Analysis of regional variations in the prevalence and care of depressive disorder based on ambulatory care claims data – part 1 prevalence

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Abstract

Background: Depression is the most frequent psychological disorder worldwide. The treatment and care of patients suffering from depression constitutes an issue with major public health relevance for the health care system. This paper analyses regional differences in the ambulatory coded prevalence of depressive disorder. Specifically the role of sociodemographic and socioeconomic aspects as well as morbidity as risk factors for depression will be examined. In addition the importance of health care structures will be analysed.

Methods: We analysed the routine data of all statutory health insurance patients having at least one contact with a doctor billing with a regional association of statutory health physicians in 2007. The ocurrences of an ICD-10 coded depression as well as the patient-physician contacts are analysed. The correlation between the prevalence of depression and the number of ambulatory psychiatrists, psychotherapists and neurologists per 100.000 inhabitants, the availability of hospital psychiatric ambulatory services, as well as the sociodemographic and the socioeconomic (e.g. unemployment rate) structure of the 413 administrative districts in Germany were analysed.

Results: The prevalence of depressive disorder coded by physicians was 10.2% for people of 18 years and older. Females and people aged 65 upwards were affected more frequently. A continuous and virtually linear rise of prevalence rates from 18 to 60 years was seen for males (1.3% to 9.4%). A similar age-gradient from 18 to 57 years was observed for females (3.0% to 17.9%). Afterwards prevalence rates dropped to 6.7% for 68-year old males and to 15.1% for 66-year old females. Then again a continuous and virtually linear rise to 11.2% for 90-year old men and 19% for 85-year old female was seen. The prevalence of depression varied substantially across the 413 administrative districts (5.5% to 18.2%). As a-priori expected central cities in Western and Eastern Germany displayed the highest prevalence rates (raw, age- and gender- adjusted, and morbidity- adjusted rates). The second highest rates were observed for rural areas in Western Germany. This finding contradicted a-priory expectations. Socioeconomic characteristics of social deprivation in the districts are associated with higher prevalence-rates of depression. Taken together the socioeconomic aspects as well as the regional structural health services characteristics accounted for 66% of the geographic variation in the age-, gender- and morbidity-adjusted prevalence rates.

Conclusion: Our results confirmed previous findings on the prevalence of depressive disorders as well as gender- and age-effects. The high prevalence rates in elders as well as the high rates in rural areas in Western Germany partially contradict previous findings. Our ecological analysis of cross-sectional data does preclude the causal interpretation of the results. Nevertheless results foster the hypothesis of socioeconomic deprivation as a risk factor for depression. Future research should analyse the impact of low socioeconomic status using individual level data in a longitudinal research design.

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