

BRIEF COMMUNICATIONS

Validation of a French Version of the Dissociative Experiences Scale in a Rape-Victim Population

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Objective: To appreciate the extent and the features of dissociation in a hypothesized highly dissociated population, rape trauma victims, while assessing construct validity and internal consistency of a French version of the Dissociative Experiences Scale (DES), a simple screening instrument for dissociative symptoms.

Methods: One hundred and forty rape victims (mean age 23.6 years, 9% male) consecutively attending a Consultation for Victims of Psychological Trauma at the university hospital in Tours, France, were assessed through a French version of the 28-item self-rated DES.

Results: The mean score (24.1) was high, and 33% of the scores exceeded a threshold set at 30. The Principal Components Analysis of the DES ratings yielded a 3-factor solution: depersonalization-derealization, amnesic fragmentation of identity, and absorption-imaginative involvement. DES reliability was studied through computation of Cronbach's α coefficient (0.94).

Conclusion: During validation of a French version of the DES, the study showed that dissociation is considerably linked to rape-trauma victim populations.

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Key Words: rape, dissociative disorders, posttraumatic stress disorder, validation

Studies recurrently have found a history of psychological trauma, often of sexual origin, among patients with severe dissociative disorders (1). However, encountering a rape victim in specialized or general practice is a common occurrence. Indeed rape is not a rare experience, as Spira and colleagues reported. In France in a National Health and Medical Research Institute (INSERM) survey, 7% of women under 35

years of age had stated they had had "sexual intercourse under pressure" (2). Rape is a very psychologically distressing event comparable in intensity to major traumas such as experiencing war or being taken hostage (3). Though the morbidity of trauma has mainly been associated with the category of posttraumatic stress disorder (PTSD), for which the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV) criteria do not include any real item of dissociation, many recent studies have indicated that dissociative symptoms occur in many victims. For instance, in a follow-up study of rape victims (4), the main DSM-IV disorders following rape have been found to be PTSD (71% of the victims), dissociative and phobic disorders (49%), and posttraumatic personality change (41%). Further, in this same study, dissociation was a predictive factor of chronic PTSD. From our experience, we could even hypothesize that the dissociative features of posttraumatic morbidity are more accentuated in rape compared with other traumas. In France, PTSD is becoming a well-

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identified disorder, but dissociative disorders remain underdiagnosed. Using a simple screening test for dissociative symptoms such as the Dissociative Experiences Scale (DES) (5) could allow nonpsychotraumatologists to refer the cases for further investigation of dissociative disorders. This scale, by EM Bernstein and FW Putnam, has become such a useful instrument for dissociative phenomena and was the subject of so many validation studies (6) that validation of the French version was justified. While assessing construct validity and internal consistency of the French version of the DES, this study aimed also to quantify the dissociative phenomenon and to appreciate its features among rape victims, a population hypothesized to be highly dissociated.

Methods

Subjects

The study population comprised rape victims attending the Consultation for Victims of Psychological Trauma in collaboration with the Forensic Centre for Gynecological Assessment of Sexual Assault Victims within the university hospital in Tours, France. The victims came of their own initiative or were referred to Consultation after lodging a complaint with the police. All admissions came from the *département* around Tours. The study subjects selected were aged 13 years and over and were consecutively admitted to Consultation after having experienced sexual penetration following a violent assault, the use of force, or being taken unawares. The subjects were victims of a rape that occurred between a few hours before the interview and 40 years ago. During the study period, 140 subjects attended the Consultation.

The DES

The 140 patients were assessed by a self-rated analogical questionnaire, a French version of the DES. The DES had been translated from English into French by one of the authors, and this translation had been verified in a translation back to English by a native English translator. Further, this French version was tested on psychiatric inpatients to ensure that it was easy to understand. This instrument comprises 28 items, and scores range from 0 to 100. This scale has become well-known over the last few years, especially to psychotraumatologists screening for dissociative symptoms (5). Filling out the questionnaire is simple and quick. Many reliability, factor-analytic, and validity studies have been conducted on the English version (6) but not, to our knowledge, on a French version.

Procedure

After fully describing the study to the subjects, informed written consent was obtained. Subjects were reassured that no nominal information provided would be communicated to anyone and that, if any court case was pending, this

investigation could not be used in evidence. Further, to avoid any suggestibility or denial phenomena with regard to the clinical symptoms measured by the scale, we told the subjects that we had no hypothesis to prove, as this was an insufficiently known area. An ethical commission (*Comité Consultatif de Protection des Personnes dans la Recherche Biomédicale*) was consulted and gave its approval to this research.

Validation of the French Version of the DES

To validate the French version of the DES, we concentrated on the construct validity and the internal reliability of the scale. Other aspects of validation, such as test-retest reliability, were not studied.

To assess the construct validity of the French version, the 28 items were subjected to an orthogonal factor-analytic study. Correlation coefficients were computed, and Principal Components Analysis (PCA) was used to extract the initial factors. The criterion chosen for the number of factors to be extracted was Catell's scree test, which plots the eigenvalues in component order, draws a straight line through the components with the lowest eigenvalues, and retains those whose eigenvalues fall above this line. The scree test was preferred over the Kaiser-Guttman rule, also commonly used (it retains factors if they have an eigenvalue 1), which often overestimates the number of relevant components (7). Following the initial extraction of factors, orthogonal rotation via the varimax procedure was used to achieve the simplest and most meaningful factor structure.

Reliability was assessed by internal consistency. The index used for all items was Cronbach's α coefficient (8). To fuel discussion, Cronbach's α coefficients were also calculated for each subscale determined by the factors of the PCA.

Results

Description of the Sample

The mean age of the 140 study subjects was 23.6 years (SD 9.6, range 13–58). Nine percent of them ($n = 13$) were male. The mean score on the DES was 24.1 (SD 16.5, range 0–75). This score was independent of age ($r = 0.007$, $t = 0.08$, $df = 138$) and gender ($t = 0.418$, $df = 138$). Of the sample, 33% ($n = 47$) obtained a DES score equal to or higher than the threshold, set at 30 in order to screen for major dissociative disorders (as in most studies with this objective [9]).

Factor-Analytic Study of the DES in Rape Victims

The PCA of the DES ratings yielded a 3-factor solution (Table 1), which explained 50% of the total variance. The first factor was related to 11 items detecting a feeling of "depersonalization and derealization." The second factor focused on 11 items related to the psychotraumatologists' notions of dissociative amnesia and dissociative identity. We named this

Table 1. Principal Components Analysis^a of a French version of the Dissociative Experiences Scale in a rape-victim population (N=140)

	Factor 1	Factor 2	Factor 3
Percent of total variance explained	21%	16%	13%
Depersonalization and derealization			
7. Some people sometimes have the experience of feeling as though they are standing next to themselves or watching themselves do something and they actually see themselves as if they were looking at another person.	0.749		
12. Some people have the experience of feeling that other people, objects, and the world around them are not real.	0.733		
13. Some people have the experience of feeling that their body does not seem to belong to them.			
23. Some people sometimes find that in certain situations they are able to do things with amazing ease and spontaneity that would usually be difficult for them (for example, sports, work, social situations, etc.)	0.715		
16. Some people have the experience of being in a familiar place but finding it strange and unfamiliar.	0.644		
28. Some people sometimes feel as if they are looking at the world through a fog so that people and objects appear far away or unclear.	0.610		
14. Some people have the experience of sometimes remembering a past event so vividly that they feel as if they were re-living that event.	0.599		
2. Some people find that sometimes they are listening to someone talk and suddenly realize that they did not hear part or all of what was said.	0.578		
3. Some people have the experience of finding themselves in a place and having no idea how they got there.	0.576		
1. Some people have the experience of driving or riding in a car or bus or subway and suddenly realizing that they don't remember what has happened during all or part of the trip.	0.465		
19. Some people find that they sometimes are able to ignore pain.	0.422		
Amnesic fragmentation of identity			
4. Some people have the experience of finding themselves dressed in clothes that they don't remember putting on.		0.686	
8. Some people are told that they sometimes do not recognize friends or family members.		0.648	
5. Some people have the experience of finding new things among their belongings that they do not remember buying.		0.645	
26. Some people sometimes find writings, drawings, or notes among their belongings that they must have done but cannot remember doing.		0.608	
27. Some people sometimes find that they hear voices inside their head that tell them to do things or comment on things that they are doing.		0.578	
10. Some people have the experience of being accused of lying when they do not think they have lied.		0.551	
11. Some people have the experience of looking in a mirror and not recognizing themselves.		0.537	
22. Some people find that in one situation they may act so differently compared with another situation that they feel almost as if they were two different people.		0.526	
9. Some people find that they have no memory for some important events in their lives (for example, a wedding or graduation).		0.487	
21. Some people sometimes find that when they are alone they talk out loud to themselves.		0.486	
6. Some people sometimes find that they are approached by people who they do not know who call them by another name or insist that they have met them before.		0.320	
Absorption and imaginative involvement			
17. Some people find that when they are watching television or a movie they become so absorbed in the story that they are unaware of other events happening around them.			0.712
25. Some people find evidence that they have done things that they do not remember doing.			0.712
18. Some people find that they become so involved in a fantasy or daydream that it feels as though it were really happening to them.			0.662
24. Some people sometimes find that they cannot remember whether they have done something or have just thought about doing that thing (for example, not knowing whether they have mailed a letter or have just thought about mailing it).			0.571
20. Some people sometimes find that they sometimes sit staring off into space, thinking of nothing, and are not aware of the passage of time.			0.548
15. Some people have the experience of not being sure whether things that they remember happening really did happen or whether they just dreamed them.			0.510

^aTable shows the main correlations between each factor and the answers to the questions.

“amnesic fragmentation of identity.” The third factor comprised 6 features of absorption and imaginative involvement.

Reliability of the DES in Rape Victims

Reliability of the DES in rape victims was established after finding a high Cronbach α coefficient ($\alpha = 0.94$) for all items in our sample, comparable to what was found in English language studies ($\alpha = 0.95$) (6). Cronbach's α coefficients for each subscale determined by the factors of the PCA were also

calculated: *depersonalization-derealization* ($\alpha = 0.89$), *amnesic fragmentation of identity* ($\alpha = 0.86$), and *absorption-imaginative involvement* ($\alpha = 0.81$).

Discussion

One methodological issue to examine is whether the type of population chosen for our study distorts the features of our results or affects their generalization. Indeed, our study

focused not on the general population but on victims of rape who came for consultation. Our subjects, therefore, are seeking help or are involved in litigation. However, official figures suggest that victims today are far more likely to seek care and to lodge a complaint than in the past (10). In addition, although the psychological state of the victims who did not come to the Consultation was not questioned, studies have suggested that there may be no significant difference of prevalence of disorders between rape victims who do not consult and those who do (3,4).

The mean DES score was high (24) in rape victims compared with the general population, where the mean score is around 10 (11). One-third of our sample scored over the threshold of 30 on the DES. These results are congruent with other studies, which found analogous DES scores (median score around 30) in all traumatized populations with PTSD (6). In another study, we actually found that 71% of rape victims attending our Consultation were suffering from PTSD (12). The DES score of 30 is a cutoff commonly used to screen for major dissociative disorders. For instance, it has been shown that, when applying Bayes' theorem, around one-sixth of subjects scoring 30 or higher on the DES actually suffer from dissociative identity disorder (9). Our results concur with a growing and impressive body of evidence using various investigation methods: there is strong link between traumatic stress and dissociation (12). However, our study cannot indicate whether rape trauma is etiological in the high dissociation scores found or whether predisposition to dissociation increases occurrence of PTSD when exposed to trauma or even increases exposure to all kinds of trauma.

The factor structure we found for the DES was very close to that in the English language studies, that is, 3 factors: depersonalization and derealization, amnesic fragmentation of identity, and absorption and imaginative involvement (5,9,11). The reliability of the French version of the total DES in our population was found to be high. However, when we assessed the subscales of the total DES, the situation was more contrasting. As in English language studies, caution is required so as not to consider the items within the factors found as a proxy for disorders, that is, a system for diagnoses, when Cronbach's α coefficient of their associated subscale does not reach 0.85 (13); for example, the absorption-imaginative involvement factor must not be considered as an absorption subscale.

Conclusion

Rape victims often do not talk spontaneously about their dissociative symptoms, yet this population was found often to be highly dissociated. Using the DES to screen dissociated rape victims for referral to psychotraumatology care specialists for further investigation of dissociative disorders appears to be well-founded from both clinical and methodological points of view.

Clinical Implications

- Several distinct psychotraumatic syndromes exist in the aftermath of rape.
- A high score on the Dissociative Experiences Scale for a rape victim invites a more precise diagnosis in the category of dissociative disorders.
- Treatment of rape victims should target both posttraumatic stress disorder symptoms and dissociative symptoms.

Limitations

- The diagnoses of precise categories of dissociative disorders in this sample is not reported here.
- The comorbidity of somatoform dissociation in these rape victims is unknown.

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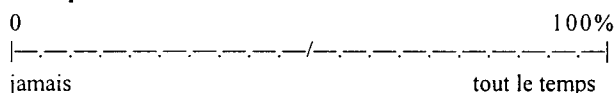
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Appendix

French version of the Dissociative Experiences Scale (Original English version by E Bernstein Carlson and FW Putnam; French translation by JM Darves-Bornoz and E Briggs)

Ce questionnaire comprend 28 questions concernant des expériences que vous pouvez avoir dans votre vie quotidienne. Nous souhaitons déterminer avec quelle fréquence vous arrivent ces expériences. Il est important, cependant, que vos réponses montrent avec quelle fréquence ces expériences vous arrivent en dehors des moments où vous pouvez être sous l'influence d'alcool ou de drogues. Pour répondre aux questions, nous vous prions de déterminer avec quel degré la sensation décrite dans la question s'applique à vous et de marquer la ligne avec un trait vertical à la place appropriée, comme le montre l'exemple ci-dessous.

Exemple :



1. Certaines personnes font l'expérience alors qu'elles conduisent ou séjournent dans une voiture (ou dans le métro ou le bus) de soudainement réaliser qu'elles ne se souviennent pas de ce qui est arrivé pendant tout ou partie du trajet. Marquez la ligne pour montrer quel est le pourcentage de temps où cela vous arrive.
0% |-----/-----| 100%
jamais tout le temps
2. Parfois certaines personnes qui sont en train d'écouter quelqu'un parler, réalisent soudain qu'elles n'ont pas entendu tout ou partie de ce qui vient d'être dit. Marquez ...
3. Certaines personnes font l'expérience de se trouver dans un lieu et de n'avoir aucune idée sur la façon dont elles sont arrivées là. Marquez ...
4. Certaines personnes font l'expérience de se trouver vêtues d'habits qu'elles ne se souviennent pas avoir mis. Marquez ...
5. Certaines personnes font l'expérience de trouver des objets nouveaux dans leurs affaires sans se rappeler les avoir achetés. Marquez ...
6. Il arrive à certaines personnes d'être abordées par des gens qu'elles-mêmes ne reconnaissent pas. Ces inconnus les appellent par un nom qu'elles ne pensent pas être le leur ou affirment les connaître. Marquez ...
7. Certaines personnes ont parfois la sensation de se trouver à côté d'elles-mêmes ou de se voir elles-mêmes faire quelque chose, et de fait, elles se voient comme si elles regardaient une autre personne. Marquez ...
8. On dit parfois à certaines personnes qu'elles ne reconnaissent pas des amis ou des membres de leur famille. Marquez ...
9. Certaines personnes s'aperçoivent qu'elles n'ont pas de souvenir sur des événements importants de leurs vies (par exemple, cérémonies de mariage ou de remise d'un diplôme universitaire). Marquez ...

10. Certaines personnes font l'expérience d'être accusées de mentir alors qu'elles pensent ne pas avoir menti. Marquez ...
11. Certaines personnes font l'expérience de se regarder dans un miroir et de ne pas s'y reconnaître. Marquez ...
12. Certaines personnes font parfois l'expérience de ressentir comme irréels, d'autres gens, des objets, et le monde autour d'eux. Marquez ...
13. Certaines personnes ont parfois le sentiment que leur corps ne leur appartient pas. Marquez ...
14. Certaines personnes font l'expérience de se souvenir parfois d'un événement passé de manière si vive qu'elles ressentent les choses comme si elles étaient en train de revivre cet événement. Marquez ...
15. Certaines personnes font l'expérience de ne pas être sûres si les choses dont elles se souviennent être arrivées, sont réellement arrivées ou si elles les ont juste rêvées. Marquez ...
16. Certaines personnes font l'expérience d'être dans un lieu familier mais de le trouver étrange et inhabituel. Marquez ...
17. Certaines personnes constatent que, lorsqu'elles sont en train de regarder la télévision ou un film, elles sont tellement absorbées par l'histoire qu'elles n'ont pas conscience des autres événements qui se produisent autour d'elles. Marquez ...
18. Certaines personnes constatent parfois qu'elles deviennent si impliquées dans une pensée imaginaire ou dans une rêverie qu'elles les ressentent comme si c'était réellement en train de leur arriver. Marquez ...
19. Certaines personnes constatent qu'elles sont parfois capables de ne pas prêter attention à la douleur. Marquez ...
20. Il arrive à certaines personnes de rester le regard perdu dans le vide, sans penser à rien et sans avoir conscience du temps qui passe. Marquez ...
21. Parfois certaines personnes se rendent compte que quand elles sont seules, elles se parlent à haute voix. Marquez ...
22. Il arrive à certaines personnes de réagir d'une manière tellement différente dans une situation comparée à une autre situation, qu'elles se ressentent presque comme si elles étaient deux différentes personnes. Marquez ...
23. Certaines personnes constatent parfois que dans certaines situations, elles sont capables de faire avec une spontanéité et une aisance étonnantes, des choses qui seraient habituellement difficiles pour elles (par exemple sports, travail, situations sociales ...). Marquez ...
24. Certaines personnes constatent que parfois elles ne peuvent se souvenir si elles ont fait quelque chose ou si elles ont juste pensé qu'elles allaient faire cette chose (par exemple, ne pas savoir si elles ont posté une lettre ou si elles ont juste pensé la poster). Marquez ...
25. Il arrive à certaines personnes de ne pas se rappeler avoir fait quelque chose alors qu'elles trouvent la preuve qu'elles ont fait cette chose. Marquez ...
26. Certaines personnes trouvent parfois des écrits, des dessins ou des notes dans leurs affaires qu'elles ont dû faire mais qu'elles ne se souviennent pas avoir faits. Marquez ...
27. Certaines personnes constatent qu'elles entendent des voix dans leur tête qui leur disent de faire des choses ou qui commentent des choses qu'elles font. Marquez ...
28. Certaines personnes ont parfois la sensation de regarder le monde à travers un brouillard de telle sorte que les gens et les objets apparaissent lointains ou indistincts. Marquez ...

Résumé

Objectif : *Apprécier l'importance et les caractéristiques du phénomène dissociatif dans une population supposée fortement dissociée des victimes de viol, tout en évaluant la validité de construction et la consistance interne d'une version française de la Dissociative Experiences Scale (DES), un instrument simple de dépistage des symptômes dissociatifs*

Méthode : *L'étude a évalué 140 victimes de viol (âge moyen de 23,6 ans, dont 9 % étaient des hommes) dans le cadre d'une consultation de victimes de traumatismes psychiques à l'hôpital universitaire de Tours, en France, à l'aide d'une version française de l'échelle à 28 items DES.*

Résultats : *Le score moyen (24,1) était élevé, et 33 % des scores dépassaient le seuil de 30. L'analyse en composantes principales de la DES a révélé une solution à trois facteurs : dépersonnalisation-déréalisation, fragmentation de l'identité par trouble de mémoire, et l'absorption dans l'imaginaire. La consistance interne de la DES a été testée en calculant le coefficient alpha de Cronbach (0,94).*

Conclusions : *Tout en validant une version française de la DES, l'étude a montré que la phénomène dissociatif est fortement lié aux populations de victimes de viol.*