Validation of the Hebrew Version of the Dissociative Experiences Scale (H-DES) in Israel

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ABSTRACT. Objectives: The purpose of this research was to explore the validity of the concept of dissociation as measured by a Hebrew version of the Dissociative Experiences Scale (H-DES) in Israel.

Design: The first study examined the reliability and validity of the H-DES by assessing 340 consecutive admissions to an Israeli outpatient clinic, and 290 non-clinical subjects. The second study explored the construct validity of the concept of dissociation by studying relationships between reported past traumatization and current levels of dissociation among a different cohort of 70 women Israeli outpatients.

Results: The H-DES has good test-retest and split-half reliability in clinical and non-clinical subjects, and is internally consistent. Its convergent validity with the MMPI 2 Philips Dissociation Scale is good, and it has good criterion-related validity with DSM-IV dissociative disorder diagnoses. The concept of dissociation as measured in Israel by the H-DES has high reliability and validity.

Conclusions: The reliable identification of dissociative experiences in Israel as well as in several cultures outside North America supports dissociation as a valid psychological construct with widespread cross-cultural applicability. This study contradicts claims that dissociation is merely a passing North American professional fashion.
The essential feature of dissociative disorders (DDs) is “disturbance or alteration in the normally integrated functions of identity, memory or consciousness” (American Psychiatric Association, 1994). DDs have been reported by clinicians to have a posttraumatic etiology (e.g., Kluft, 1991, Spiegel and Cardeña, 1991). Nevertheless, the concept has generated considerable controversy centered on whether DDs, and particularly Dissociative Identity Disorder (DID) are valid clinical diagnoses (Mersky, 1992; Spanos, 1994) and on the meaning of the increased number of diagnosed cases (Horevitz, 1995). Some mental health authors have claimed that clinicians inadvertently elicit these clinical phenomena during therapy because of their fascination with the dissociation model (Bowers, 1991; Frankel, 1990). Other authors have suggested that the notable increase in the diagnosis of DID reflects a North American popular/professional trend that has developed into a form of social hysteria (Aldridge-Morris, 1989; Radwin, 1991). To determine whether DDs are a culture-specific phenomenon, systematic international large-scale studies of the prevalence of DDs need to be conducted. Such endeavors had been virtually impossible in Israel, because a reliable screening instrument was lacking. The only self-report instrument used to systematically study the prevalence of dissociative experiences in the general population has been the Dissociative Experiences Scale (DES). This instrument has been developed in the United States (Bernstein & Putnam, 1986; Carlson & Putnam, 1993) and was used to measure the frequency of 28 dissociative experiences that are aspects of the dissociation construct (Putnam, 1991). The instrument was shown to be a valid and reliable screening instrument (Frischholtz et al., 1990; Waller, 1995) that in conjunction with clinical diagnosis has enabled the accumulation of data supporting the reliability and validity of the diagnosis of DID and other DDs. The DES, which was initially developed in English in 1986, is now available in at least 18 languages, indicating the extent of the international interest in this clinical phenomenon (Bowman, 1996). The validity of the translated instrument has been investigated in the Netherlands (Ensink & Van Otterloo, 1989), Turkey (Yargic, Tuktun & Sar, 1993) Japan (Umesue, Matsuo, Iwata & Tashiro, 1996), Germany (Spitzer et al., 1998) and in France (Darves-Bornoz, Degiovanni, & Galliard, 1999).
In Israel, several clinical and theoretical papers on dissociation have been presented in professional conferences and published in local scientific journals (e.g., Margalit & Wiztum, 1997a, 1997b; Somer, 1987, 1989, 1993, 1994, 1995; Somer & Somer, 1997). However, no empirical studies have been conducted in the Middle East to ascertain the relevance of the DES to the local population.

The purpose of the present research was to test the validity and reliability of the DES in Israel. Two studies were conducted. In study 1 we assessed the applicability of a translated version of the DES to Israeli subjects by examining the reliability and validity of the scale. There is a growing body of research indicating a causal connection between a history of trauma in childhood and dissociative experiences and symptoms (e.g., Fine, 1990; Hornstein & Tyson, 1991; Kirby, Chu, & Dill, 1993; Spiegel, 1991). Therefore, construct validity for dissociation scales has also been assessed by comparing them to trauma indices (e.g., Putnam, Helmers & Trickett, 1993). In study 2 we explored the construct validity of the scale by studying relationships between past traumatization and current levels of dissociation among Israeli subjects.

**STUDY 1: THE PSYCHOMETRICS OF THE H-DES**

**Methods**

**Subjects**

Six hundred thirty subjects participated in this study. Our research sample consisted of two main groups: (1) A clinical group of 340 consecutive patients admitted for outpatient psychotherapy at Maytal–Israel Institute for Treatment and Study of Stress, and (2) A comparison group consisting of 290 non-clinical subjects sampled from university students and faculty. The clinical group included 89 patients with adjustment disorders and DSM-IV V-codes, 87 patients with anxiety disorders (other than Posttraumatic Stress Disorder or Acute Stress Disorder (PTSD/ASD)), 36 patients with dissociative disorders, 32 with personality disorders, 21 with schizophrenia, 17 with affective disorders, and 15 with PTSD or ASD. Forty-three patients received no diagnoses.

The mean ± SD age of the clinical and non-clinical groups were 31.9 ± 10.8 (range = 15-70) and 23.4 ± 7.9 (range = 16-52), respectively. Of the 340 patients, 207 were women (61%) and 133 were men (39%).
the 290 comparisons, 202 were women (70%) and 80 were men (30%). Thus, our non-clinical group was younger and comprised of more women than the clinical group. Past research has shown significant age effects on DES scores for younger people (e.g., Bernstein & Putnam, 1986; Ross et al., 1989) and for women (e.g., Putnam et al., 1996). Psychopathological effects on the DES would be more difficult to demonstrate in this study and would increase the power of statistically significant differences.

Measures

1. The DES–II (Carlson & Putnam, 1993), a 28-item questionnaire, scored on a 10-point Likert scale, was translated into Hebrew by the first author (a native Hebrew speaker) and later was back-translated into English by a native English speaker who was blind to the original English version. The back-translation was compared to the original version and differences were reconciled.
2. The clinical group was evaluated with the Structured Clinical Interview for DSM-III-R (SCID), a guided semi-structured diagnostic interview (Spitzer & Williams, 1986) and with the Structured Clinical Interview for DSM-IV Dissociative Disorders (SCID-D) (Steinberg, 1993).
3. As part of their intake procedure, the patients were also asked to complete the Hebrew versions of the MMPI-2. Convergent validity in this study was calculated by comparing scores of the H-DES with scores of the Phillips Dissociation Scale (PDS), a 20-item instrument derived from the MMPI-2 (Phillips, 1994).

Procedure

The clinical sample was evaluated during their intake procedure and included all consecutive Hebrew-speaking patients. Eligible subjects gave their consent to participate in the study. The non-clinical subjects were recruited in faculty meetings and lecture halls. Subjects were informed that the purpose of the study was to investigate the frequency of the experiences described in the questionnaire. Seventy-six percent of the non-clinical subjects approached gave consent for participation. One hundred forty-one comparison subjects were approached again one month following their first completion of the H-DES and asked to com...
complete the questionnaire again. These 141 subjects represented an 89% response rate.

**Data Analysis**

Initial review of our data revealed that the distribution of the H-DES scores within the investigated sample was skewed. Therefore, in data analysis we applied non-parametric statistical methods whenever possible.

**Results**

**Reliability Measures**

Students in one of the large introductory university classes that had originally completed the H-DES were approached again after one month and were asked to repeat the task. The H-DES total score test-retest reliability coefficient was .87 (p < 0.0001, N = 141). The internal consistency was examined at several levels: split-half reliability coefficient, Cronbach’s alpha coefficient, and corrected item-to-total correlations. Split-half reliability coefficient (calculated using the Spearman Brown formula) was .86 both for the entire sample (p < 0.0001, N = 584), and for our normal comparisons (p < 0.0001, N = 290). For the clinical sub-groups the Split-half reliability coefficient scores ranged between .75 (for patients with Adjustment Disorders and V-Codes) to .93 (for patients with Schizophrenia and those suffering from Affective Disorders). The Split-half reliability for the 36 patients presenting with Dissociative Disorders coefficient was .84. All reliability coefficients for the clinical sub-groups were significant at a p < 0.0001 level. Cronbach’s alpha coefficient for the H-DES scores was 0.91 for both the non-clinical group (N = 290) and the clinical group (N = 293). Reliability coefficients of the corrected item-to-total ranged from 0.26 to 0.73, with a median of 0.59 score for the non-clinical group and 0.34 to 0.66, with a median of 0.55 score for the clinical group. All of these values are significant at p < 0.0001.

**Validity Measures**

Convergent validity was calculated by comparing scores of the H-DES with scores of the Phillips Dissociation Scale (PDS), a 20-item instrument derived from the MMPI-2. There is no item overlap between
the H-DES and the PDS. Taulogy was, therefore, ruled out. Testing of
the PDS scale by the developer with a dissociative group and a general
psychiatry group showed the PDS to be internally reliable and to differ-
entially diagnose dissociative disorders (Phillips, 1994). A Spearman
Correlation between the H-DES and the PDS scores for 284 patients
was calculated and yielded \( r = 0.59 \) (\( p < 0.0001 \)). Divergent validity was
calculated by comparing the scores of the H-DES and the Male/Female
scale of the MMPI-2 and yielded \( r = 2.03 \) (\( p < 0.28 \)). H-DES scores did
not differ by sex in the non-clinical group \( t (280) = 21.51, \) NS or in the
clinical group \( t (291) = 21.18, \) NS, but scores were significantly negatively corre-
lated with age in both the non-clinical group \( r = 20.31, \) \( p < 0.0001 \) and the clinical group \( r = 20.19, \) \( p < 0.001 \).

Criterion-referenced validity was calculated when we compared H-DES
scores across the different diagnostic groups. The mean H-DES score
for the non-clinical group was 13.06. The mean H-DES scores for the
various clinical groups were as following: Anxiety Disorders: 9.62; Adjust-
ment Disorders and V Codes: 9.82; Personality Disorders: 11.25; AffectiveDisorders: 13.07; Schizophrenia: 16.22; Posttraumatic Stress Disorder and Acute Stress Disorder: 20.36; and Dissociative Disorder: 29.45. A Kruskal-Wallis test demonstrated that H-DES scores differed significantly between the groups \( \chi^2 \) = 62.19, \( N = 290, \) \( df = 7, \) \( p < 0.0001 \). Pairwise comparisons of each group’s mean score by Scheffe’s
test revealed that all but one clinical group yielded significant differ-
ences. H-DES mean score differed in the DD group from other diagnostic
groups and from the non-patient population.

**STUDY 2: CONSTRUCT VALIDITY OF THE H-DES**

**Methods**

**Subjects**

The second research sample consisted of a new cohort of seventy
consecutive women admitted for outpatient psychotherapy at Maytal–
Israel Institute for Treatment and Study of Stress. Their mean age ± SD
was 33.5 ± 12.2 (range: 16-55). Thirty-five suffered from Anxiety Dis-
orders, 19 were given either a V-code or an Adjustment Disorder or
Degree, 10 had an Affective Disorder and 6 were assessed as having a
Personality Disorder. No DDs were included in this sample.
Procedures and Measures

The intake procedure employed at Maytal includes a structured trauma history interview based on the Traumatic Experiences Questionnaire (TEQ), an instrument developed by Nijenhuis, Van der Hart and Vanderlinden and later slightly modified and relabeled Traumatic Experiences Checklist (Nijenhuis, Van der Hart, & Vanderlinden, 1999). The TEQ is a self-report questionnaire inquiring about 25 types of interpersonal and non-interpersonal life events that could be potentially traumatic. When interpersonal violence was explored, subjects were asked to indicate if immediate family members, relatives or others had hurt them. TEQ items inquire if respondents had suffered from the following stressors: parentification (a child needing to act in a parental role) (P), major loss, such as a death of a loved one (L), interpersonal life-threats (e.g., having been assaulted with a weapon) (TH), other traumatic life events (e.g., fires, natural disasters, road accidents) (LE), emotional neglect (EN), emotional abuse (EA), physical abuse (PA), sexual harassment (SH) or sexual abuse (SA). The TEQ specifically addresses the subjective impact of the event (i.e., how traumatic was it for the respondent), and also requests information about the number of perpetrators of emotional, physical, and sexual abuse. The questions contain short descriptions that define the events of concern. All items are preceded by the phrase: “Did this happen to you?” An example of sexual harassment within the family is: “Sexual harassment (acts of a sexual nature that DO NOT involve physical contact) by your parents, brothers, or sisters.” A sexual abuse by extended family item is: “Sexual abuse (unwanted sexual acts involving physical contact) by other relatives.”

Moderate to strong associations of the TEQ total score and composite scores, in particular physical and sexual abuse, with current psychological and somatoform dissociation, support the construct validity of the TEQ. These associations were found when studying psychiatric outpatients with dissociative disorders and other mental disorders (Nijenhuis et al., 1998), gynecology patients with chronic pelvic pain (Nijenhuis et al., 1999), and women who reported childhood sexual abuse (Nijenhuis, 1999). Recent research with this instrument indicated that the reliability of the TEQ was supported by satisfactory internal consistencies. Cronbach’s alpha for the first administration of the TEQ was .86, and was .90 for the retest. The test-retest reliability of the TEQ total score was \( r = .91, p < .0001 \). The correlation between the TEQ and the Stressful Life Events Screening Questionnaire (SLESQ; Goodman,
Corconan, Turner, Yuan, & Green, 1998) to tal scores is strong, $r = .77$, $p < .0001$, sug gest ing that both in stru ments as sess a highly sim i lar construct. The com pos ite trauma score of the TEQ and the SLESQ that as sess physical abuse and de lib er ate threat to life from a per son, and sexual trauma were also corre lated, i.e., res pectively, $\rho = .56$, $p < .0001$ and $\rho = .78$, $p < .0001$ (Nijenhuis, Van der Hart, & Kruger, sub mitted).

Among the key fac tors that de ter mine what makes an event trau ma tic are the per cep tion of the event as hav ing highly neg a tive va lence (e.g., Carlson, 1997), mul ti ple per pe tra tors (e.g., Peters, 1988), du ra tion and fre quency of the abuse (e.g., Elliott & Briere, 1992), and abuse at an ear lier age (e.g., Zivney, Nash, & Hulsey, 1988). The TEQ com pos ite trauma score re flects these rel e vant traumatogenic fac tors. Each ex pe ri ence iden ti fied as a trauma item was given one point. Sub jects could score 0-3 trauma points, de pend ing on the number of perpetrating sources. Ad di tional points were given to each trauma event en dorsed if the trauma oc curred when the sub ject was youn ger than age 10, if the trauma lasted more than one year, and if the im pact of the trau ma tic event was rated as 4 or 5 on a 5-point sub jec tive se ver ity scale. Scores for spe cific trauma events in each of the nine cat e go ries range from 0-7. Com pos ite trauma scores range from 0-63. Sub jects were also given the H-DES.

Results

Emo tional Ne glect was the TEQ trauma cat e go ry with the high est mean score ($M = 1.22; SD = 1.47; N = 39$) in our sam ple. This score re flects the num ber of dif fer ent per pe tra tors or, if not abuse-re lated, dis crete trau ma tic events, early age on set, du ra tion of ex po sure and sub jec tive ef fect. Sex ual Abuse re ceived the low est mean trauma score ($M = 0.27; SD = 0.50; N = 19$), re flect ing a rel a tively low rep re sen ta tion of this vari able in the trauma his tory of our sam ple. A Spearman cor re la tion be tween the mean com pos ite TEQ trauma score ($M = 14.14; SD = 16.35; N = 70$) and the mean com pos ite H-DES score ($M = 12.02; SD = 11.56; N = 70$) was $r = 0.62$ ($p < 0.0001; N = 70$). The H-DES was also sig nif i cantly cor re lated with the num ber of trauma sources in all the trauma sub cat e go ries ex cept Sex ual Abuse (see Ta ble 1). Ta ble 1 re veals that the num ber of dif fer ent per sons who had sex ually abused the res pon dent (trauma sources) was not a sig nif i cant sta tistical pre dic tor of dis so ci a tion. We also com puted cor re la tions be tween the means of the other com po nents of the non-sex ual trauma scores and the H-DES.
Early age during the trauma, length of victimization, and perceived severity of the experience were not significant predictors of the mean H-DES score for all the trauma categories but Sexual abuse. Spearman correlations between the mean H-DES score and the other sexual trauma components were as following: Early age of onset: \( r = 0.59 \) (\( p < 0.05; N = 17 \)); Lengthy duration: \( r = 0.61 \) (\( p < 0.01; N = 17 \)); Perceived severity: \( r = 0.47 \) (\( p < 0.05; N = 19 \)).

**DISCUSSION**

Our results demonstrate the reliability and validity of the Hebrew version of the DES. The H-DES has good test-retest and split-half reliability and is internally consistent. Evidence for good criterion-related validity was provided by showing evidence that the H-DES scores agree with criteria of DSM-IV and SCID-D dissociative disorders and differentiate between different diagnostic groups. H-DES scores also agree with PDS, an MMPI-2 dissociation scale with no overlapping items with the H-DES. If the H-DES measures dissociation, it should be associated with the sequelae of traumatic experiences. Construct validity of the H-DES was provided by an association between

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<tr>
<th>Trauma category</th>
<th>N subjects</th>
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<tbody>
<tr>
<td>Parentification</td>
<td>69</td>
<td>0.34**</td>
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<tr>
<td>Loss</td>
<td>69</td>
<td>0.29*</td>
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<tr>
<td>Life threats</td>
<td>70</td>
<td>0.32**</td>
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<td>Threatening life events</td>
<td>70</td>
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<tr>
<td>Emotional neglect</td>
<td>70</td>
<td>0.42***</td>
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<tr>
<td>Emotional abuse</td>
<td>70</td>
<td>0.46***</td>
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<tr>
<td>Physical abuse</td>
<td>70</td>
<td>0.25*</td>
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<tr>
<td>Sexual harassment</td>
<td>70</td>
<td>0.42***</td>
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<tr>
<td>Sexual abuse</td>
<td>70</td>
<td>0.20 (NS)</td>
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\* \( p < 0.05 \)
\** \( p < 0.01 \)
\*** \( p < 0.001 \)
NS not significant

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H-DES scores (dissociative experiences) and reported trauma history. These findings are in agreement with 26 studies reporting an association between the DES and physical or sexual abuse experiences (N = 2,108) (Van Ijzendoorn & Schuengel, 1996). Our findings also demonstrate that aggravating variables of sexual trauma such as intense severity, prolonged duration, and young age during abuse were uniquely related to dissociative experiences. These latter findings are in line with studies in which the authors have been able to obtain documentation for children and adolescents with dissociative disorders (Hornstein and Putnam, 1992; Coons, 1994) and with studies that showed relationships between indices of trauma severity and dissociation (e.g., Chu and Dill, 1990; Anderson et al. 1993).

The current findings from a Jewish population in the Middle East replicate the high degree of reliability and validity of DES that has been demonstrated by previous studies conducted in North America (Bernstein & Putnam, 1986; Ross et al., 1989; Frischoltz et al., 1990; Sandberg & Lynn, 1992; Dobester & Braun, 1995), the Netherlands (Ensink & Van Otterloo, 1989), Turkey (Yargic, Tutkun, & Sar, 1995), Japan (Umesue et al., 1996), Germany (Spitzer et al., 1998) and France (Darves-Bornoz, Gegiovanni, & Gaillard, 1999) as well as in a meta-analytic study (van Ijzendoorn & Schuengel, 1996). The accumulated data suggest that dissociative experiences are not North American culture-bound phenomena and that the concept, originally named in France at the end of the 19th century (Janet, 1905; Van der Hart & Horst, 1989) remains a valid construct with cross-cultural applicability.

REFERENCES


Somer, E. (1989). Mul ti ple per son al ity dis or der: Com ments on di ag no sis treat ment and the ther a pists’ feel ings. Si hot-Is rael Jour nal of Psy cho ther apy, 3, 101-106 (in He brew).


