Comorbidity of Chronic Pain and Psychiatric Disorders

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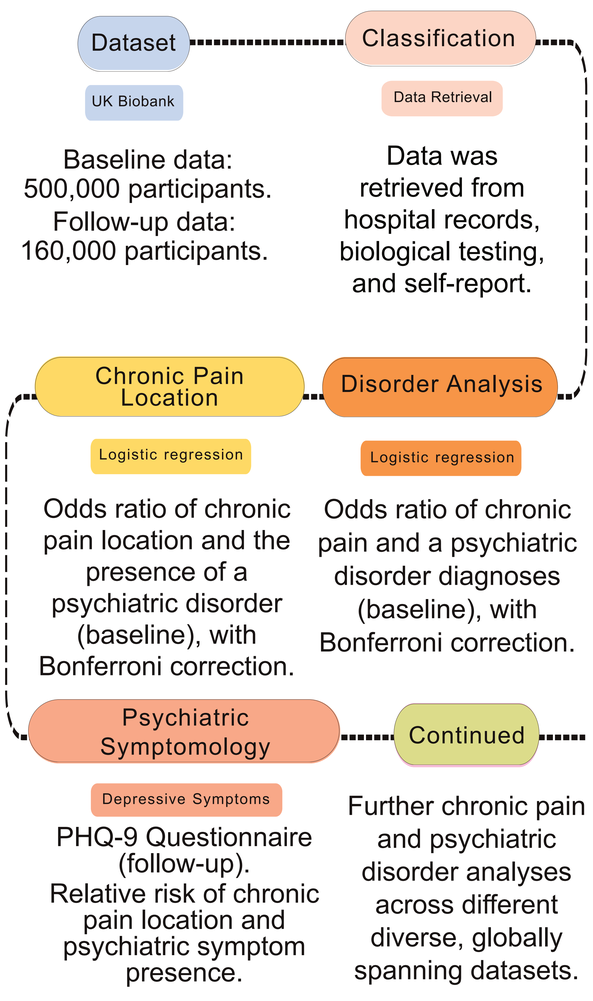
Introduction

- Chronic pain is a prevalent and debilitating condition, affecting one in five Canadians[1].
- Chronic pain is associated with poor quality of life, underscoring the profound impact on mental health[2].
- Psychiatric comorbidities are common in individuals with chronic pain, with up to two-thirds experiencing co-occurring disorders[3].

Comorbidities suggest shared behavioural and biological mechanisms, however, the specific aspects of shared comorbidities remain unclear.

Aim: examine the association of chronic pain and psychiatric disorders to investigate characteristics to improve diagnostic and treatment approaches for individuals with comorbidities.

Methods



Results

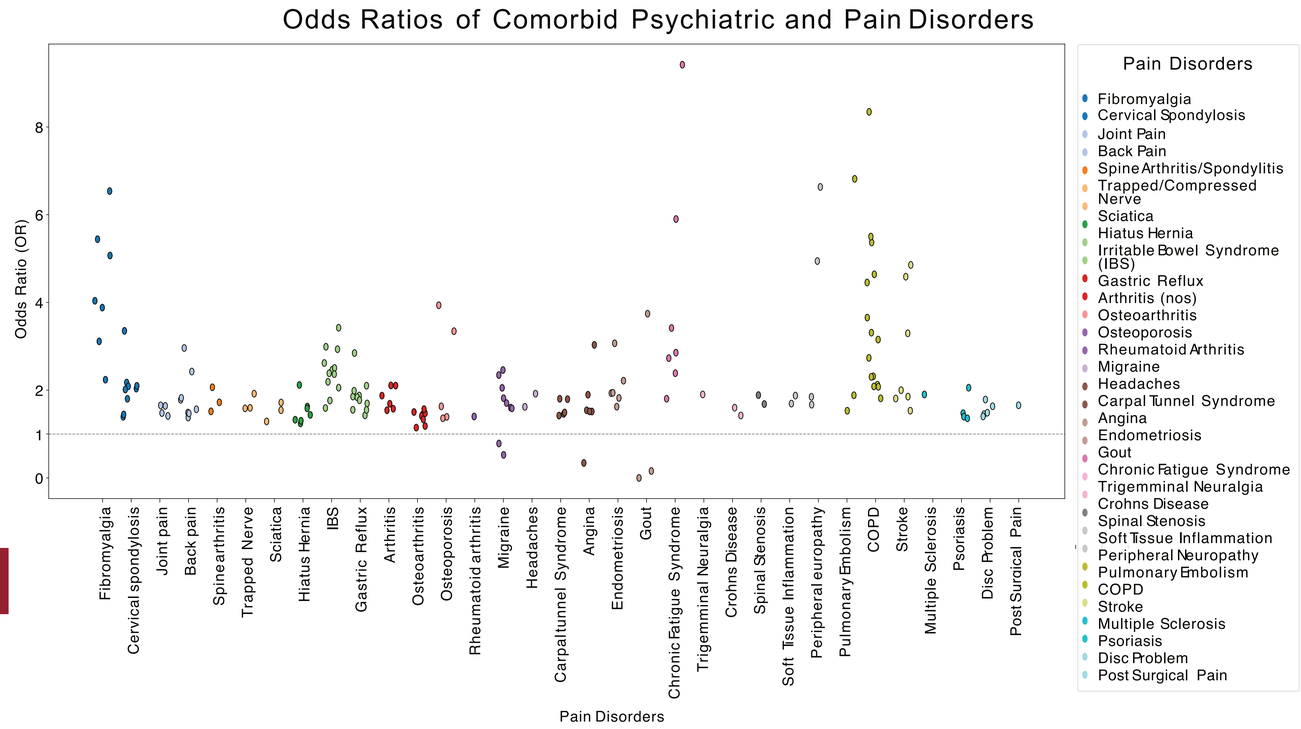


Figure 1: Manhattan plot of the odds ratio of pain disorders co-occuring with psychiatric disorders. Bonferroni corrected logistic regression for multiple comparisons. Statistically significant co-mobid disorders presented ($p < 0.05$).

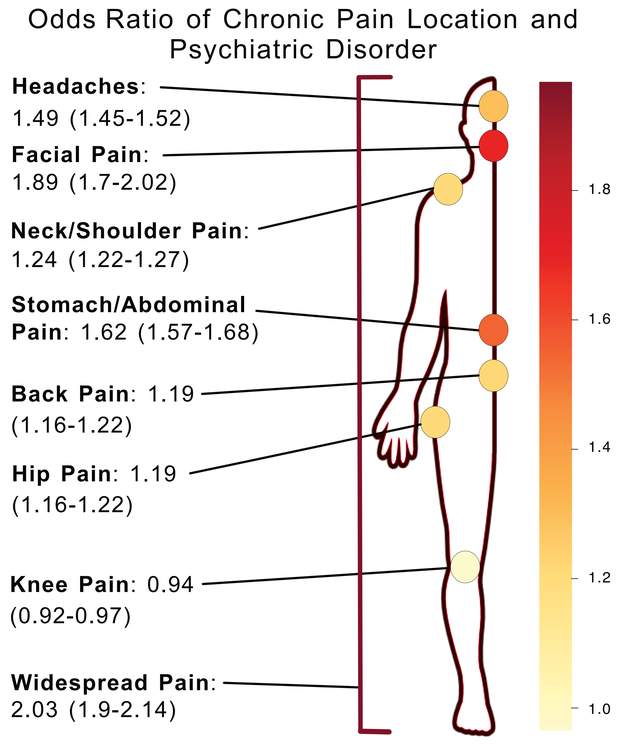


Figure 2: Heat map of the odds ratio of having a psychiatric disorder and chronic pain sites. Bonferroni corrected logistic regression for multiple comparisons. ($p < 0.05$).

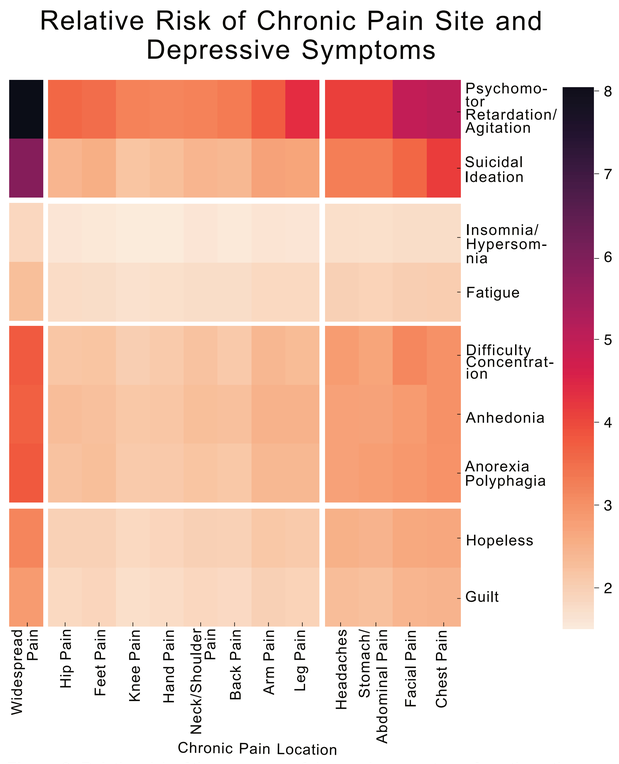


Figure 3: Relative risk of the presence of depressive symptoms from the rating of the PHQ-9 and the chronic pain site in chronic pain patients.

Conclusion

- Widespread, facial, and stomach/abdominal chronic pain display the highest odds ratio of having a comorbid psychiatric disorder.
- Widespread chronic pain has the highest relative risk of all self-reported depressive symptoms using the PHQ-9.

An increase in knowledge in the underlying manifestations of chronic pain will provide a foundation for taking a multidimensional approach to provide for more comprehensive achievements in patient outcome.

Future Directions

- We aim to investigate the temporality of comorbid diagnoses.
- We aim to examine the underlying latent structures of the chronic pain and psychiatric disorders by investigating the shared biological mechanisms.
- We aim to explore the shared mechanisms of patients with comorbid diagnoses in different diverse, globally spanning datasets.

References

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