Selected MMPI-2 scales for identifying women with a history of sexual abuse.

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any gender effect on SCL-90 scales (Derogatis and Cleary, 1977), but there may be significant SCL-90-R differences between cocaine- and heroin-dependent individuals seeking treatment (Montoya et al., 1994). Since the SCL-90-R is a widely used, validated, and reliable test (Derogatis, 1983), there is no reason to believe there is differential validity or reliability in TRS or NTS subjects. However, we cannot rule out that different results might have been obtained if subjects' psychopathology had been directly assessed by an interviewer.

This is the first report showing that individuals seeking to participate in substance abuse treatment research have higher psychological distress than substance abusers seeking participation in research studies in which no treatment is provided. The data must be interpreted cautiously, since the two groups differed in some sociodemographic characteristics and in factors such as payment for study participation. However, the findings of this study may serve as a caution regarding the generalization of results obtained from studies involving substance abusers seeking or not seeking treatment. These may represent two different subgroups of substance abusers that need further characterization.

References


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Selected Minnesota Multiphasic Personality Inventory-2 Scales for Identifying Women with a History of Sexual Abuse

Studies with adults who have experienced early childhood sexual trauma suggest the presence of frequent long-term mental and physical sequelae. While the symptom profiles vary due to a number of moderating factors, the preponderance of evidence indicates that a significant level of distress and dysfunction is experienced by abused individuals. It is this increase in psychopathology that may be useful in correctly identifying patients who may be suspect for previous early trauma.

A history of abuse has been correlated with specific psychiatric disorders. In a study of 711 patients with anxiety disorders, subjects reporting sexual abuse were significantly more likely to have developed posttraumatic stress disorder (PTSD) than those who reported other types of trauma (Fierman et al., 1988). Pibor and Dinwiddie (1982) not only report that hecst is associated with a higher incidence and a greater number of psychiatric disorders in their outpatient sample, but more severe forms of sexual abuse, such as abuse involving penetration and/or violence, were associated with higher rates of anxiety disorders than in those who experienced less severe forms of abuse. Early trauma, particularly sexual abuse, has been linked to dissociative disorders and is thought to be a primary etiological factor (Ross et al., 1980). Browne and Finkelor (1986), based on their review of research, summarized the common sequelae of early sexual abuse to include self-destructive behavior, symptoms of depression, anxiety and substance abuse, sexual maladjustment, poor self-esteem, and difficulty relating to and trusting others.

Given the apparent risk of subsequent psychopathology, we would anticipate that an increased level of distress and dysfunction would be observed in standardized measures of
psychopathology. Tsai et al. (1979) found that sexually abused female outpatients had clinically significant elevations (T > 70) on the psychopathic deviate scale (Pd) and the schizophrenia scale (Sc). Scott and Stone (1986) compared the profiles of adult and adolescent female victims of incest and found that both groups had elevations on the Pd and Sc scales (T > 70). In addition, the adolescent group was higher on the hypomania scale (Ma). Surveying inpatient medical records and MMPI profiles, Goldwater and Duffy (1990) report an increased probability of a history of previous abuse when female patients had elevations on the Pd scale and the paranoia scale (Pa), combined with a lower score on the masculinity-femininity scale (MF).

Based on previous MMPI research (Scott and Stone, 1986), clinical descriptions of common symptoms (Brown and Finkelhor, 1986), and the construct reportedly measured by the posttraumatic scale (PS) of the MMPI-2 (Hathaway and McKinley, 1989), it was hypothesized that the mean of the four scales of the MMPI-2 (D, Pd, Sc, and PS) would be significantly more elevated in the abused group than in the nonabused group. The examined scales were also hypothesized to be useful in predicting group membership.

The posttraumatic scale has yet to receive extensive examination, particularly in a population of women. The 60-item scale was found to differentiate among PTSD male veterans with a non-PTSD diagnosis and nonpatient veterans (Schlenger and Kulk, 1987). The test manual reports internal consistency coefficients of .88 (men) and .91 (women) (Hathaway and McKinley, 1989) based on the MMPI-2 normative sample. Due to the limited research conducted with this scale, the PS scale does not yet represent a formal scale (Graham, 1990). The PS scale comprises items that describe specific symptoms, such as irritability, nightmares, tension, loss of emotional control, and intrusive and unwanted thoughts.

For the purpose of this study, sexual abuse was defined as sexual intercourse, fondling, oral, genital or anal sexual activity, mutual masturbation with an adult, or any forced observation of sexual acts enacted before the child (Goldwater and Duffy, 1990). For inclusion in the abused group, the acts of alleged abuse needed to occur before age 18. Subjects in the nonabused group had no reported history of sexual abuse or other trauma before or after age 18.

Methods

The study utilized existing medical records of women seen at a private psychiatric clinic (age range, 19–53 years). Forty-seven female patients with a reported history of sexual abuse were identified (mean ± SD age, 36.8 ± 8.4). Forty-three records of female patients were randomly selected from the pool of 110 patients who had no recorded history of sexual abuse or related trauma (mean age, 34.5 ± 7.3). The groups were not significantly different in age (t = 1.31, p = .381, NS). All subjects were white suburban residents. The MMPI-2 profiles had T-values less than 100 on scale F and were determined to be valid.

Procedures

The medical records included complete psychiatric histories of the patients, and information regarding the presence or absence of alleged sexual abuse was examined. All patients had been administered an MMPI-2 during the intake process at the clinic. K-corrected scale scores from the D, Pd, Sc, and PS were collected from all selected records and subjected to statistical analysis. One additional scale was originally included in the data collection (PK), but was eliminated from this analysis due to its large number of items shared with scale PS. The study was approved by the research review committee of the Forest Institute of Professional Psychology, Springfield, Missouri. Anonymity and confidentiality were maintained throughout the study.

Data Analysis

To assess the contribution of the scales in accounting for variability on the dependent measures, the mean T-scores of the two groups were subjected to a one-factor multivariate analysis of variance (MANOVA). The univariate analysis of variance was used as a follow-up test to explore significant differences for each of the variables (D, Pd, Sc, and PS). Correlation coefficients were calculated for the full sample. Stepwise multiple regression was used to assess whether subjects could be differentiated into nonabuse and abuse groups and identify the variables contributing the most to group membership.

Results

The means of the MMPI-2 scales for the abused and nonabused groups are presented in Table 1. A one-factor MANOVA indicates that the mean of the D, Pd, Sc, and PS scores of the abused and nonabused groups were significantly different (F = 4.986, df = 4.85, p = .001). As a follow-up assessment of significant results, the five scales of the two groups were independently compared using the univariate analysis of variance. The mean T-score values of the D scale (F = 9.468, df = 1.88, p = .003), Pd scale (F = 8.895, df = 1.88, p = .004), Sc scale (F = 8.99, df = 1.88, p = .004), and PS scale (F = 13.666, df = 1.88, p < .001) were found to be significantly different between the abused group and the nonabused group. The intercorrelations of the full sample and item overlap among scales are presented in Table 2. The high intercorrelation, associated in part with item overlap, is a well-known and documented limitation of the MMPI and MMPI-2 (Anastasi, 1988).

The stepwise multiple regression as a follow-up procedure to the MANOVA was significant (F = 16.8, p = .0001) and the multiple correlation was .40, accounting for 16% of the variance in group membership. The stepwise solution resulted in only one significant predictor variable, PS (beta =...
It appears that an increase in scores on the clinical scales also may artificially inflate the elevation of the PS scale. Further research with this scale among sexually abused samples that incorporates multiple measures of psychopathology will help to clarify this issue.

As implicated by the contribution of scales PS and D in predicting group membership, the individuals of the abused group were experiencing a significant amount of psychological distress at the onset of outpatient treatment. The MMPI-2 can serve as an important assessment of this distress, as sexually abused individuals may minimize their symptoms when initially talking with a therapist. Addressing the acute level of distress and monitoring suicidal thoughts may need to be focuses of the early stages of treatment. The possibility of PTSD suggests a disturbance in memory processes related to the traumatic material for some patients. The intrusive memories associated with PTSD may contain omissions and distortions related to the traumatic events. Treatment models emphasize helping the patient enhance control over access to traumatic material and work through the emotional trauma through various adaptations of grief work (Spiegel et al., 1993). Abused individuals may link their self-concept with the image they have of themselves during past traumatic events. The overwhelming sense of being helpless, damaged, at fault, or evil is particularly important to address in ongoing treatment.

As with some previous investigations among the sexually abused (Goldwater and Duffy, 1986; Scott and Stone, 1986), this study is limited by its use of a patient population that did not include abused individuals who never seek treatment. As with most research that relies on retrospective reports of abuse, the veracity of the accounts is open to question and is a limitation of this investigation. It should also be noted that if the analyses were replicated on another sample, the differences between the groups would likely be less. Further research on clinical and nonclinical samples would be helpful in extending the findings reported here.

References
Scott RL, Stone DA (1986) MMPI measures of psychological distur-

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<td><strong>Interscale Correlations and Scale Item Overlap</strong></td>
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*Correlations are above the diagonal. The asterisk indicates significance at .01. The number of items shared between two scales are below the diagonal. Code types: D, depression; Pd, psychopathic deviate; Sc, schizophrenia; PS, posttraumatic stress disorder.

.40, T = 4.999, p = .0001). A second stepwise multiple regression was completed using the three clinical scales (D, Pd, and Sc) to identify which of the scales contributed most to group membership. The results were significant (F = 9.468, p = .003), producing a multiple correlation of .31, with scale D being the only significant predictor variable (beta = .312, T = 3.077, p = .003).

**Discussion**

As reported by Browne and Finkelhor (1986), the sequelae of childhood sexual abuse continues to evidence itself in adult life. While there may be several factors that mediate the extent any individual will be impacted by trauma, as predicted, the evidence of this study points to an overall increased level of psychological distress reported by the sexually abused group. The MMPI-2 provides not only corroborative support for clinical impressions and patient accounts of previous trauma, it also, in this investigation, provides important evidence of the long-term negative sequelae associated with childhood sexual trauma.

To our knowledge, this is the first study to investigate the significant elevation on scale D (depression) in sexually abused subjects. This supports the findings of previous research that suggest a disturbance of mood among abused individuals (Browne and Finkelhor, 1986). The substantial elevation of the Pd (psychopathic deviate) scale also is of much interest. A significant component of the sequelae appears to involve difficulty with social adjustment, resentment, problems with authority, and impulsiveness. Difficulty in interpersonal relationships is also implicated by the marked elevation of the Sc (schizophrenia) scale. High scores on Sc (T = 66 to 75) may be characterized by identity confusion, and feeling alienated and misunderstood. These individuals also report having unusual experiences and beliefs, and have difficulty concentrating (Hathaway and McKinley, 1989). The elevations of the Pd and Sc scales found in this investigation using the MMPI-2 are consistent with the findings reported previously using the MMPI with abuse victims (Scott and Stone, 1986; Tsai et al., 1979).

Of the four psychometric indices evaluated, the PS scale was the most important in distinguishing between the abused and nonabused groups. There appears to be an increased risk of PTSD among sexually abused individuals which may contribute to the utility of the PS scale among a sexually abused population (Fienman et al., 1993). It should also be noted that because the new PS scale was highly correlated with the three other scales, its validity remains in question.
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The authors acknowledge the significant contributions made to this research by Daniel Green, Ph.D., Richard Balon, M.D., and Elaine Hockman, Ph.D.

Books


Simon LeVay is a neurobiologist whose 1991 Science article reporting a hypothalamic difference between heterosexual and homosexual men catapulted him from that, his only sexology study, into the slender ranks of sex researchers whose work is widely known outside the confines of their own field. In LeVay's words, "The aim of this book is to focus... on the brain mechanisms that are responsible for sexual behavior and feelings" (p. xvi). That is accurate enough, provided one understands that, for LeVay, sexual behavior generally has the meaning of "male-typical versus female-typical" as well as the meaning of "erotic." There is no discussion of sexual behaviors, such as pedophilia or fetishism, that may be just as deeply rooted in individual biology as heterosexuality and homosexuality, but vary along other dimensions.

The book proceeds, loosely speaking, from the development of sex-dimorphic anatomic structures to the development of sex-typical behavior, and thence to the exceptions to such behavior, represented by homosexuality and transsexualism. In this progression, LeVay discusses the nature-nurture debate, selection pressures favoring sexual over asexual reproduction in higher organisms, the differentiation of male and female somatic phenotypes in utero, the organization of the brain into local regions with specific functions, physiological aspects of copulation in humans and other mammals, neuroendocrine control of courtship and maternal behavior, the organizational effects of testosterone on the fetal brain and the development of separate centers within the hypothalamus for male-typical and female-typical sexual behaviors, behavioral and neuroanatomic sex-dimorphism other than that related to reproduction, theories and evidence of a biological basis for sexual orientation, and gender identity in transsexualism and intersexuality.

In his espousal of the "nature" side in the resurgent nature-nurture debate on homosexuality, LeVay sometimes seems to undervalue the contributions of disciplines other than biology and research methods other than laboratory investigation. This is unfortunate, because much of the data he cites regarding homosexuality actually come from behavioral observation and epidemiological analysis. These occasional partisan excesses are greatly outweighed, however, by the clarity and focus that his theoretical convictions give to the work.

The book, intended for a general audience, is written in a clear and lively style. The text does not include formal references; the primary sources for each chapter and suggestions for further reading are listed at the end of the book. This arrangement contributes to the book's easy readability. The Sexual Brain is a painless, in fact pleasant, introduction to a difficult and technical literature. It can be recommended to a wide range of readers, including students, intelligent lay persons, and nonspecialist professionals seeking a concise but thorough overview of our current knowledge of the brain mechanisms affecting sexual behavior.

References


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This volume of original papers grew out of a major international conference on daughtering and mothering that was held at Utrecht University in September 1991. Seven of the authors (including the editors) are from the Netherlands, six are from the United States, three are from Norway, two are from the United Kingdom, and one each is from Germany and Denmark. While the work of some of the English-speaking theoreticians and clinicians (Jane Flax, Judith Jordon, Janet Surrey, Carol Gilligan, Annie Rogers, Susie Orbach, and Luise Elchenbaum) is familiar, that of the Europeans is less so and provides stimulating and refreshing thinking, which leads to reformulations and new perspectives. The strength of this uniformly well-written volume is that it moves us forward in an area of feminist thinking, psychoanalytic theorizing about mothers and daughters, that had become somewhat stagnant.

The book is divided into four sections: Daughtering, Mothering in Context, Daughtering and Mothering, and Review and Prospects. There is an overall introduction provided by van Mens-Verhulst as well as lead papers in each of the sections that tease out the overlapping themes and problems in the papers to follow. The editors' excellent work in these brief but rich and complex chapters makes the book seem brief but rich and complex chapters makes the book seem as if each essay could stand on its own. Further, the editors have cross-referenced when appropriate from one chapter to another, thereby reminding us of the coherence and interrelatedness of the essays.

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