

Mind the gap: an administrative data analysis of dental treatment outcomes and severe mental illness

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Over a lifetime, about 1% of the population will develop a severe mental illness (SMI) such as schizophrenia or bi-polar disorder. While people with severe mental illness are at high risk of chronic physical health conditions and premature mortality, little attention has been given to oral health disparities, despite some evidence of suboptimal dental health outcomes in this population. Potential contributory factors include poor nutrition and oral hygiene, problems caused by medication, and financial barriers. Based on a large administrative dataset, the current study allows an in-depth examination of disparities in dental health outcomes with respect to severe mental illness.

What we did

We examined data for 798,564 individuals aged 15 years and over, registered with a GP practice in Northern Ireland in January 2013 and included as hospital patients between January 2013 and October 2019. We linked GP Registrations Index and Patient Administration System records on admissions (2013-2019) with dental health treatments, derived from Dental Payment System data (2015-2019). All data was de-identified and provided by and accessed within the Health and Social Care Northern Ireland Business Services Organisation.

We used ICD (International Classification of Diseases) codes to classify individuals with a severe mental illness diagnosis at any point between 2013 and 2019. We examined the occurrence of five dental outcomes in the subsequent period from 2015-2019:

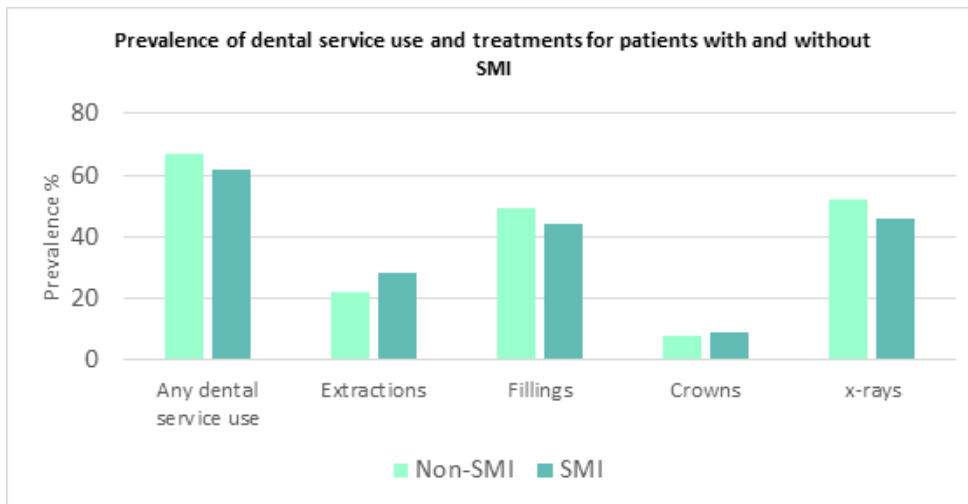
- any dental service visit
- any extractions
- any fillings
- any crowns
- any x-rays.

What we found

Overall, 1.2% (n=9,656) of hospital population had a recorded severe mental illness diagnosis between 2013 and 2019.

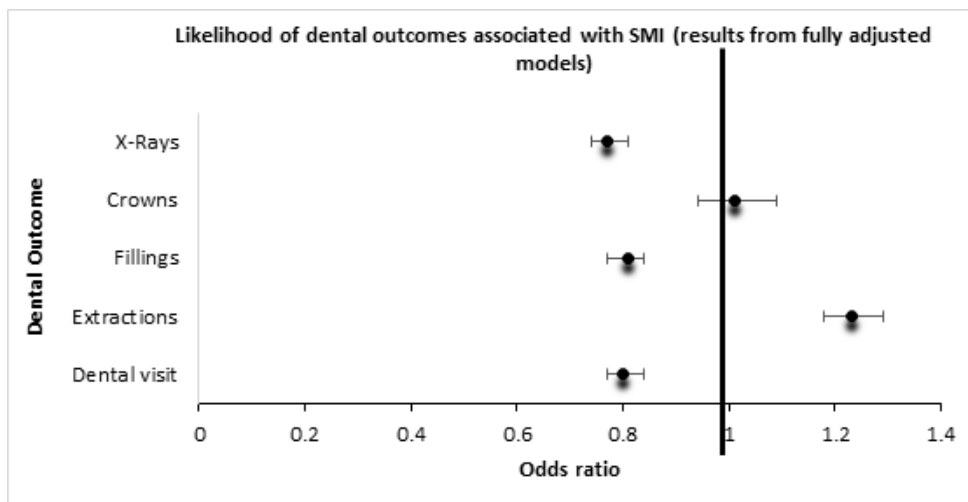
People with severe mental illness were more likely to:

- be single
- be middle-aged
- live in a deprived area.



After controlling for other characteristics, individuals with severe mental illness were:

- less likely to have visited a dentist, had fillings or x-rays, but
- more likely to have extractions.



Why it matters

In the United Kingdom, responsibility for physical health monitoring of individuals with mental illness is shared between primary care and secondary care mental health teams. Although strategies to tackle disparities in health care have been initiated, they are thought to have underperformed. Evidence highlights important barriers such as resource constraints, uncertainty of the role of Community Mental Health Trusts in monitoring physical health, and lack of training.

In 2018, NHS England published guidance on the delivery of comprehensive physical health checks and follow-up care for people with severe mental illness, recommending additional healthcare enquiries, including oral health. A better understanding of dental service use and oral health among people with severe mental illness will help inform the targeted provision of improved physical healthcare services for these individuals.

What next?

Our findings of lower engagement with dental services, lower levels of remedial treatments and higher levels of tooth loss raise concerns about availability, access, and promotion of routine dental care for people with severe mental illness. There is a need for improved understanding of barriers to treatment and development of psychoeducational interventions. Next steps will focus on gaining insight from individuals with severe mental illness on how to improve routine dental care among this population.

Findings presented in this Data Insights are based on the following peer reviewed paper: [Mind the gap: an administrative data analysis of dental treatment outcomes and severe mental illness \(tandfonline.com\)](#)

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