Psychogenic Chronic Pelvic Pain: Diagnosis and Management

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There have been relatively few articles in the past 10 years regarding the systematic and multidisciplinary evaluation and treatment of women with chronic pelvic pain (CPP) and without obvious somatic pathology, or "pelvalgia".[1-7] This deficit is surprising, in view of the availability earlier articles, one of which appeared over 30 years ago, that discuss the medical and psychological treatment of chronic pelvic pain[8,9] and considering the volumes of information, including texts, articles, and program descriptions, devoted to the management of other chronic pain syndromes.[10-16]

The articles that do address multidisciplinary evaluation and treatment of women with CPP uniformly suggest that the treatment team include gynecologists and psychologists, as well as specialists in the areas of urology, gastroenterology, and anesthesiology.[1-7] The clinical rationale for multidisciplinary evaluation and treatment are described elsewhere.[17] An additional benefit of integrated psychological testing and evaluation is that the medical treatment team may use the results to determine the optimal medical and psychological treatment plans and to assess prognosis. Additionally, psychologists can effect several concurrent primary treatment modalities, including progressive muscle relaxation, stress-reduction, self-hypnosis, behavioral–cognitive, and sexual therapies, as described below. Psychotherapy can be short-term or long-term, depending upon the patient's needs. These psychological interventions are in addition to indicated medical and surgical therapies. Basu[4] has observed that women with CPP are "often seeking a human relationship via pain" and are, therefore, "reinforced" to maintain their pain; they may fear that if their pain is resolved, their "relationship" with their physician will terminate.[4] Appropriate and skilled psychotherapeutic intervention may

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convert potentially counterproductive secondary gain into constructive transference.

Reading[5] has emphasized the importance of obtaining a complete history, including assessment of the pain and its impact on the patient's life style. The administration of a multidimensional assessment instrument, such as the McGill pain questionnaire, is encouraged as a means of obtaining detailed insight into the patient's perception of pain. Kresch also advocates initial psychological evaluation in assessing the extent of anxiety, depression, and pain experienced by patients with CPP.[7] The Stanford protocol, like a number of other treatment programs described above, uses psychotherapy, biofeedback training, behavioral modification, pain-control training, self-hypnosis, marital therapy, sexual therapy, and other psychotherapeutic treatment modalities in the treatment of women with CPP. The combination of gynecological and psychological treatments may last from several months to many years.[7] Simultaneous psychiatric or psychological and gynecological treatment for CPP patients has also been described by Guzinski,[6] who advocates the use of antidepressant and neuroleptic medications, operant conditioning programs (inpatient and outpatient), biofeedback, and supportive and brief psychotherapy. In the following sections, methods of psychological testing, diagnostic categories and criteria, and various treatment modalities are outlined.

Psychological Testing and CPP

During the past two decades, only a few studies have investigated the relationship between symptoms of CPP and personality type or personality factors.[7,18–23] The majority of these studies used the Minnesota Multiphasic Personality Inventory (MMPI) to ascertain aspects of personality. Other commonly used instruments include the SCL-90, the Zung Self-Rating Depression Scale, the National Institutes of Health (NIMH) Diagnostic Interview Schedule, and the Middlesex Hospital Questionnaire.

One study investigating the use of the MMPI to evaluate women with CPP found that all women in the study, including a control group of women without pain, had elevated MMPI scores on Scales 1 (hypochondriasis), 2 (depression) and 3 (hysteria).[18] Little could be concluded by the authors, since women with CPP both with and without somatic pathology were grouped together and since no statistical tests were applied to assess differences between the groups with and without pain.

A more recent study employing the MMPI found that women with CPP with and without somatic pathology had similar mean MMPI profiles, demonstrative of "neurotic personality" and with elevations on Scales 1, 2, and 3.[19] These elevations were not noted in the control group. The authors concluded that chronic pain with a presumed organic etiology can precipitate neurotic reactions.[19] These authors did not speculate about the pathogenesis of neurosis in women with pelvalgia (pelvic pain without demonstrable organic pathology).

Two studies employing clinical interviews, the MMPI, and a variety of behavioral and psychiatric illness rating scales were conducted with 25 CPP patients and reported by Caldirola et al.[20] and Gross et al.[21] Gynecologic exam revealed that 60% of the patients had normal pelvic exams and that 40% had minor degrees of abnormality. Based upon the psychiatric examination and psychological testing, 21 of these 25 patients received a diagnosis of borderline syndrome or of character disorder. A significant degree of early childhood and family dysfunction was discovered, with 36% of the patients reporting a history of childhood incest. Additionally, all of the women experienced significant difficulties with depression, anxiety, dependency, and trust.

Data from the CPP Clinic at Stanford suggested that organic pathology is found in most private practice patients who have a history of pelvic pain in the same location for at least 6 months.[7] Of the 100 women in

this study, 83% had abnormal pelvic organs and 17% had no evidence of organic pathology. However, patients with certain MMPI personality profiles had a poorer prognosis for treatment of their chronic pain, regardless of the degree of organic pathology.[7] One difficulty with this study is its lack of more specific information on the types of MMPI profiles indicative of poor treatment response; moreover, thorough developmental, social, and family histories were not elicited.

A few studies have used psychological tests other than the MMPI to describe personality characteristics of women reporting CPP. One of these compared women with organic pelvic pain (OPP), women with idiopathic pelvic pain (IPP), and matched controls by testing with the Middlesex Hospital Questionnaire and the Zung Self-Rating Depression Scale.[22] They found that women with IPP and OPP scored significantly higher on somatization (in a subjective rating of chronic physical symptoms) than did the controls, and that the IPP women reported significantly higher levels of depression than did both OPP and controls. These findings lead the authors to conclude that some forms of idiopathic pelvic pain might represent expressions of a depressive disorder.[22]

A recent retrospective study compared women with idiopathic CPP to a pain-free control group.[23] Laparoscopic examination revealed no significant pelvic pathology in patients with CPP. However, results on the NIMH Diagnostic Interview Schedule and the SCL-90 found that women with idiopathic CPP demonstrated significantly higher prevalence of major depression, substance abuse, adult sexual dysfunction, somatization, and history of childhood and adult sexual abuse than did the control group. Specifically, women in the study group had a rate of childhood sexual abuse (64%) that was twice the rate found in the general population and was almost three times the rate of childhood sexual abuse found in the comparison group (23%). Women with CPP also reported significantly more somatic symptoms than did women in the control group (7.0 versus 1.7 symptoms, respectively); these symptoms included abdominal pain, nausea, shortness of breath, dizziness, weakness, difficulties in walking, and dysmenorrhea. This type of somatic symptomatology is consistent with the elevations on Scales 1 and 3 noted on MMPIs of women with idiopathic CPP, or pelvalgia.

Hence, women with CPP and particularly those without obvious somatic pathology, tend to have similar psychological testing profiles, which show excessive depression and at times suicidal ideation, anxiety, and preoccupation with somatic complaints and well-being. All aspects of an affected woman's life, including occupational, social, and sexual spheres, are affected by symptoms of the chronic pelvic pain. Available data confirm that women with pelvalgia are prone to substance abuse and adult sexual dysfunction, and are more likely to have been a victim of childhood and adult sexual abuse. They have difficulties forming close relationships and generally feel inadequate or dissatisfied with their female roles. They also tend to be emotionally insecure and immature, have strong dependency needs, and experience difficulty externalizing feelings of stress and hostility.

One compelling theory of the pathophysiology of pelvalgia is that many women with idiopathic CPP may have experienced an arrest of psychological maturation in late childhood to early adolescence, possibly related to an extraordinary stressful event or to an ongoing extraordinary event (i.e., sexual abuse, pregnancy, psychological abuse, or physical abuse). Furthermore, recent investigations have related sexual trauma during childhood to the development of symptoms of posttraumatic stress disorder (PTSD) in adult women.[24] Whether the pelvalgia syndrome may represent a delayed manifestation of PTSD is an intriguing, al-

though speculative, hypothesis, and is discussed later in this chapter.

Lastly, psychological testing has provided abundant evidence that women with CPP typically may be resistant to any suggestion that their pain symptoms are due to other than physical causes.[7,18–23] This resistance is also evident in the clinical interview and, by definition, becomes a major obstacle in thorough diagnostic, evaluative, and treatment procedures.[7,18–23] However, as the research and reviews just cited maintain, this resistance can be overcome gradually by the use of reassurance, empathy, and nonjudgmental interventions by all practitioners involved in the care of patients with pelvalgia.

Pain and Depression

In an apparent consensus, a number of studies all have supported the hypothesis that there is a relationship between depression and CPP. This literature suggests also that unless depression is treated successfully, then CPP, particularly in the absence of somatic pathology, will continue.[1–7,18–23] Hence, from the perspective of therapy, pain should not be viewed as a simple sensation, but instead as a very complex perception comprising emotional as well as sensory components. Earlier theories, such as the specific and pattern theories, have only inadequately explained the pathophysiologic, psychological, and social influences causing pain. The specific theory suggested that pain receptors in the peripheral nervous system, when stimulated, send impulses to the brain, and thus produce the experience of pain. The pattern theory argued that peripheral stimulation alone is not enough, and that stimulus intensity and central summation are the critical determinants of pain.[13]

One of the most widely accepted contemporary theories of pain is the gate control theory. Proposed in 1965 by Melzack and Wall, this theory postulated the existence of a "gate" in the dorsal horn of the spinal cord that could close under certain conditions to block pain perception.[13] Some portions of this theory have been supported by subsequent research, while others have required modification.[25] In the 1970s other investigators isolated opioid receptors and opioid peptides, such as endorphins, in the brain,[26–28] which appear to function as part of a natural pain suppression system.

If endogenous opioids modulate perception of pain and comfort, it is logical that depression, which lowers endorphin levels, would be associated with chronic pain syndromes. The complexities of the pain perception process have been the subject of ongoing research. Abundant clinical data document the effects of tricyclic antidepressants and stimulants to decrease, and of depressants to increase, pain perception,[13,29–31] and several studies have advocated tricyclic antidepressant medication for women with CPP or pelvalgia. By reducing concurrent depression and increasing pain threshold, these medications enhance the patient's ability to manage her pain. Additionally, antidepressant medications tend to facilitate compliance with medical and psychological treatments.[1–3,6,22,32]

Pain, like hypertension, is a symptom which may be associated with a variety of disorders, both organic and psychological. Unlike high blood pressure, however, pain cannot be measured directly or observed independently of its subjective perception. Therefore, its presence must be inferred from the patient's reports of pain, or from overt pain behavior. Partly for this reason, pain has been neglected as a sign of depression, in favor of more objective affective signs of depression such as sleep disturbance, moodiness, concentration difficulties, decreased libido, and weight change. Not only are these other signs more easily observed, but also they are more traditionally associated with the clinical picture of depression, whereas pain is not so frequently associated with depression.[15]

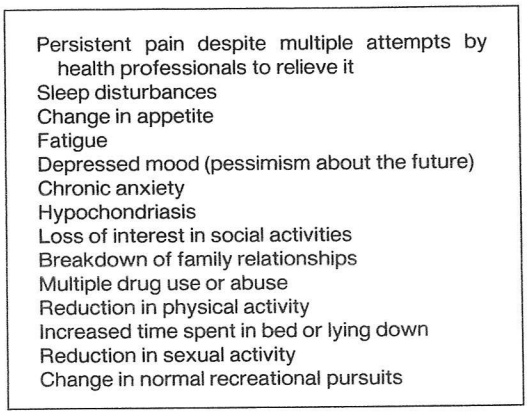

FIG. 1. *Characteristics of subjects with chronic pain syndromes. (From Feuerstein and Skjei.[14] By permission of Bantam.)*

Figure 1 summarizes many signs or characteristics that typify the person with a chronic pain syndrome.[14] It must be emphasized also that the role of pain is multidimensional: pain may function as a warning of damage and a way of alerting the body to prevent further injury; it can be a vehicle through which one person interacts with another; it may be a process codependent with guilt; and finally, pain may result from a patient's conversion of an unacceptable problem or stress into an acceptable symptom, such as pelvic pain.[6] When a patient is unable to achieve adequate relief with appropriate and specific management of what was originally diagnosed as acute pelvic pain, then a multidisciplinary approach to evaluation and therapy is appropriate.

A Prospective Study

We recently undertook a prospective evaluation of 81 women referred to the pelvalgia clinic at our institution after negative laparoscopy for CPP. Initial intake forms (Table 1) and MMPI tests were completed. These subjects were divided into three groups based on their responses to the intake form questions regarding prior history of psychosexual trauma. At the initial interview, 21 patients (Group 1) reported a history of one or more episodes of significant sexual abuse, including incest or molestation; 15 patients (Group 2) indicated that they had never been sexually abused or molested; and 45 patients (Group 3) did not respond to the question (see Table 1). In the Group 1 (sexual trauma), 8 were active duty military personnel and 13 were dependent wives; the average age was 27 years; 17 were married; and 13 had one or more children. In Group 2 (no sexual trauma), 11 were active duty and 4 were Dependent wives; they averaged 27.6 years of age; 11 were married; and 7 had one or more children. Lastly, in the Group 3 (no response), 24 were active duty personnel and 21 were dependent wives; their average age was 27.6 years; 36 were married; and 26 had one or more children.

Figure 2 presents the mean MMPI profiles for the three groups. Each group produced a statistically unique mean profile, with that of Group 1 the most distinctly pathologic, as is discussed below.

A Brief Review of the MMPI

The MMPI was selected to assess the psychological status of the women in this study. The MMPI, a standardized and validated research and clinical evaluation instrument, remains the most widely used personality test. It is also the most frequently used assessment instrument in general and psychosomatic medicine.[32–35]

The MMPI was designed to yield valid results with subjects with as little as a sixth-grade education. The long form contains 566 items requiring a true or false answer to be marked on an answer sheet. No special skills are required of the person administering the test. The MMPI, Form R (MMPI-R), is scored by hand with templates, or by a scoring service, or as in the case of the present study, by a computer program which scores and interprets the responses. The scores for each scale are converted to standardized T-scores and then

TABLE 1. Demographic Information for Three Groups of Patients*

Group (n = 81 total)	On Active Duty (Number)	Dependent Wife (Number)	Age (Years)	Married (Number)	Number with Children
1. Sexual trauma (n = 21)	8 (38%)	13 (62%)	27.0	17 (81%)	13 (62%)
2. No sexual trauma (n = 15)	11 (73%)	4 (27%)	27.6	11 (73%)	7 (47%)
3. No answer (n = 45)	24 (53%)	21 (47%)	27.6	36 (80%)	26 (50%)

* Groups based on intake-form response to question regarding previous sexual trauma.

plotted on a test profile form. The MMPI contains four validity scales and ten clinical scales. An overview of the scales is presented below in order of their appearance on the standard profile sheet.

The four MMPI validity scales aid in the detection of inappropriate response sets, which would invalidate the clinical scale profile.

Scale ?. This scale is the number of questions left unanswered or questions answered both true or false. A high score on this scale indicates a defensive response set, lack of cooperation, or poor reading and comprehensive skills.[36]

Scale L. The Lie Scale was designed to expose an evasive response set or an attempt to deny faults and make a good impression. Higher scores (above 60T) are associated with somatization.[37]

Scale F. The Frequency Scale examines a broad spectrum of maladjustments, peculiar thoughts, and unusual beliefs. Higher scores (above 60T) are associated with an attempt to gain attention (or a "cry for help") or an intentional distortion of mental symptoms to escape responsibilities.[36]

Scale K. The K Scale reflects how open or defensive the individual was during the test. Very low scores (below 40T) may reflect a

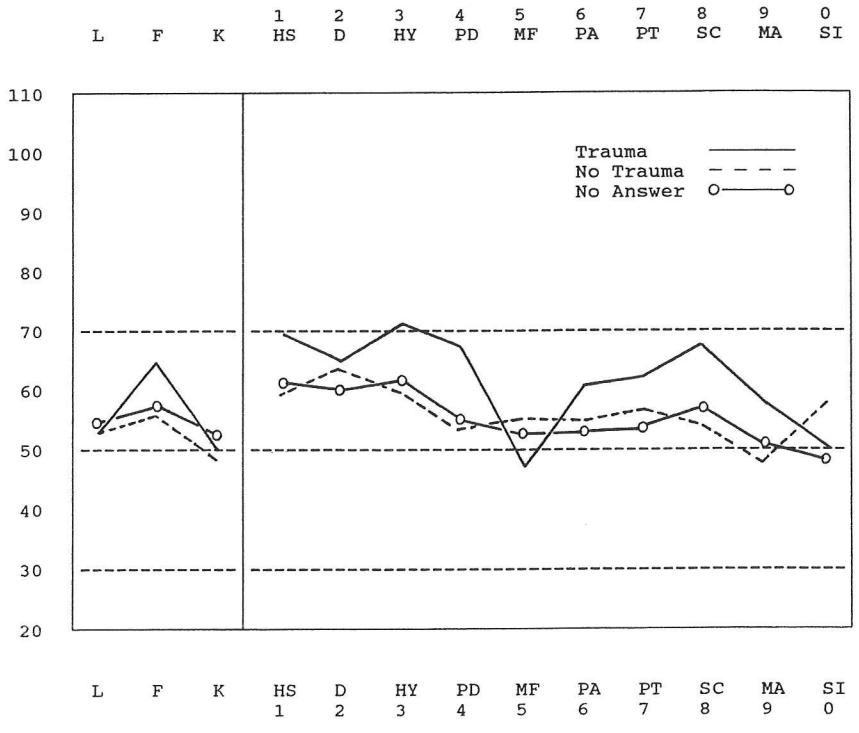

FIG. 2. *Mean MMPI profiles for groups reporting previous significant sexual trauma (n = 21), no previous sexual trauma (n = 15), and not responding (n = 45), on initial intake questionaire. Points on horizontal axis represent MMPI scales (see text).*

lack of normal defenses, a "cry for help", or malingering. Higher scores (above 40T) are associated with a lack of insight and with rigidity.[38]

The MMPI profile contains the following ten clinical scales:

Scale 1: Hypochondriasis (Hs). This scale was developed to identify abnormal concern about health. High scores (above 60T) on scale 1 may reflect somatic correlates of psychological discomfort and the use of somatization as a defense.[33,35–37]

Scale 2: Depression (D). High scores (above 60T) measure feelings of hopelessness, poor morale, moodiness, and a general dissatisfaction with one's own situation.[36,39] Higher scores (above 70T) are associated with more severe depressive states.

Scale 3: Hysteria (Hy). Elevations (scores above 60T) on this scale indicate a histrionic personality with a predisposition to the development of conversion symptomatology to deal with conflicts or avoid responsibility during periods of stress.[34,39] High scorers typically are demanding, manipulative, and naive.

Scale 4: Psychopathic Deviate (Pd). High scores (above 60T) reflect strong antisocial trends, low frustration tolerance, impulsivity, and manipulativeness in social situations.[39–40]

Scale 5: Masculinity–femininity (MF). High scores (above 60T) on this scale reflect traditionally masculine traits in women who are seen as being competitive and demanding.[36] Women with low scores (below 40T) on this scale are frequently constricted, fault-finding, and self-pitying and often are difficult and manipulative in a doctor–patient relationship.

Scale 6: Paranoia (Pa). High scores (above 60T) on this scale identify extreme interpersonal sensitivity, suspiciousness, and rigidity.[35,36] Higher scores (above 70T) present a clinical picture of delusional beliefs, ideas of reference, and feelings of persecution.[35,36]

Scale 7: Psychasthenia (Pt). This scale measures anxiety, worry, guilt, obsessions, and compulsions.[39] In a medical population, patients with high scores (above 60T) tend to overreact and exhibit extreme concern over their medical problems.

Scale 8: Schizophrenia (Sc). This scale examines unusual thought processes and perceptions. High scores (above 60T) indicate alienation, poor interpersonal relationships, and deep personal conflicts concerning self-identity, sexuality, and self-worth.[38]

Scale 9: Hypomania (Ma). This scale examines the individual's energy level. High scores (above 60T) reflect maladaptive hyperactivity and agitation, poor impulse control, and low frustration tolerance. Low scores (below 40T) suggest apathy and possible depression.[35]

Scale 0: Social Introversion (Si). This scale identifies people who tend to be socially insecure, shy, and introverted. High scorers (above 60T) tend to be withdrawn, submissive, overcontrolled, tense, and inflexible.[33] Low scorers (below 40T) tend to be friendly and social but are shallow and insincere.

Group 1 Mean MMPI-R Profile

Mean profiles of the three groups are depicted in Figure 2. This is a valid mean profile and does not reflect individuals attempting to present themselves either in a highly favorable or in an unfavorable light. Individuals who had similar profiles tended to view themselves as virtuous, conforming, and self-controlled.

The clinical scales profile of Group 1 was clearly pathologic and demonstrates a typical psychosomatic-V pattern, with marked elevations (to 70) on scales 1 and 3, and slightly subtler elevation (to 65) on scale 2. This pattern is consistently observed in patients with psychogenic pain disorders.

Individuals with similar profiles tended to lack "psychological insight" and to deny even obvious psychological difficulties; were optimistic in a naive way; and developed somatic symptomatology or exacerba-

tions of existing or functional somatic complaints during times of stress. At times this last characteristic is seen as an overreaction to an existing medical problem. Additional common characteristics included immaturity, self-centeredness, a tendency to be demanding, suggestibility, and impulsiveness. Additionally, there typically was a history of difficulties with relationships with others as well as a history of difficulties coping with discord, expressing anger, and handling hostility. Inappropriate demands for affection and support were common, as were difficulties with practicality. Difficulty with sexuality and sexual behavior was suggested. A history of minor problems with social limits was possibly suggested. Individuals with similar profiles were also often seen by others as being aloof and uninvolved. Their speech could reveal unusual thought processes, and occasionally, subtle signs of a thought disorder.

Group 2 Mean MMPI-R Profile

This profile appears valid, and the questions answered truthfully (Figure 2). Women with this profile had a need to present an image of strong moral values and self-control. They tended to see themselves as virtuous and conforming. This self-assessment may indicate inadequate psychological insight.

This profile was basically within normal limits. Individuals with such a profile may have been experiencing psychological distress and dissatisfaction with life. They may have been experiencing chronic mild depression without having been aware of it. They tended to use suppression, repression, and denial to deal with some of their psychological problems. They may have somaticized in times of stress developing functional physical problems.

Group 3 Mean MMPI-R Profile

This mean profile also is valid, and the questions appear to have been answered honestly.

This profile was basically within normal limits. Individuals with this profile tended to appear optimistic in a naive, shallow way. They avoided thinking about some of the unpleasant things in their life. They tended to use suppression, repression, and denial to deal with some of their psychological stresses. They may have somaticized at times of stress. This profile suggests histrionic traits and the possibility of functional physical complaints.

Summary of Results

The results of psychological testing with the MMPI-R identified three different personality profiles, based on response to the intake-form question on the history of psychosexual trauma. A common feature of all the profiles was the tendency of all three groups, and of Group 1 (the trauma group) in particular, to develop somatic symptoms, or to exaggerate existing somatic symptoms in response to stress.

Women with pelvalgia who admitted to sexual abuse exhibited the highest degree of psychopathology with a MMPI-R test profile showing marked histrionic traits, somatic overconcern, impulsiveness, and unusual thought processes. The group that reported no sexual abuse had test results indicating mild depression, histrionic traits, and functional physical complaints. Finally, the group who chose not to respond to the sexual abuse question on the intake form had test results suggesting histrionic traits and the possibility of exaggerated functional physical complaints.

It is noteworthy that the group who did not respond to the abuse question was also the largest. It is likely that of those who had actually experienced trauma, many were not emotionally ready or able to cope with their sexual abuse and feared being questioned about it. Their MMPI-R profile is similar in pattern (although suppressed) to that of Group 1 and dissimilar from Group 2. We subsequently found that about half of the women from the Group 3 had in fact

A. The person has experienced an event that is outside the range of usual human experience and that would be markedly distressing to almost anyone, e.g., serious threat to one's life of physical integrity; serious threat or harm to one's children, spouse, or other close relatives and friends; sudden destruction of one's home or community; or sight of another person who has recently been, or is being, seriously injured or killed as the result of an accident or physical violence.

B. The traumatic event is reexperienced persistently in at least one of the following ways:

1. recurrent and intrusive distressing recollections of the event (in young children, repetitive play in which themes or aspects of the trauma are expressed)
2. recurrent distressing dreams of the event
3. sudden acting or feeling as if the traumatic event were recurring (includes a sense of reliving the experience, illusions, hallucinations, and dissociative [flashback] episodes, even those that occur upon awakening or when intoxicated)
4. intense psychological distress at exposure to events that symbolize or resemble an aspect of the traumatic event, including anniversaries of the trauma

C. Persistent avoidance of stimuli associated with the trauma or numbing of general responsiveness (not present before the trauma), as indicated by at least three of the following:

1. efforts to avoid thoughts or feelings associated with the trauma
2. efforts to avoid activities or situations that arouse recollections of the trauma
3. inability to recall an important aspect of the trauma (psychogenic amnesia)
4. markedly diminished interest in significant activities (in young children, loss of recently acquired developmental skills, such as toilet training or language skills)
5. feeling of detachment or estrangement from others
6. restricted range of effect, e.g., unable to have loving feelings
7. sense of a foreshortened future, e.g., does not expect to have a career, marriage, or children, or a long life

D. Persistent symptoms of increased arousal (not present before the trauma), as indicated by at least two of the following:

1. difficulty falling or staying asleep
2. irritability of outbursts of anger
3. difficulty concentrating
4. hypervigilance
5. exaggerated startle response
6. physiologic reactivity upon exposure to events that symbolize or resemble an aspect of the traumatic event (e.g., a woman who was raped in an elevator breaks out in a sweat when entering any elevator)

E. Duration of the disturbance (symptoms in B, C, and D,) of at least 1 month

Specify delayed onset if the onset of symptoms was at least 6 months after the trauma.

FIG. 3. *Diagnostic Criteria for Posttraumatic Stress Disorder.*

experienced significant previous psychosexual trauma.

Diagnoses

Based upon the MMPI-R results, formal interviews, and our clinical impression, DSM III-R diagnoses were established based on the specific criteria outlined in Figures 3–6. Women in Group 1 were generally diagnosed with PTSD (see Fig. 3) with a secondary diagnosis of either Somatization Disorder (Fig. 4) or Somatoform Pain Disorder (Fig. 5). By contrast, women in Group 2 were more typically diagnosed with Dysthymia (Fig. 6) with a secondary diagnosis of either Somatization Disorder (Fig. 4) or Somatoform Pain Disorder (Fig. 5). Most of the women in Group 3 were diagnosed ultimately either as having PTSD with a secondary diagnosis of Somatization Disorder (Fig. 4), or as having Somataform Pain Disorder (Fig. 5). The diagnostic profile of women in the latter group was similar to that of Group 1.

A. A history of many physical complaints, or a belief that one is sickly, beginning before the age of 30 and persisting for several years

B. At least 13 symptoms from the list below. To count a symptom as significant, the following criteria must be met:

1. No organic pathology or pathophysiologic mechanism (e.g., a physical disorder or the effects of injury, medication, drugs, or alcohol) is found to account for the symptom; or, when there is related organic pathology, the complaint or resulting social or occupational impairment is grossly in excess of what would be expected from the physical findings.
2. has not occurred only during a panic attack
3. has caused the person to take medicine (other than over-the-counter pain medication), see a doctor, or alter lifestyle

Symptom list:

Gastrointestinal symptoms:

1. vomiting (other than during pregnancy)*
2. abdominal pain (other than when menstruating)
3. nausea (other than motion sickness)
4. bloating (gassy)
5. diarrhea
6. intolerance of (gets sick from) several different foods

Pain symptoms:

7. pain in extremities*
8. back pain
9. joint pain
10. pain during urination
11. other pain (excluding headaches)

Cardiopulmonary symptoms:

12. shortness of breath when not exerting oneself*
13. palpitations
14. chest pain
15. dizziness

Conversion or pseudoneurologic symptoms:

16. amnesia*
17. difficulty swallowing*
18. loss of voice
19. deafness
20. double vision
21. blurred vision
22. blindness
23. fainting or loss of consciousness
24. seizure or convulsion
25. trouble walking
26. paralysis or muscle weakness
27. urinary retention or difficulty urinating

Sexual symptoms for the major part of the person's life after opportunities for sexual activity:

28. burning sensation in sexual organs or rectum (other than during intercourse)*
29. sexual indifference
30. pain during intercourse
31. impotence

Female reproductive symptoms, judged by the person to occur more frequently or severely than in most women:

32. painful menstruation*
33. irregular menstrual periods
34. excessive menstrual bleeding
35. vomiting throughout pregnancy

* Note: May be used to screen for the disorder. The presence of two or more of these items suggests a high likelihood of the disorder.

FIG. 4. *Diagnostic criteria for Somatization Disorder.*

A. Preoccupation with pain for at least six months.

B. Either (1) or (2):
   1. Appropriate evaluation uncovers no organic pathology or pathophysiologic mechanism (e.g., a physical disorder or the effects of injury) to account for the pain.
   2. When there is related organic pathology, the complaint of pain or resulting social or occupational impairment is grossly in excess of what would be expected from the physical findings.

FIG. 5. *Diagnostic criteria for Somatoform Pain Disorder.*

PTSD and CPP

In a recent article on PTSD, Pitman states that "time does not heal all wounds. We don't expect time to heal defects, but we do expect it to heal wounds. Hence when a psychological wound does not heal, we are inclined to believe that it actually represents some kind of defect."[41] This belief may have contributed to the resistance of practitioners to diagnose PTSD since its incorporation into the official American Psychiatric Association nomenclature in 1980.

It is important to emphasize that substantial clinical and research evidence indicates that previously mentally healthy individuals may develop PTSD in response to unusual and significant stressful life events. Traditionally, such events have been represented by military combat or natural or technological disaster. However, current evidence suggests that highly stressful events such as motor vehicle accidents, assault, rape, exposure to trauma or violence, and child abuse can constitute the highly stressful or unusual event precipitating PTSD.[24,41–47] The physiologic response to stressful situations varies with the type and duration of the stressor, with the individual's coping ability, and with the availability of an emotional or psychological support system. When an individual subsequently and repeatedly interprets current-life situations as threatening and thereby continually triggers the chronic autonomic and stress responses, the development of progressive somatic symptoms is likely. Diseases with which stress has been clearly associated include hypertension, headache, backache, peptic ulcers, and respiratory disease. To this list, we believe, CPP may be added.

Accumulating clinical experience with women with pelvalgia therefore supports an association between CPP and PTSD. However, the diagnosis of PTSD is based upon appropriate testing and interview that investigates all aspects of psychodevelopmental history. The PTSD model of psychogenic CPP is not comprehensive, nor is it applicable in all clinical settings. To facilitate understanding of the relationship between CPP and PTSD, it is imperative that the evaluating clinician recognize the symptoms which may be sequelae of sexual abuse, and understand these symptoms as "developmentally mediated manifestations of post-traumatic disorders".[24] These symptoms include fear and anxiety, reenactment of the abuse, compulsive repetitions, sleep disturbances, guilt, depression, ego constriction, sexual difficulties, and disturbed expressions of anger.

Treatment

As discussed earlier, the importance of a psychologist as part of the CPP treatment team has been well documented in the literature,[1–9] and was an integral part of the treatment of the patients in this study. An outline of the general psychotherapeutic approach used at our institution is presented here.

Immediately after repeat gynecological examination the patient is introduced to the staff psychologist by the examining physician. This is a critical point in the patient's management. Having experienced pain for years, many patients have developed pain-related behaviors that are integral to their

A. Depressed mood (may be irritable mood in children and adolescents) for most of the day, more days than not, as indicated either by subjective account or observation by others, for at least 2 years (1 year for children and adolescents)

B. Presence, while depressed, of at least two of the following:
   1. poor appetite or overeating
   2. insomnia or hypersomnia
   3. low energy or fatigue
   4. low self-esteem
   5. poor concentration or difficulty making decisions
   6. feelings of hopelessness

C. During a 2-year period (1-year for children and adolescents) of the disturbance, never without the symptoms in (A) for more than 2 months at a time

D. No evidence of an unequivocal major depressive episode during the first 2 years (1 year for children and adolescents) of the disturbance

   Note: There may have been a previous major depressive episode, provided there was a full remission (no significant signs or symptoms for 6 months) before development of the dysthymia. In addition, after these 2 years (1 year in children or adolescents) of dysthymia, there may be superimposed episodes of major depression, in which case both diagnoses are given.

E. Has never had a manic episode or an unequivocal hypomanic episode.

F. Not superimposed on a chronic psychotic disorder, such as schizophrenia or delusional disorder

G. It cannot be established that an organic factor, e.g., prolonged administration of an antihypertensive medication, initiated and maintained the disturbance.

Specify primary or secondary type:
Primary type: The mood disturbance is not related to a preexisting, chronic, nonmood, axis I or axis III disorder e.g., anorexia nervosa, somatization disorder, a psychoactive substance dependence disorder, an anxiety disorder, or rheumatoid arthritis.

Secondary type: The mood disturbance is apparently related to a preexisting, chronic, nonmood axis I or axis III disorder.

Specify early onset or late onset:
Early onset: onset of the disturbance before age 21
Late onset: onset of the disturbance of age 21 or later

FIG. 6. *Diagnostic criteria for Dysthymia.*

personalities, their coping mechanisms, and their control over their environment. Patients typically are reluctant to accept a psychological explanation for what they are certain is a physical problem. Additionally, consideration must be given to the perception current in our society that psychological problems are not legitimate illnesses.[6] The physician and psychologist together explain to the patient the psychologist's role as part of the treatment team.

It is essential that the patient does not feel that she is being "abandoned", or have the sense that the physician believes that there is nothing wrong with her and that "it's all in her head".

As the physician introduces the patient to the psychologist, he or she might make the introduction as if referring a patient for hypertension or migraine headache. An introduction to the psychologist might be: "Mrs. Smith, this is Dr. Wiesner, our staff psychologist. He has special training in helping people deal with chronic pain through techniques you may have heard of, such as biofeedback and hypnosis. Sometimes pain can be made worse by stress or depression, which he also can help to find and treat. We

are also interested in determining the effect your chronic pain may have on your emotional and psychological well-being, since chronic pain can cause difficulties with work, family, or the way you feel about yourself. Dr. Wiesner will help you deal with those issues while I attend to the medical aspects of your pain. We will be exchanging information so we will be aware of each other's treatments. Our goal is to get you in control of your pain, rather than let your pain control you."

The importance of the introduction cannot be overstated. If a psychologist is not available for a personal introduction, the examining physician should make a telephone introduction and let the patient talk to the psychologist and make an appointment before she leaves the office.

Generally, even patients who exhibit severe psychopathology can be taught basic pain-management skills in 6–10 therapy sessions by a psychologist who specializes in treating psychosomatic problems using cognitive behavioral techniques.

Session 1

This session begins immediately after the introduction by the physician, and as soon as he or she leaves the room. The psychologist must be sensitive to the patient's concerns and possible anger about the shift in treatment focus and address these concerns specifically. This may be the first time the patient has spoken with a psychologist, and she may feel anxious and guarded. Once the patient is comfortable, a comprehensive psycho–social–sexual history is taken, with an emphasis on the impact of the pain. The session ends with an explanation of what can be expected in subsequent visits and with answers to any questions.

Sessions 2 and 3

These sessions include a continuation of history-taking and a thorough explanation to the patient of how situational stressors can contribute to pain perception by lowering the pain threshold. The patient is taught one of several stress reduction techniques; the choice depends on her past experiences with therapy, meditation, or Lamaze. If she has found a particular technique useful, the psychologist starts with that one. If she has had no prior experience with relaxation, progressive muscle relaxation generally is taught first, in the form, developed by Jacobson.[39] This technique is also the easiest to teach and to practice at home. While in a relaxed position the patient alternatively contracts and relaxes each major muscle group in her body. Special emphasis is placed on relaxing the pelvic and lower abdominal muscles. The patient is asked to maintain a pain diary, which details characteristics of pain and notes possible associated environmental stressors. The learning and application of the first relaxation technique not only helps to neutralize the harmful effects of stress but also may foster a sense of mastery[37] and give the patient her first adaptive control mechanism.

Sessions 4 and 5

The emphasis of these sessions is to reinforce the patient's progress in controlling her stress through the relaxation techniques, and to assess the effect of relaxation on her pain. The association between environmental stressors and exacerbation of pain as documented in the pain diary may help to provide some initial insight into the psychogenic modulation of the pain. Therapeutic issues revolve around how the patient might be using her pain as an indirect way of dealing with and controlling her environment, as in avoidance of unpleasant situations; in control of her husband, children, or supervisor; or in an effort to gain attention, receive sympathy, or maintain existing relationships. She is taught techniques to increase her level of relaxation, and if willing, she is taught self-hypnosis.

Self-hypnosis can be taught in a variety of ways; the methods employed the practition-

er's choice of method is limited only by imagination and expertise and by the nature of the transference relationship between the practitioner and patient. One method used at our institution is expertly described in recently published texts,[11,48] which discuss a number of suggestions found useful with our patients.

We describe self-hypnosis to our patients as a natural phenomenon, as a part of our everyday lives. Daydreaming is described as a form of self-hypnosis, as is absorption in reading a book, talking to a friend, or completing a pressing task. However, unlike daydreaming, self-hypnosis in a clinical setting is practiced systematically and with the expectation of achieving specific goals, including a state of reduced pain, increased confidence, and increased relaxation, increased assertiveness; and increased awareness of and ability to discuss traumatic events. Patients learn how to use self-hypnosis—how to enter a state of appropriately deep relaxation and to give themselves constructive and positive suggestions, and how to be open and receptive to the constructive and positive suggestions from the practitioner. They learn also how to initiate self-hypnosis on their own.

It is important to understand that all hypnosis may be considered to be self-hypnosis, even if the state of hypnosis is facilitated by a practitioner expert in hypnosis. This concept has found increased support in recently published reports.[11,48]

Typically two to four sessions of self-hypnosis training are all that are needed to train a motivated patient in this skill. During each of the training sessions, an audio tape of the hypnotic suggestions is made for the patient. The patient is encouraged to listen to the tapes between sessions to help improve her responsiveness to the therapy.

Sessions 6 and 7

Again, progress controlling pain through relaxation and self-hypnosis is reinforced. Generally by this time, a patient with prior sexual trauma begins to address her feelings concerning the abuse, and many of the women who did not admit to abuse during the initial evaluation do so now. Instances of strongly repressed trauma in patients with no conscious memory of abuse may be uncovered in therapy. Accompanying these memories are complex emotional reactions, which must be addressed. The psychologist must be extremely supportive and allow as much time as needed to resolve these very uncomfortable feelings. It may be necessary to elicit the support of significant others to help her through this stressful time.

During these sessions the patient is taught assertiveness skills to help her express her emerging feelings and to help her deal more directly with people or situations which she may have been controlling indirectly with the pain. This is especially important for patients who were victims of molestation or sexual abuse, who, fearing severe retribution from the abuser, learned very early not to express their feelings. The suppression of feelings and the suppression of the appropriate behavioral responses leads to "continuing inner turmoil, which may produce psychosomatic symptoms and even pathological change in predisposed organs".[49] Many psychosomatic patients exhibit an inability to recognize and express uncomfortable feelings. Assertiveness training teaches them to identify feelings and express them with an appropriate effect.[50]

Sessions 8 and 9

These sessions deal with the fine-tuning of relaxation and assertiveness skills and with the reinforcement of progress. Generally by this time, the patient reports a diminution of her pelvic pain and has begun to accept a psychological explanation for at least a significant part of it. Current sexual issues frequently arise during these sessions, with a majority of the women reporting a sexual dissatisfaction or dysfunction. Frequently these women have sexual aversion and dyspareunia as a result of their pain. The pa-

tient is taught to use relaxation and positive imagery to help change her negative cognitions about sex. She is encouraged to communicate her sexual concerns and desires in an assertive manner. Suggestions are made to experiment with coital positions such as the female-astride position, which may give her a greater sense of control and may be less likely to initiate or exacerbate her pelvic pain.

Session 10

This session is used to summarize the patient's progress and to help her plan a long-term strategy to manage her stress and pelvic pain as well as identified situational stressors. Although most of the patients have learned the skills necessary to significantly reduce their pain, some have significant psychopathology which will require additional formal psychotherapy.

Some married women report that their spouses have difficulty adjusting to their change. In such cases, we recommend that the patient bring her husband in for a few conjoint therapy sessions.

Finally, we have shown previously that group therapy sessions may be appropriate for selected patients. They may be particularly useful for serving as more didactic sessions, for assertiveness training, and for facilitating development of insight into psychodynamic aspects of pain.

Summary

By the time that the pelvalgia patient seeks treatment, her chronic tension, anxiety, stress, and related somatic symptoms, which usually have moderated her fear of repeat assault or punishment by the aggressor-parent, has begun to disintegrate. The patient usually has little or no insight into the fact that her feelings of being trapped, helpless, and victimized in her marriage, job, or other interpersonal relationships can be symbols of the original sexual trauma. The depressed patient may be unaware that suicidal thoughts and actions, if present, are a reflection of her sense of helplessness, hopelessness, and victimization.

Hence, CPP may be a symptom of a wide spectrum of disorders, both organic and psychological. While the patient is undergoing evaluation of pelvic pain, it is essential that clinicians remain aware that the patient's psychogenic symptoms are an attempt to reinforce a faltering ego. Additionally, it is important that they recognize that previous attempts at diagnosis and therapy of CPP and other somatic complaints usually have reinforced the belief that the symptoms are physically based and unrelated to any psychological factors.

A number of prospective studies currently are underway to characterize further the relationships between complaints of chronic pelvic pain, personality functioning, and history of sexual trauma. Without data on very long-term follow-up, our understanding of the precise psychodevelopmental pathophysiology and long-term prognosis for CPP currently remains incomplete.

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