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Psychological Profiles of Rehabilitation Patients
Reporting Childhood Sexual Abuse

by

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Psychological Profiles of Rehabilitation Patients Reporting Childhood Sexual Abuse

Abstract

A number of studies have suggested a relationship between sexual abuse and the report of physical symptoms. This relationship was explored using census-matched community and physical rehabilitation patient samples from who background information and BHI profiles were obtained. The results found that patients reported abuse significantly more often than nonpatients. Patients reporting abuse were significantly more likely to be female, psychologically distressed, suicidal, prone to using drugs and tobacco, report family problems and complain of physical and pain symptoms more than nonabused patients. No differences between groups were found on rehabilitation setting, length of treatment time, medical diagnoses, and job dissatisfaction.

The incidence of sexual abuse in America has been estimated to one in three females and one in five males (Finkelhorn, 1986). Several studies have found that a number of medical syndromes are associated with reports of sexual assault (Bendixen, Muus, & Schei, 1984; Bowman, 1993; Bruns, Disorbio, & Copeland-Disorbio, 1996; Walker, Katon, Hansom, & Harrop-Griffiths, 1992; Walker, Katon, Neraask, Jemelka, & Massouth, 1992; Walker, Katon, Roy-Byrne, Jemelka, & Russo, 1993; Walling et al., 1994).

The data used here was collected during the BHI validation study (Bruns, Disorbio & Copeland-Disorbio, 1996), but is unreported elsewhere. The subjects of the patient group were recruited by one of their health care providers, and were reimbursed for their participation. A total sample of 777 patients were obtained. From this sample, the 527 patient subjects were selected at random as the BHI patient normative sample.

A similar procedure was used with the community sample, who were recruited through advertisements, and who were also reimbursed for their time. The community sample was comprised of 725 community subjects, who were selected at random from a pool of 1485 community subjects.

Subjects were administered the BHI-R, and additional data was also gathered. The BHI-R was administered anonymously. Subjects signed an informed consent form stating that the information would be used for research purposes only, and that no results or feedback from this test would be given. They were also informed that the information would not influence the course of their clinical care. Subjects were classified as having undergone childhood sexual assault (CSA) if they positively endorsed an item regarding being sexually molested as a child.

Instrumentation

The Battery for Health Improvement (BHI) is a 202-item inventory designed for the psychological assessment of medical patients. It is included within a larger 600-item research version (BHI-R), which was administered to the subjects in this study. The BHI has 14 scales which assess factors related to delayed recovery from a medical condition such as somatization, dissatisfaction with physicians, and psychological and physical symptom

Adults who report childhood sexual assault (CSA) have been found to be less likely to benefit from lumbar surgery and report higher levels of pelvic pain than non-CSA patients (Schofferman, Anderson, Hines, Smith, & White, 1992; Walker et al., 1988). CSA patients also have been found to engage in more health-risk behaviors than a non-CSA sample (Springs & Friedrich, 1992). These effects in previous studies have led many medical and rehabilitation professionals to assume that survivors of CSA have a much worse prognosis for recovery from injuries than those patients who have not experienced sexual trauma. The following study evaluated the differences between CSA and non-CSA patients in census-matched community and physically injured patient samples.

Method

Subjects

Patient and community samples were gathered from a total of 2,262 subjects in 36 U.S. States at over 90 sites during the BHI validation studies. The final normative patient sample was comprised of 527 patients who were currently in treatment for a physical injury. The community sample was comprised of 725 community subjects. The demographics of both groups approximated the U.S. Census for race, education, age, and gender. All of the subjects were adults ranging in age from 18 to 65.

Procedure

magnification. It also has a number critical items pertaining to dangerousness to self and others, and a history of physical or sexual assault.

Results

The results found that overall injured patients were more likely to report CSA than were members of the community (χ^2 $p < .0005$). Overall, 24% of all persons in the patient group reported CSA, while only 15% of those in the community did (See Table 1).

Among patients, an ANOVA found that patients reporting CSA were significantly higher than non-CSA patients ($p < .0001$) on the following BHI scales: Depression, Anxiety, Hostility, Borderline, Chronic Maladjustment, Substance Abuse, Perseverance, Family Dysfunction, Doctor Dissatisfaction, Somatic Complaints, Pain Complaints and Muscular Bracing. The Symptom Dependency scale was also significantly elevated ($p < .0005$). CSA patients also scored lower on the BHI Perseverance scale ($p < .0001$), and higher on a BHI psychological disclosure index ($p < .0001$). The only nonsignificant difference between the two groups on the BHI was the Job Dissatisfaction scale (See Table 2).

Table 1. Frequency of Reported CSA in Patient and Community Samples

| Subject Group | Abused | | Not Abused | | Total | |
|---------------|--------|-------|------------|-------|-------|-------|
| | Count | Row % | Count | Row % | Count | Row % |
| Community | 110 | 15.2 | 615 | 84.8 | 725 | 100 |
| Patient | 124 | 23.5 | 403 | 76.5 | 527 | 100 |
| Total | 234 | 18.7 | 1018 | 81.3 | 1252 | |

$df = 1$ $\chi^2 = 14.03$ χ^2 p value = .0002

Table 2. Analysis of Variance for BHI Scores of Assaulted and Nonassaulted Patients

| Scale | df | Mean Assaulted Score | Mean Nonassaulted Score | F |
|------------------------|----|----------------------|-------------------------|-----------|
| Depression | 1 | 54.7 | 48.5 | 38.60**** |
| Anxiety | 1 | 55.0 | 48.4 | 45.60**** |
| Hostility | 1 | 53.6 | 49.0 | 20.01**** |
| Borderline | 1 | 54.6 | 48.5 | 38.01**** |
| Symptom Dependency | 1 | 52.8 | 49.1 | 13.40*** |
| Chronic Maladjustment | 1 | 54.4 | 48.6 | 34.30**** |
| Substance Abuse | 1 | 53.4 | 49.0 | 18.70**** |
| Perseverance | 1 | 46.3 | 51.2 | 23.70**** |
| Family Dysfunction | 1 | 56.6 | 48.2 | 74.30**** |
| Job Dissatisfaction | 1 | 50.9 | 49.8 | 1.27 |
| Doctor Dissatisfaction | 1 | 51.7 | 49.6 | 4.24* |
| Somatic Complaints | 1 | 55.1 | 48.5 | 44.20**** |
| Pain Complaints | 1 | 53.1 | 48.7 | 18.80**** |
| Muscular Bracing | 1 | 54.0 | 48.7 | 27.60**** |

* p < .05
 ** p < .01
 n = 527
 *** p < .001
 **** p < .0001

Table 3. Frequency of Suicidal Ideation in CSA and Non-CSA Groups

| | Molested? | | | | Total | |
|------------------------|-----------|-------|-------|------|-------|------|
| | No | | Yes | | | |
| | Count | Col % | Count | Col% | Count | Col% |
| No Plan to Kill Self | 379 | 94.0 | 105 | 84.7 | 484 | 91.8 |
| Have Plan to Kill Self | 24 | 6.0 | 19 | 15.3 | 43 | 8.2 |
| total | 403 | 100 | 124 | 100 | 527 | 100 |

$df = 2$ $\chi^2 = 11.1$ χ^2 p value = .0009

Table 4. Frequency of Reported CSA in Four Insurance Systems

| | Worker=s Compensation | | Personal Injury Insurance | | Private Health Insurance | | Medicare / Medicaid | | Total | |
|---------------|-----------------------|--------|---------------------------|--------|--------------------------|--------|---------------------|--------|-------|--------|
| | Count | Col. % | Count | Col. % | Count | Col. % | Count | Col. % | Count | Col. % |
| Assaulted | 42 | 24.9 | 20 | 33.9 | 25 | 13.8 | 9 | 29.0 | 96 | 21.8 |
| Not Assaulted | 127 | 75.1 | 39 | 66.1 | 156 | 86.2 | 22 | 71.0 | 344 | 78.2 |
| Total | 169 | 100 | 59 | 100 | 181 | 100 | 31 | 100 | 440 | |

df = 3

$\chi^2 = 13.71$ χ^2 p value = .0033

The results also found a significant difference between patient groups with regard to gender (χ^2 p<.0005). Of those reporting abuse, 70% were females and 30% were males. The results also revealed that those reporting CSA were more likely to smoke (χ^2 p<.05) and to report having a plan to kill themselves (χ^2 p<.001) (See Table 3).

The proportion of patients reporting CSA also varied between insurance systems (χ^2 p<.005). The highest proportion of patients reporting CSA occurred in patients being treated for auto injuries which was 34%. This was followed by 29% of Medicare/Medicaid patients, 25% of Worker=s Compensation patients, and 14% of Health Insurance patients (See Table 4).

No significant differences were found between patient groups regarding age, educational level, length of treatment, rehabilitation setting, medical diagnosis, involvement in medical litigation, and job dissatisfaction.

Discussion

The results of this study supported some of the previous research regarding the effects of CSA on medical conditions.

The BHI scores of patients reporting CSA reflect a significantly higher degree of psychological distress and somatic complaints than non-CSA patients. The BHI Doctor Dissatisfaction scores also indicated that they were likely to be unsatisfied with their physician. These findings are consistent with previous studies (Haber & Roos, 1985; Roy, Thomas, Maryuca, & Cook, 1993). CSA patients were more likely to report suicidal ideation and plans on BHI Critical items. It is important for medical and psychological providers treating injured patients in rehabilitation to be aware of this tendency in individuals who have suffered CSA during evaluation and treatment.

The findings also revealed that injured patients suffering from CSA reported a higher score than the community patients on the BHI Family Dysfunction scale. This finding is not surprising since multi-generational family transmission patterns often occurs in dysfunctional families where physical and family abuse is present. Addressing these family patterns may be useful in the rehabilitation process.

There were no significant differences found between

It is possible that individuals reporting CSA are for some reason more prone to be involved in an accident. Sufferers of CSA may be more distractable or greater risk takers. It is also possible that individuals reporting CSA may have heightened senses of vulnerability following an accident, feel more traumatized, are more somatically preoccupied, or are

Patients did report CSA on the BHI significantly more often than community members. However, it was expected that patients reporting CSA would be more prone to delayed recovery and would thus comprise a higher proportion of patients in work hardening and chronic pain programs. The data did not support this hypothesis.

The lack of difference in rate of persons reporting CSA in various treatment settings could have several explanations. It is possible that physicians are simply unaware of the presence of such trauma, and thus it makes no impact on referral patterns in rehabilitation. Another possibility is that childhood trauma affects people in different ways, and surviving such trauma often requires adaptive resources to be learned at an early age. Some individuals may show more resiliency in surviving their early childhood trauma. The adaptive skills learned through this process may offset in some respects the effects of the trauma. This could normalize aspects of their symptomatic presentation, and not make them any more likely to be referred on to secondary or tertiary care treatment programs.

injured and community subjects on the BHI Job Dissatisfaction scale. It is possible that individuals who have suffered CSA find work a place of social support and control that they do not experience in their personal relationships at home and with friends. The depth of intimate relationships may not occur in the work environment. The adaptive resources often developed by CSA patients in protecting themselves from personal threat in the work place may be a reason for the nonsignificant findings found in patients who have suffered from CSA.

It had been anticipated that the highest levels of CSA would occur in the patients in the worker=s compensation system. There is considerable research supporting variety of psychosocial precursors to filing a work injury report. While the rate of reported CSA was significantly higher in worker=s compensation than in private health insurance, the overall highest rate was observed in the personal injury/auto insurance system. The cause of this effect was not clear, but the following hypotheses are offered.

more likely to seek treatment. Lastly, it is also possible that persons reporting CSA respond differently to some treatments. An example of this is that sufferers of CSA may feel less comfortable with hands-on examination or treatment.

Previous research has demonstrated the significant

psychological, environmental, and somatic distress between injured and community samples (Bruns, Disorbio & Disorbio, 1996). The findings of this study demonstrate the amplification of these psychological, environmental and somatic reactions that occur in injured patients in general.

The results suggest that CSA is common in rehabilitation patients and plays an important role in the process of recovery. Although inquiring about CSA is a sensitive matter, these findings suggest that developing a positive patient/provider relationship and rapport is essential so that helpful exploration into the effects of emotional and physical reactions can be addressed and treated properly during rehabilitation. It is only through awareness of these matters that healthcare professionals can create a multidisciplinary treatment protocol to manage the effects of CSA. It is recommended that medical providers take into account the potential elevated psychological distress of CSA patients when making treatment plans. Hyper-arousal of the autonomic nervous system and musculoskeletal system interferes with physical recovery from injury. Self regulation techniques (Biofeedback, etc.) can be implemented to assist patients who have suffered from CSA in reducing negative learned patterns of hyper-arousal that impede recovery (Wurtle, Kaplan, & Keairnes, 1990).

Further research must address not just the admission of sexual abuse but the nature, intensity, duration, actual perpetrator, age of onset and cessation of abuse. Also it Finkelhorn, D. (1986). A source book on child sexual abuse: New theory and research. Beverly Hills: Sage Publications.

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would be useful to explore adaptive resources that have been developed by individuals who have suffered CSA. The findings in this study as well as studies elsewhere regarding the effects of CSA and rehabilitation should not be used to revictimize the patient by denying medical procedures and treatment. Providing injured patients who have suffered from CSA with short-term solution-focused treatment regimens that reduce interfering cognitive emotional and physical reactions from injury may significantly improve the patient=s recovery from injury.

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