SEX DIFFERENCES IN PAIN PERCEPTION

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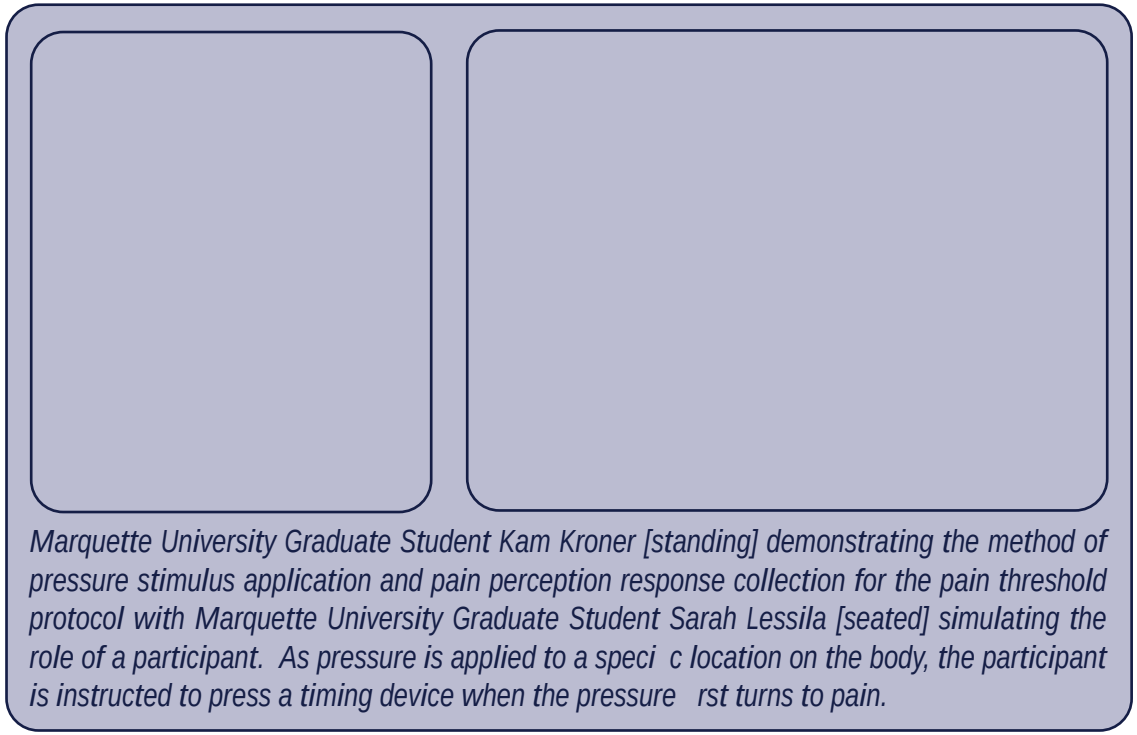
INTRODUCTION

Urban myth asserts that women withstand pain better than men. However, the opposite is true in that women are more sensitive to pain.[1] With a painful stimulus, women are more likely to report higher pain intensity and lower thresholds and tolerance.

If a pressure stimulus is applied to the body and gradually increased, a woman would be more likely to report pain sooner (lower pain threshold) and tolerate less pressure (lower pain tolerance) than a man.



Marquette University Graduate Student Kam Kroner [standing] demonstrating the method of pressure stimulus application and pain perception response collection for the pain threshold protocol with Marquette University Graduate Student Sarah Lessila [seated] simulating the role of a participant. As pressure is applied to a speci c location on the body, the participant is instructed to press a timing device when the pressure rst turns to pain.

BIOPSYCHOSOCIAL MODEL OF PAIN

How someone feels pain is in□uenced by an interaction of biological, psychological, and social factors (*. .*, the biopsychosocial model of pain) that are unique to each person.[7]

BIOPSYCHOSOCIAL MODEL OF PAIN: SEX HORMONES

BIOPSYCHOSOCIAL MODEL OF PAIN: GENDER

Gender roles regarding femininity and masculinity affect how pain is expressed; historically there has been greater allowance for women to convey pain than men.[15] Gender-based life roles may also explain the greater prevalence of pain in women. The higher occurrence of chronic low back pain in women has been hypothesized to be related to musculoskeletal loads during pregnancy and the "double" workday (domestic + paid work).[16] As our understanding of how different societal roles affect the human body, women's responsibilities at home and work may need to be addressed as part of a comprehensive pain management approach.

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PHYSICAL ACTIVITY

One strategy to help women better manage their pain is physical activity. Using exercise to increase physical activity impacts all aspects of the biopsychosocial model of pain including improvements in body composition, in□ammation, and emotional well-being. Additional motivation to become more active is that people who regularly participate in physical activity are less likely to develop chronic musculoskeletal pain.[24] Because most types of exercise provide pain relief, exercise preference should be based on the one that can be maintained long-term.[25] When planning to adopt any physical activities, consultation with one's healthcare professional could be warranted.

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CONCLUSION

While there is considerable evidence showing that women experience more pain than men, caution is advised when making de□nitive statements regarding sex and gender differences. Pain reports can vary signi□cantly, even for individuals with the same condition. Understanding the dynamic nature of the biopsychosocial model of pain can help contextualize the multidimensional nature of pain that is speci□c to each person.[26] Bringing awareness to these biological, psychological, and social factors (. ., biopsychosocial factors) involved in pain is critical to empowering women in the prevention and management of pain.

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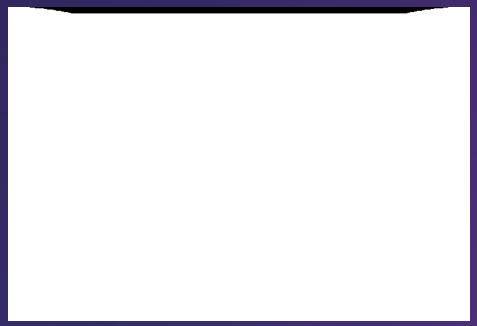

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