

Relationship between antidepressant prescriptions and education across Scotland

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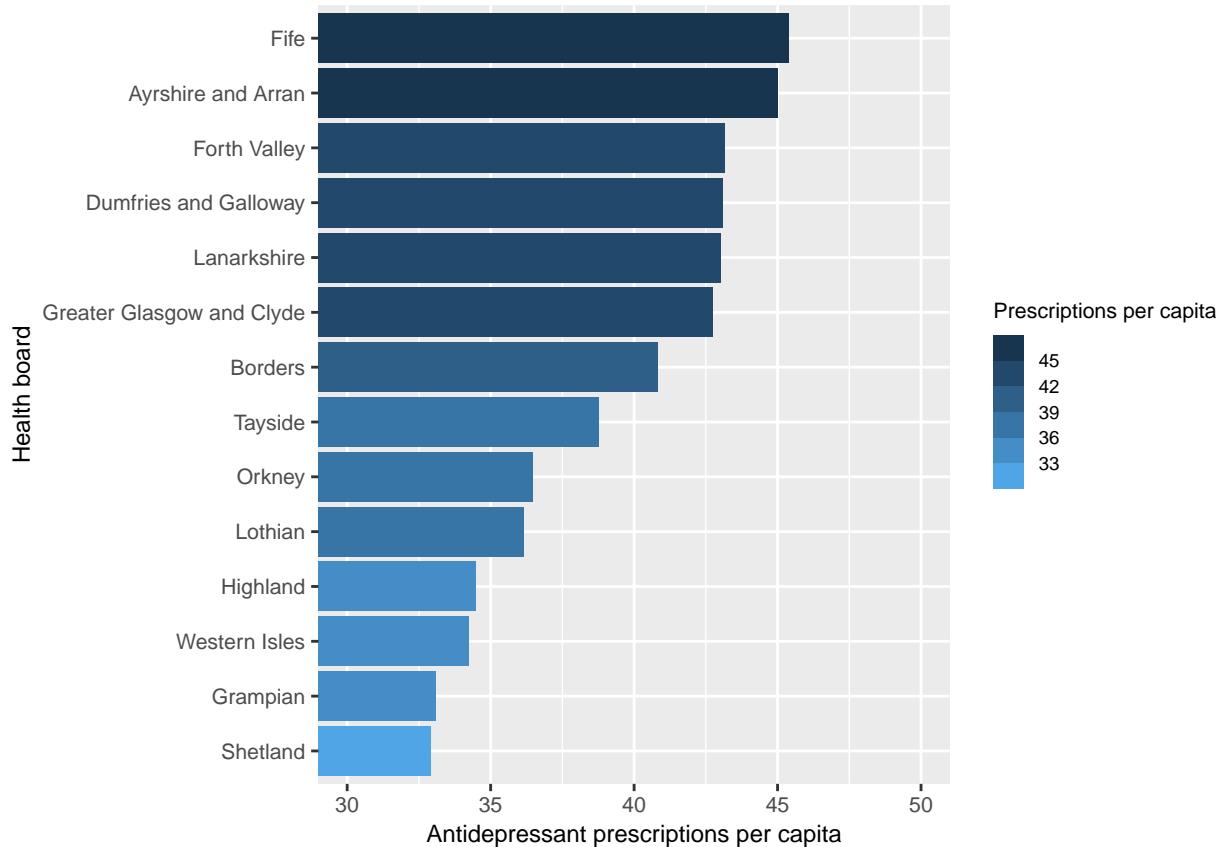
Background

The relationship between mental health and education level has been studied extensively, with a number of theories emerging on how the two interact. Correlative trends have been observed in PhD students, possibly owing to increased stress (1.). While other studies have shown a significantly reduced incidence of mental illness in educated individuals, hypothesising a protective effect (2.).

This report aims to explore the relationship between antidepressant prescriptions and education level in specific health boards across Scotland, using Public Health Scotland prescribing data from January to June 2025, and data from Scotland's census 2022.

Total antidepressant prescriptions per capita, by Scottish Health Board

Prescription data from January to June 2025



Next Steps

The graph displayed shows the antidepressant prescriptions over from January to June 2025 in all 14 Scottish health boards, proportional to the population of each healthboard. Fife appears to have the highest prescribing rate when it comes to antidepressants, with Ayrshire and Arran following closely in second, while Shetland has the lowest rate of the lot. The total range of prescriptions per capita is noticeable, with a difference of almost 12.5 between the highest and lowest prescribing health boards.

In concordance with the aforementioned aim, I plan to explore whether the antidepressant prescription rates have any correlation with the education level in each health board. The census data displays the proportions of the population of each healthboard by the highest level of qualification achieved, so I plan to gather the proportion that achieved a degree level qualification or higher and plot this against the prescription rates shown. I believe selecting just the numbers for degree level qualification or higher will allow for a more delineated relationship to appear, because the attainment of a qualification at that level is far removed from the next category (further education/sub degree qualifications), and I also believe there is a general disparity in the propensities between higher education graduates and everyone else. I intend display this new data with a line graph overlaid onto the pre-existing bar chart. Below are some notes of sporadic ideas I had while wrangling the data for the graph above, so just cursory.

- could explore dosages?
- possibly look at outcome disparities - where would I get data for that?
- could stratify prescriptions with industry - is there an industry more prevalent in the higher-prescribing healthboards?

References

1. Bergvall, S., Fernström, C., Ranehill, E., & Sandberg, A. (2025). The impact of PhD studies on mental health-a longitudinal population study. *Journal of health economics*, 104, 103070. Advance online publication. <https://doi.org/10.1016/j.jhealeco.2025.103070>
2. Maguire, A., Moriarty, J., O'Reilly, D. et al. (2017). Education as a predictor of antidepressant and anxiolytic medication use after bereavement: a population-based record linkage study. *Qual Life Res* 26, 1251–1262. <https://doi.org/10.1007/s11136-016-1440-1>