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. *[Article copies available for a fee from The Haworth Document Delivery Service: 1-800-342-9678. E-mail address: <getinfo@haworthpressinc.com> Website: <http://www.HaworthPress.com>* *© 2001 by The Haworth Press, Inc. All rights reserved.]*

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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, Tutkun & 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 diagnosis.

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%). Of

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 assessment 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. All 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 we 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-

plete 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-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 for 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-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. Tautology 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 differentially 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 correlated 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; Adjustment Disorders and V Codes: 9.82; Personality Disorders: 11.25; Affective Disorders: 13.07; Schizophrenia: 16.22; Posttraumatic Stress Disorder and Acute Stress Disorder: 20.36; and Dissociative Disorders: 29.45. A Kruksal-Wallis test demonstrated that H-DES scores differed significantly between the groups (chi-square = 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 differences. H-DES mean score differentiated 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 Disorders, 19 were given either a V-code or an Adjustment Disorder diagnosis, 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 indices of internal consistency. 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 assess physical abuse and de lib er ate threat to life from a per son, and sexual trauma were also cor re lated, i.e., re spec tively, *rho* = .56, $p < .0001$ and *rho* = .78, $p < .0001$ (Nijenhuis, Van der Hart, & Kruger, submitted).

Among the key fac tors that de ter mine what makes an event trau matic 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., Pe ters, 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 rience iden ti fied as a trauma item was given one point. Sub jects could score 0-3 trauma points, depending 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 matic 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

Emotional Ne glect was the TEQ trauma cat e gory with the high est mean score (M = 1.22; SD = 1.47; N = 39) in our sam ple. This score reflects the num ber of dif fer ent per pe tra tors or, if not abuse-re lated, discrete trau matic events, early age on set, du ration of ex po sure and sub jective 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 variable in the trauma his tory of our sam ple. A Spearman cor re la tion between the mean composite 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 significantly 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 reveals that the num ber of dif fer ent per sons who had sex u ally abused the re spon dent (trauma sources) was not a sig nif i cant sta tis ti cal 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.

TABLE 1. Significant Correlations of He brew-DES with Num ber of Trauma Sources by Cat e gory

Trauma cat e gory	N subjects	r
Parentification	69	0.34**
Loss	69	0.29*
Life threats	70	0.32**
Threat en ing life events	70	0.32**
Emo tional ne glect	70	0.42***
Emo tional abuse	70	0.46***
Phys i cal abuse	70	0.25*
Sexual ha rass ment	70	0.42***
Sex ual abuse	70	0.20 (NS)

* $p < 0.05$
** $p < 0.01$
*** $p < 0.001$
NS not significant

Early age dur ing the trauma, length of vic tim iza tion, and per ceived se ver ity of the ex pe ri ence were not sig nif i cant pre dic tors of the mean H-DES score for all the trauma cat e go ries but Sex ual abuse. Spearman correlations between the mean H-DES score and the other sexu al trauma com po nents were as fol low ing: Early age of on set: $r = 0.59$ ($p < 0.05$; $N = 17$); Lengthy du ra tion: $r = 0.61$ ($p < 0.01$; $N = 17$); Per ceived severity: ($r = 0.47$; $p < 0.05$; $N = 19$).

DISCUSSION

Our results demonstrate the re li abil ity and va lid ity of the He brew ver sion of the DES. The H-DES has good test-re test and split-half re li abil ity and is in ter nally con sis tent. Ev i dence for good cri te rion-re lated validity was provided by show ing ev i dence that the H-DES scores agree with cri te ria of DSM-IV and SCID-D dissociative dis or der di ag no ses and dif fer en ti ate be tween different di ag nos tic groups. H-DES scores also agree with PDS, an MMPI-2 dis so ci a tion scale with no over lap ping items with the H-DES. If the H-DES mea sures dis so ci a tion, it should be as so ci ated with the sequelae of trau matic ex pe ri ences. Con struct va lid ity of the H-DES was pro vided by an as so ci a tion be tween

H-DES scores (dissociative experiences) and a 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 psychological construct with cross-cultural applicability.

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