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Posttraumatic Somatoform Dissociation In French Psychiatric Outpatients

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ABSTRACT

Objective: Somatoform dissociative phenomena have long existed in psychiatric nosology but few quantitative data exist. This study aims at substantiating the association between trauma and somatoform dissociation, and presenting elements of validation of the French version of the Somatoform Dissociation Questionnaire (SDQ-20). Indeed, the SDQ-20 is a simple to use self-report questionnaire developed to quantify somatoform dissociative symptoms. **Methods:** One hundred forty psychiatric outpatients consulting consecutively in the University Hospital in Tours, France, were included, and filled in the SDQ-20, the Dissociative Experiences Scale (DES), an inventory of traumatic experiences, and underwent a structured interview (CAPS) for diagnosis of Posttraumatic Stress Disorder (PTSD) according to the DSM-IV criteria. **Results:** We found a strong association between the SDQ-20 mean score and current PTSD or past PTSD. The Principal Components Analysis of this French version yielded a solution containing three factors: sensory neglect, subjective reactions to perceptive distortions, vigilance modulation disturbance. The reliability of this French version was studied through the Cronbach's α coefficient (0.83). Both scales of dissociation used in our study (DES, SDQ-20) were shown to be highly correlated. **Conclusion:** This study confirms the strong association between trauma and dissociative symptoms as a whole, including somatoform dissociation. The SDQ-20 appeared to be a potentially useful screening instrument for dissociative disorders. It shed light on a "sub-dimension" of the dissociative phenomenon, when expressed in a somatic way.

Following the historic studies of Briquet, Charcot, Janet as well as Freud in his first period (Briquet, 1895; Charcot, 1893; Janet, 1904; Freud & Breuer, 1893), a century of clinical research has suggested a strong association between psychoform and somatoform dissociative disorders. An increasing number of researchers are re-exploring this field of knowledge with modern psychiatry research methodologies (Marmar et al., 1994). Over the last few years, Nijenhuis' study of the dissociative dimension, indeed present in a large spectrum of post-traumatic disorders, made decisive progress (Nijenhuis, Spinhoven, Van Dyck, Van der Hart, & Vanderlinden, 1998a). Currently, trauma-related dissociative disorders are frequently found in the general population (6.3%) (Mulder, Beautrais, Joyce, & Fergusson 1998), and particularly in psychiatric inpatients (15%) (Saxe et al., 1993). Draijer and Langeland found that dissociative symptoms, frequent in psychiatric inpatients (18%), are trauma-related and neglect-related as well (Draijer & Langeland, 1999). However, dissociative symptoms remain largely under-recognized by clinicians (Solomon & Davidson, 1997).

According to Davidson (2000), more than 60% of men and 51% of women in general population experienced at least one traumatic event in their lifetime, of these, 8% of men and 20% of women developed posttraumatic stress disorder (PTSD). In France in a general population survey of 13685 subjects the French Committee for Health Education (Comité Français d'Education pour la Santé, 2000) found that 4.4% of men and 2.6% of women had been physically assaulted during the last twelve months. Moreover the survey showed that 6.0% of women over 35 years old were survivors of sexual assault. Although rape is only one of the events leading to trauma, rape appears as the most frequent traumatic experience in peacetime (Foa & Riggs, 1993). In a sixth-month follow-up study of rape victims (Darves-Bornoz, Berger, Degiovanni, Gaillard, & Lépine 1999), the main DSM-IV disorders following rape were found to be somatoform disorders (65% of victims), PTSD (61%) and dissociative disorders (60%). Peritraumatic but persistent dissociation was also found among the predictive factors of chronic PTSD one year after trauma (Darves-Bornoz et al., 1998).

Patients with dissociative disorders generally report many somatoform symptoms. Posttraumatic somatoform disorders as well as dissociative disorders are well known to physicians such as gastroenterologists (functional gastrointestinal disorder), gynecologists (chronic pelvic pain), or neurologists (pseudoseizures) for instance (Porcelli, De Carne, & Fava., 2000; Bodden-Heidrich, Kuppens, Beckmann, Rechenberger, & Bender 1999; Bowman & Coons, 2000; Pribor, Yutzy, Dean, & Wetzel 1993; Van der Kolk et al., 1996). Somatoform disorders, somatization and dissociative disorders have been categorized differently with each version of the DSM (American Psychiatric Association, 1994). Unlike the DSM, the ICD-10 (World Health Organization, 1992) classifies somatoform disorders within dissociative disorders.

In this context, Nijenhuis developed the *Somatoform Dissociation Questionnaire* (SDQ-20), a self-report questionnaire of good psychometric quality, which screens for dissociative disorders while measuring somatoform dissociation (Nijenhuis, Spinhoven, Van Dyck, Van der Hart, & Vanderlinden, 1996), then the SDQ-5, which involves 5 items of the SDQ-20, as a screening instrument for dissociative disorders (Nijenhuis, Spinhoven, Van Dyck, Van der Hart, & Vanderlinden, 1997). Nijenhuis considers that somatoform dissociative phenomena are core symptoms in complex dissociative disorders (Nijenhuis,

Spinhoven, Van Dyck, Van der Hart, & Vanderlinden, 1998b). This scale seems to be such a useful instrument for the evaluation of the severity of somatoform manifestations of dissociation, that the validation of the French version was needed. This research aimed at studying the association between trauma and somatoform dissociation, evaluating its features among psychiatric outpatients, and assessing the construct validity and internal consistency of the SDQ-20 French version.

METHODS

Subjects

The study population comprised all psychiatric outpatients referred to the University Hospital in Tours, France. All outpatients aged over 16 years old were systematically approached for consent. During the study period, 153 patients were consecutively recruited, and 140 patients were included. Thirteen patients were excluded for the following reasons: cognitive dysfunctions (3), foreigners poorly mastering French (3), illiteracy (3), seriously ill patients, e.g., psychotic depression, acute agitation (4).

Instruments

The SDQ-20 is a self-report questionnaire of 20 items developed by Nijenhuis and colleagues (Nijenhuis et al., 1996) who defined somatoform dissociation as “dissociative state-dependent somatoform responses that had appeared in clinical settings upon the reactivation of particular dissociative states, and that could not be medically explained” (Nijenhuis et al., 1998b, p.18). This instrument comprises 20 items (scores range 20-100). The SDQ-20 has been validated in the Netherlands /Flanders (Nijenhuis et al., 1996), and in Turkey (Sar, Kundakci, Kiziltan, Bakim, & Bozkurt, 2000), and partly in the United Kingdom (Waller et al., 2000), and was translated from English into French by one of the authors (see Appendix). The translation was checked in a back translation into Dutch by a Dutch translator. The final translation was revised by Nijenhuis. This is the first study utilizing the French version.

The Dissociative Experiences Scale (DES), a self-report analogical questionnaire developed by Carlson and Putnam is well-known (Carlson et al., 1993). This instrument comprises 28 items (scores range 0-100). Validity studies have been conducted on the English version (Bernstein & Putnam, 1986) and on the French version (Darves-Bornoz Degiovanni, & Gaillard, 1999).

The Clinician-Administered PTSD Scale for DSM-IV (CAPS) has been developed by Blake and colleagues (Blake et al., 1995) to assess PTSD. This instrument contains an exhaustive list of potentially traumatic experiences according to criterion A of the DSM-IV diagnostic features for PTSD. It assesses the frequency and intensity of each symptom using standard prompt questions and explicit behaviorally-anchored rating scales.

Procedure

One hundred and forty patients were interviewed by the same clinician trained to the use of these clinical instruments. The interview took place immediately after the usual consultation. After fully describing the study to the participants, informed written consent was obtained. The assessment was as follows: 1) an interview with the CAPS, 2) a self-assessment with the DES and the SDQ-20. The Ethics Committee of the University

Hospital of Tours approved this research.

Data Analyses

The quantitative variables were described using mean, standard deviation (SD), and range. The continuous variables comparisons between two groups used mean comparisons with t-tests, or variance analysis when adjusting these variables for covariants. The t-tests were performed to examine the SDQ-20 and the DES scores among patients. The association between several continuous variables has been studied while calculating correlation coefficients. The association among the SDQ-20, the DES, and the CAPS scores were calculated using Pearson correlation coefficients. The adjustment of some results for covariants was performed using a type of variance analysis with F-test.

To validate the SDQ-20 French version, we concentrated on the construct validity and the internal reliability of the scale. Other aspects of validation, such as temporal stability, were not studied.

To assess the construct validity of the French version, the 20 items were subjected to an orthogonal factor analytical study. Correlation coefficients were computed, and Principal Components Analysis (PCA) used to extract the initial factors. The criterion chosen for the number of factors to be extracted was Cattell's scree test (Cattell, 1978), which plots the eigenvalues in component order, draws a straight line through the components with the lowest eigenvalues, and retains those whose eigenvalues come above this line. Following the initial extraction of factors, orthogonal rotation via the varimax procedure was used to achieve the simplest and most significant factor structure.

The internal consistency assessed reliability. The index used for all items was Cronbach's α coefficient (Cronbach, 1951). Alpha coefficients were also computed for each "subscale" determined by the factors of the PCA.

We studied the correlations between SDQ-20 and DES scores, that gives us elements of SDQ-20 validity as a clinical instrument for dissociative phenomena. Statistical analyses were performed using the SPSS SYSTAT.

RESULTS

Description of the sample

The mean age of the 140 subjects under study was 40.4 years (SD 14.1, range 17-76). Forty-four percent of subjects (n=61) were men. There was no significant difference between the mean ages of men (M=41.4, SD=15.4) and women (M=39.7, SD=13.1) in this sample ($t=-0.727$, $df=138$).

In our sample (n=140), one hundred subjects experienced overwhelming events according to the criterion A of the DSM-IV. In these subjects 491 potentially traumatic experiences have been reported: disasters (10.8%), accidents (16.1%), physical or sexual assaults (32.0%), war time experiences and assimilated (4.3%), and illness related trauma (36.8%). Finally, in their lifetime 54.3% of the sample experienced PTSD (n=76).

Scores of dissociation

The DES scores ranged from 0 to 65.9 (M=14.6, SD=12.9) including 8 subjects (5.7%) with a score at zero.

The SDQ-20 scores ranged from 20 to 76 (M=27.1, SD=8.76) and 31 subjects

(22.1%) had the minimal score of 20. A significant difference ($t=2.953$, $df=138$, $p<0.01$) was found between the SDQ-20 mean score in females ($M=28.9$, $SD=10$) and in males ($M=24.7$, $SD=6.1$). The SDQ-20 mean score was independent from age ($r=-0.131$, $df=138$).

SDQ-20 Factor-Analytic Study

The PCA of the SDQ-20 ratings yielded a 3-factor solution (Table 1), which explained 40.1% of the total variance. The first factor named “*sensory neglect*” was associated to 8 items [12, 15, 11, 13, 8, 1, 20, 7]. The second factor named “*subjective reactions to perceptive distortions*” was related to 7 items [9, 2, 10, 6, 16, 3, 4]. The third factor named “*vigilance modulation disturbance*” was especially associated to 5 items [17, 14, 19, 5, 18]. Correlation coefficients of items show a strong association between each item and its related factor ($p<0.005$).

PLEASE INSERT TABLE 1 HERE

SDQ-20 Reliability

Cronbach’s α coefficient for all items was 0.83. Alpha coefficients of the items of each factor were also computed: *sensory neglect* ($\alpha=0.677$), *subjective reactions to perceptive distortions* ($\alpha=0.732$), *vigilance modulation disturbance* ($\alpha=0.634$).

Elements of external validity

We first studied the correlation between SDQ-20 and DES scores. This correlation appeared high ($r=0.644$, $df=138$, $p<0.001$). We adjusted these results for gender ($F=10.82$, $df=136$, $p<0.001$). We studied the SDQ-20 mean scores in two subgroups determined within the patients of our sample, the patients ($n=70$) who scored more than 1 in frequency (10% of time) and 2 in intensity (moderate intensity) on the CAPS items 8 or 10 (mean score 32.4), versus patients scoring less (mean score 23.3). Indeed the CAPS items 8 and 10 are dissociation items within the post-traumatic pathology (item 8: *inability to recall an important aspect of trauma*; item 10: *feeling of detachment or estrangement from others*). The difference found was statistically significant ($t=6.019$, $df=138$, $p<0.001$). In conclusion, an elevated SDQ-20 score appears to be associated to the dissociation as assessed by the DES, and to dissociative symptoms within DSM-IV PTSD.

Association between trauma and dissociation

The CAPS mean score was 58.9 in subjects with current PTSD ($n=62$) and 53.1 in subjects with past PTSD ($n=57$). The CAPS mean score was 60.6 in females, and 56.5 in males with current PTSD (respectively 54.9 and 49.7 in past PTSD). This score was independent from gender ($t=1.49$, $df=138$) and age ($r=-0.165$, $df=138$).

The SDQ-20 mean score was 29.5 in subjects with a history of potentially traumatic event, significantly different from 21.0 in subjects without such a history ($t=5.725$, $df=138$, $p<0.001$). The association between reported traumatic experiences and somatoform dissociation as assessed with the SDQ-20 persisted after controlling for gender ($F=13.369$, $df=136$, $p<0.001$). The DES mean score was 18.6 in subjects with a history of potentially traumatic event, significantly different from 4.8 in subjects without such a history ($t=5.981$,

df=138, $p<0.001$).

The correlation studies achieved on this sample highlighted some associations between trauma and dissociation. A significant correlation ($r=0.413$, $p<0.001$) was found between SDQ-20 scores and the number of potentially traumatic experiences. We also found that somatoform dissociation was significantly correlated with accidents ($r=0.202$, $p<0.05$), physical or sexual assaults ($r=0.487$, $p<0.001$), and illness related trauma ($r=0.225$, $p<0.01$).

Individuals with current ($t=6.990$, $df=138$, $p<0.001$) or past PTSD ($t=5.774$, $df=138$, $p<0.001$) had higher SDQ-20 scores than individuals without PTSD; moreover in PTSD patients, CAPS scores appeared to be significantly correlated to SDQ-20 scores whether the PTSD is current ($r=0.642$, $df=138$, $p<0.001$) or past ($r=0.559$, $df=138$, $p<0.001$). Adjusting these results for gender, we still found a statistical significance between the SDQ-20 scores and the existence of current ($F=21.366$, $df=136$, $p<0.001$) or past PTSD ($F=13.014$, $df=136$, $p<0.001$), as well as SDQ-20 scores and current ($F=5.539$, $df=136$, $p<0.001$) or past CAPS scores ($F=13.747$, $df=136$, $p<0.001$).

Individuals with current ($t=7.682$, $df=138$, $p<0.001$) or past PTSD ($t=5.410$, $df=138$, $p<0.001$) had higher DES scores than individuals without PTSD; moreover in PTSD patients, CAPS scores appeared to be significantly correlated to DES scores whether the PTSD is current ($r=0.615$, $df=138$, $p<0.001$) or past ($r=0.565$, $df=138$, $p<0.001$).

DISCUSSION

This study did not focus on the general population but psychiatric outpatients. For the validation of a scale, we needed to have a relatively diverse psychiatric population that could highlight differences. In addition, trauma history and dissociative phenomena have been described as more frequent in psychiatric patients (Sar, Tutkun, Alyanak, Bakim, & Baral, 2000). Actually we found numerous examples of trauma and post-traumatic syndromes in our sample. This sample seemed appropriate for the purpose of our research, as literature often reveals the association between dissociative phenomena and traumatic experiences (Darves-Bornoz, 1997; Darves-Bornoz et al., 1998; Freinkel, Koopman & Spiegel, 1994; Marmar et al., 1999).

An acute interest in our clinical instrument was shown by our subjects who found it an objective reflection of their subjective experience. The potentially traumatic experiences listed in the self-report questionnaire of the CAPS-1 seems to be exhaustive and do not omit frequent events of that type with regard to epidemiological studies (Breslau, 1995). During interviews, the clinician did not intervene in the quotation, apart from filling in the CAPS. However the clinician cannot be totally blind about dissociative phenomena in the patient when assessing PTSD, because the structured interview for PTSD actually gives information about dissociation.

The SDQ-20 is a self-report questionnaire developed to quantify somatoform dissociation. The validation of the SDQ-20 French version included the computation of Cronbach's α coefficient, and the PCA. According to certain authors (Rosenthal & Rosnow, 1991) defining criteria of acceptability, a Cronbach α coefficient lower than 0.85 is not perfect, even though other authors (Nunnally, 1978) accept an α coefficient superior to 0.7 as acceptable in the psychosocial domain. In the original studies of the SDQ-20,

Mokken Scale Analysis showed that the 20 items were scalable on a unidimensionnal latent scale. However we aimed at finding the factor analytic structure of the SDQ-20 because assessing a dimension with a scale does not mean that sub-dimensions cannot be found. The internal consistency was found to be good, and justifies the SDQ-20 as an instrument of a unique dimension. This was the first factor-analytic study of the SDQ-20, since even in the other versions (English, Dutch) no PCA was done, therefore the factors found cannot be compared to other study results. We highlighted three factors termed: 1) *sensory neglect*, 2) *subjective reactions to perceptive distortions*, and 3) *vigilance modulation disturbance*. Some authors described memory disorder as a hallmark of “hysteria” which produces the neglect of a function or a body part (Putnam, 1984; Widlöcher, 1992); what we called the *sensory neglect* could be understood as a memory disorder of this nature. To us, these categories resemble those in the DSM-IV definition of dissociative disorders that evoke “the disruption in the usually integrated functions of consciousness, memory, identity or perception of the environment.” The α Cronbach coefficients of the 3 factors were computed. These factors showed some well-known clinical elements of traumatized subjects: 1) “negative” symptoms or numbing symptoms, 2) “positive” symptoms such as pseudo-hallucinations in flashbacks for instance, 3) “attentional” and “vigilance” difficulties. These factors could also be understood in a Janetian perspective (Nijenhuis et al., 1999a) which distinguish between two major categories of hysterical symptoms: the mental stigmata or negative dissociative symptoms (sensory neglect, vigilance modulation disturbance), and the mental accidents or positive dissociative symptoms (subjective reactions to perceptive distortions).

We looked for SDQ-20 elements of external validation using the DES, although the DES focus on psychoform symptoms of dissociation. Comparisons made between the different instruments measuring dissociation (SDQ-20, DES) found a strong correlation – in our study as Nijenhuis’s previous study (Nijenhuis et al., 1999b) - suggesting a strong correlation between somatoform and psychoform dissociation. In our study, the SDQ-20 and the DES seem actually to assess the same phenomenon, which fuels Nijenhuis’ findings on somatoform dissociation as part of the major symptoms of dissociative disorders (Nijenhuis et al., 1997). In addition to what the DES already offers us, the SDQ-20 can be useful in patients with unexplained somatic symptoms, because the items of the SDQ-20 describe phenomena that may be manifestations of physical disorders. For instance, Walker and colleagues (Walker, Katon, Neraas, Jemelka, & Massoth 1992) found that dissociative phenomena were more frequent in women suffering from chronic pelvic pain, and were significantly associated to a history of sexual abuse. Kuyk and colleagues (Kuyk Spinhoven, Van Emde Boas, & Van Dyck, 1999) report that non-epileptic seizures are actually somatoform dissociative symptoms. Some recent studies have noted high prevalence of somatoform disorders and so called conversions – better relabelled also as a somatoform dissociative disorder - in patients with dissociative disorder (Saxe et al., 1994). For Spitzer and colleagues (Spitzer, Spelsberg, Grabe, Mundt, & Freyberger, 1999) the same psychological process underlies hysterical conversion and dissociative disorders, in spite of the descriptive differences.

Future research should approve the psychological trauma as an etiological factor of dissociative phenomena, and confirm the important role of dissociative phenomena in patients suffering from somatoform disorders (e.g. conversion disorder, somatization

disorder, pain disorder), sexual dysfunctions or eating disorders; other validation studies of SDQ-20 in other languages to compare the factor-analysis found in our study on a French version could be interesting. In subsequent research, we plan to study peritraumatic somatoform dissociation as a potential factor predictive of the chronicity of psychotraumatic disorders.

CONCLUSION

Patients who suffer from somatoform dissociation are high users of health services but rarely receive relevant treatment. The simplicity and the rapidity of filling in the SDQ-20 should permit applications in clinical practice (in medical departments) or in research (as a unique instrument for assessing somatoform dissociation). The validity and reliability parameters we found allowed us to use the SDQ-20 for such purposes. The PCA revealed a three factor solution: 1) *sensory neglect*, 2) *subjective reactions to perceptive distortions*, and 3) *vigilance modulation disturbance*. Moreover, this study highlights some clinical traits of somatoform dissociative symptomatology.

REFERENCES

- American Psychiatric Association (1994). *Diagnostic and statistical manual of mental disorders (4th edition)*. Washington, DC: American Psychiatric Association.
- Bernstein, E., & Putnam, F.W. (1986). Development, reliability, and validity of a dissociation scale. *Journal of Nervous and Mental Disease*, 174, 727-735.
- Blake, D.D., Weathers, F.W., Nagy, L.M., Kaloupek, D.G., Gusman, F.D., Charney, D.S., & Keane, T.M. (1995). The development of a Clinician-Administered PTSD scale. *Journal of Traumatic Stress*, 8, 75-90.
- Bodden-Heidrich, R., Kuppers, V., Beckmann, M.W., Rechenberger, I., & Bender, H.G. (1999). Chronic pelvic pain syndrome (CPPS) and chronic vulvar pain syndrome (CVPS): evaluation of psychosomatic aspects. *Journal of Psychosomatic Obstetrics and Gynaecology*, 20, 145-151.
- Bowman, E.S., & Coons, P.M. (2000). The differential diagnosis of epilepsy, pseudoseizures, dissociative identity disorder, and dissociative disorder not otherwise specified. *Bulletin of Menninger Clinic*, 64, 164-180.
- Breslau, N., Davis, G.C., & Andreski, P. (1995). Risk factors for PTSD-related traumatic events: a prospective analysis. *American Journal of Psychiatry*, 152, 529-535.
- Briquet, P. (1859). *Traité clinique et thérapeutique de l'hystérie*. Paris: JB Baillière.
- Carlson, E.B., Putnam, F.W., Ross, C.A., Torem, M., Coons, P., Dill, D.L., Loewenstein, R.J., & Braun, B.G. (1993). Validity of the Dissociative Experiences Scale in screening for Multiple Personality Disorder: a multicenter study. *American Journal of Psychiatry*, 150, 1030-1036.
- Cattell, R.B. (1978). *Scientific use of factor analysis in behavioral and life sciences*. New York: Plenum Press.
- Charcot, J.M. (1825-1893). *L'hystérie, textes choisis et introduction par E. Trillat* (2d ed., 1998). Paris: L'Harmattan.
- Comité Français d'Education pour la Santé. Baromètre santé premiers résultats 2000 (2000). *Violences physiques et prises de risques*. Paris: <http://www.cfes.sante.fr/30000/pdf/10Violence.pdf>.

- Cronbach, L.J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16, 297-334.
- Darves-Bornoz, J.M., Berger, C., Degiovanni, A., Gaillard, P., & Lépine, J.P. (1999). Similarities and differences between incestuous and nonincestuous rape in a French follow-up study. *Journal of Traumatic Stress*, 12, 613-623.
- Darves-Bornoz, J.M., Degiovanni, A., & Gaillard, P. (1999). Validation of a French version of the Dissociative Experiences Scale in a rape-victim population. *Canadian Journal of Psychiatry*, 44, 271-275.
- Darves-Bornoz, J.M., Lépine, J.P., Choquet, M., Berger, C., Degiovanni, A., & Gaillard, P. (1998). Predictive factors of chronic post-traumatic stress disorder in rape victims. *European Psychiatry*, 13, 281-287.
- Darves-Bornoz, J.M. (1997). Rape-related psychotraumatic syndromes. *European Journal of Obstetrics & Gynecology, and Reproductive Biology*, 71, 59-65.
- Davidson, J.R. (2000). Trauma: the impact of post-traumatic stress disorder. *Journal of Psychopharmacology*, 14 (2S1), S5-12
- Draijer, N., & Langeland, W. (1999). Childhood trauma and perceived parental dysfunction in the etiology of dissociative symptoms in psychiatric inpatients. *American Journal of Psychiatry*, 156, 379-385.
- Foa, E.B., & Riggs, D. (1993). Post-traumatic stress disorder and rape. In J.M. Oldham, M.B. Riba, & A. Tasman, (Eds.). *Review of psychiatry*, Vol. 12 (pp. 273-303). Washington, DC: American Psychiatric Press.
- Freinkel, A., Koopman, C., & Spiegel, D. (1994). Dissociation symptoms in media eyewitnesses of an execution. *American Journal of Psychiatry*, 151, 1335-1339.
- Freud, S., & Breuer, J. (1893). Les mécanismes psychiques des phénomènes hystériques. In *Etudes sur l'hystérie*. Paris: Presses Universitaires de France.
- Janet, P. (1904). L'amnésie et la dissociation des souvenirs par l'émotion. *Journal de Psychologie Normale et Pathologique*, 1, 417-453.
- Kuyk, J., Spinhoven, P., Van Emde Boas, W., & Van Dyck, R. (1999). Dissociation in temporal lobe epilepsy and pseudo-epileptic seizure patients. *Journal of Nervous and Mental Disease*, 187, 713-720.
- Marmar, C.R., Weiss, D.S., Metzler, T.J., Delucchi, K.L., Best, S.R., & Wentworth, K.A. (1999). Longitudinal course and predictors of continuing distress following critical incident exposure in emergency services personnel. *Journal of Nervous and Mental Disease*, 178, 15-22.
- Marmar, C.R., Weiss, D.S., Schlenger, W.E., Fairbank, J.A., Jordan, B.K., Kulka, R.A., & Hough R.L. (1994). Peritraumatic dissociation and posttraumatic stress in male Vietnam theater veterans. *American Journal of Psychiatry*, 151, 902-907.
- Mulder, R.T., Beautrais, A.L., Joyce, P.R., & Fergusson, D.M. (1998). Relationship between dissociation, childhood sexual abuse, childhood physical abuse, and mental illness in a general population sample. *American Journal of Psychiatry*, 155, 806-811.
- Nijenhuis, E.R.S., Spinhoven, P., Van Dyck, R., Van der Hart, O., & Vanderlinden, J. (1996). The development and psychometric characteristics of the Somatoform Dissociation Questionnaire (SDQ-20). *Journal of Nervous and Mental Disease*, 184, 688-694.

- Nijenhuis, E.R.S., Spinhoven, P., Van Dyck, R., Van der Hart, O., & Vanderlinden, J. (1997). The development of the Somatoform Dissociation Questionnaire (SDQ-5) in the screening for dissociative disorders. *Acta Psychiatrica Scandinavica*, 96, 311-318.
- Nijenhuis, E.R.S., Spinhoven, P., Van Dyck, R., Van der Hart, O., & Vanderlinden, J. (1998a). Degree of somatoform and psychological dissociation in dissociative disorder is correlated with reported trauma. *Journal of Traumatic Stress* 11, 711-730.
- Nijenhuis, E.R.S., Spinhoven, P., Van Dyck, R., Van der Hart, O., & Vanderlinden, J. (1998b). Psychometric characteristics of the somatoform dissociation questionnaire: a replication study. *Psychotherapy and Psychosomatics*, 67, 17-23.
- Nijenhuis, E.R.S., & Van der Hart, O. (1999a). Somatoform dissociative phenomena: A Janetian perspective. In J.M. Goodwin, & R. Attias (Eds.), *Splintered reflections: Images of the body in trauma* (pp. 89-127). New York: Basic Books.
- Nijenhuis, E.R.S., Van Dyck, R., Spinhoven, P., Van der Hart, O., Chatrou, M., Vanderlinden, J., & Moene, F. (1999b). Somatoform dissociation discriminates among diagnostic categories over and above general psychopathology. *Australian and New Zealand Journal of Psychiatry*, 33, 511-20.
- Nunnally, J.C. (1978). *Psychometric theory*. McGraw-Hill Book company.
- Porcelli, P., De Carne, M., & Fava, G.A. (2000). Assessing somatization in functional gastrointestinal disorders: integration of different criteria. *Psychotherapy and Psychosomatics*, 69, 198-204.
- Pribor, E.F., Yutzy, S.H., Dean, J.T., & Wetzel, R.D. (1993). Briquet's syndrome, dissociation and abuse. *American Journal of Psychiatry*, 150, 1507-1511.
- Putnam, F.W. (1984). The psychophysiologic investigation of multiple personality disorder. A review. *Psychiatric Clinics of North America*, 7, 31-50.
- Rosenthal, R., & Rosnow, R.L. (1991). *Essentials of behavioral research: Methods and data analysis*. New-York: McGraw-Hill.
- Sar, V., Kundakci, T., Kiziltan, E., Bakim, B., & Bozkurt, O. (2000). Differentiating dissociative disorders from other diagnostic groups through somatoform dissociation in Turkey. *Journal of Trauma & Dissociation*, 1 (4), 67-80.
- Sar, V., Tutkun, H., Alyanak, B., Bakim, B., & Baral, I. (2000). Frequency of dissociative disorders among psychiatric outpatients in Turkey. *Comprehensive Psychiatry*, 41, 216-22.
- Saxe, G.N., Chinman, G., Berkowitz, R., Hall, K., Lieberg, G., Schwartz, J., & Van der Kolk, B.A. (1994). Somatization in patients with dissociative disorders. *American Journal of Psychiatry*, 151, 1329-1334.
- Saxe, G.N., Van der Kolk, B.A., Berkowitz, R., Chinman, G., Hall, K., Lieberg, G., & Schwartz, J. (1993). Dissociative disorders in psychiatric inpatients. *American Journal of Psychiatry*, 150, 1037-1042.
- Solomon, S.D., & Davidson, J.R.T. (1997). Trauma: prevalence, impairment service use, and cost. *Journal of Clinical Psychiatry*, 58, 5-11.
- Spitzer, C., Spelsberg, B., Grabe, H.J., Mundt, B., & Freyberger, H.J. (1999). Dissociative experiences and psychopathology in conversion disorders. *Journal of Psychosomatic Research*, 46, 291-294.

- Van der Kolk, B.A., Pelcovitz, D., Roth, S., Mandel, F.S., McFarlane, A., & Herman, J.L. (1996). Dissociation, somatization, and affect dysregulation: the complexity of adaptation of trauma. *American Journal of Psychiatry*, 153, 83-93.
- Walker, E.A., Katon, W.J., Neraas, K., Jemelka, R.P., & Massoth, D. (1992). Dissociation in women with chronic pelvic pain. *American Journal of Psychiatry*, 149, 534-537.
- Waller, G., Hamilton, K., Elliott, P., Lewendon, J., Stopa, L., Waters, A., Kennedy, F., Chalkley, J.F., Lee, G., Pearson, D., Kennerley, H., Hargreaves, I., & Bashford, V. (2000). Somatoform dissociation, psychological dissociation and specific forms of trauma. *Journal of Trauma & Dissociation*, 1 (4), 81-98.
- Widlöcher, D. (1992). L'hystérie, maladie de la mémoire. *Revue Internationale de Psychopathologie*, 5, 21-41.
- World Health Organization (1992). *The ICD-10 Classification of Mental and Behavioural disorders. Clinical description and diagnostic guidelines*. Geneva: World Health Organization.

APPENDIX

French version of the Somatoform Dissociation Questionnaire (SDQ-20) (Original English version by Nijenhuis, Van der Hart & Vanderlinden; French translation by Darves-Bornoz & Nelck).

Ce questionnaire recherche différents phénomènes physiques et expériences corporelles que vous pouvez avoir éprouvés de manière brève ou prolongée. Pour chacun des énoncés des pages suivantes, s'il vous plaît, entourez le chiffre de la première colonne qui correspond le mieux à la façon dont l'énoncé s'applique à vous. Les possibilités sont:

- 1 = cela ne me concerne **PAS DU TOUT**
- 2 = cela s'applique à moi **UN PEU**
- 3 = cela s'applique à moi **MODEREMENT**
- 4 = cela s'applique à moi **NETTEMENT**
- 5 = cela s'applique à moi **EXTREMEMENT**

Si un symptôme ou une expérience s'applique à vous, s'il vous plaît, indiquez si un **médecin** l'a relié à une **maladie physique**. Indiquez-le en entourant le mot **OUI** ou **NON** dans la colonne "La cause physique est-elle connue?". Si vous avez entouré un 1 dans la première colonne (c'est-à-dire, cela ne me concerne **PAS DU TOUT**), vous n'avez pas à répondre à la question de savoir si la cause physique est connue. Par contre, si vous entourez 2, 3, 4, ou 5, vous **DEVEZ** entourer **NON** ou **OUI** dans la colonne "la cause physique en est-elle connue?".

S'il vous plaît, ne sautez aucune question.

Il m'arrive que:	Mesure dans laquelle le phénomène ou l'expérience s'applique à vous					La cause physique en est-elle connue ?	
	1	2	3	4	5	NON	OUI, il s'agit de....
1. J'ai des problèmes pour uriner							
2. Je déteste certains goûts que j'aime bien habituellement (pour les femmes: à un autre moment qu'une grossesse ou une période de règles)							
3. J'entends des sons produits près de moi comme s'ils venaient de loin							
4. J'ai mal quand j'urine							
5. Mon corps, ou une de ses parties, est comme engourdi							
6. Des gens et des objets me semblent de taille plus importante qu'habituellement							
7. J'ai une crise qui ressemble à une crise d'épilepsie							
8. Mon corps, ou une de ses parties, est insensible à la douleur							
9. Je déteste certaines odeurs que j'aime bien habituellement							
10. J'ai mal à mes parties génitales (à un autre moment qu'un rapport sexuel)							
11. Je ne peux pas entendre pendant un moment (comme si j'étais sourd)							
12. Je ne peux pas voir pendant un moment (comme si j'étais aveugle)							
13. Je vois des objets autour de moi différemment de d'habitude (par exemple, comme si je les regardais à travers un tunnel, ou je ne les voyais qu'en partie)							
14. Je suis capable de sentir les odeurs beaucoup mieux ou beaucoup moins bien qu'habituellement, bien que je n'aie pas de rhume							
15. C'est comme si mon corps, ou une de ses parties, avait disparu							
16. Je ne peux pas avaler, ou je ne peux avaler qu'avec un grand effort							
17. Je ne peux pas dormir plusieurs nuits de suite, mais je reste très actif pendant la journée							
18. Je ne peux pas parler (ou seulement en faisant un grand effort), ou je ne peux que chuchoter							
19. Je suis paralysé pendant un moment							
20. Je deviens raide pendant un moment							

Table 1. Principal Components Analysis* of a French version of the Somatoform Dissociation Questionnaire (SDQ-20) in psychiatric outpatients (N=140)

	Factor 1	Factor 2	Factor 3
Percent of total variance explained	14%	14%	12%
<i>Sensory neglect</i>			
12. I cannot see for a while (as if I am blind).	0.707		
15. It is as if my body, or a part of it, has disappeared.	0.595		
11. I cannot hear for a while (as if I am deaf).	0.498		
13. I see things around me differently than usual (for example, as if looking through a tunnel or seeing only a part of an object).	0.484		
8. My body, or part of it, is insensitive to pain.	0.410		
1. I have trouble urinating.	0.400		
20. I grow stiff for a while.	0.386		
7. I have an attack that resembles an epileptic fit.	0.341		
<i>Subjective reactions to perceptive distortions</i>			
9. I dislike smells that I usually like.		0.778	
2. I dislike tastes that I usually like (women: apart from pregnancy or monthly periods).		0.702	
10. I feel pain in my genitals (apart from sexual intercourse).		0.547	
6. People and things look bigger than they actually are.		0.525	
16. I cannot swallow or only with great effort.		0.472	
3. I hear sounds from nearby as if they come from far away.		0.459	
4. I have pain while urinating.		0.417	
<i>Vigilance modulation disturbance</i>			
17. I cannot sleep for nights on end but remain very active during daytime.			0.746
14. I do not have a cold but yet am able to smell much better or worse than I usually do.			0.567
19. I am paralyzed for a while.			0.557
5. My body, or a part of it, feels numb.			0.524
18. I cannot speak (or only with great effort), or I can only whisper.			0.468

* Table shows the main correlations between each factor and the answers to the questions