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Brief report

Healthcare and preventive services utilization of elderly Europeans with depressive symptoms ☆

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Abstract

Background: Depressive symptoms are associated with increased healthcare utilization. However, it is unclear whether depressed individuals experience more or less frequent access to preventive services. Our goal was to investigate the association between depressive symptoms and both utilization of healthcare and preventive services.
Methods: Baseline self-reported data (2004) from non-institutionalized individuals aged ≥50 years participating in the Survey of Health, Ageing, and Retirement in Europe (SHARE) were used. Of the 18,560 respondents to the baseline questionnaire, 13,580 answered the supplementary questionnaire, which included measures of preventive services. Healthcare utilization during the previous 12 months, including outpatient visits, medication, hospitalization, surgery, and home healthcare were assessed. Preventive service measures assessed the participation in influenza immunization and colorectal and breast cancer screening. Depression status was assessed with the EURO-D, a validated instrument for which a score >3 defines clinically significant depressive symptoms. Logistic regressions were performed adjusting for age, gender, socioeconomic status, behavioral risk, chronic disease, disability, and country of residence.
Results: The estimated prevalence of depressive symptoms was 28.2%. Depressive symptoms were associated with significantly greater use of all healthcare domains but not preventive services, with the exception of colorectal cancer screening. Similar trends were found for each country of residence and for both genders.
Limitations: It was not known whether medical tests were used for screening or diagnostic purposes.
Conclusions: SHARE data suggest that patients with depressive symptoms are frequent users of healthcare but not preventive services. Low screening rates may reflect missed screening opportunities rather than a lack of screening opportunities.

Keywords: Healthcare utilization; Preventive services; Depressive symptoms; Population-based survey

☆ Contributors: IPB designed and wrote the protocol, performed the analysis, interpreted the data and wrote the manuscript. RV participated in the design of the study, helped in the analysis of the data and the drafting of the manuscript. BSE participated in the design of the study, helped in the analysis of the data and critically revised the manuscript. Role of funding source: The funding sources did not have any role in the study design, data collection, analysis and interpretation of the data, writing of the report, and in the decision to submit the manuscript for publication.

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1. Introduction

Depressive symptoms are a major public health problem because of their high prevalence, their detrimental effect on health (Braam et al., 2005) and their association with relatively frequent use of medical services (Bijl and Ravelli, 2000; Huang et al., 2000). In the elderly, the average prevalence of clinically relevant depressive syndromes (major and minor depression) is 13.5% (Beekman et al., 1999).

Little research has been published regarding the receipt of preventive services by individuals presenting depressive symptoms, and the results of such research are discordant (Horvitz-Lennon et al., 2006, Lasser et al., 2003, Mangtani et al., 2005, Pirraglia et al., 2004; Werneke et al., 2006). The first aim of the present study was to assess the association between depressive symptoms and the use of health services. The second was to examine whether individuals with and without depressive symptoms received similar levels of preventive services.

2. Methods

2.1. Data sources and participants

The Survey of Health, Ageing, and Retirement in Europe (SHARE) [Börsch-Supan et al., 2005) included 10 countries in 2004 (Austria, Denmark, France, Germany, Greece, Italy, the Netherlands, Spain, Sweden, and Switzerland). Baseline data were collected from non-institutionalized individuals aged ≥50 years using standardized face-to-face questionnaire-based interviews (survey questionnaires available online: http://www.share-project.org/). Respondents to the baseline questionnaire (overall response rate: 61.8% [Börsch-Supan and Jürges, 2005]) were given a self-administered supplementary questionnaire that they had to return by mail.

Of the 19,123 eligible respondents, 563 (2.9%) were excluded due to the absence of information regarding depressive symptoms ($n=18,560$), and 15,380 out of the latter (83%) responded to the supplementary questionnaire. These respondents were slightly more likely to be married, better educated, wealthier and more physically active. They also reported better subjective health and were less likely to present depressive symptoms.

The study's two samples consisted of the 18,560 individuals who answered the baseline questionnaire and the 15,380 individuals who answered both the baseline and supplementary questionnaire.

2.2. Measures

Except for preventive services information which was collected using the supplementary questionnaire, data were extracted from the baseline questionnaire. All measures were self-reported.

The primary independent variable was the presence or absence of clinically significant depressive symptoms. This was defined by a score >3 on the EURO-D, a validated instrument developed in Europe (Prince et al., 1999). This scale includes 12 items (total score ranges between 0 and 12; higher scores indicate increased severity of depressive symptoms).

The main outcomes were measures of healthcare utilization during the previous 12 months: use of medical care (in-outpatient, yes/no), number of ambulatory care visits, number of visits to general practitioners (among respondents with at least one ambulatory care visit), consultation of specialists (yes/no), hospital admission (yes/no), in-outpatient surgery (yes/no), number of medication taken ≥1x/week, use of home healthcare (yes/no), use of domestic help (yes/no), influenza vaccination (last year; individuals ≥65 years), participation in colorectal cancer (endoscopic screening; last 10 years; individuals ≥50 years; no history of colorectal cancer), and breast cancer screening (mammogram; past 2 years; women ≥50 years; no history of breast cancer). All outcomes were defined as binary variables. Data for the number of total and general practitioner ambulatory care visits and the number of medication taken were dichotomized into categories of high (>sample median) and low (≤sample median) use.

Potential confounders considered were: age, gender, marital status, years of education, household income adjusted for the size of the household, smoking, alcohol

Table 1
Estimated prevalence of depressive symptoms, by country (respondents to baseline questionnaire, $n=18,560$)

	Sample size	Presence of depressive symptoms
	n	%
Austria	1893	19.7
Denmark	1557	18.0
France	1590	33.4
Germany	2243	21.2
Greece	1894	24.9
Italy	1962	33.6
The Netherlands	2213	21.2
Spain	1735	37.6
Sweden	2538	20.5
Switzerland	936	18.9
All 10 countries	18,560	28.2