The role of chronic pain and suffering in contemporary society

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Aims and scopes

The Journal for Research in Sickness and Society is an interdisciplinary journal which has a theoretical background in medical anthropology. The aim and purpose of the journal is to promote and develop research in the borderland between the health sciences and the humanities/the social sciences. The goal of the journal is to function as a forum in which these disciplines may meet and inspire each other – epistemologically, methodologically and theoretically. The journal conveys the debate and theoretical development which takes place in the growing collaboration and research initiatives emerging from this borderland. The journal addresses all with an interest in research in sickness and society and especially health professionals working with education and/or research in interdisciplinary institutions.

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Review article

The medicalization of chronic pain

Peter Conrad and Vanessa Lopes Muñoz

Department of Sociology, Brandeis University, USA
conrad@brandeis.edu & vmunoz@brandeis.edu

Conrad, P., Muñoz, V.L. (2010). The medicalization of chronic pain. *Tidsskrift for Forskning i Sygdom og Samfund, nr. 13, 13-24*

This paper presents an initial analysis of the medicalization of chronic pain, focusing on the definitions and treatment of chronic pain in recent decades. We identify several factors that contributed to this medicalization including the emergence of the gate control theory of pain, medical advocates for pain treatment and speciality training, the development of multidisciplinary pain clinics, the emergence of professional pain associations, extended medical treatments, and governmental decisions and support. The increased attention to chronic pain as a discrete medical category and innovations in chronic pain treatment have contributed to the medicalization of chronic pain in ways that suggest there may be benefits to society and pain sufferers, in contrast to many other cases of medicalization.

Introduction

Numerous scholars and analysts have examined the medicalization of various kinds of problems in society (Conrad, 2007; Conrad & Schneider, 1980/1992; Zola, 1972). These studies, including some conducted by the first author of this article, take a skeptical view of medicalization and typically point to ways in which medicalization can be detrimental to society and not necessarily beneficial to individuals. In this paper, we suggest that chronic pain is a case where medicalization may accrue significant benefits for society as well as individuals.

Medicalization is the process by which human problems become defined and treated as medical problems. There is evidence that medicalization has increased or changed form over the past four decades (Clarke et al., 2003; Conrad, 2007; Conrad & Schneider, 1980/1992) with the emergence of new diagnoses (e.g., attention deficit hyperactivity disorder, post-traumatic stress disorder, anorexia, Alzheimer's disease, erectile dysfunction) and the expansion of thresholds for existing categories (e.g., obesity, hypertension). As Lock (2004: 123) points out, medicalization has occurred mostly in developed countries, as a "huge portion of the world's population effectively remains out of the reach of biomedicine." Since the earliest writing of critics like Ivan Illich (1975), a major concern has been with 'overmedicalization', the notion that we are medicalizing too many life problems and treating too many individuals with medical interventions. While the overmedicalization critique is not inherent in research on medicalization, it is often an underlying theme in medicalization studies.

Evidence of the continuing debate, a recent paper asks, "Can medicalization be good?" (Sadler et al., 2009). While we cannot directly examine potential benefits here, we do present an initial analysis of some of the factors leading to the establishment of chronic pain as a condition rather than just a symptom. We focus on the development of medical definitions of and treatments for pain, such as 'gate control theory' and pain clinics, which have paved the way for the medicalization of chronic pain.

Given the limits of this chapter, we bracket cancer pain, surgical approaches to treating chronic pain, and the work of other practitioners whose work has long included the treatment of pain, such as chiropractors and acupuncturists. Surely for a more complete rendition of the medicalization of chronic pain, the contributions and limitations of these established practitioners would need to be examined. Here we focus on the development of medical definitions and treatment of chronic pain qua chronic pain.

When we refer to the medicalization of chronic pain, we mean that pain itself is deemed a medical problem, not just a symptom, sign, or byproduct of another diagnosis. As Baszanger states, pain becomes "a separate object and not just a symptom of medicine" (1998; 102). The recognition of pain as a discrete medical condition has shifted the focus from eliminating pain to managing pain with various treatments, including medications. Our focus here is with the emergence of chronic pain as a distinct medical category, an overarching 'diagnosis' that includes pain from disease, injury, and unknown causes. Chronic pain is an object of what Ian Hacking calls kind-making, creating a new category that constitutes a new social reality (Hacking, 1999). Even within these limits, due to space constraints, we can only point to some of the most influential factors, rather than plumb the depths of their contributions.

What do we mean by chronic pain? Chronic pain is pain that persists beyond a normal healing process, technically one month after the expected healing period. It can be pain that "occurs at intervals for months or years" (Baszanger, 1998: 92), often defined as intractable or persistent pain. Acute pain is usually depicted as a discrete symptom of an injury or disease, while chronic pain is ongoing, oftentimes does not accompany a distinct physiological condition, and must be managed. Chronic pain may include neuropathic pain, back and neck pain, musculoskeletal pain, pain accompanying chronic illness, specific diagnoses such as complex regional pain syndrome (CRPS), and idiopathic pain where "there is no sign of tissue damage and no agreed cause" (Bendelow, 2006). It may also include specific disorders like arthritis.

The estimates of the prevalence of chronic pain are eye-popping. A 2005 estimate suggests that 120 million people, more than a third of Americans, experience some form of chronic pain in their lifetimes (Lawrence et al., 2008). More conservative estimates suggest that between 2 and 10% of adults suffer from chronic pain at any given time (Verhaak et al., 1998). According to one influential study, about 13% of Americans have experienced a decrease in productivity at work due to pain, totaling $61 billion a year in losses for businesses (Stewart et al., 2003). Although only a small fraction of people receive medical treatment for their pain problems, it is clear is that chronic pain is a widespread problem.

Medicalizing chronic pain

Treating pain from an injury, disease, or unknown cause has long been part of medicine. But chronic pain in itself has not always been conceptualized as a separate medical problem; it was usually seen as a symptom or consequence of some other condition. Many people suffering from pain either learned to live with it or self-treated with various available nostrums. There have not always been medical specialities with a mission of managing pain or an organized medical response to chronic pain. Since the 1960s, new medical specialists would now diagnose and treat various pain 'syndromes'. We identify here several factors that were significant in re-conceptualizing these entities as chronic pain.

Beginning in the mid-1960s, changes in understandings of pain and its treatment expanded possibilities for the establishment of persistent and intractable pain as its own medical condition. First, changes in medical explanations of pain and pain mechanisms allowed for the treatment of pain as a condition that was to be managed rather than eliminated. Ronald Melzack, a psychologist, and Patrick David Wall, a physician, developed the gate control theory of pain, which played a key role in explaining pain experiences that previously were seen to lack a physiological cause. Second, the medical treatment of chronic pain conditions oftentimes involves integration of complementary and alternative medicine (CAM) with traditional and new interventive medicine. John Bonica, an anesthesiologist, played a key role in this process by establishing new models of pain treatment in the multidisciplinary pain clinic and becoming a medical advocate and champion for pain medicine. Pain clinics, medical centers specializing in the treatment of pain, provided a site for treatment and legitimatization of chronic pain by tailoring treatments from biomedicine and CAM. Third, the development of professional pain associations amplified the visibility of chronic pain and provided a vehicle for advocating for increased specialization and research in this area. The enlarged resources and support for chronic pain treatment have aided in the medicalization of chronic pain in ways that suggest there are benefits to society and pain sufferers, particularly those with conditions of unknown origin.

Conceptualizing chronic pain as a discrete medical condition

Important to the emergence of chronic pain as a discrete condition are changes in medical understandings of pain and pain mechanisms. Using one of the most influential theories about pain mechanisms as an example, we suggest that the shift in medical attention from eliminating pain to managing pain was critical to the recognition of chronic pain as a condition. This is particularly the case with conditions that cannot be cured, eliminated, or prevented. Melzack and Wall's gate control theory of pain marks a shift in existing perspectives about pain mechanisms.

In their groundbreaking Science article (1965), Melzack and Wall critiqued previous theories of pain for not accounting for certain types of pain, many of which are today recognized as chronic pain syndromes, including phantom limb pain and causalgia (now chronic regional pain syndrome or CRPS). The significance of this new theory of pain was that it included persistent pain conditions that could not be attributed to any physiological cause. The major contribution of the gate control theory was to replace the conceptualization of pain as a direct response to "intense, noxious stimulation of the skin" with pain as having an indirect and "variable" relationship to the stimuli or initial "cause" of the pain sensation (Melzack and Wall, 1965: 971). This turned out to be an expansionist theory for the emerging area of medicine focusing on chronic pain.

The gate control theory proposed that stimuli activate three different spinal cord systems. One of these systems, called the substantia gelatinosa, "functions as a gate control system that modulates" pain signals before they reach other systems that activate the parts of the brain that perceive pain (Melzack and Wall, 1965: 974). By focusing on the 'gates' that activate the pain response in the brain, Melzack and Wall shifted the focus from treating pain itself to treating the perception of pain. Perceptions of pain can be directly linked to (or are dependent upon) patient reports of pain. Later models of pain treatment and assessment, such as Bonica's pain clinic model and pain scales, focused on treating patients' perceptions of pain rather than just pain itself or pain as it is visible through standard available medical technologies (e.g., X-rays).

Changing treatments for chronic pain

The development of interdisciplinary treatments that included CAM, traditional medicines, and new pain drugs and interventions is another salient feature of the medicalization of pain. While many chronic pain conditions are not well understood, treatments involving both traditional medicine and CAM have provided some relief for chronic pain sufferers. Perhaps a result of the difficulty of treating chronic pain, pain treatment has included CAM since its inception. In 1972, the National Institutes of Health funded the first study of pain treatment, an acupuncture study conducted by George Ulett. CAM became increasingly a part of medical protocols for treating chronic pain (Ulett, Han & Han, 1998).

John Bonica is a key figure in the development of pain clinics and pain medicine as an interdisciplinary medical specialty area. One could call him a medical advocate for chronic pain. Prior to training to be an anesthesiologist, he suffered from chronic pain due to an injury while serving in the military (Baszanger, 1998). Bonica developed pain-relieving regional blocks, and eventually opened the third pain clinic in the U.S. He also played key roles in founding the American Society of Anesthesiology and the American Pain Society. Bonica organized the first international symposium on chronic pain in 1973, which led to the formation of the International Society for the Study of Pain, which now has 5,600 members in 83 countries.

Bonica established his first pain clinic at the University of Washington Medical School in 1978 (Baszanger, 1998; Loeser, 1994). In his book The Management of Pain (1953/1990), Bonica outlined a pain clinic model that required an interdisciplinary team of specialists that met regularly and in-person to discuss difficult cases. He believed that this interdisciplinary and team-based approach was essential to treating pain. Bonica's clinic was staffed by teams of specialists from anesthesiology, nursing, dental surgery, orthopedics, pharmacology, psychiatry, psychology, social work, and general surgery.

Pain clinics often combine traditional medicine, such as anesthetic blocks and surgery, with alternative medicine, such as chiropractics and acupuncture (Baszanger, 1998). While integrating traditional and alternative medicine, pain clinics often attract people for whom traditional medicine has "failed" (Baszanger, 1998; Kotarba, 1983; Libov, 1986). Despite the use of CAM treatments, clinics often require referrals from primary care physicians as part of the admission process. Pain clinics utilize traditional and new medical interventions at the same time that they open possibilities for non-traditional treatments.

Pain clinics have flourished since the late 1970s when Bonica opened the University of Washington clinic. Early studies estimate that there were 400 to 800 clinics worldwide (Csordas & Clark, 1992; Kotarba, 1983); currently thousands of pain clinics can be found worldwide. These clinics vary considerably, with some clinics treating all types of pain and others focusing on specific types of pain, such as headaches, back pain, or arthritis. There is also variation in philosophies from one clinic to another; some clinics being oriented toward determining physiological causes of pain and others toward behavioral causes or triggers (Baszanger, 1998; Csordas & Clark, 1992). The wide range of conditions that pain clinics treat may explain the prevalence of pain clinics.

Emergent medical treatments

Medical treatments for pain have existed for centuries, especially those derived from opium like laudanum or morphine. These drugs were used mostly for the temporary relief of pain, with attendant concerns of misuse and addiction. There were also of course over-the-counter medications such as Aspirin, Ibuprofen, and Naproxen that were widely used by pain sufferers.

While a review of pain medications would require another paper or even a book, a few points can be made here. First, the last two decades have seen the introduction of a whole new range of pain medications, from opioids like Methadone and Oxycontin to drugs originally developed for other purposes that are effective for treating chronic pain (Neurontin, Lyrica) to the once popular but now dangerous Vioxx and Celebrex. New and improved versions of anesthetic blocks, including implantable devices, were also developed in recent years. The pharmaceutical armatorium available to physicians has expanded greatly, and the potential expanding market has not been lost on the pharmaceutical industry, which has been increasingly promoting their drugs as treatments for chronic pain as its own condition.

Support and advocacy for chronic pain treatment

Governmental policies, particularly those that shape funding of research and payment of health care services, along with the growth of professional associations have influenced the medicalization of chronic pain in ways that benefit chronic pain sufferers. Since the cost of treating chronic pain is as high as $61 billion a year (Stewart et al., 2003), its alleviation is a significant issue. The support for chronic pain creates an opening for patient advocacy groups, comprised primarily of chronic pain sufferers, to engage in debates about pain treatment.

Medical professionals and chronic pain

Since the 1970s, professional pain societies have grown as well, serving as advocates for research on and funding for chronic pain conditions. John Bonica was influential in the founding of the International Association for the Study of Pain (IASP) and its national chapter, the American Pain Society (APS). The APS currently has more than 3,000 members, six regional affiliates and publishes the peer-reviewed journal on pain research, The Journal of Pain (APS, 2009). APS describes themselves as "the first national society to dedicate itself solely to the science of pain and is the only such organization to establish a multidisciplinary, evidence-based approach to both research and clinical treatment" (Society AP, 2009). APS has a large portion of anesthesiologists in their membership (APS, 2009; Baszanger, 1998: 47), which is not surprising since Bonica was also influential in founding the American Society of Anesthesiologists (IASP, 2009). In 1983 the American Academy of Pain Medicine (originally under a different name) was founded, which is an organization for physicians practising the speciality of pain medicine. It is also important to recognize organizations like the European Federation of IASP chapters (EFIC, 2009), which includes 30 national chapters and publishes the European Journal of Pain (EFIC, 2009).

Training programs are important for the institutionalization of any speciality or subspeciality. In the U.S., pain medicine has become a subspeciality of anesthesiology, with the first pain medicine certificates issued in 1993 by the American Board of Anesthesiology. The number of accredited Pain Medicine Training programs in the U.S. went from under 40 in 1993 to nearly 100 in 2002, with the number of pain medicine trainees increasing from under 50 to over 250 over that period (Rathmell & Brown, 2002). In 1998, the boards of Physical Medicine and Rehabilitation and of Psychiatry and Neurology also jointly developed a subspeciality certification in pain management, with the first certification exam administered in 2000 (Lalani, 2006). While smaller in number than the anesthesiology speciality programs, these programs furthered the production of medical pain specialists. It is unclear how the increase in medical specialities will impact the fusion of CAM and traditional medicine practised at many pain clinics.

In the United States, the expansion of benefits for elderly Medicare recipients, laws protecting physicians prescribing pain medications, and funding for medical research on pain were also significant to the expansion of pain as a medical speciality. A major impetus for research and treatment of chronic pain was the funding of chronic pain rehabilitation by the American Medicare program. Once Medicare began reimbursing chronic pain treatment, the market for these services expanded greatly. As Csordas and Clark note, "In 1976, decisions by Social Security Administration (SSA) policy makers to extend Medicare benefits to chronic pain rehabilitation occasioned the most dramatic growth of the pain center phenomenon, 330 centers opened in a year's time" (1992: 383). This certainly provided a major boost to medical treatments for pain in the United States.

In the tradition of John Bonica, advances in chronic pain treatment continue to occur in military and veteran medical facilities. The U.S. Military and Veterans Administration has also made efforts to improve pain management, launching a 'National Pain Management Strategy' in 1998 and proposals to assess pain care in 2009. The prevalence of chronic pain conditions among military veterans, and their co-occurrence with conditions such as post-traumatic stress disorder, may be one reason for increased attention to pain care. Outside of the military, there are also efforts to expand pain management research and training in pain management. In recent decades, the National Institutes of Health (NIH) has funded numerous studies with a primary emphasis of pain, although in 2003 pain research comprised less than 1% of the NIH budget (Bradshaw, Nakamura & Chapman, 2005).

Legal protections for physicians have also aided in pain treatment. Physicians were often wary of prescribing opiates or opiate substitutes, in part due to their concern about the liability of prescribing controlled substances and about the drug's addictive qualities. Some studies show that doctors do not prescribe adequate pain medication to patients (Marks & Sachar, 1973; Pletcher, Kertesz, Kohn & Gonzales, 2008). Many states have enacted laws to protect doctors from being prosecuted for prescribing narcotics for pain (Noble, 1999); this may reduce physicians' concerns about medical liability.

In addition to facilitating the prescription of pain medication, these regulations also place the assessment of pain in the hands of patients themselves rather than doctors. The Joint Commission on the Accreditation of Healthcare Organizations (JCAHO), an organization that accredits hospitals and nursing home facilities, has adopted standards under which organizations must ''recognize the right of patients to appropriate assessment and management of pain'' (Noble, 1999).

In addition to increases in support for chronic pain research and funding, patient advocates strive to improve pain assessment and treatment (Barker, 2008; Whelan, 2003). In the case of chronic pain, patients themselves push for more expansive medical treatment that is responsive to their needs. As Lock states, "people unite to fight for more effective medical surveillance. Under these circumstances, the knowledge and interests of users result in an expansion of medicalization." (2001: 9536).

Concluding remarks

This is only a preliminary sketch of the medicalization of chronic pain. Virtually all factors mentioned here, and some that are not, require further examination, a deeper history, and a closer observation of medicalization in situ. In no way do we evaluate the efficacy of treatments of chronic pain when it is treated as a discrete medical problem, yet in some ways this case differs from other examples of medicalization. This may be a case that fulfills the criteria that bioethicists have deemed as "good", in that it improves human welfare (Sadler et al., 2009), with, at first blush, fewer of the social consequences that have been often been associated with critiques of medicalization (Conrad, 2007). It seems likely that this case of medicalization may bring some social and physical benefits to millions of individuals, at least compared to the not so distant past. One can easily imagine that four decades ago doctors would have turned away chronic pain sufferers without being able to offer them any relief or treatment. In other cases, pain sufferers may have endured significant disabilities without treatment. Turning away these patients (leaving these patients untreated) has significant societal costs as well, including lost productivity and increased health care costs in the long term.

In addition, the case of chronic pain presents an interesting example of the ways that medical specialists work with CAM practitioners, such as chiropractors and acupuncturists, to treat chronic pain. The role of specialists in the medicalization of chronic pain merits further attention. There are other issues that need exploration: (1) the professional boundaries of pain treatment; (2) the role of the pharmaceutical industry in promoting pain treatment; (3) the impact of treatment efficacy on medicalization; and (4) the patient experience of medicalized pain treatment. It is an empirical question, however, whether some of the disturbing social consequences of medicalization that critics have enumerated elsewhere (see Conrad, 2007, chapter 8) also apply to the medicalization of chronic pain.

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