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A Feminist Perspective on Gender Justice in the Treatment of Chronic Pain

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Abstract

Introduction: Chronic pain is a significant public health problem that disproportionately affects women. Gender justice in the management of chronic pain must involve gender-tailoring of treatment paradigms.

Gender disparities in reporting and treatment of pain: Women are more likely than men to suffer from chronic pain, including chronic pain syndromes such as fibromyalgia, migraine headaches, irritable bowel syndrome, interstitial cystitis, temporomandibular disorder, and neuropathic pain syndromes, among others. Chronic pain may be more debilitating on daily functioning in women. Women are more likely to be prescribed chronic opioid therapy for their pain and are at greater risk for polypharmacy and opioid overdose.

Gender differences in pain experience: The mechanisms underlying gender differences in pain experience and pain reporting are complex. Sex hormones, including testosterone, estrogens, and progestins, exert pro-nociceptive and anti-nociceptive effects through the endogenous opioid system, thereby modulating the experience of pain. Cultural norms of masculinity and femininity influence pain reporting. Women with chronic pain are more likely than men to suffer from significant psychiatric co-morbidities, especially depression. Women and men differ in their coping mechanisms for chronic pain; women are more likely to engage in emotional-centered coping strategies such as social support, positive statements, and relaxation. Women are also more likely to catastrophize pain, which is associated with lower ratings of self-efficacy.

A feminist perspective: Due to the endocrinologic, cultural, and social differences between women and men in the experience and reporting of chronic pain, justice requires a difference feminism approach to the treatment of pain in women. Healthcare providers should be educated on the mechanisms that modulate the experience of chronic pain and how they differ between women and men. Providers should carefully evaluate for psychiatric co-morbidities in women with chronic pain due to the higher prevalence of such disorders in this group. Holistic, or multi-modal, management of pain, while appropriate in both men and women, is of particular importance in women due to the emotional valence associated with chronic pain in women, the reliance on emotional coping methods, pain catastrophizing, and poor self-efficacy.

Conclusion: Women are more likely to experience chronic pain than men and gender justice in the treatment of chronic pain requires understanding gender differences in the experience and reporting of pain and gender-tailoring the treatment of such pain.

Keywords: Chronic pain; Hypoalgesia; Psychogenic

Introduction

Chronic pain is a significant public health problem that impacts quality of life, productivity, mental health, and healthcare utilization patterns. Chronic pain disproportionately affects women. There is a growing body of literature supporting the theory that men and women experience pain differently, which is mediated by endocrinologic, cultural, and psychological factors. Due to these sex- and gender-mediated differences, gender justice in the treatment of chronic pain requires evaluation from a difference feminism perspective. This difference feminist perspective supports that justice in the future of pain management involves gender-tailoring in multimodalities of treatment.

Gender disparities in the reporting and treatment of pain

In the United States and worldwide, women have a higher prevalence of chronic pain as compared to men. Women are more likely than men to report recurrent pain, pain in multiple areas of the body, and pain that is more severe [1-4]. Many chronic pain syndromes are more prevalent in women, including fibromyalgia, migraine headaches, irritable bowel syndrome, interstitial cystitis, temporomandibular disorder, various forms of neuropathic pain, and others [5-7]. Women have also been reported in experimental studies to be more sensitive to several different modalities of pain and have a lower threshold for pain [8,9]. Chronic pain is a leading cause of disability for men and women, but has a greater negative impact on the ability to function for women [10,11].

Despite this, historically, women's reports of pain are less likely to be taken seriously by providers and women are less likely to receive adequate treatment for their pain. The idea that women have to prove that they are like men in order to receive similar treatment by healthcare providers was described as the "Yentl Syndrome" in 1991 by B. Healy who coined this term after studies reported less aggressive initial treatment of women with angina; however, "once a woman showed that she was just like a man, by having severe coronary artery disease or a myocardial infarction, then she was treated as a man would be" [12].

More recent data report no gender disparities in the treatment of pain with opioids [13,14]. A study of veteran health patients reported that women were more likely to be prescribed chronic, short- or long-acting opioids. However, similar to the results of other studies, women were also at greater risk for polypharmacy and being given prescriptions for potentially dangerous combinations of opioid and sedative medications [15]. This is of particular concern because, according to national data, deaths related to pharmaceutical opioids are on the rise. From 2005 – 2009, the combination of pharmaceutical opioids and benzodiazepines was the most common cause of polysubstance overdose deaths in the US. Women were found to be more likely than men to die from a death related to pharmaceutical opioids and antidepressants [16].

Mechanisms Underlying Gender Differences in Pain Experience

Endocrinologic

The difference in pain experience between the sexes is, in part, endocrinologic in nature. Testosterone has anti-nociceptive effects. The effects of testosterone are not limited to men. Higher testosterone levels in women have been reported to be associated with hypoalgesia, whereas lower testosterone levels are associated with chronic pain [17,18].

The effects of estrogens and progestogens are more complex as they both have pro- and anti-nociceptive effects. However, estrogen has been shown to contribute to chronic pain syndromes via peripheral and central pathways. Specific pain syndromes that are associated with estrogen include arthritis, lupus, fibromyalgia, and migraine headaches [19]. Clinical pain has been reported to vary over the course of the menstrual cycle and, in experimental studies, pain sensitivity varies over the course of the menstrual cycle [9].

There is evidence that the influence of gonadal hormones on pain is mediated by interactions with the endogenous opioid system. Smith et al. report that, in women, high estrogen states were associated with an increase in endogenous mu opioid neurotransmission during painful stimuli. In contrast, low estrogen states were associated with reductions in endogenous opioids in several areas of the brain and hyperalgesic responses to stimuli [20]. The influence of hormones on pain perception may be one reason that gender differences in pain prevalence emerge during adolescence [14].

Cultural

In addition to differential endocrine modulation of pain, cultural beliefs about masculinity and femininity influence the pain experience. In general, it is regarded as socially more acceptable for women to report pain and display emotion than men. This starts in childhood, as it is more acceptable for girls to cry and report pain while boys are encouraged to act tough and not show suffering from physical pain. A study demonstrating the early development of gender differences in response to pain reported that among pre-school children and school-aged children, girls are more likely to respond to pain by crying, screaming or displaying anger [21]. In the teenage years, boys are encouraged to play sports such as football that involve greater risk for physical injury but act tough through any injuries. These cultural values are carried into adulthood and it has been reported that men who score higher on a masculinity assessment have higher thresholds for experimental pain [21].

In experimental studies of pain, male research participants have reported that they felt "an obligation to display stoicism in response to pain" [22]. This male stoicism is also what others expect, as both men and women have reported an expectation that men are less willing to report pain [23]. This has been reported to vary across cultures. In a study assessing gender role expectations, in comparison to Americans, Israeli men and women expected a more stereotypically masculine attitude towards pain from both sexes [24].

The gender of the experimenter has also been shown to effect pain reporting. In a study in which experimenters were chosen for their attractiveness, male subjects reported significantly less pain in front of female experimenters. There was no significant difference in the reporting patterns of female subjects. The authors conclude that this is consistent with standard gender roles of men not showing weakness, especially in front of women [25]. Another similar study found that both male and female subjects tolerated pain longer when the experimenter was the opposite sex, which the authors surmise was related to the desire to impress the opposite sex [26]. Physical attractiveness has also been shown to influence perception of reports of pain. It has been reported that healthcare providers perceive physically unattractive patients as experiencing more pain than physically attractive patients. The authors concluded that this is consistent with the stereotype that "beautiful is healthy" [22].

In addition to cultural biases, healthcare providers may undertreat subjective complaints of pain in the absence of objective findings. Western Medicine emphasizes the importance of objective findings, and women's subjective reports of pain are often not taken seriously. In the absence of a physical finding explaining pain, women have been told "nothing is wrong" [22]. Historically, in medical literature women are often portrayed as overly emotional or hysterical [2]. In a frequently cited article, Engel defines "psychogenic" pain in the "pain-prone" patient as primarily arising from

"psychic" factors and he uses case histories to illustrate this definition. Of interest, he features women in the majority of theses case histories [27]. This bias towards female patients as having psychogenic pain has led to mismanagement of medical conditions, inadequate treatment of pain, and the prescribing of sedatives instead of analgesics for pain [22].

Psychological

Cognitive appraisal and emotions

Cognitive appraisal refers to an individual's framework for interpretation of events. The cognitive appraisal of pain is different in men and women; women tend to attribute more meaning to the pain experience and it is associated with more emotions [22]. The relationship between chronic pain and emotions is bi-directional – chronic pain can cause negative emotions and negative emotions can lead to chronic pain.

In developed and developing countries, chronic pain is associated with significant psychiatric comorbidities [3]. The most common psychiatric illness associated with chronic pain is depression. Fear and anxiety are also common among chronic pain patients [28]. The prevalence of depression has been reported to be about twice as high in women as compared to men and about one-third of depressed patients report a chronic pain syndrome. Depressed women are more likely to report chronic pain and more severe pain compared to depressed men. Moreover, women with chronic pain have a higher prevalence of depression compared to men with chronic pain [29]. This difference demonstrates that the relationship between chronic pain and psychiatric comorbidities is greater in women compared to men.

Coping mechanisms

Men and women have ben reported to differ in their coping mechanisms in response to pain. Women tend to engage in more emotional-centered coping strategies involving social support, positive statements, and relaxation. Men tend to employ denial, diversion of attention, and behavioral distraction, including drug and alcohol use [9,22].

Two important, opposing constructs exist regarding coping with pain – catastrophizing and self-efficacy. Pain catastrophizing is an exaggerated negative response to actual or anticipated pain. Catastrophizing involves the magnification of experiences and the tendency to ruminate on symptoms. Catastrophizers have high levels of anxiety and feel helpless against their pain syndrome. This is associated with an increased intensity in the perception of pain – that is, catastrophizing causes more pain and disability. Women tend to engage in pain catastrophizing more often and this difference has been reported to mediate the gender difference in certain pain syndromes. Catastrophizing has been associated with several chronic pain syndromes such as fibromyalgia, lumbar spinal stenosis, osteoarthritis, rheumatoid arthritis, and whiplash injuries [21,30,31].

Self-efficacy refers to one's confidence in the ability to perform specific tasks, and in this context, cope with pain and perform tasks despite pain. Low self-efficacy is associated with decreased ability to cope with pain. In an experimental study, women self-reported lower levels of overall physical self-efficacy and self-efficacy related to coping with pain. These lower levels of self-efficacy, in turn, were associated with a decreased pain threshold and an increase in the reported intensity of pain experienced [32]. In patients with lupus, which predominantly affects women, low self-efficacy was associated with increased pain and psychological distress [33].

A feminist perspective

Two well established, but opposite, approaches to feminism are sameness feminism and difference feminism. Sameness feminists emphasize the similarities between the sexes and advocate that women be treated exactly like men [34]. Difference feminists assert that there are differences between men and women and that female characteristics are essential to society's wellbeing [35]. With regard to the treatment of chronic pain, justice requires a difference feminist approach due to the sex-mediated biological, cultural, and psychological differences in the pain experience.

Sex hormones have been proven to influence pain, with estrogens associated with many chronic pain syndromes. Knowledge of the role of estrogens in chronic pain syndromes and the interaction of estrogen in with the endogenous opioid system gives healthcare providers an insight into the pathophysiology of chronic pain in women. This is especially important in Western medicine where a high level of importance is put on scientific explanations, the absence of which often leads to discounting reports of pain. Difference feminists would assert healthcare provider awareness of the role of estrogens would help women's reports of pain be taken more seriously or considered "real." Furthermore, initial research has reported that women have greater analgesia compared to males from certain classes of opioids, such as mu- and kappa-agonists [7]. Difference feminists would advocate further research to determine ideal sex-specific analgesic regimens.

Cultural gender-roles and expectations of gender-roles influence patients and healthcare providers. In general, women are more likely to report and pain and relay the emotional context of pain; difference feminists would want healthcare providers to be aware of this to decrease the risk of women's complaints of pain being deemed less severe or "psychogenic." As an illustrative example, consider persons X, a female, and Y, a male. X and Y both suffer from the same painful condition. X reports the pain ten times and additionally reports that she is sad; Y reports the pain once. Difference feminism supports the conclusion that X is more likely to report the pain she is experiencing and that it should be treated appropriately. This avoids the injustice of concluding that X is just complaining and that the pain is not severe because Y has the same condition and is not reporting pain as frequently. Y does not report the pain as often which may result in inadequate treatment for him, but that should not

influence X's treatment. X also reports that she is sad. Difference feminism would support the conclusion that this is the emotional context of the pain and not the cause, avoiding the injustice of calling the pain "psychogenic" and "not real".

Chronic pain in women is frequently associated with psychiatric illness, especially anxiety and depression. Difference feminism would consider knowledge of this association an important factor in women's ability to obtain holistic treatment. Difference feminists would support healthcare providers having a high suspicion for psychiatric co-morbidity in female chronic pain patients so that they get evaluated and treated appropriately.

Due to a higher level of pain catastrophizing and lower self-efficacy among women with chronic pain, difference feminists would support pain treatment modalities for women that improve coping mechanisms. There is evidence that formal treatment can improve both of these aspects. Thorn et al. used a cognitive behavioral therapy strategy to effectively reduce pain catastrophizing [36]. Williams and Kinney reported that training in various pain coping strategies resulted in not only increases in self-efficacy but also tolerance for pain [37].

As difference feminists are advocates of women's health centers, they would advocate women's pain management centers. They would view women's pain management as requiring a multi-modal, holistic approach addressing both physical and mental health. Difference feminists would support further exploration of the difference between the male and female pain experience with laboratory and clinical studies. This knowledge could then be used to develop gender-tailored treatments of pain.

Conclusion

Women experience pain differently than men and are disproportionately burdened with chronic pain. Recent data show that women may actually be more likely to be prescribed opioid analgesics. However, justice in the treatment of chronic pain goes beyond equal analgesic prescribing practices. From a difference feminist perspective, management of chronic pain should be gender-tailored and address not only the biological aspects of pain but also the cultural and psychological aspects that influence the pain experience. Difference feminists would support future research on incorporating cognitive, behavioral, and emotional focused therapies into management of chronic pain and innovative approaches to increase women's access to these types of care.

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