

# DEVELOPMENT, RELIABILITY, AND VALIDITY OF A CHILD DISSOCIATION SCALE

FRANK W. PUTNAM AND KARIN HELMERS

Laboratory of Developmental Psychology, National Institute of Mental Health, Bethesda, MD, USA

PENELOPE K. TRICKETT

Department of Psychology, University of Southern California, Los Angeles, CA, USA

**Abstract**—Dissociation is a complex psychophysiological process that ranges along a continuum from minor, normal dissociation to Axis I psychopathology. High levels of dissociation are associated with increased self-destructive behaviors and other symptoms. Although several validated measures of dissociation exist for adults, no measures are available for children. The Child Dissociative Checklist (CDC) was developed to meet this need and is a reliable and valid observer report measure of dissociation in children. The CDC had a 1-year test-retest reliability coefficient of  $\rho = .69$  ( $N = 73, p = .0001$ ) in a sample of normal and sexually abused girls. The CDC had high discriminant validity among four test samples including: normal control girls, sexually abused girls, boys and girls with dissociative disorder NOS and boys and girls with multiple personality disorder. The CDC is intended as a clinical screening instrument and as a research measure. The CDC is not designed to be used as a diagnostic instrument.

**Key Words**—Dissociation, Multiple personality disorder, Sexual abuse, Dissociative disorder NOS.

## INTRODUCTION

DISSOCIATION IS A complex psychophysiological process that occurs on a continuum ranging from minor normative dissociations such as daydreaming to psychiatric conditions, such as multiple personality disorder (Bernstein & Putnam, 1986; Putnam, 1991a). Pathological dissociation is conceptualized as a disturbance in the integrative functions of identity, memory, and consciousness (American Psychiatric Association [APA], 1987). Increased levels of dissociation and the dissociative disorders are closely linked to histories of abuse and trauma in adults (Bliss, 1984; Branscomb, 1991; Chu & Dill, 1990; Coons, Bowman, & Milstein, 1988; Demitrack, Putnam, Brewerton, Brandt, & Gold, 1990; Putnam, 1985a; Quimby & Putnam, 1991; Ross, Miller et al., 1991) and in children and adolescents (Bowman, Blix, & Coons, 1985; Dell & Eisenhower, 1990; Fagan & McMahon, 1984; Hornstein & Tyson, 1991; Kluft, 1984; Putnam, 1991b; Vincent & Pickering, 1988; Weiss, Sutton, & Utecht, 1985). High levels of dissociation are associated with increased aggression towards others and self-destructive behaviors (Demitrack, Putnam et al., 1990; Loewenstein & Putnam, 1990; Quimby & Putnam, 1991; Ross & Norton, 1989). Dissociation is also identified as a possible pathological mechanism in the conversion disorders (Nemiah, 1991; Putnam, 1992), somato-

---

Received for publication March 23, 1992; final revision received October 5, 1992; accepted October 8, 1992.

Requests for reprints should be addressed to Frank W. Putnam, M.D., Bldg 15K, NIMH, 9000 Rockville Pike, Bethesda, MD 20982.

Table 1. Demographics

Group	<i>N</i>	Age	SES	Race	Gender
Controls	67	10.7 ± 3.0	33.83 ± 12.8	26—W 36—B 5—other	All female
Sexual abuse	61	11.5 ± 3.0	31.57 ± 15.4	37—W 21—B 3—other	All female
MPD	31	10.1 ± 3.5	37.53 ± 11.7	17—W 12—B 2—other	15 male 16 female
DDNOS	22	7.96 ± 3.2	34.77 ± 9.8	11—W 9—B 2—other	10 male 12 female

form disorders (Loewenstein, 1990; Ross, Heber, Norton & Anderson, 1989) and some eating disorder patients (Demitrack et al., 1990; Pettinati, Horne, & Staats, 1985; Torem, 1986).

Until recently there were no validated clinical measures of dissociation. The Dissociative Experiences Scale (DES) (Bernstein & Putnam, 1986) has opened new approaches to the investigation of dissociative phenomena in adults. Two validated structured diagnostic interviews are now also available for the documentation of DSM-III-R dissociative disorder diagnoses in adults (Ross, Heber et al., 1989; Steinberg, Rounsaville, & Cicchetti, 1991). The use of self-report instruments and structured interviews has greatly advanced research in adult dissociative disorders, permitting the first systematic epidemiology of dissociative disorders (Ross, Joshi, & Currie, 1989; Ross, 1991), elucidation of clinical and neurobiological correlates and mechanisms (Devinsky, Putnam, Grafman, Bromfield, & Theodore, 1989; Demitrack et al., 1990), cross-cultural comparisons (Carlson & Rosser-Hogan, 1991; Ensink & van Otterloo, 1989), relationship of dissociation to posttraumatic stress disorder (Branscomb, 1991; Bremner et al., 1992; Loewenstein & Putnam, 1988) and other disorders in adult populations (Ross & Anderson, 1988; Ross, Anderson, Heber, & Norton, 1990).

Unfortunately, the detection and documentation of dissociative disorders in children and adolescents has lagged behind that of adults (Putnam, 1991b). Since the mid-1980s, a set of independently authored but highly similar predictor lists for childhood dissociative disorders have circulated in the child abuse treatment community (Elliot, 1982; Fagan & McMahon, 1984; Kluff, 1985; Putnam, 1985b). Although used as screening instruments, these clinically derived predictor lists have not been systematically validated. A valid and reliable instrument for the detection of significant levels of dissociation in children would be useful for screening at-risk children as well as for investigating the developmental course of normal and pathological dissociation, the role of dissociation in psychiatric symptoms and behavior problems and the response of dissociative symptoms to treatment.

## METHODS

### *Subjects*

Four groups of subjects were included in this validation study. The demographic data are contained in Table 1. The sexually abused and control girls are participating in a longitudinal study of their psychobiological development conducted by the National Institute of Mental Health and the Chesapeake Institute of Wheaton, Maryland. The children with dissociative

disorders (DD) were seen in consultation and/or treatment by FWP. Dissociative disorder diagnoses were made by clinical interview, supplemented by data gathered from longitudinal observation, repeated clinical evaluation and through interviews with teachers, protective service case workers and therapists. In addition to meeting DSM-III-R diagnostic criteria, all dissociative disorder cases satisfied NIMH research criteria (Hornstein & Putnam, 1992).

The four groups do not differ on race or socioeconomic status (Hollingshead Redlich four factor, Hollingshead, 1975) but are significantly different on gender, that is, the sexual abuse and normal control group are entirely female. Children with diagnoses of Dissociative Disorder Not Otherwise Specified (DDNOS) (mean age = 7.96 years) were significantly younger than the abused (Scheffé  $F$ -test = 7.051,  $p < .05$ ) and control (Scheffé  $F$ -test = 4.08,  $p < .05$ ) girls. The sexually abused girls were all abused by family members (21.3%—biological father, 51.1%—stepfather or mother's live-in boyfriend, and 27.7%—other family member) as specified by the inclusionary criteria for participation in the larger longitudinal research study. Most abused girls (63.8%) had suffered penetration abuses. In the sexual abuse sample, the mean duration of abuse was 22.6 ( $SD \pm 25.2$ ) months with an average age of onset of 8.8 ( $SD \pm 2.9$ ) years. The MPD and DDNOS children had suffered varying combinations of physical, sexual, emotional and other abuses and neglect. Complete data for types of abuse and age of onset were not available for many of the dissociative disorder children. For DD children in whom adequate data were available (22 cases), the average child suffered from 3.4 categorical traumas (e.g. physical abuse, sexual abuse, confinement abuse, witnessed violence, neglect etc.) with an average age of onset of  $4.2 \pm 3.6$  years and duration of 3.5 ( $SD \pm 3.7$ ) years. Control subjects were screened for histories of abuse and trauma.

### *Development of the Scale*

The Child Dissociative Checklist (CDC) is largely derived from prior childhood MPD predictor lists developed by Putnam. The prototype instrument was first circulated among Washington D.C. metropolitan area protective service workers in 1981 and was first published as a footnote in an article by Elliot in 1982 (Elliot, 1982). An updated version was published again in 1985 (Putnam, 1985b). Over time the CDC has been augmented by items from published and unpublished predictor lists circulated among professionals evaluating maltreated children (Fagan & McMahon, 1984; Kluft, 1984; Kluft, 1985). In the middle stages of scale development an attempt was made to create both an observer rating measure and a structured diagnostic interview. The structured interview approach proved to have many problems and further work has been suspended.

The CDC has progressed through three major versions (1.2, 2.2 and 3.0) over the course of its development. Version number and month and year are listed directly underneath the title in all authorized versions. Several unauthorized versions (some bearing the senior author's name) are known to be in circulation and include other questions and use different answer formats. The current version (V3.0—2/90) is a 20-item instrument in which the first 16 items are identical to version 2.2—2/88, which has circulated since 1988.

The CDC is an observer report measure, using a response format similar to the Child Behavioral Checklist, a well-established parent report instrument (Achenbach & Edelbrock, 1981). The directions ask the adult completing the measure to circle the response on a 3-point scale (2 = very true, 1 = somewhat or sometimes true, and 0 = not true) that best describes the child's behavior on a given item over the past 12 months. The measure should be completed by an observer who is very familiar with the child's behavior. Therefore the CDC is primarily designed for use with parents, foster parents, teachers, and other adult observers in frequent contact with the child in question. The complete 20-item CDC is in Appendix. The CDC is a public domain document freely available for copying, distribution and use.

Scale questions are derived from clinical experience with children with dissociative disorders. Comparison of the CDC with the child MPD predictor lists independently generated by Kluft (1985) and Fagan and McMahon (1984) demonstrates the high degree of similarity in the clinical presentations of these cases and may be interpreted as a form of convergent validity (Putnam, 1986). Conceptually, the items tap several domains of dissociative behavior. These domains include:

1. dissociative amnesias;
2. rapid shifts in demeanor, access to information, knowledge, abilities, and age-appropriateness of behavior;
3. spontaneous trance states;
4. hallucinations;
5. identity alterations; and
6. aggressive and sexual behavior.

These domains have been identified as central to pathological dissociative behaviors in adults (Kluft, 1991; Loewenstein, 1991; Putnam, 1989) and children (Albini & Pease, 1989; Bowman, Blix, & Coons, 1985; Dell & Eisenhower, 1990; Fagan & McMahon, 1984; Hornstein & Putnam, 1992; Hornstein & Tyson, 1991; Kluft, 1984; Putnam, 1991b; Vincent & Pickering, 1988; Weiss, Sutton, & Utecht, 1985).

## PROCEDURES

The CDC was completed by the nonabusing parents, foster parents, or legal guardians of the children in the study. Yearly CDC's were completed on the sexually abused and comparison girls as part of their longitudinal evaluation. The CDC scores used in this validity study are those obtained at first evaluation of the child and one year later in the case of the sexually abused and comparison girls. The CDC was not used to make a diagnosis in any case.

### *Statistical Analysis*

CDC scores are computed by addition of all of the individual item scores. Non-parametric statistics were used to analyze CDC group differences (Kruskal-Wallis & Mann-Whitney *U* Test) and for correlations (Spearman Rho) with item-corrected and test-retest scores. All statistical analyses were performed using Statview II on a Macintosh IICI with the exception of Cronbach's alpha and split half reliability coefficients which were calculated using SPSS-PC (V 3.1) on an IBM 386 computer.

## RESULTS

### *Reliability Measures*

The overall one year interval, test-retest reliability coefficient in the pooled abused and control sample was  $\rho = .69$  ( $N = 73$ ,  $p = .0001$ ). The sexually abused girls had a test-retest coefficient of  $\rho = .66$  ( $N = 33$ ,  $p = .0002$ ) and the controls had a test-retest coefficient of  $\rho = .61$  ( $N = 40$ ,  $p = .0003$ ). Test-retest reliability coefficients on individual scale items ranged from  $\rho = .57$  ( $p = .005$ ) to  $\rho = .92$  ( $p = .0001$ ) with a median coefficient of  $.735$  ( $p = .0001$ ). Thus the CDC score is stable over an interval of one year.

A Cronbach's alpha coefficient was calculated for the sample as a whole ( $N = 181$ ) ( $\alpha = .95$ ) and for each of the subsamples: control girls ( $\alpha = .73$ ); sexually abused girls ( $\alpha =$

**Table 2. Post Hoc Pairwise Comparisons by Group Mann-Whitney U Test (Tie-Corrected Z Score)**

	Controls	Sexual Abuse	DDNOS	MPD
Median score	2	4	16.5	25
Controls		-3.8*	-6.9*	-7.9*
Sexual abuse			-5.4*	-7.2*
DDNOS				-4.3*

\*  $p = .0001$ .

.91), DDNOS ( $\alpha = .64$ ), and MPD ( $\alpha = .80$ ). These alpha values indicate that the CDC is an internally consistent measure across all test populations.

A second measure of internal consistency, split half-reliability, was calculated for the sample as a whole ( $r = .88, p = .0001$ ) and for each subgroup: control girls ( $r = .71, p = .0001$ ), sexually abused girls ( $r = .85, p = .0001$ ), DDNOS ( $r = .69, p = .0001$ ) and MPD ( $r = .73, p = .0001$ ). Additional measures of internal consistency for the entire sample include calculation of the Guttman split-half coefficient (.94) and Spearman-Brown coefficient (.94).

### Validity Measures

Validity is concerned with the correlates of group membership and is more difficult to measure than reliability (Kendell, 1989). The first step is to determine if CDC scores can be accounted for by variables other than group membership. There is a significant negative correlation ( $N = 181, r = -.245, p = .0009$ ) between CDC score and age for the entire sample of subjects, for the sexually abused girls ( $N = 61, r = -.33, p = .009$ ), and for the DDNOS children ( $N = 22, r = -.45, p = .034$ ). The CDC scores of the control and MPD subjects were not, however, significantly correlated with age. There are no significant correlations with socioeconomic status or significant differences between ethnic groups in the sample as a whole or in any group. In the dissociative disorders subjects (MPD & DDNOS), there were no significant differences in CDC scores by gender. Since the control and sexually abuse groups are entirely female, it was not possible to compare their CDC scores by gender.

For all subjects, Spearman rank order correlations were calculated between each item and item-corrected CDC scores to establish partial construct validity of the scale. These coefficients ranged between  $\rho = .59$  to  $\rho = .79$  with a median coefficient of .73; all correlations reached a significance level of  $p < .0001$  or better.

Criterion-referenced concurrent validity was tested with the Kruskal-Wallis to compare CDC scores across different groups. The test yielded a  $\chi^2$  of 110.55 ( $N = 181, df = 3, p < .0001$ ). Pairwise comparisons were then performed with a Mann-Whitney U test demonstrating significant differences between each group and all other groups (Table 2).

### The Dissociative Continuum

Figure 1 is a scatterplot of CDC scores for the 4 groups. With an exception of three outliers, the control girls are closely clustered with a median score of 2 and a mean score of 2.3 ( $SD \pm 2.7$ ). The sexually abused girls demonstrate far more scatter with a median score of 4 and a mean score of 6 ( $SD \pm 6.4$ ). Twelve abused girls (19.6%) scored 12 or higher overlapping the range of scores for the dissociative disorder children. The DDNOS and MPD children are clustered around significantly elevated scores [DDNOS median = 16.5, mean = 16.8 ( $SD \pm 4.7$ ); MPD median = 25, mean = 24.5 ( $SD \pm 5.2$ )] with 96% of the DD sample scoring 12 or higher. Figure 1 illustrates that for the sample as a whole there is a continuum of scores with

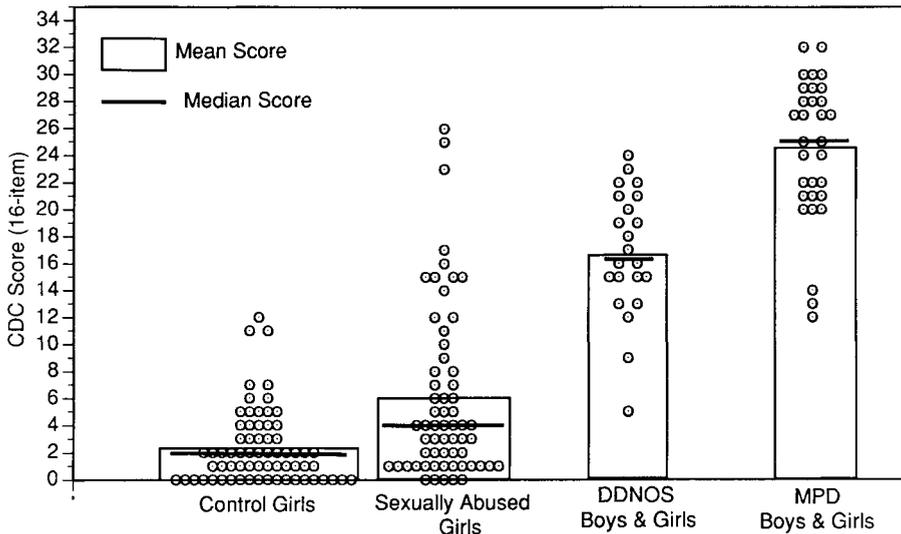


Figure 1. Scatterplot of CDC scores.

specific subsamples showing different distribution patterns. This is very similar to the distribution patterns of dissociation scores reported for adult samples studied with the DES (Bernstein & Putnam, 1986; Frischholz et al., 1990; Ross, Norton, & Anderson, 1988).

#### *Differences Between the 16- & 20-Item CDC Versions*

The CDC currently exists in two versions (16-item V 2.2—2/88 and 20-item V 3.0—2/90) that have been distributed without cost to interested professionals. Results presented in this validation study are based on the 16-item version which is also contained as the first 16 items of the 20-item scale. A comparison of subjects on the 16- and 20-item versions shows that the addition of the four extra items does not significantly improve the reliability or the sensitivity and specificity of the scale. In the control girls, no subjects had any of the last four items endorsed. Only a few of the sexually abused subjects had positive scores for the additional items. Although the 20-item version did increase the overall scores of the dissociative disorder subjects, it does not improve the already robust discrimination between the DDNOS and MPD diagnostic groups, or between the DD children and normal controls.

## DISCUSSION

### *Summary of Results*

The Child Dissociative Checklist is a reliable measure demonstrating good stability over a one year test-retest interval and excellent internal consistency as measured by Cronbach's alpha, split-half reliability coefficients and other standard tests of internal consistency. The CDC readily differentiates subjects with clinically diagnosed dissociative disorders from control subjects and from sexually abused subjects as a group. Furthermore the CDC can statistically differentiate between two dissociative disorder diagnoses, DDNOS and MPD. The CDC has good construct validity in that item scores and scale scores are highly correlated. The results demonstrate that dissociation, as measured by the CDC, extends on a continuum from very low levels of age-appropriate dissociative behaviors in the control children to high levels

in children and adolescents diagnosed with dissociative disorders. The sexually abused girls demonstrate the heterogeneity of dissociative responses usually seen in traumatized samples.

### *Limitations of the Measure*

The CDC is designed as both a clinical and research tool. Clinically, it is intended to be a screening measure for the detection of significant levels of dissociative behavior in children. The CDC is not a diagnostic instrument and does not systematically inquire about the DSM-III-R/DSM-IV criteria for dissociative disorders. When considered in the context of a full clinical evaluation, the CDC can provide important diagnostic information. In a research setting, the CDC is designed to quantify dissociative behavior. It can be used to investigate dissociative contributions to the psychopathology of different diagnostic groups, to identify dissociative subgroups within a given diagnostic category, to explore clinical, psychological, and biological correlates of dissociative behavior in children, and to study developmental trajectories of dissociation in normal and clinical samples.

The significant decline in CDC scores with age found in the overall sample, and in the abuse and DDNOS groups, probably reflects a convergence of several factors. Research with the DES has consistently found a decline in dissociation scores across the entire adult life span, with the steepest drop occurring during late adolescence through early adulthood (Bernstein & Putnam, 1986; Ross, Joshi, & Currie, 1989; Sanders, McRoberts, & Tollefson, 1989). Some investigators have posited that the decline in dissociative capacity documented in adults is a continuation of a trend that begins in childhood (Putnam, 1991b). Hypnotizability, a moderate correlate of clinical dissociation in adults, demonstrates such a pattern, initially peaking around age 9–10 years and then declining over the remainder of the life span with the steepest drop also occurring during adolescence through early adulthood (Putnam, 1991b).

The lack of a significant relationship with age in the control and MPD samples, probably reflects “floor” and “ceiling” effects. That is, as a group the controls score very low on the CDC across all age groups and simply can not decrease much further. The MPD subjects on the other hand are highly dissociative and score near the top of the scale. Hornstein and Putnam (1992) found that older children with dissociative disorders were more symptomatic than younger children and thus not likely to show a decline in dissociative behavior with age. Longitudinal data currently being collected will provide a better test of the dissociative developmental trajectories than current cross-sectional data. It is also probable that some of the apparent decline in CDC scores with age reflects a decreasing sensitivity of the scale for dissociative symptoms and behaviors in older children. In general, it is difficult to design a measure that is uniformly reliable and valid across the enormous behavioral and cognitive changes occurring from early childhood to late adolescence.

A further limitation of the current study is that potential gender differences were not tested in the control and abuse groups. Although all studies to date have not found gender differences in any measures of clinical dissociation or hypnotizability (Putnam, 1991a) this remains a potential confound to be addressed with future work. The scale performed well with dissociative disorder children age 4 years and above; however, the reliability and validity of the CDC in children younger than age 6 has not been systematically established as yet. In general, high scores in younger children should be interpreted cautiously since these behaviors are normatively more common at younger ages. As a rule of thumb, a score of 12 or higher (found in 96% of the children meeting DSM-III-R criteria for MPD or DDNOS) should be considered indicative of significant dissociative behavior, particularly in older children. However the predictive diagnostic validity of the CDC remains to be tested, and all results, positive or negative, should be interpreted within the larger context of a full clinical investigation. The 16-item ( $V\ 2.2$ — $2/88$ ) and 20-item ( $V\ 3.0$ — $2/90$ ) versions are essentially equivalent and either can be used.

## FUTURE DIRECTIONS

The validity of an instrument like the CDC is established over time and with its use by different investigators across a range of populations. The CDC, like the DES, should be regarded as a first generation measure that can be improved or replaced as we become more sophisticated in the measurement of dissociation. The CDC can serve as a benchmark against which to test other child dissociative measures. For example, we and others hypothesize that there is a useful dissociation subscale contained within the Child Behavioral Checklist (CBCL), a measure widely used in child psychiatry and psychology (Achenbach & Edelbrock, 1981). A validated CBCL dissociation subscale would also permit researchers to reanalyze previously collected data. Since a number of research studies currently include the CDC and CBCL among their measures, a cooperative multicenter project could be designed to derive and cross-validate a CBCL dissociative subscale.

## REFERENCES

- Achenbach, T., & Edelbrock, C. (1981). *Behavioral problems and competencies reported by parents of normal and disturbed children aged 4 through 16*. Monograph of the Society for Research in Child Development, **46**, 1-198.
- Albini, T. K., & Pease, T. E. (1989). Normal and pathological dissociations of early childhood. *Dissociation*, **2**, 144-150.
- American Psychiatric Press (1987). *Diagnostic and statistical manual of mental disorders* (3rd ed. revised). Washington, DC: Author.
- Bernstein, E., & Putnam, F. (1986). Development, reliability and validity of a dissociation scale. *Journal of Nervous and Mental Disease*, **174**, 727-735.
- Bliss, E. (1984). A symptom profile of patients with multiple personalities, including MMPI results. *Journal of Nervous and Mental Disease*, **174**, 197-202.
- Bowman, E. S., Blix, S., & Coons, P. M. (1985). Multiple personality in adolescence: Relationship to incestual experiences. *Journal of the American Academy of Child and Adolescent Psychiatry*, **24**, 109-114.
- Branscomb, L. (1991). Dissociation in combat-related post-traumatic stress disorder. *Dissociation*, **4**, 13-20.
- Bremner, J. D., Southwick, S., Brett, E., Fontana, A., Rosenheck, R., & Charney, D. S. (1992). Dissociation and posttraumatic stress disorder in Vietnam combat veterans. *American Journal of Psychiatry*, **149**, 328-332.
- Carlson, E. B., & Rosser-Hogan, R. (1991). Trauma experiences, posttraumatic stress, dissociation and depression in Cambodian refugees. *American Journal of Psychiatry*, **148**, 1548-1551.
- Chu, J. A., & Dill, D. L. (1990). Dissociative symptoms in relation to childhood physical and sexual abuse. *American Journal of Psychiatry*, **147**, 887-892.
- Coons, P., Bowman, E., & Milstein, V. (1988). Multiple personality disorder: A clinical investigation of 50 cases. *Journal of Nervous and Mental Disease*, **176**, 519-527.
- Dell, P. F., & Eisenhower, J. W. (1990). Adolescent multiple personality disorder. *Journal of American Academy of Child and Adolescent Psychiatry*, **29**, 359-366.
- Demitrack, M. A., Putnam, F. W., Brewerton, T. D., Brandt, H. A., & Gold, P. W. (1990). Relation of clinical variables to dissociative phenomena in eating disorders. *American Journal of Psychiatry*, **147**, 1184-1188.
- Devinsky, O., Putnam, F. W., Grafman, J., Bromfield, E., & Theodore, W. H. (1989). Dissociative states and epilepsy. *Neurology*, **39**, 835-840.
- Elliot, D. (1982). State intervention and childhood multiple personality disorder. *Journal of Psychiatry and the Law*, **10**, 441-456.
- Ensink, B. J., & van Otterloo, D. (1989). A validation of the dissociative experiences scale in the Netherlands. *Dissociation*, **2**, 221-224.
- Fagan, J., & McMahon, P. P. (1984). Incipient multiple personality in children: Four cases. *Journal of Nervous and Mental Disease*, **172**, 26-36.
- Frischholz, E., Braun, B., Sachs, R., Hopkins, L., Schaeffer, D., Lewis, J., Leavitt, F., Pasquotto, J., & Schwartz, D. (1990). The Dissociative Experiences Scale: Further replication and validation. *Dissociation*, **3**, 151-153.
- Hollingshead, A. B. (1975). Four-factor index of social status. New Haven, CT, Unpublished manuscript, Yale University, Department of Sociology.
- Hornstein, N., & Putnam, F. W. (1992). Clinical phenomenology of childhood and adolescent dissociative disorders. *Journal of the American Academy of Child and Adolescent Psychiatry*, **31**, 1077-1085.
- Hornstein, N. L., & Tyson, S. (1991). Inpatient treatment of children with multiple personality/dissociative disorders and their families. *Psychiatric Clinics of North America*, **14**, 631-648.
- Kendell, R. E. (1989). Clinical validity. In L. N. Robins and J. E. Barrett (Eds.), *The validity of psychiatric diagnosis* (pp. 305-323). New York: Raven Press.

- Kluft, R. P. (1984). Multiple personality in childhood. *Psychiatric Clinics of North America*, 121–1340.
- Kluft, R. P. (1985). Childhood multiple personality disorder: Predictors, clinical findings, and treatment results. In R. P. Kluft (Eds.), *Childhood antecedents of multiple personality* (pp. 167–196). Washington, DC: American Psychiatric Press.
- Kluft, R. P. (1991). Clinical presentations of multiple personality disorder. *Psychiatric Clinics of North America*, 605–630.
- Loewenstein, R. J. (1990). Somatoform disorders in victims of incest and child abuse. In R. P. Kluft (Ed.), *Incest-related syndromes of adult psychopathology* (pp. 75–112). Washington, DC: American Psychiatric Press.
- Loewenstein, R. J. (1991). An office mental status examination for complex chronic dissociative symptoms and multiple personality disorder. *Psychiatric Clinics of North America*, 14, 567–604.
- Loewenstein, R. J., & Putnam, F. W. (1988). A comparison study of dissociative symptoms in patients with partial complex seizures, MPD, and posttraumatic stress disorder. *Dissociation*, 1, 17–32.
- Loewenstein, R. J., & Putnam, F. W. (1990). The clinical phenomenology of males with multiple personality disorder. *Dissociation*, 3, 135–143.
- Nemiah, J. C. (1991). Dissociation, conversion, and somatization. In A. Tasman and S. M. Goldfinger (Eds.), *American Psychiatric Press review of psychiatry* (pp. 248–260). Washington, DC: American Psychiatric Press.
- Pettinati, H. M., Horne, R. J., & Staats, J. M. (1985). Hypnotizability in patients with anorexia nervosa and bulimia. *Archives of General Psychiatry*, 42, 1014–1016.
- Putnam, F. (1989). *Diagnosis and treatment of multiple personality disorder*. New York: Guilford Press.
- Putnam, F. W. (1985a). Dissociation as a response to extreme trauma. In R. P. Kluft (Eds.), *Childhood antecedents of multiple personality* (pp. 66–97). Washington, DC: American Psychiatric Press.
- Putnam, F. W. (1985b). Pieces of the mind: Recognizing the psychological effects of abuse. *Justice for Children*, 1, 6–7.
- Putnam, F. W. (1986). The treatment of multiple personality: State of the art. In B. G. Braun (Eds.), *Treatment of Multiple Personality Disorder* (pp. 175–198). Washington, DC: American Psychiatric Press.
- Putnam, F. W. (1991a). Dissociative phenomena. In A. Tasman (Eds.), *Annual review of psychiatry* (pp. 159–174). Washington, DC: American Psychiatric Press.
- Putnam, F. W. (1991b). Dissociative disorders in children and adolescents: A developmental perspective. *Psychiatric Clinics of North America*, 14, 519–531.
- Putnam, F. W. (1992). Conversion symptoms. In A. B. Joseph and R. Young (Eds.), *Disorders of movement in psychiatry and neurology* (pp. 430–437). Cambridge, MA: Blackwell.
- Quimby, L. C., & Putnam, F. W. (1991). Dissociative symptoms and aggression in a state mental hospital. *Dissociation*, 4, 21–24.
- Ross, C., Heber, S., Norton, G., Anderson, D., Anderson, G., & Barchet, P. (1989). The Dissociative Disorders Interview Schedule: A structured interview. *Dissociation*, 2, 169–189.
- Ross, C., Norton, G., & Anderson, G. (1988). The Dissociative Experiences Scale: A replication study. *Dissociation*, 1, 21–22.
- Ross, C. A. (1991). Epidemiology of multiple personality disorder. *Psychiatric Clinics of North America*, 14, 503–518.
- Ross, C. A., & Anderson, G. (1988). Phenomenological overlap of multiple personality disorder with obsessive compulsive personality disorder. *Journal of Nervous and Mental Disease*, 176, 295–299.
- Ross, C. A., Anderson, G., Heber, S., & Norton, G. R. (1990). Dissociation and abuse in multiple personality disorder patients, prostitutes, and exotic dancers. *Hospital and Community Psychiatry*, 41, 328–330.
- Ross, C. A., Heber, S., Norton, G. R., & Anderson, G. (1989). Somatic symptoms in multiple personality disorder. *Psychosomatics*, 30, 154–160.
- Ross, C. A., Joshi, S., & Currie, R. (1989). Dissociative experiences in the general population. *American Journal of Psychiatry*, 147, 1547–1552.
- Ross, C. A., Miller, S. D., Bjornson, L., Reagor, P., Fraser, G. A., & Anderson, G. (1991). Abuse histories in 102 cases of multiple personality disorder. *Canadian Journal of Psychiatry*, 36, 97–101.
- Ross, C. A., & Norton, G. R. (1989). Suicide and parasuicide in multiple personality disorder. *Psychiatry*, 52, 365–371.
- Sanders, B., McRoberts, G., & Tollefson, C. (1989). Childhood stress and dissociation in a college population. *Dissociation*, 2, 17–23.
- Steinberg, M., Rounsaville, B., & Cicchetti, D. (1991). Detection of dissociative disorders in psychiatric patients by a screening instrument and a structured interview. *American Journal of Psychiatry*, 148, 1050–1054.
- Torem, M. (1986). Dissociative states presenting as an eating disorder. *American Journal of Clinical Hypnosis*, 29, 137–142.
- Vincent, M., & Pickering, M. R. (1988). Multiple personality disorder in childhood. *Canadian Journal of Psychiatry*, 33, 524–529.
- Weiss, M., Sutton, P. J., & Utecht, A. J. (1985). Multiple personality in a 10-year-old girl. *Journal of the American Academy of Child and Adolescent Psychiatry*, 24, 495–501.

**Résumé**—La dissociation correspond à un processus psycho-physiologique complexe allant d'une dissociation normale mineure à une psychopathologie à de l'Axe I. Les dissociations majeures sont associées à un taux plus élevé de comportements auto-destructeurs et d'autres symptômes. Alors qu'il existe plusieurs mesures validées de la dissociation

tion chez l'adulte, il n'existe pas d'équivalents chez l'enfant. Une liste spécifique pour l'enfant (The Child Dissociative Checklist ou CDC) a été élaborée pour combler ce manque. Il s'agit d'un outil fiable et valable pour l'observation et la description de la dissociation chez l'enfant. Le CDC a obtenu un coefficient annuel de fiabilité au test-retest de  $\rho = .69$  ( $N = 73$ ,  $p = 0.0001$ ) dans un échantillon de jeunes filles normales et abusées sexuellement. Le CDC a présenté une validité discriminative élevée parmi quatre échantillons: les jeunes filles normales du groupe contrôle, les jeunes filles abusées sexuellement, les garçons et les filles présentant des troubles dissociatifs (NOS) et les garçons et les filles présentant une personnalité multiple. Le CDC devrait pouvoir être utilisé comme outil d'évaluation au cours de l'examen clinique comme au cours de la recherche. Le CDC ne peut cependant pas être utilisé comme outil diagnostique.

**Resumen**—Disociación es un proceso psicofisiológico complejo que abarca un continuum desde menor, disociación normal hasta el Axis I en psicopatología. Niveles altos de disociación están asociados con un aumento en las conductas auto-destructivas y otros síntomas. A pesar de que existen varias medidas validadas de disociación para adultos, no existen medidas disponibles para niños. "The Child Dissociative Checklist" (CDC) fue desarrollada para llenar esta necesidad y es un reporte válido de la observación que mide la disociación en los niños. El CDC tuvo un año de validez test-retest con un coeficiente  $\rho = .69$  ( $N = 73$ ,  $p = .0001$ ) en una muestra de niñas normales y abusadas sexualmente. El CDC obtuvo una alta validez discriminativa entre cuatro muestras que incluían: niñas normales de control, niñas sexualmente abusadas, niñas y niños con desorden dissociativo NOS y niños y niñas con desorden de personalidad múltiple. El CDC está dirigido a ser un instrumento clínico y una medida para investigación. El CDC no está diseñado para que sea usado como un instrumento de diagnóstico.

## APPENDIX

# CHILD DISSOCIATIVE CHECKLIST

(V 3.0 -- 2/90)

Frank W. Putnam, M.D.

Unit on Dissociative Disorders, LDP, NIMH

Date: \_\_\_\_\_ Age: \_\_\_\_\_ Sex: M F Identification \_\_\_\_\_

Below is a list of behaviors that describe children. For each item that describes your child **NOW** or **WITHIN THE PAST 12 MONTHS**, please circle **2** if the item is **VERY TRUE** of your child. Circle **1** if the item is **SOMEWHAT** or **SOMETIMES TRUE** of your child. If the item is **NOT TRUE** of your child, circle **0**.

- 0 1 2 1. Child does not remember or denies traumatic or painful experiences that are known to have occurred.
- 0 1 2 2. Child goes into a daze or trance-like state at times or often appears "spaced-out". Teachers may report that he or she 'daydreams' frequently in school.
- 0 1 2 3. Child shows rapid changes in personality. He or she may go from being shy to being outgoing, from feminine to masculine, from timid to aggressive.
- 0 1 2 4. Child is unusually forgetful or confused about things that he or she should know, e.g. may forget the names of friends, teachers or other important people, loses possessions or gets lost easily.
- 0 1 2 5. Child has a very poor sense of time. He or she loses track of time, may think that it is morning when it is actually afternoon, gets confused about what day it is, or becomes confused about when something happened.

- 0 1 2 6. Child shows marked day-to-day or even hour-to-hour variations in his or her skills, knowledge, food preferences, athletic abilities, e.g. changes in handwriting, memory for previously learned information such as multiplication tables, spelling, use of tools or artistic ability.
- 0 1 2 7. Child shows rapid regressions in age-level of behavior, e.g. a twelve year-old starts to use baby-talk, sucks thumb or draws like a four year-old.
- 0 1 2 8. Child has a difficult time learning from experience, e.g. explanations, normal discipline or punishment do not change his or her behavior.
- 0 1 2 9. Child continues to lie or deny misbehavior even when the evidence is obvious.
- 0 1 2 10. Child refers to him or herself in the third person (e.g. as she or her) when talking about self, or at times insists on being called by a different name. He or she may also claim that things that he or she did actually happened to another person.
- 0 1 2 11. Child has rapidly changing physical complaints such as headache or upset stomach. For example, he or she may complain of a headache one minute and seem to forget all about it the next.
- 0 1 2 12. Child is unusually sexually precocious and may attempt age-inappropriate sexual behavior with other children or adults.
- 0 1 2 13. Child suffers from unexplained injuries or may even deliberately injure self at times.
- 0 1 2 14. Child reports hearing voices that talk to him or her. The voices may be friendly or angry and may come from 'imaginary companions' or sound like the voices of parents, friends or teachers.
- 0 1 2 15. Child has a vivid imaginary companion or companions. Child may insist that the imaginary companion(s) is responsible for things that he or she has done.
- 0 1 2 16. Child has intense outbursts of anger, often without apparent cause and may display unusual physical strength during these episodes.
- 0 1 2 17. Child sleepwalks frequently.
- 0 1 2 18. Child has unusual nighttime experiences, e.g. may report seeing "ghosts" or that things happen at night that he or she can't account for (e.g. broken toys, unexplained injuries).
- 0 1 2 19. Child frequently talks to him or herself, may use a different voice or argue with self at times.
- 0 1 2 20. Child has two or more distinct and separate personalities that take control over the child's behavior.