


Beyond Biology: The Personality Underpinnings of Chronic Pain

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ABSTRACT

The factors contributing to chronic pain extends far beyond its physiological underpinnings, weaving through the psychological and personality-based aspects of individuals experiencing such conditions. This letter aims to highlight the critical role personality traits play in both the perception and management of chronic pain, urging a multidisciplinary approach to treatment that encompasses the psychological dimensions of this pervasive issue. The evidence points to a compelling need for a paradigm shift in how we approach chronic pain management. A more holistic model that integrates the psychological and personality-based dimensions of pain alongside traditional biomedical approaches is paramount. Such a model would not only improve our understanding of chronic pain but also enhance the efficacy of treatment interventions by tailoring them to the individual's psychological profile. In conclusion, the intersection of personality and chronic pain represents a fertile ground for future research and clinical innovation. By embracing a more nuanced understanding of pain that incorporates the psychological fabric of the individual, we can move towards more compassionate, comprehensive, and effective treatment strategies.

Keywords: *Biology, Personality, Chronic Pain, Psychosomatics.*

To the Editorial Board,
The factors contributing to chronic pain extends far beyond its physiological underpinnings, weaving through the psychological and personality-based aspects of individuals experiencing such conditions. This letter aims to highlight the critical role personality traits play in both the

perception and management of chronic pain, urging a multidisciplinary approach to treatment that encompasses the psychological dimensions of this pervasive issue.

The prevalence and impact of chronic pain have been well-documented, affecting a substantial portion of the global population and imposing significant burdens on individuals and healthcare systems alike (Sjögren et al.,

2009). While the biomedical model has provided valuable insights into the mechanisms of pain, it falls short in explaining the varied responses to similar pain stimuli among individuals. Emerging evidence suggests that personality traits significantly influence the experience and outcome of chronic pain conditions (Gustin et al., 2015; Weisberg, 2000a, 2000b).

Personality traits, particularly those aligned with the Big Five (openness, conscientiousness, extraversion, agreeableness, and neuroticism), have been identified as pivotal factors in the perception and modulation of pain (Wagner-Skacel et al., 2022). For instance, neuroticism has been associated with heightened pain perception and poorer pain outcomes, likely due to a predisposition towards negative affectivity (Frumkin & Rodebaugh, 2021). Conversely, traits such as extraversion and conscientiousness may confer resilience against the psychosocial stressors associated with chronic pain (Suso-Ribera et al., 2018).

The link between personality and pain is not merely correlational but suggests a potential causal pathway where personality influences pain perception and management strategies (Skarpsno et al., 2019). For example, individuals with a high degree of neuroticism may be more susceptible to stress-related exacerbation of pain symptoms, whereas those with higher levels of agreeableness and conscientiousness may engage more effectively with health professionals and adhere more closely to treatment regimens (Skúladóttir & Halldórsdóttir, 2008).

Moreover, the impact of chronic pain extends beyond the individual to affect interpersonal relationships and social dynamics. The personality traits of significant others, such as spouses, can moderate the health status of individuals with chronic pain, underscoring the importance of considering the broader social context in pain management (Suso-Ribera et al., 2018).

The evidence points to a compelling need for a paradigm shift in how we approach chronic pain management. A more holistic model that integrates the psychological and personality-based dimensions of pain alongside traditional biomedical approaches is paramount. Such a model would not only improve our understanding of chronic pain but also enhance the efficacy of treatment interventions by tailoring them to the individual's psychological profile.

Furthermore, according to the research presented by Gustin et al. (2015), Frumkin and Rodebaugh (2021), and others, it becomes evident that a one-size-fits-all approach to chronic pain management is inadequate (Frumkin &

Rodebaugh, 2021; Gustin et al., 2015). Instead, personalized treatment plans that incorporate psychological assessments and interventions aimed at modifying maladaptive personality traits or enhancing adaptive ones may offer a more effective path forward. Additionally, the association between certain personality traits and the development of chronic pain conditions (Kate Adriany da Silva et al., 2017) suggests that early psychological interventions could play a preventative role, potentially mitigating the onset or severity of chronic pain in predisposed individuals.

In conclusion, the intersection of personality and chronic pain represents a fertile ground for future research and clinical innovation. By embracing a more nuanced understanding of pain that incorporates the psychological fabric of the individual, we can move towards more compassionate, comprehensive, and effective treatment strategies.

Sincerely,

Authors' Contributions

Authors contributed equally to this article.

Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

Transparency Statement

Data are available for research purposes upon reasonable request to the corresponding author.

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Declaration of Interest

The authors report no conflict of interest.

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Ethics Considerations

None.

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