DEVELOPMENT AND VALIDATION OF A SCALE MEASURING CHILDHOOD DISSOCIATION IN ADULTS: THE CHILDHOOD DISSOCIATIVE PREDICTOR SCALE

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An earlier version of this paper was presented by the first author at the 1988 meeting of the American Psychological Association in Atlanta, Georgia.

ABSTRACT

The sharp increase in our understanding of dissociation, particularly as manifested in multiple personality disorder (MPD) and post-traumatic stress disorder (PTSD) has resulted in the need for a psychometric instrument to permit replicable studies of variables associated with the development of dissociation. The Childhood Dissociative Predictor Scale is a 14-item, self-report scale with items relating to childhood abuse and childhood dissociative behaviors answered on a five-point scale. The scale yields a total score and subscale scores on dissociation items and abuse items. The scale was normed on 161 subjects including sixty-six normals and ninety-five psychiatric patients. Of clinical populations, only the MPD and PTSD groups scored significantly higher than normals. This significant elevation occured on Total Score, the Dissociation Subscale, and the Abuse Subscale. Results support the initial validity and utility of the scale.

INTRODUCTION

Dissociation is a psychophysiological process with psychodynamic triggers which produces an alteration in ongoing consciousness (Putnam, 1985). As a result, thoughts, feelings, and experiences may not be normally integrated into awareness and memory. The most extreme form of dissociation among the five categories of dissociative disorders in the *DSM-III-R* is multiple personality disorder (MPD), a disorder of considerable severity that has been shown to be more common than previously believed (Kluft, 1985b).

Childhood abuse has been shown to be a significant etiological factor in MPD (Bliss, 1980; Braun & Sachs, 1985; Greaves, 1980; Putnam, Guroff, Silberman, Barban, & Post,1986). Kluft (1986) and Braun and Sachs (1985) cite childhood abuse and the innate capacity to dissociate as two primary precipitating factors in the development of MPD. The role of child abuse in diagnostic groups now recognized, there is a need for research addressing the role of child abuse in other disorders, and a need for controlled clinical research to clarify the nature of dissociation (Braun & Sachs, 1985).

While two standardized measures of dissociation in adults now are available (Bernstein & Putnam, 1986; Sanders, 1986), no standardized retrospective measure of dissociation proneness currently exists. Recent research on childhood predictors of MPD (Fagan & McMahon, 1984; Kluft, 1985a) has provided the groundwork for such a measure.

The purpose of this study was to develop an easily administered retrospective measure of childhood abuse and dissociative proneness. Such a scale would permit quantifiable, replicable investigation of predisposing dissociative factors in a variety of normals and clinical populations, and further the understanding of historical and genetic influences on adult adjustment. It would have particular value in assessment of post-traumatic stress disorders, which have been shown to have a dissociative component (Bernstein & Putnam, 1986; Branscomb, 1991), but which do not lend themselves to prospective research.

Further, by assessing both child abuse and dissociative responses on separate dimensions, such a scale could help clarify the relationship between these two factors in a variety of psychological illnesses. For example, it is generally believed that childhood abuse plays a role in many adult disorders (Wilbur, 1985), but only some individuals develop a dissociative disorder. It was hypothesized that the dissociative experience items would be scored higher relative to child abuse items in dissociative populations, such as MPD, than in other psychiatric groups.

METHOD

Development of Scale

Items on the scale were derived from items described by Fagan and McMahon (1984) and Kluft (1985a) as predictors of childhood dissociation and MPD. Specific questions regarding sexual trauma were modified from items used in previous research described by Finkelhor (1986). A pilot study was conducted with Veterans Administration hospital inpatients to establish that all items were understood easily and aroused minimal anxiety. Instructions to all participants were standardized.

Braun and Sachs (1985) and Kluft (1986) have emphasized the dual factors of predisposition to dissociation and acute trauma, primarily physical or sexual abuse, in the development of MPD. Thus items on the scale were drawn from both categories, yielding two subscales: Dissociation Subscale

and Abuse Subscale. Dissociation items reflect the patient's report of subjective internal experiences of a dissociative nature, such as ("Before you were 13:") "Did you ever think or feel you had separate parts, that is, as if there were someone else inside?" The Abuse Subscale contains items describing external aspects of the childhood environment and parental abuse or neglect, such as, "How often were you hurt (any kind of a bruise, cut, or mark) when you were punished?"

The Childhood Dissociative Predictor Scale (CDPS) (see Appendix A) contains fourteen scored items and three research items to which subjects respond by selecting a frequency for each item, ranging from "Never" to "Very Often (almost every day)." Several items, e.g., the presence of sexual abuse before age 13, are scored according to presence or absence. Each subscale contains seven items scored 0 to 4, yielding a subscale score ranging from 0 to 28. Total score ranges from 0 to 56. (See Appendix B for scoring instructions.)

Subjects

The scale was normed on 161 subjects, including 66 normal and 95 psychiatric subjects. The normal subjects included mental health professionals (26) and building management employees (40) in a large, Southern V.A. Medical Center. Normals included 67 percent males and 33 percent females; 65 percent of the normals were black; 35 percent were white.

Patients were inpatients at the V.A. Hospital or were V.A. outpatients with a history of hospitalization. Diagnosis was made according to *DSM-III-R* criteria by a staff psychologist or psychiatrist. The questionnaires were administered by other psychology staff and/or interns. Case conferences were conducted to clarify questionable diagnoses, all PTSD diagnoses, and all MPD diagnoses. [1]

The psychiatric subjects included the following diagnostic categories (all male): 35 combat-related PTSD, 7 sub-acute PTSD, 21 Generalized Anxiety Disorder, 10 Major Affective Disorder (Depression), 18 Schizophrenia, and 4 MPD. The sub-acute PTSD group consisted of PTSD veterans who were significantly less impaired than PTSD subjects. These men had a history of Vietnam combat, no diagnosis or a provisional diagnosis of PTSD, some symptoms of post-traumatic stress, did not meet the cut-off score on the Mississippi Scale for Combat-Related PTSD (Keane, Caddell, & Taylor, 1986), and were employed (no PTSD subjects were employed).

Due to the need for multi-dimensional assessment procedures to insure diagnostic homogeneity in PTSD research (Fairbank & Nicholson, 1987; Keane, Wolfe, & Taylor, 1987), PTSD subjects received additional standardized testing and clinical assessment (see Branscomb, 1991). Participants in the PTSD group were referred to the psychologist by staff psychiatrists on the basis of primary symptomatology consistent with PTSD, as defined by the *DSM-III-R*. From these referrals, a staff psychologist with extensive experience working with Vietnam veterans and PTSD selected patients for the Vietnam Veterans Stress Reduction Program, which involved group and individual therapy and didactic sessions.

PTSD participants in the study met the above requirements and the following five additional screening criteria: Criterion 1 was consensus between the staff psychologist and the PTSD Program psychology intern on primary diagnosis of PTSD. Criterion 2 was clinical judgment that primary rather than secondary gain factors were predominant in the patient's motivation, as indicated by (a) the patient's motivation to participate in the fairly rigorous treatment program; (b) the patient's following his treatment plan until the recommended discharge date; (c) the patient's assumption of responsibility for his problems; and (d) non-verbal cues such as hypervigilant response to mention of Vietnam-related topics. Criterion 3 was no known history of severe head injury, incipient malaria, or temporal lobe epilepsy. Criterion 4 was a score above the cut-off score of 107 on the M-PTSD scale (Keane, Caddell, & Taylor, 1986). Criterion 5 was in the "moderate" to "heavy" range on the Combat Exposure Scale (Keane, Fairbank, Caddell, Zimering, & Bender, 1985).

Of forty-six veterans solicited for the study, three refused because of concerns with confidentiality of trust issues with the Veterans' Administration. Another was excused when he suffered a loss and experienced an acute grief reaction immediately preceding testing. Of the remaining forty-two veterans, thirty-five met the criteria for inclusion in the study.

Mean age of the subject sample was 41.1 years (sd = 10). Fifty-seven percent of the overall sample was black.

Participation was voluntary. Refusal rate for clinical subjects solicited was 9 percent; for mental health professionals, 10 percent; and for building management employees, 50 percent.

PROCEDURE

Administration

Patients were told that the purpose of the questionnaire was to gain some information about early childhood and family events, information which is important but "personal and not often talked about," therefore difficult to gather accurately. Confidentiality and the fact that responses would not affect diagnosis or treatment in any way were emphasized. Additional demographic information was also requested of each subject.

Data Analysis

Total scores, Dissociation scores, and Abuse scores were computed for each subject. A one-way analysis of variance between groups was performed on each of these variables. The least significant difference procedure was used to determine the significance of difference between groups. Analysis of variance and the Student t-test were used in post-hoc comparisons of selected groups.

RESULTS

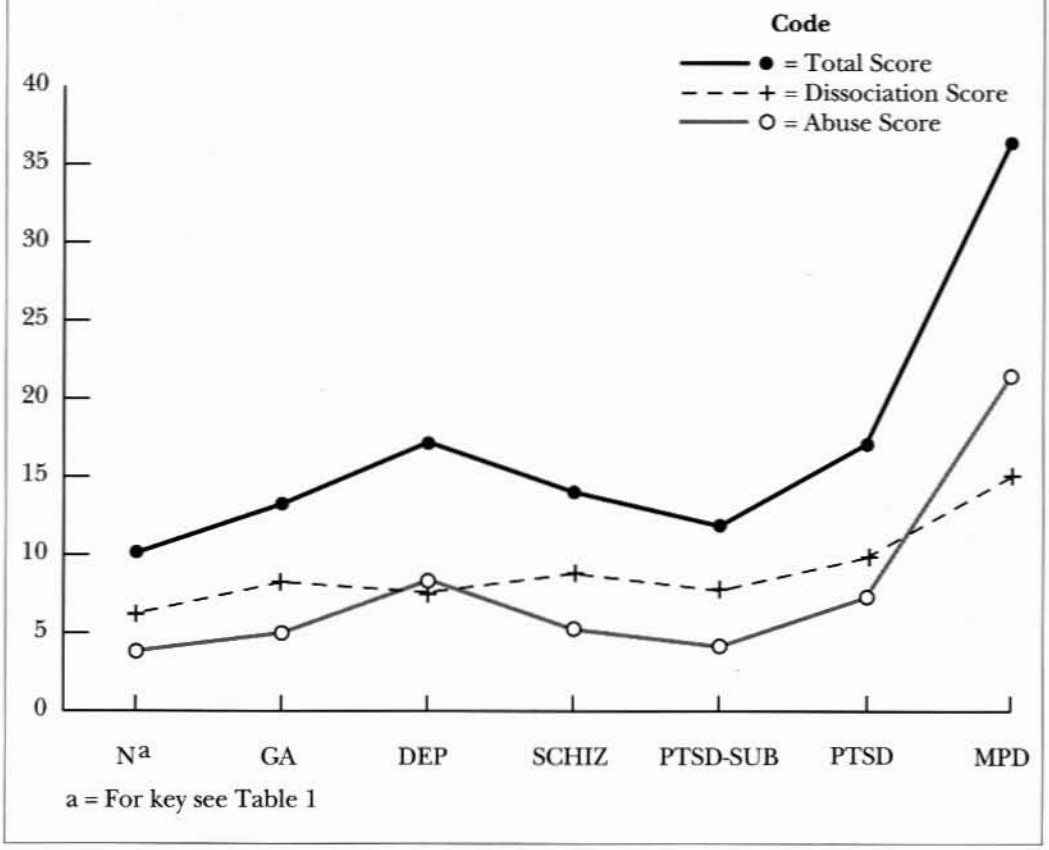
CDPS Total Score

Means on Total and Subscale scores are presented for all groups in Table 1. Mean for the normal group was 10.12 (sd = 6.86), while the highest mean was MPD, 36.50 (sd = 6.37). Non-MPD clinical group means ranged from 11.85 (sd = 8.15) (sub-acute PTSD) to 17.20 (sd = 9.60) (Major

Depression). Group means are depicted graphically in Figure 1.

Analysis of variance revealed a significant difference between groups on total score ($F = 5.96$, $df = 6, 152$, $p < .01$). The MPD group scored significantly higher than all other groups (though MPD data should be considered preliminary due to small N)[2]. The second-highest scoring group was PTSD, who scored significantly higher than normals (lsd procedure, $p < .05$) but not significantly different from other psychiatric non-MPD groups (lsd procedure and one-way ANOVA between PTSD, sub-acute PTSD, and non-MPD psychiatric groups). PTSD subjects scored significantly higher than normals when examined by the Student t-test ($t = 4.60$, $df = 99$, $p < .001$).

FIGURE 1
Comparison of Group Mean CDPS Scores



a = For key see Table 1

Dissociation Subscale

An analysis of variance of Dissociation Subscale scores showed significant differences between groups ($F = 5.70$, $df = 6, 152$, $p < .01$). MPD group mean was 21.50 (sd = 2.12), again significantly higher than all other groups (lsd procedure, $p < .05$). The affective disorder group obtained the second highest score ($\bar{x} = 9.60$, sd = 7.44), followed by PTSD ($\bar{x} = 7.26$, sd = 5.79) (see Figure 1). PTSD scores were significantly higher than the normals ($t = 5.7$, $df = 99$, $p < .001$).

Abuse Subscale

Abuse Subscale scores also differed significantly between groups ($F = 3.36$, $df = 8, 152$, $p < .05$) (see Figure 1). The highest scoring group was MPD ($\bar{x} = 15.00$, sd = 8.50). All other clinical groups scored within a one-point range of 7.7 to 8.7 on this scale, except PTSD subjects, who achieved a mean of 9.8 (sd = 5.03). This PTSD elevation over other clinical groups did not reach significance. Of clinical groups, only the MPD and PTSD groups scored significantly higher than the normals on abuse items (lsd procedure, $p < .05$).

Other Findings

A wider range was observed on Dissociation group mean scores (3.85 to 21.50) than Abuse scores (6.26 to 15.00). On both subscales, as on Total score, normals obtained the lowest group mean score and MPD the highest score.

The incidence of reported childhood sexual abuse in this population of male psychiatric patients (all clinical groups combined) was 12%. In the MPD sample, two of four subjects reported childhood sexual abuse.

INTERPRETATION

Group Comparisons

While a variety of clinical groups score higher than normals, this difference did not reach statistical significance except for the MPD and PTSD groups. The MPD group scored significantly higher than normals on Total, Dissociation, and Abuse, and significantly higher than all other psychiatric groups on Total score and the Dissociation Subscale. PTSD subjects scored significantly higher than normals on Total score, the Abuse Subscale, and the Dissociation Subscale.

The significant elevations of the two dissociative groups, PTSD and MPD, support the face validity of the scale as a measure of historical or premorbid dissociation proneness. Further evidence for the scale's face validity is the pattern of subscale scores in non-MPD and MPD groups, which reveals a relatively steeper elevation of Dissociation items for MPD patients, as hypothesized. The MPD group is the only group that evidenced markedly higher scores on Dissociation items

than Abuse items, despite the fact that abuse items were also elevated over other groups.

The notable elevation in Dissociation items for MPD patients supports the assumption that while many psychiatric patients may have child abuse as a contributing factor to their illness, only some patients, presumably those with the innate capacity to dissociate, respond to this trauma by an extreme reliance on dissociative defenses. These patients, if untreated, develop psychiatric illness in which dissociation is the major response to stress.

The significantly higher scores for PTSD subjects suggest that this population may have a predisposition toward dissociation, both in terms of child abuse and dissociative dynamics, which is reinforced by combat trauma (the relationship between dissociative-proneness, dissociation, and combat and post-combat stress is discussed in detail elsewhere [Branscomb, 1991]).

Advantages and Disadvantages of the Scale

Results support the observation that childhood dissociative-proneness is related to the prominence of dissociation as a defense in adult psychiatric illness. Though the CDPS is subject to the usual criticisms of retroactive self-report, recent investigators suggest that there is greater danger in minimizing reports of abuse than in assuming their credibility, and that such reports are infrequently false (Goodwin, 1985; Wilbur, 1985). Advantages of the scale are its easy administration, answering, and scoring (taking and scoring the test take approximately five minutes each), and its potential as a quantifiable measure to be used when prospective or longitudinal studies are not feasible. The CDPS also provides a clinical screening tool which in a matter of minutes yields a norm-referenced score on childhood abuse and dissociation. These scores can be used to suggest areas for further investigation through the clinical interview or additional psychometry such as the Dissociative Experiences Scale (Bernstein & Putnam, 1986). In addition, the CDPS appeared to be nonthreatening and easily understood by all participants. Finally, it was noted that some subjects answered "yes" to abuse items on the CDPS when they had *not* admitted these experiences in the face-to-face clinical interview, thus improving the reliability of the intake process.

Further Research

Further studies are in process to examine item-score correlations and test-retest reliability, to develop adolescent norms, and to increase the MPD sample size[2]. Replication is needed in larger clinical samples including females. This study provides initial data suggesting that the CDPS may be a useful tool to add to other new psychometric instruments under investigation in the areas of dissociative disorders, multiple personality, and psychiatric illness in general.

TABLE 1
Group Mean CDPS Scores

Group	Key	Number	Score		
			Total	Dissociation	Abuse
Normals	N	66	10.12	3.85	6.26
Psychiatric					
Generalized Anxiety	GA	21	13.24	5.00	8.24
Major Depression	DEP	10	17.20	9.60	7.60
Schizophrenia	SCHIZ	18	14.00	5.22	8.78
Sub-acute PTSDa	PTSD-SUB	7	11.85	4.14	7.71
PTSD	PTSD	35	17.06	7.26	9.80
Multiple Personality	MPD	4	36.50	21.50	15.00

aPost-Traumatic Stress Disorder

APPENDIX A
Background Form

These questions have been put together to give some information about your family and you as a child before age thirteen. It is difficult to get honest reports about some of these things because they are personal and not often talked about. For this reason we ask that you think carefully about each question and respond as accurately as you can. Your answers are confidential and your name is not associated with this form. If you were raised by one parent, answer the questions as they apply to this parent.

(Circle the appropriate number)

	Never	Rarely 1 to 10 times/yr	Sometimes 1 to 4 times/mo	Often 1 to 3 times/wk	Very Often almost every day
1. When you were a child, how often did your parents let you know they were pleased with you?	0	1	2	3	4
2. All parents disagree from time to time. How often did your parents fight when you were growing up?	0	1	2	3	4
3. When your parents fought, how often did their fighting involve hitting or physically hurting each other?	0	1	2	3	4
4. How often did your parents "talk things out" instead of punishing you, so you understood why they were concerned?	0	1	2	3	4
5. When you did something wrong and your parents found out, how often did they punish you (physically, or other harsh punishment such as confined to a closet?)	0	1	2	3	4
6. How often were you hurt (any kind of bruise, cut, or mark) when punished?	0	1	2	3	4

Most children use their imagination to learn or pretend things about themselves or other people. The next few questions relate to how it was for you as a child (BEFORE AGE 13):

7. How often did you talk to yourself out loud?	0	1	2	3	4
8. People sometimes hear their thoughts or other voices inside their heads. Did you ever hear voices inside your head?	0	1	2	3	4
9. How often did you "space out" and lose track of time, or "come to" not knowing how you got there, what had happened, etc?	0	1	2	3	4

FOOTNOTES

(1) Because of the relationship between post-combat stress and dissociation (Bernstein and Putnam, 1986; Branscomb, 1988) all subjects were screened for participation in active duty during the Vietnam era or active combat during *any war.* Subjects responding postively to either question were dropped from the study, except PTSD and sub-acute PTSD subjects.

(2) Mean scores for an additional twelve MPD subjects (three men, nine women) (unpublished data, first author) are: Total Score, 40.5; Dissociation Subscale Score, 22.75; Abuse Subscale Score, 17.75. The author requests photocopies of anonymous protocols collected from known MPD clients for inclusion in further research.

AUTHOR NOTES

The Childhood Dissociative Predictors Scale is copyrighted. Copies of the scale can be obtained from the first author at: 1834 Clairmont Road, Decatur, GA 30033. ■

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	(circle one)	
10. Did you have an imaginary playmate or friend?	yes	no
11. Did you ever think or feel you had separate names?	yes	no
12. Did you ever think or feel you had separate parts, that is, as if there were someone else inside?	yes	no
13. Before you were 13, did anyone ever force you to do anything that felt very bad to you (besides anything sexual)?	yes	no
14. Before you were 13, did anyone ever make you have sex or do anything sexual in a way that felt bad, shameful, or hurtful to you? (This includes feeling or exposing your sexual parts, or getting you to touch their sexual parts).	yes	no
15. If you answered "yes" to question 14, was this person a:		
step-parent?	yes	no
friend of family?	yes	no
stranger?	yes	no
male?	yes	no
16. Did you have a near-death experience before age 13?	yes	no

Describe: _____

_____

17. Did a close relative (parent, brother, sister) die before you were 13?	yes	no

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APPENDIX B

Childhood Dissociative Predictor Scale
Scoring Instructions

Items 1-9 are scored 0 to 4, with items 1 and 4 scored in reverse order. Items 10-14 are scored 4 for "yes," 0 for "no." These scores are summed, yielding a total score of 0 to 56.

The scale contains two subscales:

1. Abuse Subscale (child abuse factors associated with MPD): Items 1-6, 13, 14.
2. Dissociation Subscale (phenomena observed in or reported by MPD children): Items 6-12.

Each subscale contains seven items and has a range of 0 to 28 points. Items 15-17 are research items and are not scored.

In summary, the CDPS yields three scores:

1. Abuse Subscale (range 0 to 28)
2. Dissociation Subscale (range 0 to 28)
3. Total Score (range 0 to 56).

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