

The Psychological Mislabeling of Fibromyalgia (preprint)⁺

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⁺ This paper is a preprint of Pikoff HB. A study in psychological mislabelling: the rise and (protracted) fall of psychogenic fibromyalgia. *International Musculoskeletal Medicine*. 2010;32(3):129-132.
(<http://www.ingentaconnect.com/content/maney/imm/2010/00000032/00000003/art00006;jsessionid=61po46vocgs7u.alice>) <http://maney.co.uk/>
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This paper provides a brief history of the psychological model of fibromyalgia from its origins in the late 1800s to its undoing a century later. "Psychogenic" fibromyalgia reached a high watermark in the 1930s in the anecdotal reports of a psychoanalytically-oriented Scottish disability examiner. Subsequent research, however, failed to provide convincing support for the psychogenic model, with at least four research reviews concluding there was little empirical evidence for psychological causation in fibromyalgia. By the end of the last century, psychogenic fibromyalgia was in full retreat before an advancing biomedical literature and a cognitive-behavioral coping treatment that viewed psychological distress as more consequence than cause of the disorder. Today, psychogenic fibromyalgia draws only a passing historical reference in the leading textbooks of rheumatology and psychosomatic medicine.

Keywords: Fibromyalgia, History, Psychological aspects, Psychosomatic medicine

Background

The 1949 edition of *Arthritis and Allied Conditions* devoted an entire chapter to "Psychogenic factors in rheumatic disease" (including arthritis and fibrositis). Organic findings in fibrositis (an early term for fibromyalgia) were summarized in a single page. Nearly 60 years and 11 editions later, the biology of fibromyalgia claimed 10 pages of the venerable text while psychogenic rheumatism received a one line historical reference.¹ My purpose is to trace the arc of this reversal. To be sure, psychological factors can play a role in fibromyalgia as they can in every chronic medical condition. And dissenting voices decry the "medicalization" of a "non-disease."² Nonetheless, the preponderance of interest in the field has shifted toward a biological model.* This shift is reflected in theory building and research, but most consequentially, in facts on the ground, that is, in treatment. In consensus recommendations for fibromyalgia therapy, the counseling treatment of choice is cognitive-behavioral therapy, a coping-oriented treatment that

*An index of this shift is the comparative publishing output on fibromyalgia in medicine and psychology. A MEDLINE search for 2008 under the heading "fibromyalgia" yielded 332 references, more than 100 of which were empirical studies of physiology, genetics, brain and CNS function, drug therapy and the like. A similar search of PsycINFO produced 15 empirical studies (out of 92 references) on self-esteem, interpersonal relations, support groups, and similar topics, important but hardly central issues in the disorder.

views psychological distress as the consequence not cause of fibromyalgia.³ These treatment recommendations represent a convergence in medicine and psychology that began three decades ago.

From medicine, came basic and clinical research that began to map the biological underpinnings of fibromyalgia. Starting with a sleep study in 1975,⁴ research mushroomed in the 1990s following publication of diagnostic criteria for fibromyalgia by the American College of Rheumatology.⁵ This foundational research established the probable interaction of genetic, hormonal and neurological processes in fibromyalgia (for a detailed review see Bradley & Alarcon¹). On the psychological side, reviewers began to critically evaluate research on the emotional aspects of fibromyalgia. Four reviews by clinical researchers from psychology, psychiatry and rheumatology came to the same conclusion: the research literature did not support a causal connection between psychological factors and fibromyalgia.⁶⁻⁹ That this rethinking took decades should come as no surprise. The psychological enshrinement of fibromyalgia was more than 100 years in the making.

Origins of the psychogenic model

According to Inanici and Yunus's¹⁰ concise history of fibromyalgia, the post-classical chronology begins in 1592 with Guillaume de Baillon. This French physician introduced the term "rheumatism" to denote a condition of acute rheumatic fever accompanied by muscular pain. In 1806, Balfour observed fibrous thickenings in chronic muscular rheumatism. He later identified nodules in patients with muscular rheumatism, which

caused referred pain when pressed. He called these "tender points" to highlight their focal quality. Speculation on pathophysiology centered on neural and inflammatory processes. Over the centuries, the elusiveness of both a mechanism and objective findings made fibromyalgia ripe for psychological diagnosis by default. The American neurologist George Miller Beard answered the call in the late 1800s. He clustered together widespread pain, fatigue, and anxiety in a psychologically-based syndrome he labeled "neurasthenia."¹¹ This was the seed of a century of psychological mislabeling.

Symbolic symptoms

Psychogenic fibromyalgia reached its full flowering in the 1930s in the writings of James Halliday, a disability examiner for the Scottish Department of Health. Halliday argued forcefully for psychological causation based on examination of 150 workers seeking disability coverage due to severe musculoskeletal pain. He believed repressed anger, guilt, fear, and the like could initiate persistent symptoms in virtually all physiological systems. The hallmark of these psychogenic symptoms was their symbolism. Halliday describes, for example, a 40-year-old man who had bet clandestinely on a horse race 2 months prior to the onset of widespread musculoskeletal pain. To Halliday,¹² the man's inability to bend was a statement of identity: "I am an upright man and do not stoop to low pursuits such as betting; I am a proud man and cannot lower myself by telling my wife" (p. 216). In a similar vein, a house painter's low back pain clearly reflected the worldview, "Life is stiff and I am feeling sore; I am down and out; try as I will, I cannot rise" (p. 216).

Psychological determinism

The idea that symbolism, repression, secondary gain and emotional distress can play a role in disease is, of course, not unique to Halliday. What is significant in Halliday's writing is his insistence on the primacy of psychological factors. His advocacy of the psychogenic position is uncompromising. The sobs and choking sensations associated with acute grief, for example, do not merely exacerbate existing respiratory difficulties.¹² They are transformed by the psyche into asthma, just as "the pain of the broken heart" can morph into angina (p. 213). It is important to emphasize that Halliday is not making the case for psychological amplification or overlay. He is promoting a unidimensional psychological determinism. Citing "pure neurotic rheumatism" as an example,¹³ he can find "no basis for the opinion sometimes expressed that psychoneurosis is nearly always a superstructure on a real organic illness" (p. 265). Unsurprisingly, Halliday is unyielding in his dismissal of fibrositis as an organic entity. From his perspective, "fibrositis" (usually placed in quotes by Halliday) is a psychological disorder at best, a form of malingering at worst.

Lack of evidence

Halliday's certainty borders on dogmatism. In none of his papers does he offer empirically derived data to support his notions about repression, the symbolic meaning of symptoms, or any other psychological construct in fibromyalgia. Instead, he builds a psychogenic model on a foundation of unsubstantiated assertions.¹² "Nocturnal onset is a characteristic of symptoms of emotional reaction, not only of pain, but of other bodily disturbances.... A complaint of pain and inability to bend is, in the absence of structural

change or inferiority not infrequently a symbol" (p. 215). Interestingly, Halliday was operating within a psychoanalytic mindset, yet nowhere in his 1937 papers does he refer to either psychoanalysis or Freud. The explanation may be that such a reference was unnecessary because virtually all psychiatry of the day was psychodynamic. Indeed, beginning with Freud's seminal writings of the late 1800s, the concept of psychogenesis gained a foothold in medicine it was to maintain through at least the first half of the 20th century.

Psychoanalysis in medicine

Because it was rooted in the observation of patients with physical symptoms, psychoanalysis held particular resonance for physicians from the start. Freud's first major publication, *Studies on Hysteria*, became **the** textbook for psychosomatic medicine.¹⁴ Halliday and other disciples of Freud seized upon these psychosomatic formulations with a zeal that exceeded that of the master. Freud, by contrast, remained open-minded and temperate regarding the interplay of mind and body. Addressing the issue of psychogenesis in a possible instance of fibromyalgia (Elisabeth von R., study #5), Freud was circumspect.¹⁴

The fact that the hyperalgesia mainly affected the muscles also gave food for thought. The disorder which is most usually responsible for diffuse and local sensitivity to pressure in the muscles is a rheumatic infiltration of those muscles -- common chronic muscular rheumatism... There were numerous hard fibres in the muscular substance, and these seemed to be especially sensitive. Thus it was probable that an organic change in the muscles of the kind indicated was present and that the neurosis attached itself to this and made it seem of exaggerated importance (p. 137-138).

The circumstances [of Elisabeth's complaint] indicate that this somatic pain was not *created* (Freud's italics) by the neurosis but merely used, increased and maintained by it. I may add at once that I have found a similar state of things in almost all the instances of hysterical pains into which I have been able to obtain an insight. There had always been a genuine, organically-founded pain present at the start (p. 174).

The medical influence of psychoanalysis peaked in the 1950s with the publication of Franz Alexander's *Psychosomatic Medicine*.¹⁵ Here, Alexander extended the reach of psychoanalytic interpretation to the full spectrum of medical conditions, including sections on asthma, hay fever, hypertension, diabetes, and eye disorders. At its zenith, however, in the work of Alexander (as well as in those who came before and since), the psychodynamic model of fibromyalgia contains a serious weakness. It is based on anecdotal evidence. I could not find a controlled trial of either psychoanalysis proper or of a psychodynamically-based therapy for fibromyalgia among the hundreds of studies cited by Alexander in *Studies in Psychosomatic Medicine*,¹⁶ in Halliday's writings,¹²⁻¹³ in a voluminous bibliography of the early psychosomatic literature,¹⁷ or in any of five "classic" textbooks¹⁸ (p. xx) on psychosomatic medicine.

An alternative perspective

Behavior therapy

A challenge to the psychoanalytic model began to emerge in psychology in the 1960s -- behavior therapy. This therapy grew out of behaviorism, the dominant school of American psychology for the first half of the 20th century. In place of Freud's innate drives and unconscious motivations, Watson, Pavlov, and Skinner installed conditioning as the prime mover of psychological development. The clinical extensions of behaviorism

were behavior modification, behavior therapy, and cognitive-behavioral therapy. In contrast to the emotional focus of psychoanalysis, these treatments promoted direct behavioral change. Relaxation training and biofeedback were the early mainstays in medical applications of the behavioral therapies. These procedures proved moderately effective with fibromyalgia and other physical disorders in which muscle tension played a role. Their real significance, however, was that they laid the foundation for a psychobehavioral approach to fibromyalgia that was not predicated on a psychological etiology. Instead, fibromyalgia was treated as an organic disorder in which systematic behavioral change could lead to symptomatic improvement. As diabetes could be managed by learning new eating habits, fibromyalgia could be managed by learning to relax the muscles.

Cognitive-behavioral therapy

The advancement of cognitive-behavioral therapy in the 1970s introduced a more expansive platform for treating fibromyalgia. The goal of treatment would now shift from simple muscle relaxation to nothing less than a comprehensive change in lifestyle. Dysfunctional thoughts are the currency of cognitive-behavioral therapy, therapist-guided self-questioning and behavioral experimentation its levers of change. Over the course of therapy, patients learn to identify, challenge, and eventually alter inaccurate beliefs and pain-exacerbating behaviors. A patient no longer able to work might be helped to pinpoint self-critical thoughts (e.g., "I'm useless"); identify the beliefs that underlie the thoughts (e.g., a career is a prerequisite for happiness); and test the validity of the beliefs (e.g., by cultivating personal strengths not related to work). It should be emphasized that

this form of therapy may address patient fear, guilt, anger and other emotional issues. Unlike psychoanalysis, however, the cognitive-behavioral model makes no etiological claims for psychological factors. And there is no expectation that even a complete amelioration of anxiety, depression, or other emotional distress will eliminate physical symptoms. While symptomatic relief is certainly welcomed, improved function is the primary goal of treatment. A small literature of controlled trials documents the modest effectiveness of cognitive-behavioral therapy with fibromyalgia (e.g. Thieme, Flor, & Turk ¹⁹).

Conclusion

Four reviews have concluded that the psychological research literature does not support the concept of psychogenic fibromyalgia. ⁶⁻⁹ Reviewers from psychology, psychiatry and rheumatology found little evidence that fibromyalgia is caused by depression, anxiety, stress, sexual abuse or the like; or that fibromyalgia can result from the repression or conversion of deep-seated conflict or any other emotion. Nor is there empirically-based evidence for a "fibromyalgia personality." In addition, while counseling and cognitive-behavioral therapy may help reduce pain and improve function, clinical research does not indicate that psychological treatment can cure fibromyalgia.

Taken together, the absence of support from psychological research, the expanding biomedical literature, and the ascent of cognitive-behavioral therapy have seriously, if not fatally, undermined psychological explanations of fibromyalgia. With the psychogenic model in retreat, fibromyalgia can now be added to the list of medical disorders --

asthma, migraine, peptic ulcer, epilepsy, etc.-- formerly thought to be all or largely psychological in origin. (The Academy of Psychosomatic Medicine's *Textbook of Psychosomatic Medicine* rejects psychological causation in each of these disorders.¹⁸) The history of peptic ulcer is especially illuminating. For many years, peptic ulcer was considered the paradigm of a psychologically-based physical disorder. Weiss and English laid out the case for psychogenesis in the standard psychosomatic handbook of the 1940s.²⁰ There was a mechanism -- an unconscious dependency conflict leading to autonomically-induced changes in the stomach. There were experimental studies -- intraventricular injections of parasympathetic agonists produced hypersecretion, hypermotility, and hypertonicity in animals. There was a treatment -- Alexander's psychoanalytic approach with ulcer patients. And then in the 1980s *H. pylori* was discovered and the paradigm collapsed.²¹ The official death announcement for psychogenic ulcer came from the U. S. Centers for Disease Control and Prevention in the form of educational kits sent to physicians throughout the country.²² These kits were to be used to help educate patients about the newly confirmed biological etiology of peptic ulcer.

Whether the demise of psychogenic fibromyalgia will also be accompanied by the discovery of a biological smoking gun and an official announcement remains to be seen. What is clear is that the final undoing has begun.

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