreshold PTSD without impairment after 2 years. Furthermore, scores on DTS show that not only full PTSD, but even the subthreshold form is associated with scores significantly higher than no PTSD ($p<.05$). Discussion**:** This study shows the persistence of a level of PTSD morbidity 7 years after the event, suggesting that even in emergency workers the psychosocial impact of the event is not time-limited, emphasizing the need for preventive interventions, both immediately after the catastrophic event and in the long term. Moreover, also for emergency workers is confirmed the concept that dichotomizing people into those with and without PTSD following DSM-IV criteria represents a simplification that obscures the clinical problems and needs of those with some, but not full, symptom criteria of PTSD.

Резюме. Цели: В этом исследовании мы решили оценить частоту и выраженность Посттравматического Стрессового Расстройства (ПТСР) у персонала службы неотложной помощи, задействованных при оказании помощи жертвам наводнения 1996 года в Кардозо, спустя 7 лет после этого события. Методы: выборка персонала неотложной помощи состояла из 34 человек. Для выявления ПТСР и регистрации его симптомов применялись диагностическая шкала DSM-IV для выявления ПТСР и Шкала Травмы Дэвидсона (ШТД). Результаты: В течении жизни 52,9 % (N=18) пациентов страдали от полного ПТСР, 14,7 % (N=5) - частичного ПТСР со значимым нарушением функционирования, 14,7 % (N=5) - частичного ПТСР без значимого нарушения функционирования, и 17,7 % (N=6) - не имели ПТСР. В момент обследования 11,8 % (N=4) пациентов имели полное ПТСР, 11,8 % (N=4) - частичное ПТСР со значимым нарушением функционирования, 17,6 % (N=6) частичный ПТСР без значимого нарушения функционирования, и 58,8 % (N=20) не имели ПТСР; одна пациентка имела отсроченное начало полного ПТСД спустя год, одна пациентка имела отсроченное начало частичного ПТСР со значимым нарушением функционирования спустя 2 года после происшествия, и 2 пациента имели частичное ПТСР без значимого нарушения функционирования спустя 2 года. Кроме того, ШТД показала, что не только полное ПТСР, но и даже частичная форма связана с показателями значительно более высокими, чем отсутствие ПТСР ($p <.05$). Обсуждение: Это исследование показывает постоянство уровня заболеваемости ПТСР спустя 7 лет после происшествия. Это позволяет предположить, что даже среди работников служб спасения психосоциальное воздействие трагедии не ограничено временем, что подчеркивает потребность в профилактических вмешательствах, и немедленно после катастрофического случая и в долгосрочной перспективе. Кроме того, и для работников служб спасения подтверждена концепция, что простое разделение людей как имеющих и не имеющих ПТСР следуя критериям DSM-IV является упрощением, которое затеняет клинические проблемы и нужды тех пациентов, которые не соответствуют полностью критериям ПТСР.

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Introduction

The psychological consequences of natural disasters have been investigated extensively in recent years (Maj et al., 1989; Rubonis et al., 1991; Freddy et al., 1992; Lima et al., 1993; Goenjian et al., 1994; Bland et al., 1996; Sharan et al., 1996; Bland et al., 1997; Carr et al., 1997; McFarlan et al., 1997; Armenian et al., 2000). Studies using standardized diagnostic criteria have reported a prevalence rate of Post-Traumatic Stress Disorder (PTSD) of 10-30% in population exposed to a natural disaster (Armenian et al., 2000; Madakasira & O'Brien, 1987; Steinglass & Gerrity, 1990; Lima et al., 1991; Green et al., 1992; Garrison et al., 1995; Wang et al., 2000), substantially higher than that observed in the general population (1-8%) (Davidson et al., 1991; Resnick et al., 1993; Kessler et al., 1995; Solomon & Davidson, 1997; Perkonigg et al., 2000).

Over the past two decades, there has been increased awareness of consequences of exposure to tragic and gruesome events in emergency-service work and the potential for traumatic stress symptoms. A study of firefighters (Bryant et al., 1996) reported high rates of significant distress, or severe distress, of 26% measured with the IES (Impact of Event Scale; Horowitz et al., 1979). Emergency responders reported symptoms that included recurrent dreams, feelings of detachment, dissociation, anger, irritability, or depression, memory or concentration impairment; somatic disturbances; and alcohol and substances use (Alexander et al., 2001; Bryant et al., 1996; Gersons et al., 1989; Solomon et al., 1986). Two empirical investigations of emergency services personnel responding to the 1989 Loma Prieta earthquake (Marmar et al., 1996; Weiss et al., 1995) suggested that approximately 9% of the workers showed psychiatric symptoms at the level of those of an outpatient population. Ambulance service workers in particular were found responding to more emergency calls than the police and fire service combined (James & Wright, 1991) and may suffer greater psychological distress than these other groups (Marmar et al., 1996). 30% of ambulance personnel in Scotland (Alexander et al., 2001) reported symptoms in the high range of the Impact of Event Scale (IES). Thompson & Suzuky (1991) studied 40 experienced ambulance workers selected randomly from the London Ambulance Service, using the Impact of Event Scale (IES). Their sample scored high on the intrusion scale of the IES and 60% showed signs of 'probable psychological distress' as detected by the GHQ (General Health Questionnaire; Goldberg, 1972). Emergency workers are furthermore at risk of developing post-traumatic stress disorder (PTSD). Studies of emergency staff responding to disasters report prevalence rates of between 10% and 17% (Anderson et al., 1991; Durham et al., 1985; McCammon et al., 1988). A study of body handlers (Ursano et al., 1995) found that 11% had PTSD 3 months after their disaster work. Troops deployed in operation Desert Storm who performed graves registration duties had increased posttraumatic stress symptoms (McCarrol et al., 1993; Sutker et al., 1994a,b); nearly one-half had current PTSD (Sutker et al., 1994b). Rentoul & Ravenscroft (1993) also studied the London Ambulance Service and found that 15% of frontline staff could be given a full diagnosis of PTSD.

Despite these findings, emergency personnel have not been investigate as extensively as the 'primary victims' in natural disasters (Taylor & Frazer, 1982). A stereotype of victims as 'helpless and resourceless' and helpers as 'strong and resourceful' (Short 1979, cited in Shepherd & Hodgkinson, 1990) may be partly responsible for this lack of research.

Emergency responders also experience PTSD symptoms that often extend beyond the acute-crisis phase and become chronic in nature (Marmar et al., 1999; McFarlane, 1988a). Disaster workers infact are at risk of both acute and chronic PTSD (McFarlane, 1988b). However, emergency workers, have not been studied as much as primary victims regarding PTSD outcome. In a study of civilian survivors of traumatic events in Israel, 39% had diagnosable PTSD 1 month following trauma, 17% PTSD 4 months after trauma and only 10% had PTSD 1 year following trauma (Shalev et al., 1997; Freedmen et al., 1999). Recovery from early PTSD has been estimated, in an epidemiological study, to involve 60% of those initially expressing the disorder (Kessler et al., 1995). In the National Vietnam Veterans Readjustment Study, the difference between lifetime and current prevalence of PTSD (30% and 15,2%) suggests an overall 50% recovery or remission rate of those once diagnosed as suffering from the disorder (Kulka et al.,1990). Similar recovery rates were obtained in prospective studies (Dunitz, 2000).

Moreover, the DSM-IV identifies delayed onset PTSD when the condition develops at least 6 months after the traumatic event. There are case studies of delayed onset PTSD developing as long as 30 years after the alleged precipitating event (van Dyke et al., 1985). In terms of the frequency of this form of PTSD, delayed onset appears to be a rarely diagnosed condition. Large scale studies of civilian trauma have reported delayed onset PTSD in a very small minority of cases (range: 4,4%-6,2%, Buckley et al., 1996; Ehlers et al., 1998; Mayou et al., 1993). The rarity of this condition has made empirical study of delayed onset PTSD difficult to conduct.

Finally, may be interesting to consider the subthreshold form of PTSD. Infact Stein et al. (1997) found subthreshold PTSD with impairment to be prevalent in 2-3% of the normal population at a chronically significant level. Davidson (2002) found in a sample of 630 subjects from normal population, that 26 (4,1%) fulfilled criteria of subthreshold PTSD with impairment and 78 (12,4%) of subthreshold PTSD without impairment. He found no significant differences between full and subthreshold with impairment PTSD, but, above all, noti-

ced significant differences between both form and no PTSD. Thus, dichotomizing people into those with and without PTSD following DSM-IV criteria might be a simplification that obscures the clinical problems and needs of those with some, but not full, symptom criteria of PTSD.

Aim of the study

Due to its hydrogeological characteristics, Italy is one of the European countries at higher risk of natural disasters. Infact in past years, different areas of the country have been hit by earthquakes and landslides which have brought about material and human losses. However, the psychological consequences of these events have received scant attention and, just a few studies have been carried out in this research field (Catapano et al., 2001, Mantero et al., 2001, Maj et al., 1989). Moreover, no one implied rescue workers. In Sarno landslide (Catapano et al., 2001), 12 months after the event, 27 % of the subjects interviewed and 1,4% of controls met the DSM-IV criteria for PTSD, identifying high levels of PTSD symptomatology 1 year after the disaster. The percentage of subjects identified in Sarno was consistent with that reported in other studies on populations exposed to natural disasters (Shore et al., 1986; Freddy et al., 1992; Bland et al., 1996; Armenian al., 2000; Madakasira & O'Brien, 1987; Steinglass & Gerrity, 1990; Lima et al., 1991; Green et al., 1992; Garrison et al., 1995; Wang et al., 2000)

Cardoso is a little village of 450 inhabitants among the mountains Apuan Alps, at 265 m of height, about 100 km from Florence, in the Centre of Italy. It is encircled by a mountain range, whose highest peak is Mount Pania (1859 m of height). Due to its geomorphological characteristics, Cardoso is exposed to floods, mainly occurring after long periods of heavy rains. In June 1996 Central Italy, and in particular Tuscany region, was hit by heavy rains which gave rise to serious problems for the population. On June 16, in few hours, the bigger quantity of rain in the last 20 years concentrated in the mountains around Cardoso came down, making up a flooding which involved all the villages sited below. Most material damage and human losses were recorded in the village of Cardoso, where many houses were destroyed or damaged and 14 people died. Even other villages, lying at the foot of Cardoso, were damaged by the flood, but less seriously and without human losses. Immediately after the event, ambulance workers squads coming from both the community implied in the flood and afar arrived on the scene of the disaster to give help to Cardoso's inhabitants.

7 years after the Cardoso's flood, we decided to evaluate the frequency and severity of PTSD on ambulance personnel employed in salvage operations.

Methods

Sample

The rescue workers sample, was formed by 34 subjects. Subjects provided informed consent. Demographic variables were collected via a questionnaire that covered age, gender, marital status, and education. All participants indicated that they had been exposed to the critical event of the flood; that is, physical risk to themselves, the death or injury or a threat to the physical integrity of a person.

Instruments

The Clinician-Administered PTSD Scale for DSM-IV (CAPS-Blake et al., 1990) and the Davidson Trauma Scale (DTS-Davidson et al., 1996) were used for assessing diagnosis and PTSD symptoms, respectively.

The CAPS is the structured clinical interview for DSM-IV and is divided in two parts, which evaluate current and lifetime diagnoses of PTSD. The CAPS was administered by three senior psychiatrists M.D., R.A.P., M.L..

The DTS was designed as a new self-rating scale to detect the presence, severity and frequency of symptoms that are characteristic of individuals who develop PTSD (Davidson et al., 1997) and for assessing treatment outcome. Items in this scale measure the 17 PTSD symptoms found in DSM-IV. Each of the 17 items on the DTS was scored from 0 to 4 for both frequency (0=none to 4=every day) and severity within the past week (0=not at all distressing to 4=extremely distressing). A total score is obtained by adding the frequency and severity scores for each item (range=0-136). Three subscales were defined by using this scale (Davidson et al., 1997): intrusion, avoidance-numbing, and hyper arousal. The intrusion score is calculated as the cumulative score of frequency and severity scores for five questions relating to this category, the avoidance/numbing score as the cumulative score for seven corresponding questions, and the hyper arousal score as the cumulative score for five corresponding questions (Chen et al., 2001). A score of 8.0 on any one item is considered the highest level of pathology, while a score of 0,0 means that the item is not present. Davidson reported high test-retest reliability for this scale within a 1-week period ($r=0,86$, $p<0.0001$), and its validity was shown by high correlation with other similar scales (Davidson et al., 1997). The scale is quick to administer (taking less than 10 min) and has been tested in a variety of populations, inclusive of men and women who have experienced different traumata.

Diagnoses

Following Davidson cut-off criteria (Davidson et al., 2002), we considered using the CAPS as well as the full PTSD, even the subthreshold form (divided in with and without impairment), which required the presence of at least one symptom from each DSM-IV cluster. Thus, four groups of rescue workers were generated as follows: A) threshold PTSD (n=4); subthreshold PTSD, - further

classified into B) with impairment (n=4); C) without impairment (n=6); and D) no PTSD (n=20).

Results

Regarding demographic characteristics, no statistical significance was found among the four diagnostic groups of rescue workers. The rescue workers sample (N=34) was 32,7 ± 2,4 years of age. Females were 41,2% (N=14) and males were 58,8% (N=20). 43,7% of the sample were married or living common-law, 46,9% were single, and 9,4% indicated that they were widowed or divorced. 12,2% had college or university degrees. 68,3% were primary school, and 19,5 % didn't finish first level of school. All participants were born in Italy and Caucasian in race.

As such as diagnoses performed by CAPS, in lifetime period 52,9% (N=18) of patients, had full PTSD, 14,7% (N=5) subthreshold PTSD with impairment, 14,7% (N=5) subthreshold PTSD without impairment, and 17,7% (N=6) had no PTSD. In current period, 11,8% (N=4) of patients, had full PTSD, 11,8% (N=4) subthreshold PTSD with impairment, 17,6% (N=6) subthreshold PTSD without impairment, and 58,8% (N=20) had no PTSD; 1 patient (female) had delayed onset full PTSD after 1 year, 1 (female) had delayed onset PTSD with impairment after 2 year, and 2 patients (both males) had delayed onset PTSD without impairment after 2 years (Tab. 1).

The sample was then subministered the DTS scale to evaluate current period. Because our sample was small and we could not ascertain normal distribution of original population, we decided to use non-parametric Kruskal-Wallis and Wilcoxon rank sum test (Siegel and Castellan, 1988). Mean (± SD) scores are also presented for descriptive purposes.

DTS mean score ± SD for the whole sample (N=34) was 15,0 ± 17,8. The four diagnostic subgroups differed in their DTS score, whose rates were a) for threshold PTSD 54,5 ± 17,8, b) the subthreshold PTSD with impairment 27,7 ± 3,1, c) non-impaired subthreshold PTSD 17,3 ± 3,7 and d) non-PTSD 3,9 ± 2,4. DTS-Cluster mean scores ± SD for the whole sample were: 4,5 ± 6,5 for intrusiveness, 5,6 ± 6,6 for avoidance-numbing, and 4,9 ± 6,4 for hyperarousal. The four subgroups also differed in their DTS-Cluster score. Intrusiveness scores were a) for threshold PTSD 17,7 ± 9,0, b) the subthreshold PTSD with impairment 9,7 ± 2,2, c) non-impaired subthreshold PTSD 3,7 ± 1,8 and d) non-PTSD 1,0 ± 1,5. Avoidance-numbing scores were a) for threshold PTSD 21,2 ± 4,3, b) the subthreshold PTSD with impairment 6,7 ± 2,1, c) non-impaired subthreshold PTSD 7,3 ± 2,7 and d) non-PTSD 1,7 ± 1,9. Hyperarousal scores were a) for threshold PTSD 15,5 ± 10,8, b) the subthreshold PTSD with impairment 11,0 ± 2,9, c) non-impaired subthreshold PTSD 6,3 ± 3,4 and d) non-PTSD 1,2 ± 1,4.

Data about DTS and DTS-Cluster score were then analyzed by the Kruskal-Wallis test for overall statistical significance (DTS: ^{2}=26,5, df=3, P<.0001; Intrusiveness: ^{2}=20,0 df=3, P<.0001; Avoidance-numbing: ^{2}=21,9 df=3, Hyperarousal: ^{2}=19,6 df=3, P<.0001). Pairwise comparison for four groups on DTS and DTS-Cluster score were undertaken by means of Wilcoxon rank sum test. There was a statistically significance between all pairs (P *<.05),* but: a) full PTSD vs. subthreshold PTSD with impairment in Intrusiveness Cluster, b) subthreshold PTSD with impairment vs. subthreshold PTSD without impairment in Avoidance-numbing Cluster, c) full PTSD vs. subthreshold PTSD with impairment and full PTSD vs. subthreshold PTSD without impairment in Hyperarousal Cluster. These results are shown in table 2 and 3. Finally, there was a statistically significance between men and women on DTS, Intrusiveness and Avoidant-numbing scores for the whole sample (P *<.05*) (table 4).

Discussion

PTSD typically has a chronic course of illness, with 53% of patients continuing to meet diagnostic criteria at 5 years (Kessler et al., 1995). About frequency of the disorder in our rescue squads, we found that current threshold PTSD is present in 11,8% of the sample. This high frequency of current PTSD, give up for a time persistency of the disorder, confirming data from other studies (Marmar et al., 1999; McFarlane, 1988a; McFarlane, 1988b; Kessler et al., 1995; Shalev et al., 1997; Freedmen et al., 1999; Kulka et al., 1990; Dunitz, 2000).

Moreover, we found an high rate of PTSD lifetime (59,9%), similarly with data obtained from other studies on 'primary victims' (Epstein et al., 1998). Regarding delayed-onset form of PTSD, we found a rate of 2,9% for both full and subthreshold without impairment PTSD. All these results are similar to other ones reported before in literature (Anderson et al., 1991; Durham et al., 1985; McCammon et al., 1988; Ursano et al., 1995; Sutker et al., 1994b; Rentoul & Ravenscroft, 1993; Buckley et al., 1996; Ehlers et al., 1998; Mayou et al., 1993).

Our data confirm furthermore Davidson's results (Davidson et al., 2002) that scores on the DTS can differentiate patients with PTSD and partial PTSD from patients with no PTSD. Infact, even the subthreshold PTSD, with or without impairment, is associated with DTS score significantly greater than no PTSD (p<.05).

About gender distribution, in our sample we found a statistical significance; infact on DTS, Intrusion and Avoidance-numbing total score, the rate of PTSD symptomatology related to the disaster was significantly lower (p<.05) in males (N=20) than in females (N=14). This is common in PTSD; infact, in the National Comorbidity Survey, 61% of men and 51% of women re-

ported experiencing at least one major trauma in their lifetime, and in most cases there were two or more events. PTSD developed in 20% of women and 8% of the men exposed to traumatic events (Kessler et al., 1995). Breslau and colleagues (1991) administered the revised version of the Diagnostic Interview Schedule to a sample of young adults enrolled in an HMO in Detroit and found that 11,3% of the women (30,7% of those exposed to a traumatic event) and 6,0% of the men (14,0% of those exposed) had a lifetime history of PTSD. Moreover, chronic PTSD, has been particularly associated with female gender, concomitant anxiety and depressive disorders, and family hystory of antisocial behaviour (Breslau & Davis, 1992).

The most used self-report scale for posttraumatic stress symptomatology in rescue squads is the IES (Mantero et al., 2001; Epstein et al., 1998; Jonsson et al., 2003; Robinson et al., 1997; Sloan et al., 1994; Renck et al., 2002; Gregg et al., 1995; Ursano et al., 1999). DTS using is recent; the scale has been used in all major multicenter pharmacotherapy trials known to the authors (Connor et al., 1999; Brady et al., 2003; Davidson et al., 2001a,b; Davidson et al., 2002, Meltzer-Brody et al., 2000), and for severity and frequency evaluation study of PTSD psychopathology (Wells et al., 2003; Chen et al., 2003; Miller et al., 2001; Bobes et al., 2000). The scale, contrary to IES, is associated with a numerically greater effect size and is comparable to that of structured clinical interview like SIP and CAPS (Davidson, 2002). It also address all aspects of PTSD (IES does not consider hyperarousal), can differentiate patients with PTSD and partial PTSD from patients with no PTSD in the general population (Davidson, 2002) and provides normative population data, which can be used as a reference point for other studies that use this scale (Davidson, 2002).

A major limitation of this study is the sampling strategy. Infact, our sample reflected emergency personnel coming from the community implied in the flood, since afar emergency squads were less interested in the research. Thus, our study, could have understimated or overstimated PTSD psychopathology, limiting generalizability of findings. A second limitation of the data was the small size of population. In particular, regarding statistical analyses, unfortunately we have a small size for PTSD (N=4 subjects) and subthreshold PTSD with impairment (N=4). At last, we couldn't do a comparison regarding both DTS scores and CAPS diagnoses with the same group 7 years before, the only comparison index being the PTSD lifetime diagnosis on the CAPS, not coincident with the baseline frequency of PTSD (Epstein, 1998).

In conclusion, as we can see from the high lifetime rate of PTSD, our data confirm the negative impact of a natural disaster on the mental health of rescue workers. Moreover, this study shows the persistence of a level of PTSD morbidity 7 years after the event, suggesting that even in rescue workers the psychosocial impact of the event is not time-limited, in some case even showing a delayed-onset. The frequency of PTSD found in rescue squads also some years after the event emphasizes the need for preventive interventions, both immediately after the catastrophic event and in the long term (Hodgkinson & Stewart, 1998).

Tables

Table 1. Diagnoses performed by CAPS

	A	B	C	D	
N	18	5	5	6	LIFETIME
%	52,9	14,7	14,7	17,7	
Males	8	2	5	5	
Females	10	3	0	1	
N	4	4	6	20	CURRENT
%	11,8	11,8	17,6	58,8	
Males	1	1	2	16	
Females	3	3	4	4	
N	1	1	2	-	DELAY-ONSET
%	2,9	2,9	5,9	-	
Males	0	0	2	-	
Females	1	1	0	-	

Notes: **A**= PTSD; **B**= PTSD subthreshold with impairment; **C**= PTSD subthreshold without impairment; **D**= no PTSD

Table 2. Scores on DTS in population groups: median and interquartile (1st, 3rd quartine scores)*

Full sample (n = 34)	A PTSD (n = 4)	B PTSD subthreshold with impairment (n = 4)	C PTSD subthreshold without impairment (n = 6)	D No PTSD (n = 20)
7.00 (4.00, 22,50)	47.00 (43.75, 72.75)	27.50 (24.50, 30.50)	16.00 (14.00, 22.00)	4.00 (2.00, 5.50)

**Overall sample, Kruskal-Wallis test, $\div^2$ =26,5, df=3, P<.0001*
P <.05, A õ B , A õ C, A õ D, B õ C, B õ D, C õ D.

Table 3. Scores on DTS-Clusters in population groups: median and interquartile (1st, 3rd quartile scores)*

	Full sample (n = 34)	A PTSD (n = 4)	B PTSD subthreshold with impairment (n = 4)	C PTSD subthreshold without impairment (n = 6)	D No PTSD (n = 20)
Intrusiveness	2.00 (0.00, 6.00)	20.00 (8.75, 24.50)	10.00 (7.50, 11.75)	3.00 (2.00, 6.00)	0.00 (0.00, 2.00)
Avoidance-numbing	4.00 (0.00, 8.00)	20.50 (17.50, 25.75)	6.50 (5.00, 8.75)	7.00 (5.00, 9.00)	2.00 (0.00, 3.50)
Hyperarousal	2.00 (0.00, 8.00)	14.00 (6.25,26.25)	11.00 (8.25, 13.75)	7.00 (4.50, 8.50)	1.00 (0.00, 2.00)

**Overall Intrusiveness Cluster, Kruskal-Wallis test, $\div^2$ =23,1, df=3, P<.0001*
P <.05, A õ C, A õ D, B õ C, B õ D, C õ D.
**Overall Avoidance/Numbing Cluster, Kruskal-Wallis test, $\div^2$ =24,3, df=3, P<.0001*
P <.05, A õ C, A õ D, B õ D, C õ D.
**Overall Iperarousal Cluster, Kruskal-Wallis test, $\div^2$ =21,7, df=3, P<.0001*
P <.05, A õ D, B õ C, B õ D, C õ D.

Table 4. Differences on DTS scores between Males and Females in the Full Sample

	Scores (Mean Ranks)		Level of significance
	Males (n=20)	Females (n=14)	
DTS	14,25*	22,14*	*p*<.022
Intrusion	14,60*	21,64*	*p*<.036
Avoidance-numbing	14,20*	22,21*	*p*<.019
Hyperarousal	15,13	20,89	*p*<.088

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