Contents lists available at ScienceDirect

European Psychiatry

Original article

Disability and common mental disorders: Results from the World Mental Health Survey Initiative Portugal

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ABSTRACT

Background: Common mental disorders are highly prevalent and disabling, leading to substantial individual and societal costs. This study aims to characterize the association between disability and common mental disorders in Portugal, using epidemiological data from the World Mental Health Survey Initiative.
Methods: Twelve-month common mental disorders were assessed with the CIDI 3.0. Disability was evaluated with the modified WMHS WHODAS-II. Logistic regression models were used to assess the association between disability and each disorder or diagnostic category (mood or anxiety disorders).
Results: Among people with a common mental disorder, 14.6% reported disability. The specific diagnoses significantly associated with disability were post-traumatic stress disorder (OR: 6.69; 95% CI: 3.20, 14.01), major depressive disorder (OR: 3.49; 95% CI: 2.13, 5.72), bipolar disorder (OR: 3.41; 95% CI: 1.04, 11.12) and generalized anxiety disorder (OR: 3.14; 95% CI: 1.43, 6.90). Both categories of anxiety and mood disorders were significantly associated with disability (OR: 1.88; 95% CI: 1.23, 2.86 and OR: 3.94; 95% CI: 2.45, 6.34 respectively).
Conclusions: The results of this study add to the current knowledge in this area by assessing the disability associated with common mental disorders using a multi-dimensional instrument, which may contribute to mental health policy efforts in the development of interventions to reduce the burden of disability associated with common mental disorders.

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1. Introduction

Mental disorders are highly prevalent and major contributors to the global burden of disease, accounting for 7.4% of the disease burden and representing the leading cause of non-fatal disease burden worldwide [1]. From a public health perspective, disability became as important as mortality to set priorities and resources' allocation in health systems [2,3]. Disability is conceptualized as the experience of an individual with a health condition in interaction with contextual factors [4], and it is defined as the reduction of an individual's capacity to function, encompassing activity limitations or participation restrictions [5–7]. The impact of disability associated with mental disorders in role functioning and quality of life is exacerbated by the early age of onset and recurrent or chronic course of many mental disorders [8], in addition to substantial unmet needs for treatment [3,9].

Mental disorders represent a challenge to health systems due to high prevalence rates, associated disability and inherent societal costs [1,10–13]. In 2010, mental disorders had an estimated cost of €461 billion in Europe as a result of high direct health costs and even higher indirect costs due to productivity loss [12]. At the individual level, people with disability related to mental disorders are at higher risk of exclusion from the labour market, which may further exacerbate existing social inequalities [14,15].

The World Mental Health Survey (WMHS) Initiative was designed to evaluate the prevalence, severity, distribution and consequences of mental disorders through the collection of cross-nationally representative epidemiological data using standardized methods worldwide [16,17]. In Portugal, the WMHS Initiative is the

only population survey of psychiatric morbidity with a nationally representative sample [18].

Analysis of the WMHS Initiative data in Europe showed that Portugal and Northern Ireland are the countries with the highest 12-month prevalence of any mental disorder [19]. The prevalence rate of 22.9% found in Portugal is particularly high when compared with other Southern European countries such as Italy and Spain, where prevalence rates of 9.7% and 8.8% were found, respectively [17,20]. In the spectrum of mental disorders, the most prevalent conditions are mood and anxiety disorders, designated as common mental disorders [21]. Considering the high 12-month prevalence of these disorders in Portugal and the growing literature quantifying its societal costs [10–12,22–24], it is important to characterize the burden of common mental disorders in terms of disability at the country level. Studies in this area tend to evaluate disability through the lenses of productivity loss, using indicators such as days out of role [11,24], work performance [13,23], sickness absence [25,26] or early retirement [27], but do not address the overall impact of common mental disorders in functioning and well-being.

This study aims to characterize the disability associated with common mental disorders in Portugal, using the modified version of the World Health Organization Disability Assessment Schedule for the WMHS Initiative (WMHS WHODAS-II), a multi-dimensional assessment of disability, in order to provide an evidence-based framework for health policy strategies and interventions.

2. Methods

2.1. Study design

The WMHS Initiative, carried out in Portugal between October 2008 and December 2009, is a cross-sectional study based on a stratified multistage clustered area probability household sample. It was administered at the households of a nationally representative sample of respondents. The participants were Portuguese-speaking adults aged 18 or above and residing in permanent private dwellings in Portugal's mainland. Informed consent was obtained before the interviews and the procedures were approved by the Ethics Committee of the Nova Medical School (NOVA University of Lisbon). The survey was conducted by trained lay interviewers on a face-to-face setting, based on a computer-assisted personal interview (CAPI) methodology. The response rate obtained was 57.3%, similar to the surveys in Belgium, France, Germany, and the Netherlands. No substitutions from the initially selected households were allowed when the originally sampled household resident could not be interviewed [16].

In order to reduce the respondent burden, internal subsampling was used by dividing the questionnaire in two parts. Part I included the core diagnostic assessment of mental disorders. All respondents meeting the criteria for any DSM-IV disorders also completed Part II, together with a probability sample of 25% randomly selected participants who did not meet criteria for any disorder. Part II also included additional information, such as assessment of disorders of secondary interest, predictors and consequences of mental disorders and use of services. The total number of interviews was 3849 and both modules (Part I and Part II) were administered to 2060 participants. Part I data was weighted to adjust for differential probabilities of selection (between and within households), non-response bias and discrepancies between the sample and the sociodemographic and geographic data distribution from the census population. Part II was additionally weighted in order to adjust for the differential sampling of Part I participants into Part II. Further details regarding the study design and fieldwork procedures can be found elsewhere [16].

2.2. Measurements

2.2.1. 12-month mental disorders

Mental disorders present in the 12 months before the interview were assessed with the version 3.0 of the WHO Composite International Diagnostic Interview (CIDI), a fully-structured diagnostic interview, administered by trained lay interviewers [28].

A clinical reappraisal study, carried out in the WMHS Initiative in France, Italy, Spain and the United States, compared the diagnoses generated by the CIDI 3.0 with those generated by the clinician-administered non-patient edition of the Structured Clinical Interview for DSM-IV (SCID) [29,30]. This study showed a good concordance between the CIDI 3.0 and SCID estimates for 12-month mental disorders [30].

The diagnoses of common mental disorders, assessed using the criteria of the American Psychiatric Association's Diagnostic and Statistical Manual Disorders Fourth Edition (DSM-IV) [31], are grouped in the two following categories: 1) anxiety disorders (panic disorder, generalized anxiety disorder, social phobia, specific phobia, agoraphobia without panic disorder, post-traumatic stress disorder, obsessive-compulsive disorder and adult separation anxiety); and 2) mood disorders (major depressive disorder, dysthymia and bipolar disorder including bipolar I and II).

2.2.2. Disability (WMHS WHODAS-II)

Disability was assessed with the modified version of the World Health Organization Disability Assessment Schedule (WHODAS-II) for the WMHS Initiative (WMHS WHODAS-II), based on the International Classification of Functioning, Disability and Health Framework [6,7], and applied to the participants of the Part II sample. Difficulties in the 30 days prior to the assessment are evaluated in the following domains:

1) Understanding and communication (cognitive domain);
2) Moving and getting around (mobility domain);
3) Personal hygiene, dressing, eating and ability to live alone (self-care domain);
4) Interaction with other individuals (social interaction domain);
5) Difficulties carrying out work or normal activities (time out of role domain).

A global disability score aggregating all domains scores was calculated. Domains scores range from 0 to 100, with higher scores meaning greater disability. The internal consistency and validity of the WMHS WHODAS-II have been demonstrated [32]. Given the distributional properties of the instrument, the global disability score was dichotomized at the 90th percentile to indicate the presence or absence of substantial disability, following the recommendations of Von Korff et al. [32].

2.2.3. Covariates

Gender and age were considered as covariates to adjust for possible differences in the experience of disability. The models were also adjusted for education, assessed through the number of years of education as a continuous variable. Education is widely used as an indicator of socioeconomic position [33] and research indicates an educational gradient in the experience of disability due to mental disorders [26].

The presence of any physical disorder was also considered as a covariate given that comorbidity between physical and mental disorders is associated with higher levels of disability [34,35]. Physical disorders were assessed with a chronic disorders checklist that has shown good concordance with medical records [36,37]. Likewise, to avoid the influence of comorbidity between mental disorders on the disability reported by individuals [8], a variable