

# Social Influences on the Concept of Fibromyalgia

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## ABSTRACT

Despite relevant evidence of physical illness promoting fibromyalgia syndrome (FMS), some authors claim that it is a psychological illness, or due to “psychological amplification.” Good evidence for such views is lacking. Selection processes lead to increased rates of psychological illness in general practice and in specialist practice. The physical distress of FMS can increase both anxiety and depression. Questionable research supported by the insurance industry has tended to provide negative and disparaging views of pain. Current imaging studies support the view that central effects connected with FMS relate to the processing of noxious stimulation more than affective disorder.

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## INTRODUCTION

Russell<sup>1</sup> provides evidence on the organic causation of fibromyalgia syndrome (FMS) elsewhere in this supplement. However, there is an opposite extreme view rejecting the diagnosis in rhetorical terms.<sup>2</sup> Patients with FMS more often have a history of connective tissue disorders, autoimmune disorders, hypothyroidism, or physical trauma. FMS is not a common finding among patients presenting primarily with anxiety or depression. Winfield<sup>3</sup> moderately claims that “symptom amplification because of a pathologic misperception of internal stimuli” occurs in FMS and encourages patients and physicians to accept that more symptoms are psychological and less of them are biological. Others reject “posttraumatic fibromyalgia” as a diagnosable entity “in the medico-legal situation,” ie, when money is an issue.<sup>4</sup> That particular conclusion is controver-

### Needs Assessment

Practitioners in internal medicine, psychiatry, and other medical disciplines frequently express uncertainty about the relationship between psychological illness and fibromyalgia. Some experts consider fibromyalgia to be a psychological disorder while others claim that it is a physical one. This article presents established information on the diagnosis and etiology of fibromyalgia together with information on some of the sources of confusion in regard to claims for compensation.

### Learning Objectives

At the end of this activity, the participant should be able to:

- Recognize some of the sources of confusion over the nature of fibromyalgia syndrome (FMS).
- Review established information regarding the diagnosis and etiology of FMS.

**Target Audience:** Psychiatrists

### CME Accreditation Statement

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This activity has been peer-reviewed and approved by Eric Hollander, MD, chair at the Mount Sinai School of Medicine. Review date: February 15, 2008. Dr. Hollander does not have an affiliation with or financial interest in any organization that might pose a conflict of interest.

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sial.<sup>5</sup> Despite negative assertions, FMS appears in the *International Statistical Classification of Diseases and Related Health Problems*, 10th Revision (*ICD-10*) under rheumatic diseases, is treated likewise by the International Association for the Study of Pain as a specific physical condition,<sup>6</sup> is accepted by the majority of rheumatologists and family practitioners as a physical diagnosis, and has accumulated impressive positive physical evidence and negative psychological evidence. Staud and Spaeth,<sup>7</sup> in this supplement, summarize the substantial evidence indicating that

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FMS is related to peripheral and central sensitization of the nervous system with the production of numerous pain-related neurotransmitters.

### **PSYCHOLOGICAL EVIDENCE**

FMS is uncommon in most clinics for anxiety and depression. Fassbender and colleagues<sup>8</sup> examined 26 patients with major affective disorder and determined they had a mean of 1.3 tender points compared with 30 patients with FMS who had 16.5 tender points. Twenty-six percent had some somatic symptoms but, unsurprisingly, few had widespread pain. Goldenberg<sup>9</sup> observed that depressive and somatic symptoms are common in FMS but are not more prominent than in other chronic medical conditions. Thus, depression does not have a causal relationship with FMS.

Using criteria distinguishing probable psychiatric illness from other illness, between 35% and 72% of patients with FMS are found to have current or past psychiatric disturbance.<sup>10</sup> In family practice 30% of patients have current psychiatric disorders.<sup>11</sup> Thus, patients seen in primary care have more psychological illness than the general population, while the more specialized secondary and tertiary care services dealing with non-lethal physical illness tend to have still higher proportions of patients with psychological complaints.

Some claim that an association exists between pain in adult life or FMS and abuse, especially sexual abuse in childhood. The definitive review concluded as follows:

The few prospective studies... available do not support the relationship between childhood abuse and FMS. In the literature from the perspective of epidemiological standards for inferring causation... the evidence does not demonstrate a causal relationship... any overall relationship between childhood abuse and pain in adulthood probably is modest in magnitude, if it exists at all.<sup>12</sup>

In addition, women surveyed in New York City for pain and psychiatric symptoms prior to the terrorist destruction of the World Trade Center, were followed up 6 months after September 11, 2001.<sup>13</sup> There were no increases in FMS-like symptoms 5–6 months following the disaster. Depressive symptoms at baseline did not predict FMS at follow-up. Thus, depression is unlikely to be an important risk factor in the genesis of FMS.

### **SELECTION FACTORS**

Selection influences clinical psychological data. Patients consult individual clinicians for various reasons. No patient group can represent the general population unless it is a carefully chosen epi-

demiological sample. Personality, prior experience, severity, duration, and meaning of symptoms all influence when patients attend to see a physician. It seems impossible to achieve true samples of the population in hospital or practice studies.

Banks and colleagues<sup>14</sup> gave their patients symptom diaries. Under the British National Health Service patients were seen without charge by their family physicians. After 6 months the diary entries were compared with medical attendances. Only 3% of all the symptoms recorded were taken to the doctor. Sore throat with fever and pain in a child led to consultations. Most headaches or indisposition after overindulgence did not. The possibility for variation in accordance with emotional disposition, past experience, or the intensity of physical symptoms and illnesses is obvious. In another example, patients with epilepsy from 14 family practices in London, England were followed up.<sup>15</sup> Those with epilepsy and psychological problems were referred twice as often for consultation as patients without psychological problems. Curiously, they were referred back to neurologists in accordance with a common reluctance to see psychiatrists. Referral to the neurologist means the neurologist will be impressed by the psychological problems in patients with epilepsy—perhaps unaware that those he does not see so often or so readily because they are not emotionally troubled may be the majority. Selection issues also often influence pain studies, and in pain clinics the difference between those who have had an injury and those who are referred without having had injury can be very large in terms of employability.<sup>16</sup>

Prior psychiatric illness does not seem to produce FMS. Depression or anxiety may coincide with physical illness. Migraine and some headaches of other sorts are commonly worse in depressive states, but not necessarily caused by depression. Chronic pain that appears with psychological illness usually remits with such illness.<sup>17</sup> No single explanation can suffice, but most evidence favors the view that severe or moderately severe chronic pain usually leads to psychological illness.

### **BIOCHEMISTRY AND CEREBRAL PHYSIOLOGY**

There is a modest increase in substance P in the cerebrospinal fluid (CSF) with depression or severe psychological illness. In FMS, CSF substance P is increased 2–3 times.<sup>17</sup> This finding makes it understandable how pain and other symptoms like irritable bowel or migraine can accompany FMS. The increase in substance P in patients with severe

psychiatric illness is less than in patients with pain. Information from cerebral imaging studies indicates that the processing of information in the brain related to FMS is different from the processing related to depression.<sup>18,19</sup>

## **WHIPLASH, FIBROMYALGIA, AND THE INSURANCE INDUSTRY**

Considering the amount of evidence that validates the diagnosis of FMS, it is remarkable that it continues to be rejected with vigor. Ehrlich<sup>2</sup> acknowledges widespread pain as a justifiable complaint, but rejects the explanation of some of it as FMS. He claims the cause of whiplash and of FMS, which has a strong relationship with whiplash, is money for patients, their lawyers, and their experts. Therefore, it is relevant to look at articles on cervical sprain. Among such articles, two of the most influential recent studies worldwide took place in Canada and need to be better understood.

A report on whiplash by the Quebec Task Force (QTF)<sup>20</sup> minimized cervical sprain injury, reporting that only 1.9% of patients still had their symptoms after 12 months. This study was conducted for the no-fault insurance corporation appointed by the government of Quebec to run motor vehicle accident insurance in that Canadian province. When cases with both whiplash and another injury were counted the figure was 2.9%. In the book-length QTF report, two lines indicated that 204 “recurrences” were left out of the calculations on 3,014 subjects. “Recurrences” were not due to further collisions. They seemed to be relapses in individuals who had improved somewhat and reduced medications or returned to work and experienced the return of symptoms. Assuming these individuals were not recovered within 12 months, the rate of persistent pain and disability appears to be 9.5% based only on the insurance adjusters’ decisions.<sup>1</sup> Most follow-up studies of patients with whiplash find that between 10% to 45% of patients are still ill 1 year after initial attendance.

The QTF provided information indicating that the current treatment of whiplash was best managed by returning to “usual activity” and not the use of collars. Usual activity presumably means ordinary life without special exertion. Given the misleading effect of the statistics that the QTF presented, their report served to discourage compensation for patients who were significantly injured by whiplash—in Canada and apparently in other countries as well. In Canada, where both the QTF report and a critique by Teasell and Merskey<sup>21</sup> orig-

inated, the QTF is now quoted in a more circumspect fashion, which is much less damaging to the interests of victims of motor vehicle accidents, particularly rear-end collisions.

Nevertheless, taking the figures and the “best-evidence” synthesis (which was partly consensus) found in the QTF report, a foundation in Vancouver organized an educational event known as the British Columbia Whiplash Initiative (BCWI), dedicated to teaching the findings of the QTF to family practitioners and others. BCWI offered educational modules that relied heavily on data suggesting that almost all patients should be well by the end of the year—data that were used in court to deny benefits to patients.<sup>21</sup>

The BCWI was organized by a foundation funded by two insurance companies (the Insurance Corporation of British Columbia [ICBC] and State Farm) and an industrial firm (Woodbridge Industries). This foundation, the Physical Medicine Research Foundation (PMRF), now called the Canadian Institutes for Health Research, modeled its name upon national medical research funding bodies. Such a program is unfortunate as there is solid evidence from Lord and colleagues<sup>22</sup> in Australia, Radanov and colleagues<sup>23</sup> in Switzerland, and numerous follow-up studies supporting physical causes of whiplash which are simply not identified by imaging studies but that can nevertheless be recognized by appropriate clinical techniques.<sup>21</sup>

For ~12 years after its founding, when it was still known as the PMRF, the foundation had no recognized specialist in physical medicine in Canada on its board and no committee of medical advisors. Its only medical advisors were two medical practitioners, neither of whom were recognized as specialists by the College of Physicians of Canada (comparable to the United States Board). An organizing committee of five persons for the BCWI included a director of medical services for a Workers’ Compensation Board, and a manager from ICBC.

Canadian rules of industrial support for medical education require that grants from commercial funding bodies (eg, pharmaceutical companies) must be “unrestricted,” ie, managed independent of the granting source. Thus, the sponsor has no control on the content of the meeting. The misleading report of the QTF and the activities of the BCWI lacked essential independence.

Another large-scale study of whiplash compared no-fault cases and tort cases, claiming, “The elimination of compensation for pain and suffering is associated with a decreased incidence and improved prognosis of whiplash injury.”<sup>24</sup> This

study received a \$1 million grant from the provincial no-fault insurer, Saskatchewan Government Insurance (SGI). In this study, too, data were dropped with the following statement:

Unfortunately, SGI does not record information about reopened claims in its database, nor is the first closure date retained in records of reopened claims. Therefore our prognostic models are based on claims that were not reopened.

These actions are not acceptable statistical procedures. Cases dropped were 28% of the total studied. The claim that the information was not available from the insurance company implies that this government company could not state when it first paid funds to a claimant, when it closed the claim, and when it next resumed issuing payments. A retired adjuster pointed out:

SGI should be able to provide a history of every file, which would show the date and reason the file was closed, and when any reopenings occurred and the reasons for these reopenings. This information was...becoming easier to obtain because you could bring a lot of it up on your computer screen without having to physically obtain the actual file from storage.<sup>25</sup>

A much-quoted consensus statement concerning the diagnosis of FMS after physical trauma was issued by a group of physicians attending a PMRF meeting in Vancouver in 1994.<sup>4</sup> Their report<sup>4</sup> published in 1996 was rejected by others, particularly the statement that posttraumatic FMS ought not to be diagnosed in a medico-legal situation.<sup>5</sup> However, it has continued to be cited widely without reference to the considerable influence that the insurance industry appears to have exerted over the meeting.

There is a considerable social influence upon medical thinking from the relatively few physicians who provide evidence on behalf of insurance companies. Insurers are also active in creating medical opinions that minimize pain. They can be one of the most significant social influences on medical thinking, to the disadvantage of patients making financial claims.

## CONCLUSION

Evidence is lacking that psychological illness causes FMS. FMS tender points are few in patients with depression. A relationship has not been established between abuse in childhood and pain in adult life. Pain can cause depression and depression occurs with pain. In such cases, pain commencing with depression remits with the depression.

Selection factors are important in all types of primary care and medical specialties. Many patients have symptoms that they never take

to the doctor, some patients take much more to the doctor than others. In both cases these symptoms should not be assumed to be psychological without proof. Increased psychological symptoms in patients in clinics are attributed to the selection of those who are more concerned, either because the illness is more severe or prolonged, or because they worry more.

Insurance companies exercise influence upon decisions concerning pain. Decisions that deny patients' pain often are supported by insurance companies and physicians hired by them to press their point. Articles on pain supported by insurance companies or an organization created by insurance companies published in leading journals fail to meet the standards expected of articles supported by pharmaceutical companies. **CNS**

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