Psychological Defense Styles in Women Who Report Childhood Sexual Abuse: A Controlled Community Study

Sarah E. Romans, M.D., F.R.A.N.Z.C.P., Judy L. Martin, M.A., Eleanor Morris, B.A., and G. Peter Herbison, M.Sc.

Objective: The psychological defense styles of women who reported childhood sexual abuse were assessed and compared to those of women without childhood sexual abuse. **Method:** Subjects in a random community sample (N=354) of New Zealand women were interviewed and completed two relevant questionnaires, the Defense Style Questionnaire and the Dissociative Experiences Scale. **Results:** Women reporting childhood sexual abuse showed more immature defense styles, and those who experienced the most severe childhood sexual abuse showed the most immature styles. Dissociation, however, as measured on the Dissociative Experiences Scale, was not linked to childhood sexual abuse. **Conclusions:** Reporting childhood sexual abuse was associated with more immature coping styles, although not dissociation, in this community sample of women. Coping styles are likely to be a major mechanism through which childhood sexual abuse increases rates of later psychological problems.

(Am J Psychiatry 1999; 156:1080–1085)

Over the last decade, research into childhood sexual abuse has produced a consensus about its prevalence and an awareness that it is often followed by adverse psychological and social effects (1–6). However, these adverse effects are not universal, and the pathways from the abuse to adult consequences have not been delineated. We need now to develop testable theories that explain how the adverse experience of sexual abuse in childhood is transmuted variably into later problems in some victims (7). It would be clinically useful if such theories could predict reliably which victims would experience later problems, so that treatment efforts could be directed early toward those most in need and most likely to benefit.

One pathway that could explain some of the variability in the later functioning of victims of childhood sexual abuse is immature coping strategies. Early traumatic experiences may alter the growing child's ways of perceiving her world and learning to deal with it and herself effectively, so as to impede the natural maturation of coping (8). Coping thoughts and actions are generated by an individual to deal with stress, and they include appraising the situation and judging one's resources for dealing with stressors. Concepts about coping and defense styles have evolved over the years. The notion of a hierarchy of coping defenses, first enunciated by Anna Freud, has more recently been developed empirically by George Vaillant and his co-workers on the Harvard men's study (8, 9). They have shown that defenses mature with age, and they have presented evidence linking maturity of defense style to physical and psychological health. However, there is poor agreement among researchers from different disciplines about the best methods for assessing coping styles. A self-rated questionnaire that purports to assess an individual's coping style exists. This instrument, the Defense Style Questionnaire, was developed by Bond and colleagues and has subsequently been modified both by Vaillant's group and by others (10–13). Some normative data have been published (12). While these early results look promising, more use of the Defense Style Questionnaire in a variety of clinical groups is necessary to assess its research utility; if it can be shown to be valid and reliable, it could also become a useful clinical tool.

We chose to use the Defense Style Questionnaire to assess coping and defense styles in a group of women

Received Feb. 6, 1998; revisions received Sept. 14 and Nov. 24, 1998; accepted Jan. 4, 1999. From the Department of Psychological Medicine and the Department of Preventive and Social Medicine, Dunedin School of Medicine, University of Otago. Address reprint requests to Dr. Romans, Department of Psychological Medicine, Dunedin School of Medicine, University of Otago, P.O. Box 913, Dunedin, New Zealand; sarah.romans@stonebow.otago.ac.nz (e-mail).

Supported by Health Research Council of New Zealand grant 95/038.

who reported childhood sexual abuse and a comparison group of women without such experiences. In doing so, we aimed to assess the role of defense style in transforming adverse childhood experience into problems of adult life. The use of the Defense Style Questionnaire was one part of the study, which also included an intensive qualitative substudy that used grounded theory methods (14).

One immature coping defense listed by the Defense Style Questionnaire is dissociation. Dissociation has become a major topic of clinical research interest in the last two decades, with an associated burgeoning literature, especially from North America (15, 16). Several studies have linked early traumatic experiences with an increased tendency to dissociate (17–26). We also included a commonly used questionnaire on dissociation, the Dissociative Experiences Scale, in this study. Many authors believe that dissociation is particularly common in adults who were sexually abused as children (24, 27). There is a dearth of community studies of traumatized patients, due to the difficulty in recruiting participants. One recent community study (28), also from New Zealand, showed high rates of dissociation in people who had experienced childhood physical abuse but not childhood sexual abuse.

The hypotheses of this study were that subjects who reported childhood sexual abuse would show 1) less mature coping styles on the Defense Style Questionnaire, 2) more dissociation on the Dissociative Experiences Scale, and 3) an association between the severity of childhood sexual abuse reported and scores on both the Defense Style Questionnaire and Dissociative Experiences Scale. We also were curious to see whether the patterns in a community sample would replicate those seen in clinic samples.

METHOD

Subject Selection

The Otago Women's Health Survey of the adult effects of childhood sexual abuse assessed two randomly selected groups of women, chosen on the basis of their responses to screening items on a postal questionnaire mailed to 3,000 electoral roll registrants. All women acknowledging childhood sexual abuse and an equal number who did not report childhood sexual abuse were interviewed in 1989 (4, 29). In 1995, women still resident in the region were reapproached and reinterviewed, in a follow-up study focusing on coping strategies used. Among the structured instruments administered were the Defense Style Questionnaire and the Dissociative Experiences Scale. Childhood physical abuse was assessed with a single item that asked about being beaten as a child.

Measures

The Defense Style Questionnaire aims to assess coping styles (13). In its current form, it is a 40-item self-rated questionnaire that presents the respondent with a statement that he or she is asked to agree or disagree with, using a 9-point Likert scale. Two questionnaire items are presented for each of 20 defense mechanisms that have been arranged into three maturity categories by means of factor analysis:

1. Four mature defenses: humor, suppression, sublimation, anticipation.

2. Four neurotic defenses: reaction formation, idealization, pseudo-altruism, undoing.

3. Twelve immature defenses: rationalization, autistic fantasy, displacement, isolation, dissociation, devaluation, splitting, denial, passive-aggression, somatization, acting out, and projection.

Higher mean scores indicate greater use of the individual defense or maturity factor.

The Dissociative Experiences Scale is a research tool for quantifying dissociative experiences (30). It has also been used clinically to quantify dissociative pathology. Good test-retest reliability and internal reliability have been established (30–32). Published reports indicate no links between Dissociative Experiences Scale score and socioeconomic status or gender. The score has been negatively correlated with age in a number of studies, with younger people describing more dissociative experiences. A general statement asking for experiences of daily life, when the subject was not under the influence of alcohol or drugs, preceded administration of the Dissociative Experiences Scale. Subjects were asked to circle the proportion of time they had the experience, in percentage figures ranging from 0% to 100%.

Information on help sought for mental health reasons in the previous 12 months was collected. Psychiatric caseness was assessed by using the short or community version of the Present State Examination (PSE) (33, 34). Self-esteem was assessed with the Robson Self-Concept Scale (35).

Statistical Analysis

The mean scores for individual Defense Style Questionnaire defenses and maturity factors were calculated by summing items and averaging the scores. Using Student's t test and one-way analysis of variance (ANOVA), we compared the scores of four subgroups categorized by severity of childhood sexual abuse—none, nongenital, genital/nonintercourse, and attempted or completed intercourse. The mean scores on the Defense Style Questionnaire and Dissociative Experiences Scale in the subjects who did and did not meet the PSE criteria for caseness were compared by means of Student's t test. The scores were correlated with the total self-esteem score from the Robson scale by using Pearson's coefficient.

RESULTS

Sample Characteristics

A total of 354 women were interviewed in the 1995 follow-up phase, 173 reporting childhood sexual abuse and 181 from the comparison group without childhood sexual abuse, for an overall response rate of 89.2% from the 1989 interview sample. Those not reinterviewed included 48 who refused outright, 21 whom we were unable to contact, 66 who had moved from the area during the 6 years, and eight who had died in the intervening time.

The 354 women had a mean age of 46.6 years (SD= 12.5) with a range from 26 to 70 years. Most (N=248, 70.1%) were married or cohabiting, 23 (6.5%) were widowed, 47 (13.3%) were separated or divorced, and 34 (9.6%) had never been married at the time of the follow-up interview. Most (N=224, 63.3%) had paid work of some kind.

Childhood Sexual Abuse

Among the women reporting childhood sexual abuse, 54 recalled abuse that reached the level of attempted or completed intercourse, 80 recalled genital touching without penetration, and a further 39 re-

TABLE 1. Scores on the Defense Style Questionnaire for Women in a Community Sample, by Presence or Absence of Reported Childhood Sexual Abuse

Defense Style Questionnaire Defense[a]	No Childhood Sexual Abuse (N=179)		Childhood Sexual Abuse (N=171)		
	Mean	SD	Mean	SD	95% CI
Mature factor					
Humor	6.37	1.72	6.40	1.72	–0.39 to 0.16
Suppression	3.66	1.91	3.91	2.01	–0.66 to 0.34
Sublimation	5.64	1.77	5.31	1.78	–0.04 to 0.71
Anticipation	4.47	1.85	4.47	1.57	–0.36 to 0.36
Total mature	5.26	1.31	5.24	1.26	–0.26 to 0.28
Neurotic factor					
Reaction formation	4.59	1.78	4.92	1.82	–0.71 to 0.05
Idealization	3.79	1.78	3.85	1.96	–0.45 to 0.34
Pseudo-altruism	5.10	1.85	5.09	1.80	–0.37 to 0.40
Undoing	3.70	1.63	3.99	1.80	–0.65 to 0.07
Total neurotic	4.30	1.14	4.46	1.23	–0.42 to 0.08
Immature factor					
Rationalization	5.87	1.65	5.63	1.56	–0.09 to 0.58
Autistic fantasy	2.37	1.48	2.84	1.83	–0.82 to –0.01[b]
Displacement	3.32	1.71	3.87	1.87	–0.93 to –0.17[b]
Isolation	3.71	1.90	3.99	1.99	–0.69 to 0.13
Dissociation	3.16	1.52	2.94	1.29	–0.08 to 0.51
Devaluation	2.95	1.42	3.04	1.48	–0.40 to 0.21
Splitting	2.75	1.82	2.98	2.02	–0.63 to 0.17
Denial	2.81	1.38	2.74	1.49	–0.24 to 0.37
Passive-aggression	2.85	1.50	3.21	1.71	–0.69 to –0.02[b]
Somatization	2.91	1.71	3.23	1.98	–0.71 to 0.07
Acting out	3.46	1.69	3.80	1.87	–0.71 to 0.04
Projection	2.33	1.53	3.07	1.94	–1.10 to –0.38[b]
Total immature	3.17	0.93	3.41	1.00	–0.44 to 0.03[b]

[a] Higher scores indicate greater use of defense.
[b] Use differed between the two groups.

ported nongenital touching (mainly breasts and buttocks). Women who had been forced to touch the genitalia of their perpetrators were categorized as having experienced genital abuse. One-third of those reporting childhood sexual abuse were first abused before the age of 10 (36.7%), another one-fifth (20.6%) had been aged 10–11, and the remaining 42.7% reported that the abuse started at age 12–15.

There were no differences in age between the groups with and without childhood sexual abuse or in the proportion with paid work. However, a greater proportion of the women with than without childhood sexual abuse were separated or divorced (19.7% compared with 7.2%) (χ^2=16.89, df=4, p=0.002).

The subjects with childhood sexual abuse were significantly more likely to show psychiatric caseness on the PSE: 21 of 173 (12.1%) versus six of the 181 subjects without childhood sexual abuse (3.3%) (χ^2=9.78, df=1, p=0.002), giving an odds ratio of 4.03 and 95% confidence interval (CI) of 1.59–10.24. Similarly, the mean self-esteem score for the subjects with childhood sexual abuse was significantly lower, i.e., poorer (mean=139.34, SD=25.25), than that for the women without childhood sexual abuse (N=178, mean=146.26, SD=23.18) (t=2.66, df=345, p=0.008).

Defense Style and Presence of Abuse

Four women (two with and two without childhood sexual abuse) did not complete the Defense Style Questionnaire fully, giving a total of 171 subjects with and 179 subjects without childhood sexual abuse for analysis (table 1). Four defenses, all immature, were found more frequently in the women reporting abuse: autistic fantasy, displacement, passive-aggression, and projection.

Of the three Defense Style Questionnaire factors (mature, neurotic, and immature), only the immature factor differed between the groups with and without childhood sexual abuse. Women reporting childhood abuse showed greater use of immature defenses (table 1).

The mean scores on the maturity factor were not related to the age at which the sexual abuse began. Women with chronic childhood abuse (more than 10 times) showed significantly lower maturity scores (mean=4.67, SD=1.54) than the women with no abuse (mean=5.35, SD=1.22) (F=6.37, df=1, 186, p=0.01) and somewhat higher immaturity scores (mean=3.67, SD=1.33, compared with mean=3.31, SD=0.92) (F=3.02, df=1, 186, p=0.08).

We then examined the data by severity of childhood sexual abuse, to check the hypothesis that the type of childhood sexual abuse, not merely its absence or presence, determined the level of coping maturity.

Defense Style and Severity of Abuse

Four individual defenses, all immature (displacement, passive-aggression, somatization, projection) differed overall between the abuse severity groups; use of each of these defenses was found most in the women with the most severe childhood sexual abuse and least in the women with no childhood sexual abuse (table 2). The statistically strongest link with severity of childhood sexual abuse was found for projection.

With the criterion of p<0.05, there was no significant association between severity of childhood sexual abuse and the scores for the overall defense categories (mature, neurotic, immature).

The mean scores on the Defense Style Questionnaire were not statistically linked to childhood physical abuse.

Dissociation

The overall mean score on the Dissociative Experiences Scale did not differ between the subjects without (mean=7.95, SD=11.74) and with (mean=9.36, SD=10.62) childhood sexual abuse (t=1.90, df=347, p=0.24). The percentage of subjects who scored above 30 on the Dissociative Experiences Scale was 3.4% for the women without childhood abuse (six of 179) and 3.5% for the women with abuse (six of 170); these

TABLE 2. Scores on the Defense Style Questionnaire for Women in a Community Sample, by Severity of Reported Childhood Sexual Abuse

Defense Style Questionnaire Defense[a]	No Childhood Sexual Abuse (N=178)[b]		Intercourse (N=54)		Genital/ Nonintercourse Sexual Abuse (N=80)		Nongenital Sexual Abuse (N=39)		ANOVA	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	F[c]	p
Mature factor										
Humor	6.39	1.69	6.36	1.82	6.35	1.64	6.56	1.79	0.15	0.93
Suppression	0.69	1.92	4.15	2.17	3.55	1.85	4.32	2.03	2.13	0.10
Sublimation	5.68	1.73	5.01	1.68	5.45	1.75	5.44	1.96	2.03	0.11
Anticipation	4.45	1.83	4.61	1.48	4.45	1.69	4.33	1.43	0.22	0.88
Total mature	5.28	1.28	5.16	1.40	5.16	1.21	5.52	1.18	0.37	0.78
Neurotic factor										
Reaction formation	4.64	1.75	4.98	1.98	4.79	1.59	5.10	2.06	1.02	0.38
Idealization	3.82	1.77	4.05	2.15	3.86	1.84	3.55	1.93	0.54	0.66
Pseudo-altruism	5.13	1.82	5.22	1.86	5.07	1.79	4.94	1.77	0.20	0.90
Undoing	3.72	1.63	4.29	1.91	3.81	1.82	3.95	1.61	1.59	0.19
Total neurotic	4.33	1.12	4.63	1.27	4.38	1.19	4.38	1.28	0.60	0.62
Immature factor										
Rationalization	5.89	1.62	5.28	1.65	5.73	1.44	5.87	1.65	2.05	0.11
Autistic fantasy	2.37	1.48	2.85	1.96	2.87	1.89	2.76	1.53	2.34	0.07
Displacement	3.34	1.71	4.18	1.99	3.64	1.78	3.90	1.88	3.50	0.02
Isolation	3.72	1.89	4.33	2.06	3.87	1.98	3.76	1.93	1.40	0.24
Dissociation	3.17	1.52	2.99	1.27	2.88	1.38	3.00	1.16	0.85	0.47
Devaluation	0.97	1.42	3.06	1.57	3.20	1.51	2.72	1.23	1.02	0.38
Splitting	2.75	1.82	3.28	2.17	2.83	1.82	2.87	2.18	1.06	0.37
Denial	2.83	1.38	2.88	1.62	2.63	1.35	2.78	1.58	0.43	0.74
Passive-aggression	2.86	1.49	3.46	1.83	3.32	1.69	2.6	1.44	3.71	0.01
Somatization	2.93	1.71	3.81	2.05	2.89	1.92	3.13	1.88	3.47	0.02
Acting out	3.50	1.68	3.85	1.85	3.86	1.89	3.60	1.89	1.01	0.39
Projection	2.33	1.53	3.45	2.03	2.96	1.99	2.78	1.64	6.63	<0.001
Total immature	3.19	0.93	3.56	1.12	3.35	0.92	3.30	0.99	2.18	0.09

[a] Higher scores indicate greater use of defense.
[b] Total number of subjects varies owing to incomplete data.
[c] Degrees of freedom range from 3, 344 to 3, 349. Figures vary slightly owing to missing values.

were not statistically different (odds ratio=1.06, 95% CI=0.33–3.34). The mean score on the Dissociative Experiences Scale was not related to age at first sexual abuse or to chronic versus nonchronic abuse.

The mean dissociation scores also did not differ significantly by severity of abuse. The mean scores were 7.49 (SD=10.07) for subjects without childhood sexual abuse, 10.58 (SD=9.95) for subjects with abuse involving intercourse, 8.53 (SD=8.09) for subjects with genital/nonintercourse abuse, and 9.40 (SD=15.18) for subjects with nongenital sexual abuse (F=1.35, df=3, 342, p=0.26). Of note are the large standard deviations seen around the mean scores, indicating great variability within each group.

The strength of endorsement for nine of the 28 individual items on the Dissociative Experiences Scale differed between the participants with and without childhood sexual abuse. The subjects with abuse reported seven of these more frequently: not hearing people talking to oneself, vivid memories, confusion of real experience with dreams, déjà jamais (feeling unfamiliar in a familiar environment), ignoring pain, talking aloud to oneself when alone, and acting differently in different situations. The participants without childhood sexual abuse more often reported wearing clothes they did not remember putting on and derealization.

The mean dissociation scores were not statistically linked to childhood physical abuse.

Defense Style and Dissociation

The three Defense Style Questionnaire factors each correlated positively with each other, all at the p=0.01 level. The mean score on the Dissociative Experiences Scale correlated significantly in a negative direction with the score on the Defense Style Questionnaire mature factor (r=–0.31, N=349, p<0.01). Women using more mature defense strategies had lower dissociation scores.

Defense Style, PSE Caseness, and Self-Esteem

The 27 women who met the PSE criteria for caseness used significantly fewer mature defenses than the other 327 women; their respective mean scores on the Defense Style Questionnaire mature factor were 4.52 (SD=1.34) and 5.31 (SD=1.27) (t=3.11, df=348, p=0.002). The women with PSE caseness also had significantly more immature defenses; the mean scores on the immature factor were 3.80 (SD=1.20) and 3.25 (SD=0.94) (t=–2.88, df=348, p=0.004). There was no difference in the mean scores for the neurotic factor.

There was a highly significant difference in the mean score on the Dissociative Experiences Scale between

the women who met the PSE criteria for caseness (mean=17.62, SD=15.73) and those who did not (mean=7.91, SD=10.47) (t=–3.10, df=221, p=0.005). Self-esteem was significantly correlated with each Defense Style Questionnaire factor, positively for the mature factor and negatively for the neurotic and immature factors (r=0.26 for mature, r=–0.20 for neurotic, r=–0.48 for immature, N=349, p<0.01). The total self-esteem score was also significantly negatively correlated to the score on the Dissociative Experiences Scale (r=–0.28, N=349, p<0.01).

Age and Defense Style

The only Defense Style Questionnaire factor clearly associated with age was the mature factor, and the mean score rose steadily with each decade of age (F=3.21, df=4, 349, p=0.01).

The ANOVA for dissociation showed overall differences between the age groups, but the mean score fell until middle age and then rose again for older women. For subjects 26–34 years old, the mean score on the Dissociative Experiences Scale was 11.65 (SD=12.45), for subjects aged 35–44 years it was 8.17 (SD=7.11), for subjects 45–54 years old it was 6.52 (SD=5.48), for subjects 55–64 years old it was 7.45 (SD=13.00), and for those who were 65 or older it was 10.74 (SD=18.93) (F=2.73, df=4, 344, p=0.03).

Help Seeking and Defense Style

Women reporting childhood sexual abuse were more likely than those without it to have sought help in the last 12 months: 16.6% (28 of 169) versus 7.3% (13 of 178) (χ^2=7.27, df=1, p=0.008). These 41 help seekers had higher scores on the Defense Style Questionnaire neurotic factor (mean=4.92, SD=1.59) than did the 306 who did not seek help (mean=4.29, SD=1.19) (t=–3.13, df=341, p=0.002). They also had higher scores on the immature factor (mean=3.77, SD=1.22, versus mean=3.22, SD=0.92) (t=–3.40, df=345, p=0.001) and higher scores on the Dissociative Experiences Scale (mean=14.13, SD=10.82, versus mean=7.93, SD=11.18) (t=–3.27, df=340, p=0.001).

DISCUSSION

These Defense Style Questionnaire data confirm that women who report a history of childhood sexual abuse use less mature defenses and that there is a gradation, with the more severe forms of childhood sexual abuse being associated with the least mature defense styles. The greater use of immature defenses by women with a psychiatric classification, low self-esteem, and recent seeking of professional help show face validity for the Defense Style Questionnaire, which may become a useful instrument for social psychiatric research. Previous reports on this questionnaire have shown that patients with anxiety disorders have less mature defenses than the general population and family practice patients, that defense maturity is associated with the severity of neurotic and personality disorders, and that recovery from depression is associated with a decrease in immature styles (12, 36, 37).

This study has had good response rates at each stage, but the overall additive attrition is substantial. The final interviewed sample comprised 42.0% of those initially eligible in 1989 for interview. However, these data are notable as they come from a random community sample, not biased by unknown referral processes, as have characterized so many of the existing findings on coping, dissociation, and psychological trauma.

Each of the immature defenses used more frequently by women reporting childhood sexual abuse can be understood intuitively from a consideration of the likely psychological impact of unwanted sexual contact by an older male person. Projection, for example, is the tendency to attribute to another one's own emotional responses. This could easily arise in a young person forced to submit to another's sexual desires; her sense of internal control over her body is diminished and, with that, her sense of control of herself and her affects. In later conflictual situations, she may be unclear about whether her affects are derived from internal ideas or an external reality.

By contrast, few items on the Dissociative Experiences Scale, a better-validated instrument, were found to differ between the groups with and without childhood sexual abuse. Only seven of the 28 items were found more frequently in the women with childhood sexual abuse; these did not appear to form a clear clinical pattern. This failure to find greater dissociative experiences in a randomly selected community sample raises questions about the results from previous clinic studies. Those studies showed a higher rate of dissociative experiences among patients with childhood sexual abuse and other trauma, as summarized in the introduction. Our data from a random community sample suggest that dissociation may not associated with childhood sexual abuse per se as much as with psychiatric caseness and recent seeking of professional help. It is important not to extrapolate clinic-based results in developing general psychological theories without testing them first in nonclinical populations.

The Defense Style Questionnaire factors were intercorrelated, suggesting substantial overlap in the general concepts being measured by each factor's cluster of items. As expected, the mean score on the Dissociative Experiences Scale correlated negatively with the mean score on the Defense Style Questionnaire mature factor, confirming the idea of dissociation as an immature coping mechanism.

The five individual immature defenses identified in the simple analysis of abuse versus no abuse and in the analysis of abuse severity (autistic fantasy, displacement, passive-aggression, somatization, and projection) can form a clinical focus for cognitive psychotherapeutic interventions for people with childhood sexual abuse.

Non-treatment-seeking women with childhood sexual abuse do not show the high rates of dissociation previously reported in the literature from clinical studies. This finding replicates that from the Christchurch, New Zealand, study, mentioned in the introduction (28). We failed to replicate their finding of an association with childhood physical abuse, possibly because our investigation of that variable was rather sketchy.

Our group has previously noted the importance of adolescent experiences for sexually abused women in their pathway to adulthood (38). These findings, that women who have experienced childhood sexual abuse use more immature psychological coping, suggest that this may be a major pathway by which such childhood traumata are transduced into late adult adversity, such as psychiatric disorder and low self-esteem.

REFERENCES

1. Beitchman JH, Zucker KJ, Hood JE, da Costa GA, Akman D, Cassavia E: A review of the long term effects of child sexual abuse. Child Abuse Negl 1992; 16:101–118
2. Green AH: Child sexual abuse: immediate and long-term effects and intervention. J Am Acad Child Adolesc Psychiatry 1993; 32:890–902
3. Finkelhor D: The international epidemiology of child sexual abuse. Child Abuse Negl 1994; 18:409–417
4. Mullen PE, Martin JL, Anderson JC, Romans SE, Herbison GP: Child sexual abuse and mental health in adult life. Br J Psychiatry 1993; 163:721–732
5. Mullen PE, Martin J, Anderson J, Romans S, Herbison G: The effect of child sexual abuse on social, interpersonal and sexual function in adult life. Br J Psychiatry 1994; 165:35–47
6. Mullen PE, Martin JL, Anderson JC, Romans SE, Herbison GP: The long-term impact of the physical, emotional and sexual abuse of children: a community study. Child Abuse Negl 1995; 20:7–21
7. Finkelhor D: The victimization of children: a developmental perspective. Am J Orthopsychiatry 1995; 65:177–193
8. Vaillant GE: The Wisdom of the Ego. Cambridge, Mass, Harvard University Press, 1993
9. Vaillant GE: Theoretical hierarchy of adaptive ego mechanisms: a thirty year follow-up of 30 men selected for psychological health. Arch Gen Psychiatry 1971; 24:107–118
10. Vaillant G, Bond M, Vaillant C: An empirically validated hierarchy of defense mechanisms. Arch Gen Psychiatry 1986; 43: 786–794
11. Bond M, Gardner S, Christian J, Sigal JJ: Empirical study of self-rated defense styles. Arch Gen Psychiatry 1983; 40:333–338
12. Andrews G, Pollock C, Stewart G: The determination of defense style by questionnaire. Arch Gen Psychiatry 1989; 46: 455–460
13. Andrews G, Singh M, Bond M: The Defense Style Questionnaire. J Nerv Ment Dis 1993; 181:246–256
14. Perrott K, Morris E, Martin J, Romans S: Cognitive coping styles of women sexually abused in childhood: a qualitative study. Child Abuse Negl 1998; 22:1135–1149
15. Butler LD, Duran REF, Jasiukaitis P, Koopman C, Spiegel D: Hypnotizability and traumatic experience: a diathesis-stress model of dissociative symptomatology. Am J Psychiatry 1996; 153(July Festschrift suppl):42–63
16. Atchison M, McFarlane AC: A review of dissociation and dissociative disorders. Aust NZ J Psychiatry 1994; 28:591–599
17. Chu JA, Dill DL: Dissociative symptoms in relation to childhood physical and sexual abuse. Am J Psychiatry 1990; 147: 887–892
18. Terr LC: Childhood traumas: an outline and overview. Am J Psychiatry 1991; 148:10–20
19. Kirby JS, Chu JA, Dill DL: Correlates of dissociative symptomatology in patients with physical and sexual abuse histories. Compr Psychiatry 1993; 34:258–263
20. Anderson G, Yasenik L, Ross CA: Dissociative experiences and disorders among women who identify themselves as sexual abuse survivors. Child Abuse Negl 1993; 17:677–686
21. Saxe GN, van der Kolk B, Berkowitz R, Chinman G, Hall K, Lieberg G, Schwartz J: Dissociative disorders in psychiatric inpatients. Am J Psychiatry 1993; 150:1037–1042
22. Roesler TA, McKenzie N: Effects of childhood trauma on psychological functioning in adults sexually abused as children. J Nerv Ment Dis 1994; 182:145–150
23. Waldinger RJ, Swett C, Frank A, Miller K: Levels of dissociation and histories of reported abuse among women outpatients. J Nerv Ment Dis 1994; 182:625–630
24. Zlotnick C, Bergin A, Shea T, Pearlstein T, Simpson E, Costello E: The relationship between characteristics of sexual abuse and dissociative experiences. Compr Psychiatry 1994; 35:465–470
25. Zlotnick C, Shea T, Zakriski A, Costello E, Pearlstein T, Simpson E: Stressors and close relationships during childhood and dissociative experiences in survivors of sexual abuse among inpatient psychiatric women. Compr Psychiatry 1995; 36: 207–212
26. van der Kolk BA, Pelcovitz D, Roth S, Mandel FS, McFarlane A, Herman JL: Dissociation, somatization, and affect regulation: the complexity of adaptation to trauma. Am J Psychiatry 1996; 153(July Festschrift suppl):83–93
27. Nash M, Hulsey T, Sexton M, Harralson T, Lambert W: Long-term sequelae of childhood sexual abuse: perceived family environment, psychopathology and dissociation. J Consult Clin Psychol 1993; 61:276–283
28. Mulder RT, Beautrais AL, Joyce PR, Fergusson DM: Relationship between dissociation, childhood sexual abuse, childhood physical abuse, and mental illness in a general population sample. Am J Psychiatry 1998; 155:806–811
29. Anderson J, Martin J, Mullen P, Romans S, Herbison P: The prevalence of childhood sexual experiences in a community sample of women. J Am Acad Child Adolesc Psychiatry 1993; 32:911–919
30. Carlson EB, Putnam FW: An update on the Dissociative Experiences Scale. Dissociation 1993; 4:16–27
31. Bernstein EM, Putnam FW: Development, reliability, and validity of a dissociation scale. J Nerv Ment Dis 1986; 174:727–735
32. Dubester KA, Braun BG: Psychometric properties of the Dissociative Experiences Scale. J Nerv Ment Dis 1995; 183:231–235
33. Wing JK, Cooper JE, Sartorius N: The Measurement and Classification of Psychiatric Symptoms: An Instructional Manual for the PSE and CATEGO Programs. New York, Cambridge University Press, 1974
34. Wing JK, Nixon JM, Mann SA, Leff JP: Reliability of the PSE used in a population study. Psychol Med 1977; 7:505–516
35. Robson PJ: Development of a new self-report questionnaire to measure self-esteem. Psychol Med 1989; 19:513–518
36. Sammallahti P, Aalberg V, Pentinsaari J-P: Does defense style vary with severity of mental disorder? Acta Psychiatr Scand 1994; 90:290–294
37. Akkerman K, Carr V, Lewin T: Changes in ego defenses with recovery from depression. J Nerv Ment Dis 1992; 180:634–638
38. Romans S, Martin J, Anderson J, O'Shea M, Mullen P: Factors that mediate between childhood sexual abuse and adult psychological outcome. Psychol Med 1995; 25:127–142