

Distributions of Recorded Pain in Mental Health Records

Jaya Chaturvedi¹, Robert Stewart^{1,2}, Mark Ashworth¹, Angus Roberts¹

¹King's College London, ²South London and Maudsley NHS Foundation Trust

Background & Aims

- Pain and its relationship with mental health are important research topics.
- Electronic mental health records are a valuable data source for investigating the intersection and relationship between pain and mental health.

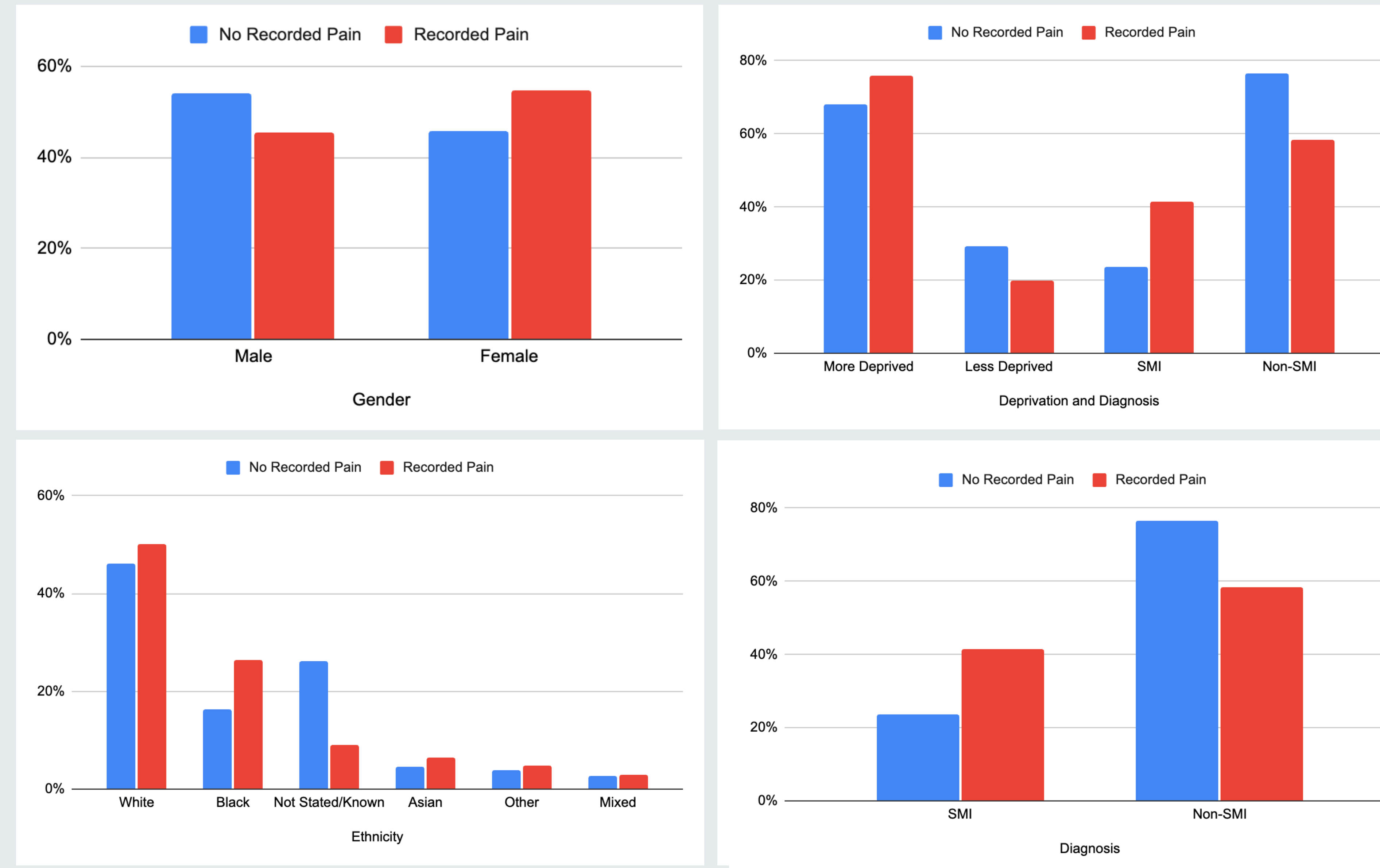
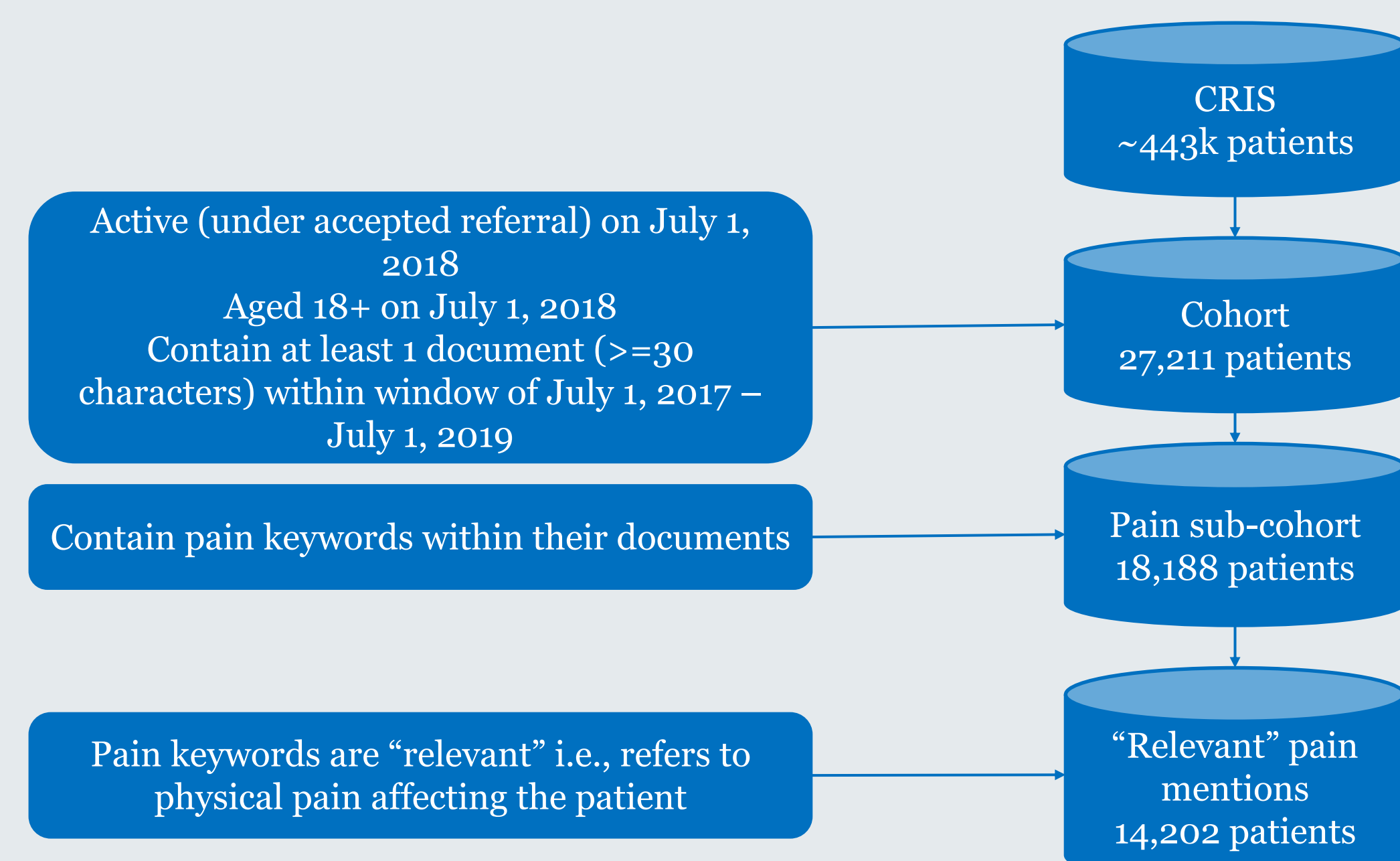
The objective is to determine distributions of documented physical pain across demographic and diagnostic groups in the clinical notes of an electronic mental health records database by using natural language processing (NLP) methods, and to examine the level of overlap in recorded physical pain between primary care and secondary care services.

Methods

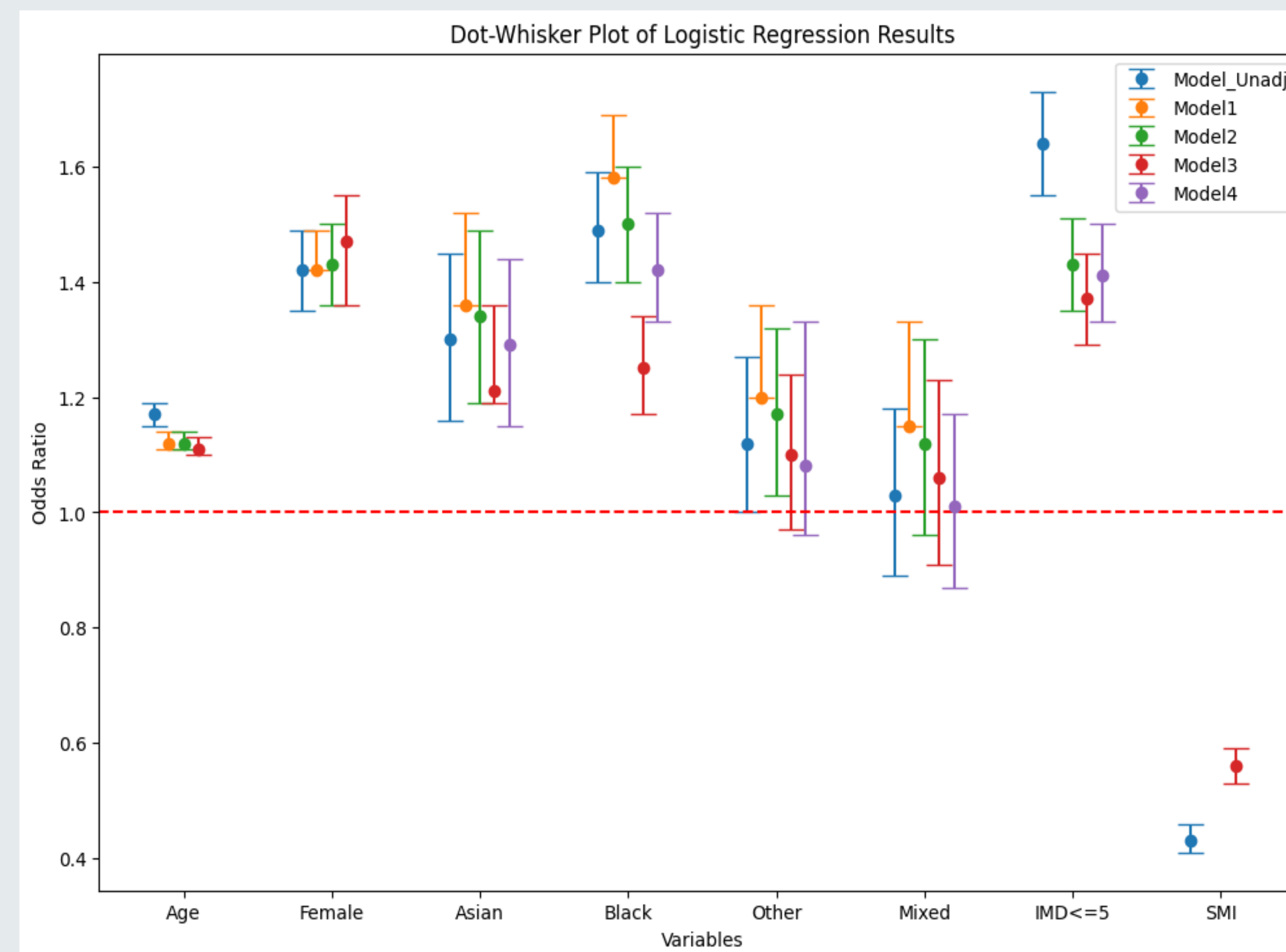
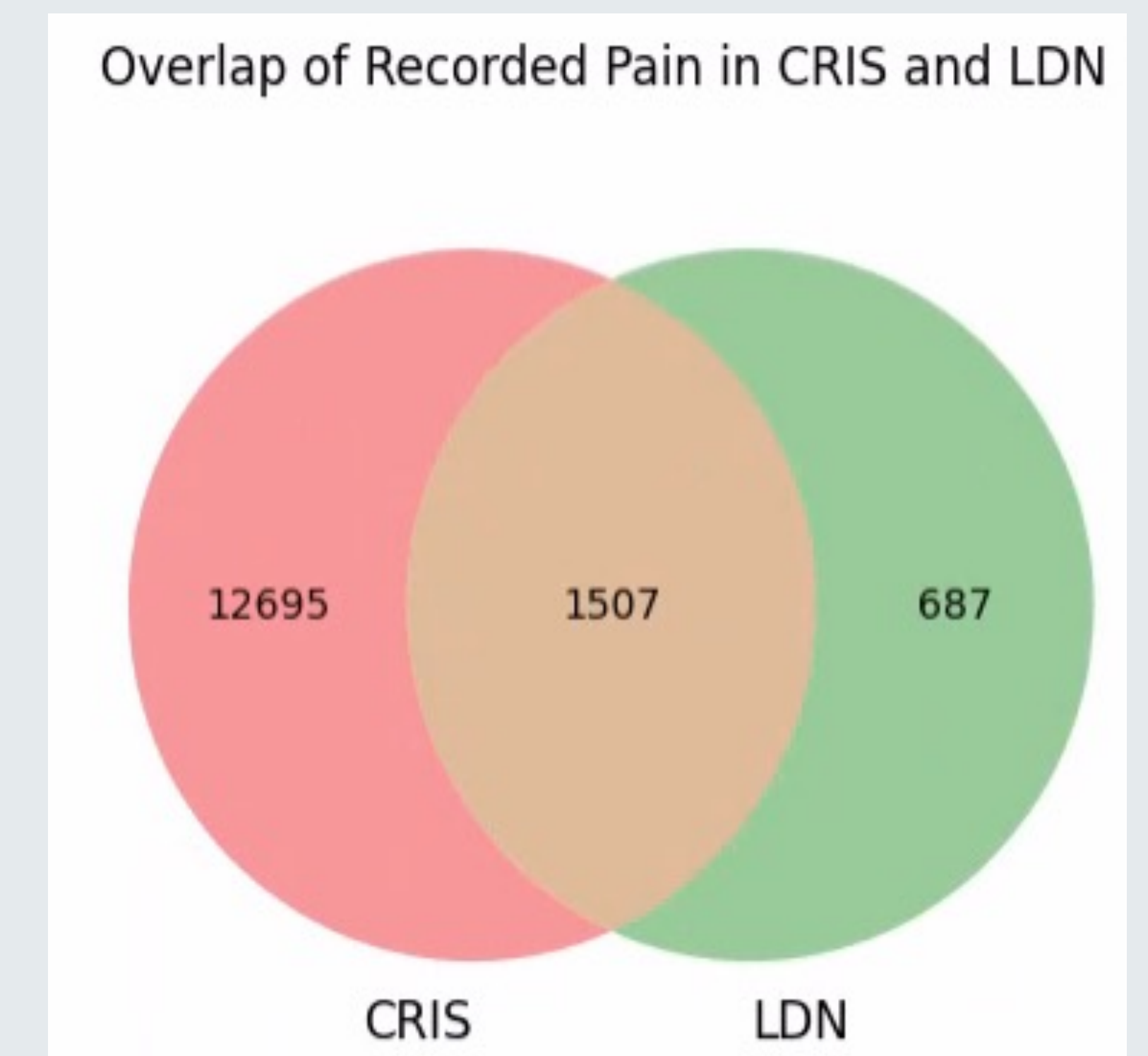
The Clinical Record Interactive Search (CRIS) database, used in this study, contains a de-identified version of electronic health record data from The South London and Maudsley NHS Foundation Trust (SLaM), one of Europe's largest mental healthcare organizations, serving a catchment of 1.3M residents in south London.

An NLP application was run on the sentences from documents within this cohort to identify patients who had relevant pain mentions. This cohort was compared to linked primary care records from a local government area in South London, Lambeth DataNet (LDN).

Results



When comparing the overlap between primary and secondary care, 17% of the cohort from secondary care also had records within primary care, and 31% of this overlapping group had recorded pain in both records. LDN, however, only makes up for quarter of CRIS.



Model 1 contained the demographic variables only [age, gender and ethnicity]. Model 2 contained the variables from Model 1, plus the variable for deprivation (IMD Decile). Model 3 contained the variables from Model 2 plus the diagnosis variable. Model 4 contains the ethnicity and deprivation variables alone.

Conclusion

The findings of this study show the sociodemographic and diagnostic differences in recorded pain. The results reflect current literature findings that pain is a common issue among mental health patients. More research in this area can help towards these issues and provide safer and equitable access to good-quality pain management.

Relevance for Patient Care

A Patient and Public Involvement (PPI) group were consulted as part of this research. Through this analysis, this study works towards addressing needs around appropriate pain identification as a routine component of comprehensive mental health treatment.

Acknowledgements

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