

Original article

## Validation of the Peritraumatic Dissociative Experiences Questionnaire self-report version in two samples of French-speaking individuals exposed to trauma

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### Abstract

**Objective.** – Peritraumatic dissociation is a risk factor for developing PTSD. The Peritraumatic Dissociative Experiences Questionnaire (PDEQ) is a self-report inventory used to assess dissociation that occurred at the time of a trauma. The aim of this study was the validation the PDEQ in French.

**Method.** – Ninety French speaking traumatized victims presenting to the emergency department were recruited. They were administered the PDEQ shortly after exposure and others trauma-related measures 2 weeks and 1 month posttrauma.

**Results.** – Principal components factor analyses suggested a single factor solution for the PDEQ. Significant correlations between the PDEQ and acute and posttraumatic stress symptoms indicated moderate to strong convergent validity. The PDEQ also showed satisfactory test–retest reliability and internal consistency.

**Conclusion.** – This study is the first one to investigate such detailed psychometric findings on the PDEQ. This confirms the unity of the concept of peritraumatic dissociation and the value of the PDEQ-French Version to assess it.

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**Keywords:** Assault; Motor vehicle accident; Peritraumatic dissociative experiences questionnaire; PTSD; Psychometric parameters

### 1. Introduction

The definition of posttraumatic stress disorder (PTSD) in DSM-IV is based on a model that brackets traumatic or catastrophic events from less severe stressors [3]. Over the past decade, research in the field of trauma has confirmed that immediate dissociative experiences play a critical role in the development of trauma-related psychological disorders, particularly PTSD [20,21,36]. According to the clinical observations of the French psychiatrist Pierre Janet [15], the inability to emotionally process traumatic memories was the main problem of severely traumatized victims [6,26,37]. Janet showed specifically, with the concept of “*misère psy-*

*chologique*”, that a degrading of the psychic functioning was particularly observable in the wake of traumatic experiences, as if the self lacked the strength to incorporate into its structure the resulting emotions and the traumatic memories [15,26,37].

Currently, traumatic dissociation is conceptualized as a way of processing information during the traumatic experience or subsequently [6,36]. Trauma victims often report alterations in the experience of time, place, and person, which confer a sense of unreality to the event as it is occurring [20,36]. Current studies of peritraumatic dissociation have focused on the link between immediate dissociative experiences and later posttraumatic stress symptoms. According to Janet’s theory, peritraumatic dissociation suggests that the traumatic experience is not available to ordinary

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conscious representation. As a result, it cannot be processed and mastered over time but rather persists as a fixed idea that is split off from consciousness and distorts subsequent perceptions and behaviors [18]. Traumatic memories may not be associated with an internal sense of self in the same manner as normal memories are, and consequently, retrieval of those memory fragments would not be under voluntary control [2]. The sensory fragments would be revived in consciousness primarily from associated external cues that resemble those of the original traumatic experience [2]. This is a possible explanation of the relationship between peritraumatic dissociative experiences and later intrusive thoughts or flashbacks. Peritraumatic dissociation, involving alterations in mental state and a detachment from ongoing experience, creates a psychological context in which posttraumatic symptoms may develop [4,32]. However, Marshall et al. [23] underlined the idea that common preexisting vulnerability factors may increase the risk of both peritraumatic dissociation and subsequent PTSD, perhaps increasing the intensity of the response to trauma [10].

Marmar et al. [18–20,22] have proposed a measure of immediate dissociative response to trauma called the Peritraumatic Dissociative Experiences Questionnaire (PDEQ). The PDEQ-10 Self-Report Version (PDEQ-10SRV) consists of 10 items describing dissociative experiences at the time a traumatic event was occurring: moments of losing track of time or blanking out; finding oneself acting on “automatic pilot”; a sense of time changing during the event; the event seeming unreal; a feeling as if floating above the scene; a feeling of body distortion; confusion as to what was happening to the self and others; not being aware of things that happened during the event; and disorientation [20,21].

The relationship between peritraumatic dissociation, as measured by the PDEQ, and PTSD has been studied in war veterans, emergency workers, injured trauma survivors, victims of motor vehicle accidents (MVAs), police officers and victims of violent assaults [12,18,19,28,29,35]. Four previous studies have prospectively demonstrated that participants reporting more peritraumatic or acute dissociation are at greater risk for developing PTSD [12,17,29,35]. Assessment and quantification of immediate dissociative experiences may help the clinician identify traumatized victims at highest risk for developing PTSD at an early stage. Studies using the first version of the PDEQ (8-items) provided preliminary support for the reliability and validity of the self-report and rater versions. Logistic regression analyses supported the incremental value of dissociation during trauma, over and above general dissociative tendencies [21].

The PDEQ-10SRV has been recently used in samples of police officers and victims of violent assault [5,28], but to the best of our knowledge the detailed psychometric properties of the PDEQ-10SRV have never been published. Since very few trauma-related scales exist in French, a study was conducted in France and Québec (Canada) in order to validate this version of the PDEQ-10SRV in French, and to extend the generalizability of the findings obtained in Anglo-Saxon countries.

## 2. Method

One hundred and fifty individuals exposed to a critical incident were consecutively recruited in three University Hospital Emergency Departments. The first group (G1;  $N = 87$ ) included victims of violent assault consecutively recruited in the University Hospital of Toulouse, France. The second group (G2;  $N = 63$ ) included individuals presenting to the emergency room of the Montréal General Hospital and Hôpital du Sacré-Cœur in Montréal, Québec (Canada) as a result of having been exposed to an event satisfying criterion A1 and A2 for trauma exposure from the DSM-IV [1].

### 2.1. Subjects and procedure

#### 2.1.1. Group 1

The exclusion criteria were: a lasting unconsciousness; misuse of alcohol or drugs; suffering from a psychotic illness; or a current life-threatening injury. Eighty-seven victims gave written informed consent and were assessed for peritraumatic dissociation within 24 h of trauma exposure. Participants were re-interviewed for acute traumatic stress symptoms and for posttraumatic stress symptoms, respectively, 2 weeks and 1 month posttrauma. Thirty-nine participants dropped out between the first and the second assessment, yielding a final sample of  $n = 48$ . The remaining study participants and the dropouts differed slightly demographically, in that the dropouts were younger and had a higher level of unemployment. However, the two groups did not differ on type of trauma, severity of injuries and level of peritraumatic dissociation. Of the 48 participants, 27 (56%) were women and the sample's average age was 38.2 years ( $SD = 15.9$ , range 16–76). Twenty-six participants (54%) were married and 23 (48%) were employed. Twenty-seven participants (56%) had been badly beaten up and 21 (44%) had been shot, stabbed, mugged or threatened with a weapon.

#### 2.1.2. Group 2

The exclusion criteria were the same as those used in Group 1. Sixty-three victims gave written informed consent and were assessed for peritraumatic dissociation and peritraumatic distress on average 4.5 days ( $SD = 1.5$ ) after trauma exposure. Participants were re-interviewed for peritraumatic dissociation and posttraumatic stress symptoms 1 month posttrauma. Twenty subjects dropped out between the first and the second assessment, yielding a sample of 43 participants. The remaining study participants and the dropouts did not differ on sex, gender, income, education, occupation, type of trauma, or level of peritraumatic dissociation and peritraumatic distress. Of the 43 participants, 24 of them were women and the sample's average age was 38.3 years ( $SD = 13.1$ , range 18–62). Thirty (70%) were victims of a motor vehicle accident, nine (20%) were victims of other kind of serious accident or injury and four (10%) were victims of interpersonal violence.

## 2.2. Measures

### 2.2.1. Peritraumatic dissociation

The PDEQ-10SRV [20,21] assesses dissociative experiences that occurred during a traumatic event and in the minutes and hours that follow. Participants rate, on a Likert scale (1 = not at all true, 2 = slightly true, 3 = somewhat true, 4 = very true, 5 = extremely true), the degree to which they experienced depersonalization, derealization, amnesia, out of body experiences, altered time perception and body image. The PDEQ-10SRV was scored as the mean item response across all items.

The PDEQ-10SRV was translated and adapted from American English to Canadian French by two psychologists (Brunet and Routhier) with extensive expertise in PTSD research and treatment. This preliminary version was field tested and improved using an iterative process with a small convenience sample of treatment-seeking Canadian peacekeepers from Québec. This draft was back translated from French to English by a professional translator, and approved by Daniel S. Weiss. Some linguistic revisions were made by a French psychiatrist with extensive expertise in PTSD research and treatment to ensure that the PDEQ-10SRV items could be equally understood by participants from France and Canada. See appendix for a copy of the scale.

### 2.2.2. Peritraumatic distress symptoms

Brunet et al. [5] have developed a 13-item self-report measure, the Peritraumatic Distress Inventory (PDI), to obtain a quantitative measure of the level of distress experienced during and immediately after a potentially traumatic event. The PDI has been proposed to measure the A2 criterion of PTSD [1]. The response format uses a Likert scale that ranges from 0 (not at all) to 4 (extremely true). The total score is obtained by determining the mean response across all 13 items. The PDI was found to be internally consistent, with good test–retest reliability and good convergent and divergent validity [5].

### 2.2.3. Acute stress symptoms

The Stanford Acute Stress Reaction Questionnaire (SASRQ) is a 30-item self-report instrument that includes subscales for assessing dissociation, reexperiencing, avoidance, and hyperarousal symptoms experienced since the traumatic event [8]. The SASRQ uses a 6-point Likert-scale (0 = not experienced; 5 = very often experienced). The SASRQ was used to provide a dimensional assessment of acute stress disorder and acute dissociation. The SASRQ was scored by summing all of the relevant items for each subscale (dissociation: SASRQd; reexperiencing: SASRQr; avoidance: SASRQa; hyperarousal: SASRQh) and SASRQ total.

### 2.2.4. Posttraumatic stress symptoms

The Impact of Event Scale (IES) was used with the Group 1 participants. The IES is a valid and reliable [11,14] 15-item self-report that assesses symptoms of intrusion and avoid-

ance in the last 7 days in relation to a specific traumatic event. This instrument uses a 4-point Likert-scale (0 = not at all; 1 = rarely; 3 = sometimes; 5 = often). The IES was used to provide a dimensional assessment of PTSD and was scored as the raw sum of all items.

The Impact of Event Scale-Revised (IES-R) was used with the Group 2 participants. The IES-R [7,38] is the revised version of the IES. It has 21 items and measures symptoms of intrusion, avoidance and arousal in the last 7 days in relation to a specific traumatic event. The response format uses a 5-point Likert scale (0 = not at all; 4 = extremely). The IES-R was scored as the raw sum of all items.

### 2.2.5. Analyses

SPSS 11.0 was used for all statistical analyses. Test–retest reliability and convergent validity were obtained using Pearson correlations between PDEQ-10SRV, PDI, SASRQd, IES, and IES-R scores. Factorial validity was obtained by principal components analysis. Internal consistency was calculated using Cronbach's alpha coefficient. The significance level of all tests was set at 5% (two-sided tests). Of the 43 subjects of Group 2, one gave very inconsistent responses upon follow-up and was considered an outlier. The analyses were thus carried out with 42 participants. There was no missing data in the two samples.

## 3. Results

### 3.1. Group 1

The mean of the PDEQ-10SRV scores for the 48 participants was 2.57 (SD = 0.8) with a range of 1.0–5.0. The Kolmogorov–Smirnov test indicated that the distribution did not depart from normality,  $D(48) = 0.09, p > 0.05$ . The rate of positive endorsement for the items ranged from 40.6% (item 5: watching the scene from above) to 85.4% (item 9: being confused as to what was really happening) with a mean positive endorsement of 62.7%. The PDEQ-10SRV total score was not significantly correlated with gender, age, marital status, or level of employment.

#### 3.1.1. Convergent validity

As can be seen in Table 1, the PDEQ-10SRV total score was positively and significantly correlated with the SASRQ dissociation score, the SASRQ total score and the IES total score.

#### 3.1.2. Factorial validity

After obtaining a significant result on Bartlett's sphericity test, we performed a principal components analysis using squared multiple correlations as initial communality estimates [34]. Estimates were iterated. An oblique Promax rotation was performed on the factors with an eigenvalue greater than 1. Factors 1, 2, 3 and 4 had eigenvalues of 3.71, 1.51, 1.17 and 1.06, explaining, respectively, 37.2%, 15.1%,

Table 1

Convergent validity between the PDEQ-10SRV total score and other trauma-related measures

	Group 1 ( <i>n</i> = 48) (Toulouse, France)		Group 2 ( <i>n</i> = 42) (Montréal, Canada)		
	SASRQ <sup>a</sup> dissociation	SASRQ total	IES <sup>b</sup> total	PDI <sup>c</sup> total	IES-R <sup>d</sup> total
PDEQ <sup>e</sup> total	0.54 **	0.52 **	0.39 **	0.53 **	0.46 **

\*\*  $p < 0.01$ .<sup>a</sup> Stanford Acute Stress Reaction Questionnaire.<sup>b</sup> Impact of Event Scale.<sup>c</sup> Peritraumatic Distress Inventory.<sup>d</sup> Impact of Event Scale Revised.<sup>e</sup> Peritraumatic Dissociative experiences Questionnaire 10-items Self-Report Version.

11.7% and 10.6% of the total variance (75%). An inspection of the scree plot and the moderate to high correlations between factors 1, 2 and 4 ( $r \geq 0.41$ ) suggested that a simple factor solution might be adequate. A forced single factor solution was conducted explaining 37.2% of the variance. This solution is presented in Table 2. Deleting item 7, which had a weaker factor loading ( $<0.30$ ), increased to variance explained to 40.7%.

### 3.1.3. Internal consistency

The internal consistency for the PDEQ-10SRV total score was measured by Cronbach's alpha coefficient using the total sample ( $n = 48$ ):  $\alpha$  was 0.79.

## 3.2. Group 2

The mean of the PDEQ-10SRV scores for the 42 participants was 2.24 ( $SD = 0.9$ ); minimum 1.5, maximum 3.3. The Kolmogorov–Smirnov test indicated that the distribution departed from normality,  $D(41) = 0.15$ ,  $p < 0.05$ . The rate of positive endorsement for the items ranged from 20.8% (item 7: I felt as though things that were happening to others were also happening to me) to 72.9% (items 3 and 4: altered sense of time and events seeming unreal, respectively) with a mean positive endorsement of 51.9%. The PDEQ-10SRV total score was not correlated with gender, age, marital status, profession, income or educational level.

### 3.2.1. Convergent validity

As can be seen in Table 1, as expected the PDEQ-10SRV total score was positively and significantly correlated with

peritraumatic distress, as well as with PTSD symptoms (IES-R).

### 3.2.2. Factorial validity

An oblique Promax rotation was performed on the factors with an eigenvalue greater than 1. Factors 1, 2 and 3 had eigenvalues of 3.62, 1.58 and 1.24, explaining, respectively, 36.2%, 15.8% and 12.4% of the total variance (65%). An inspection of the scree plot and the moderate to high inter-correlations between factors 1 and 2 ( $r = 0.55$ ) suggested that a simple factor solution might be adequate. We thus performed a new analysis using a forced single factor solution. The loading of the items for this solution are proposed in Table 2. Deleting item 7 (which had a low endorsement rate and a factor loading of 0.38) increased the variance explained from 36% to 39%. A very similar factor solution was also obtained with the PDEQ-10SRV retest data.

### 3.2.3. Test–retest reliability

The test–retest reliability of the PDEQ-10SRV was obtained in the Montréal sample using a 20–25 days time interval. The PDEQ-10SRV total score demonstrated satisfactory reliability with a correlation coefficient of .72.

### 3.2.4. Internal consistency

The internal consistency for the PDEQ-10SRV total score was 0.78.

Table 2

Item loading of the PDEQ-10SRV forced single factor solution in two samples

Item	Group 1 ( <i>n</i> = 48)	Communality estimate	Group 2 ( <i>n</i> = 42)	Communality estimate
1	0.80	0.65	0.67	0.44
2	0.52	0.27	0.30	0.09
3	0.49	0.24	0.48	0.23
4	0.50	0.25	0.65	0.42
5	0.72	0.52	0.52	0.27
6	0.42	0.18	0.49	0.24
7	0.27	0.08	0.38	0.14
8	0.81	0.65	0.58	0.34
9	0.61	0.38	0.89	0.80
10	0.71	0.51	0.81	0.65
Eigenvalue		3.72		3.62
Variance explained (%)		37		36



#### 4. Discussion and conclusion

This study is, to our knowledge, the first one to investigate and present such detailed psychometric findings on the PDEQ-10SRV, including test–retest reliability.

The results of the principal components analysis of the PDEQ-10SRV indicated that a single factor solution was adequate in the sample from Toulouse as well as in the two samples from Montréal, explaining 36–37% of the variance. This attests to the robustness of the factor structure of the PDEQ-10SRV. The internal consistency of the total score of the PDEQ-10SRV was good with Cronbach  $\alpha$  coefficients of 0.79 in Group 1 and 0.78 in Group 2. Our findings are consistent with those of Marmar et al. [18], Shalev et al. [29], Shalev et al. [30], and Tichenor et al. [33] who reported Cronbach  $\alpha$  coefficients of 0.80, of 0.79, and of 0.74, respectively, for the PDEQ 8-items Rater Version; and with those of Marmar et al. [19], and O'Toole et al. [27] who reported Cronbach  $\alpha$  coefficients of 0.80 and of 0.77, respectively, for the PDEQ 8-items Self-Report Version. Four of these previous studies using the PDEQ 8-item (rater or self-report) version proposed a factor analytic solution composed of a single factor solution accounting for 36–42% of the variance [18,19,27,33]. These results and our findings attest to the robustness of the findings with the PDEQ and to the unity of the concept of peritraumatic dissociation.

In our study, deleting item 7 led to a more cohesive factor structure and increased the alpha by roughly 1% point. It appears that item 7 of the PDEQ-10SRV (“I felt as though things that were actually happening to others were happening to me—like I was being trapped when I really was not”) taps onto a different or less frequent experience than the other items.

As expected, the PDEQ-10SRV total score correlated significantly with convergent measures of acute dissociation (SASRQd), of peritraumatic distress (PDI), of acute stress (SASRQ total score) and of posttraumatic stress (IES and the IES-R). Our results replicate and extend the findings of several other studies that found peritraumatic dissociation to be a robust correlate or predictor of posttraumatic stress symptoms or diagnosis [9,10,12,18,19,29,31,35]. Only one study, in victims of road traffic accidents, did not find peritraumatic dissociation, assessed within 2–4 weeks of exposure, to be an independent predictor of PTSD 4–6 months posttrauma [13].

Respondents reporting assaultive events as their most severe trauma, when compared with those, whose most severe trauma was non-assaultive, were more likely to have met criteria for PTSD [25]. The wide range of traumatic events experienced by the participants of the two groups (violent

assault with or without a weapon in Group 1 and motor vehicle accidents and other kind of accidents in Group 2) warrants the utility of the PDEQ-10SRV in measuring peritraumatic dissociative experiences caused by a variety of events. This extends the findings of other studies involving Vietnam veterans, disaster workers, survivors of MVAs and police officers [12,18,19,35] to other trauma-exposed populations.

The small sample size is one of the limitations of the study. Although this study confirms the concept of peritraumatic dissociation, it does use self-report instruments that can be influenced by inadequate ability to recall previous experiences or by other biases inherent in this methodology. Jehel et al. [16] also showed that subjects with PTSD reported injuries. In our study, all participants were injured but injuries were not anatomically scored. Furthermore, there were considerable dropouts, which did differ from the study participants in the first sample on two demographic variables, age and unemployment, which should be acknowledged as a potential limitation on the generalizability of the results. The remaining study participants and the dropouts differed slightly demographically, in that the dropouts were younger and had a higher level of unemployment. Dropouts might have greater than average difficulties in dealing with the psychological consequences of their exposure. The possible effects of past traumatic experiences was not reflected; this is another limitation of the study. Studies of adults traumatized as children suggest a greater reactivity, both behaviorally and biologically [39].

Overall, our results indicate that the French version of the PDEQ-10SRV is a valid and reliable self-report instrument for measuring the construct of peritraumatic dissociation. Marshall and Orlando [24] have recently demonstrated that the PDEQ-10SRV appears to be a meaningful measure of immediate dissociation for both Spanish and English-speaking physically injured Latino trauma survivors. The PDEQ-10SRV promises to be a useful clinical and research tool for screening immediate dissociative responses in French-speaking individuals at risk for PTSD.

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## Appendix A. The PDEQ-10 items Self-Report French Version (PDEQ-10SRV)

### Questionnaire des Expériences de Dissociation Péritraumatique (QEDP)

*Instructions* : Veuillez répondre aux énoncés suivants en entourant le choix de réponse qui décrit le mieux vos expériences et réactions *durant* : \_\_\_\_\_ *et immédiatement après*.

Si une question ne s'applique pas à votre expérience, entourez « Pas du tout vrai »

(1) Il y a eu des moments où j'ai perdu le fil de ce qui se passait—j'étais complètement déconnecté-e ou je me suis senti comme si je ne faisais pas partie de ce qui se passait				
1	2	3	4	5
Pas du tout vrai	Un peu vrai	Plutôt vrai	Très vrai	Extrêmement vrai
(2) Je me suis retrouvé-e comme en « pilotage automatique »—j'ai réalisé plus tard que je m'étais mis-e à faire des choses que je n'avais pas activement décidées de faire				
1	2	3	4	5
Pas du tout vrai	Un peu vrai	Plutôt vrai	Très vrai	Extrêmement vrai
(3) Ma perception du temps était changée—les choses avaient l'air de se dérouler au ralenti				
1	2	3	4	5
Pas du tout vrai	Un peu vrai	Plutôt vrai	Très vrai	Extrêmement vrai
(4) Ce qui se passait me semblait irréel, comme si j'étais dans un rêve, ou regardant un film, ou en train de jouer un rôle				
1	2	3	4	5
Pas du tout vrai	Un peu vrai	Plutôt vrai	Très vrai	Extrêmement vrai
(5) C'est comme si j'étais le ou la spectateur-trice de ce qui m'arrivait, comme si je flottais au-dessus de la scène et l'observait de l'extérieur				
1	2	3	4	5
Pas du tout vrai	Un peu vrai	Plutôt vrai	Très vrai	Extrêmement vrai
(6) Il y a eu des moments où la perception que j'avais de mon corps était déformée ou modifiée. Je me sentais déconnecté-e de mon propre corps, ou bien il me semblait plus grand ou plus petit que d'habitude				
1	2	3	4	5
Pas du tout vrai	Un peu vrai	Plutôt vrai	Très vrai	Extrêmement vrai
(7) J'avais l'impression que les choses qui arrivaient aux autres m'arrivaient à moi aussi—comme par exemple être en danger alors que je ne l'étais pas				
1	2	3	4	5
Pas du tout vrai	Un peu vrai	Plutôt vrai	Très vrai	Extrêmement vrai
(8) J'ai été surpris-e de constater après coup que plusieurs choses s'étaient produites sans que je m'en rende compte, des choses que j'aurais habituellement remarquées				
1	2	3	4	5
Pas du tout vrai	Un peu vrai	Plutôt vrai	Très vrai	Extrêmement vrai
(9) J'étais confus-e; c'est-à-dire que par moment j'avais de la difficulté à comprendre ce qui se passait vraiment				
1	2	3	4	5
Pas du tout vrai	Un peu vrai	Plutôt vrai	Très vrai	Extrêmement vrai
(10) J'étais désorienté-e; c'est-à-dire que par moment j'étais incertain-e de l'endroit où je me trouvais, ou de l'heure qu'il était				
1	2	3	4	5
Pas du tout vrai	Un peu vrai	Plutôt vrai	Très vrai	Extrêmement vrai

## References

- [1] American Psychiatric Association. Diagnostic and statistical manual of mental disorders. Washington (DC): American Psychiatric Association; 1994 (DSM-IV).
- [2] Bower GH, Sivers H. Cognitive impact of traumatic events. *Dev Psychopathol* 1998;10:625–53.
- [3] Breslau N, Chase GA, Anthony JC. The uniqueness of the DSM definition of post-traumatic stress disorder: implications for research. *Psychol Med* 2002;32:573–6.
- [4] Brewin C. A cognitive neuroscience account of posttraumatic stress disorder and its treatment. *Behav. Res Therapy* 2001;39:373–93.
- [5] Brunet A, Weiss D, Metzler TJ, et al. The peritraumatic distress inventory: a proposed measure of PTSD criterion A2. *Am J Psychiatry* 2001;158:1480–5.
- [6] Brunet A, Holowka DW, Laurence JR. Dissociation. In: Aminoff MJ, Daroff RB, editors. *Encyclopedia of the neurological sciences*. San Diego: Academic Press; 2003.
- [7] Brunet A, Saint-Hilaire A, King S, Jehel L. Validation of a French version of the impact of event scale-revised. *Can J Psychiatry* 2003;48:56–61.
- [8] Cardena E, Koopman C, Classen C, Waelde LC, Spiegel D. Psychometric properties of the Stanford Acute Stress Reaction Questionnaire (SASRQ): a valid and reliable measure of acute stress. *J Trauma Stress* 2000;13:719–34.
- [9] Classen C, Koopman C, Hales R, Spiegel D. Acute stress disorder as a predictor of posttraumatic stress symptoms. *Am J Psychiatry* 1998;155:620–4.
- [10] Griffin MG, Resick PA, Mechanic MB. Objective assessment of peritraumatic dissociation: psychophysiological indicators. *Am J Psychiatry* 1997;154:1081–8.
- [11] Hansenne M, Charles G, Pholien P, et al. Mesure subjective de l'impact d'un événement: traduction française et validation de l'échelle d'Horowitz. *Psychol Med (Paris)* 1993;25:86–8.
- [12] Hodgins GA, Creamer M, Bell R. Risk factors for posttrauma reactions in police officers: a longitudinal study. *J Nerv Ment Dis* 2001;189:541–7.

- [13] Holvea V, Tarrier N. Personality and peritraumatic dissociation in the prediction of PTSD victims of road traffic accidents. *J Psychosom Res* 2001;51:687–92.
- [14] Horowitz MJ, Wilner M, Alvarez W. Impact of event scale: a measure of subjective distress. *Psychosom Med* 1979;41:209–18.
- [15] Janet P. *L'Automatisme psychologique*. Paris: Alcan; 1889.
- [16] Jehel L, Paterniti S, Brunet A, Duchet C, Guelfi JD. Prediction of the occurrence and intensity of post-traumatic stress disorder in victims 32 months after bomb attack. *Eur Psychiatry* 2003;18:172–6.
- [17] Koopman C, Classen C, Spiegel D. Predictors of posttraumatic stress symptoms among survivors of the Oakland/Berkeley, CA, firestorm. *Am J Psychiatry* 1994;151:888–94.
- [18] Marmar CR, Weiss DS, Schlenger WE, et al. Peritraumatic dissociation and posttraumatic stress in male Vietnam theater veterans. *Am J Psychiatry* 1994;151:902–7.
- [19] Marmar CR, Weiss DS, Metzler TJ, Delucchi K. Characteristics of emergency personnel related to peritraumatic dissociation during critical incident exposure. *Am J Psychiatry* 1996;153(Festschrift Supplement):94–102.
- [20] Marmar CR, Weiss DS, Metzler TJ. The Peritraumatic Dissociative Experiences Questionnaire. In: Wilson JP, Keane TM, editors. *Assessing psychological trauma and posttraumatic stress disorder*. New York: The Guilford Press; 1997.p. 412–28.
- [21] Marmar CR, Weiss DS, Metzler T. Peritraumatic dissociation and posttraumatic stress disorder. In: Bremner JD, Marmar CR, editors. *Trauma memory and dissociation*. Washington: American Psychiatric Press; 1998.p. 229–52 (DC).
- [22] Marmar CR, Weiss DS, Metzler TJ, Delucchi K, Best SR, Wentworth KA. Longitudinal course and predictors of continuing distress following critical incident exposure in emergency services personnel. *J Nerv Ment Dis* 1999;187:15–22.
- [23] Marshall RD, Spitzer R, Liebowitz MR. Review and critique of the new DSM-IV diagnosis of acute stress disorder. *Am J Psychiatry* 1999;156:1677–85.
- [24] Marshall GN, Orlando M. Acculturation and peritraumatic dissociation in young adult Latino survivors of community violence. *J Abnorm Psychol* 2002;111:166–74.
- [25] McQuaid JR, Pedrelli P, McCahill ME, Stein MB. Reported trauma, post-traumatic stress disorder and major depression among primary care patients. *Psychol Med* 2001;31:1249–57.
- [26] Nemiah JC. Early concepts of trauma, dissociation, and the unconscious: their history and current implications. In: Bremner JD, Marmar CR, editors. *Trauma memory and dissociation*. Washington: American Psychiatric Press; 1998.p. 1–26 (DC).
- [27] O'Toole BI, Marshall RP, Schureck RJ, Dobson M. Combat, dissociation, and posttraumatic stress disorder in Australian Vietnam veterans. *J Trauma Stress* 1999;12:625–40.
- [28] Pole N, Best SR, Weiss DS, et al. Effects of gender and ethnicity on duty-related posttraumatic symptoms among urban police officers. *J Nerv Ment Dis* 2001;189:442–8.
- [29] Shalev A, Per IT, Canetti L, Schreiber S. Predictors of PTSD in injured survivors: a prospective study. *Am J Psychiatry* 1996;153:219–25.
- [30] Shalev AY, Freedman S, Peri T, Brandes D, Sahar T. Predicting PTSD in trauma survivors: prospective evaluation of self-report and clinician-administrated instruments. *Br J Psychiatry* 1997;170:558–64.
- [31] Shalev AY, Freedman S, Peri T, et al. Prospective study of posttraumatic stress disorder and depression following trauma. *Am J Psychiatry* 1998;155:630–7.
- [32] Tampak AK, Irwin HJ. Dissociative processes and symptoms of post-traumatic stress in Vietnam veterans. *J Trauma Stress* 1999;12:725–38.
- [33] Tichenor V, Marmar CR, Weiss DS, Metzler T, Ronfeldt H. The relationship of peritraumatic dissociation and posttraumatic stress: findings in female Vietnam theater veterans. *J Consult Clin Psychol* 1996;64:1054–9.
- [34] Tinsley HEA, Tinsley DJ. Uses of factor analysis in counseling psychology research. *J Counsel Psychol* 1987;34:414–24.
- [35] Ursano RJ, Fullerton CS, Epstein R, et al. Peritraumatic dissociation and posttraumatic stress disorder following motor vehicle accidents. *Am J Psychiatry* 1999;156:1808–10.
- [36] Van Der Kolk BA, Van Der Hart O, Marmar CR. Dissociation and information processing. In: Van Der Kolk BA, McFarlane AC, Weisaeth L, editors. *Traumatic stress*. New York: The Guilford Press. 1996. p. 303–27.
- [37] Van Der Hart O, Brown P, Van Der Kolk BA. Le traitement psychologique du stress post-traumatique de Pierre Janet. *Ann Med Psychol (Paris)* 1989;147:976–82.
- [38] Weiss DS, Marmar CR. The Impact of event scale-revised. In: Wilson JP, Keane TM, editors. *Assessing psychological trauma and PTSD*. New York: The Guilford Press; 1997.p. 399–411.
- [39] Yehuda R, Spertus IL, Golier JA. Relationship between childhood traumatic experiences and PTSD in adults. In: Eth S, editor. *PTSD in children and adolescents*. Washington DC: American Psychiatric Publishing; 2001.p. 117–58.