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Original article

The local burden of emotional disorders. An analysis based on a large health survey in Catalonia (Spain)

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ABSTRACT

Objective: Mental health conditions are associated with a significant burden on individuals. Using data from a large population health survey, the present study aimed to quantify the burden of emotional disorders (depression and anxiety) on health-related quality of life (HRQoL) in the region of Catalonia (Spain) for evidence-informed policy making.
Methods: Regression models were used to estimate the impact of emotional disorders on HRQoL, controlling by socioeconomic factors and somatic health problems. The rate of emotional disorders was based on the General Health Questionnaire (GHQ-12) and quality of life scores were based on the EQ-5D.
Results: The impact of emotional disorders on HRQoL was equal to a reduction of 0.17 in the EQ-5D score. Translation of this individual impact to population figures yielded a total loss of 78,742 quality-adjusted life years (QALYs) for 2006. This strong impact highlights the need for global policies aiming to reduce this burden.
Conclusion: The negative relation between emotional disorders and the HRQoL of individuals was confirmed and quantified for the population of Catalonia. The use of quality of life scales such as the SF or EQ-5D, combined with data on quasi-specific health conditions provides substantial information for prioritizing and planning health programs.

La carga local de los trastornos emocionales. Un análisis basado en una encuesta de salud poblacional en Cataluña, España

Palabras clave:
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Trastornos emocionales
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RESUMEN

Objetivo: Los trastornos mentales suponen una importante carga sobre los individuos. A partir de los datos de una encuesta de salud poblacional, el presente estudio cuantifica la carga que suponen los trastornos emocionales (depresión y ansiedad) sobre la calidad de vida relacionada con la salud (CVRS) en Cataluña (España) para una política basada en evidencia informada.
Método: Se utilizó un modelo de regresión para evaluar el impacto de los trastornos depresivos y de ansiedad sobre la CVRS, controlando por factores socioeconómicos y por otras condiciones de salud. La prevalencia de los trastornos mentales se basó en el Cuestionario de Salud General (GHQ-12), y para obtener la valoración de la calidad de vida se empleó el cuestionario EQ-5D.
Resultados: El impacto de los trastornos emocionales en la CVRS equivale a una reducción de 0,17 en la puntuación del EQ-5D. Este impacto individual, cuando se traslada a cifras poblacionales, equivale a una pérdida de 78.742 años de vida ajustados por calidad para el año 2006. Esta importante cifra señala la necesidad de políticas globales que tengan como objetivo la reducción de esta carga.
Conclusión: Este estudio confirma y cuantifica para la población de Cataluña la relación negativa entre los trastornos emocionales y la CVRS. El empleo de escalas de calidad de vida, como el SF y el EQ-5D, combinadas con información sobre condiciones de salud, proporciona datos relevantes para la priorización y la planificación de programas sanitarios.

Introduction

The epidemiological transition from acute to chronic illness has stimulated a change in outcome measurement in healthcare. Mortality figures alone are inadequate to accurately reflect the burden of distinct health conditions. Consequently, outcome measures

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based on functioning, disability and health-related quality of life (HRQoL) have been proposed.[1,2]

Mental health conditions are associated with a significant burden on individuals, reducing their quality of life and impairing their capacity to fulfil their individual potential. Consequently, the burden of these conditions on individuals and populations is better assessed with disability and quality of life measures, rather than with mortality data alone. The World Health Organization (WHO) assessed the burden of disease of several health conditions based on epidemiological data of disease prevalence and on estimates of the impact of distinct conditions on individuals' health[2] and found that depression was the third greatest cause of health disability worldwide and the second in the developed world.[3] Projections suggest that depression will be the main cause of health disability (6.2% of the global burden of disease) in 2030, more than that associated with ischemic heart diseases or road traffic accidents.

Another approach to estimate the burden of mental health conditions relies on analyzing individual data to estimate the impact of these disorders on HRQoL.[4] Individual data allows the marginal effect of mental health conditions on HRQL to be estimated, controlling by comorbid factors and other variables that might also affect the outcome measure.

Evidence-informed care is a new approach to health policy making that incorporates various sources of local information apart from traditional evidence-based research.[5,6] Local evidence (e.g. regional information) is critical for making decisions about health policies, and periodic national and regional health surveys constitute a major tool for evidence-informed policy making. However the interpretation of data on psychiatric disorders and emotional distress in general health surveys poses additional challenges to planning and priority setting, mainly due to the inherent nosological complexity of these disorders, especially that of the construct of emotional disorders (depression/anxiety)[7]; interpretation is also hampered by problems of the reliability and validity of brief assessment measures used in these surveys.

To generate an informed evidence base for planning and priority setting, in 2008 the Catalan Department of Health commissioned a series of related studies on the burden and costs of depression in Catalonia (COSTDEP[8]). The cost of illness analysis confirmed the major impact of depression on both the health sector and employment.[9] This analysis also demonstrated the difficulties of disaggregating information on anxiety and depression outside specialized care, due to the proportion of mixed anxiety and depression in primary care as well as in disability pension records.

The present study aimed to quantify the burden of emotional distress (depression and anxiety) in the region of Catalonia, one of the seventeen autonomous regions in Spain, using a large population health survey. A further aim was to assess the utility of this database for mental health planning and priority setting.

Methods

This study formed part of the COSTDEP project.[8] The organizations involved in this project included the Catalan Department of Health, the London School of Economics and Political Science, and the research association PSICOST. An expert panel, which included researchers, clinicians, providers, decision makers and managers of health databases relevant for depression in Catalonia, also participated.[9] The expert panel consisted of two groups; the first group (group A) was formed by nine experts in the distinct topics related to the study (epidemiology, use of services, resources management, costs) while the second group (group B) was composed of nine officers and health decision makers from various units of the Catalan Department of Health and other official entities, as well as the managers of databases or related studies and programs (names are provided in the acknowledgements section). Group A held two meetings with a mean length of 3 hours while group B undertook three work meetings.

Data

The data source for all of the analyses was the Catalonian Health Survey of 2006[10] (*Encuesta de Salud de Catalunya 2006*, ESCA), a cross-sectional survey that collected information about morbidity, health status, health-related behaviors, use of health care services, and sociodemographic data from a representative sample of the non-institutionalized population of Catalonia. In total, 18,126 persons (15,926 aged 15 years or over, and 2,200 under 15 years) were randomly selected using a multiple-stage process and were interviewed at home by trained interviewers. All interviews were conducted between December 2005 and July 2006.[10] For this analysis, only data from individuals aged 15 years or over were selected.

The ESCA 2006 provides information on the mental health status of individuals, based on the 12-item version of the General Health Questionnaire (GHQ-12). This instrument is a screening questionnaire designed for use in consulting settings and aimed at detecting individuals with a diagnosable psychiatric disorder.[11] The GHQ-12 can be used to provide an indication of the proportion of 'emotional distress'[12] or as a screening instrument in epidemiological studies of mental disorders.[13] The validated cut-off point for the Spanish version of the GHQ-12 is equal to a score of 2/3,[14] implying that individuals with a score of 3 and higher are considered likely to have a psychiatric disorder. Nevertheless, this cut-off point is usually used in double-phase screening studies. In this analysis, to determine the optimal cut-off point to establish that an individual had an emotional disorder (depressive and/or anxiety disorder),[7] a consultation round was made with the main experts in the use of GHQ in Spain. Finally a conservative approach was adopted to reduce the possible number of false positive results and this option was agreed by the COSTDEP expert panel. Therefore, for this analysis, individuals with a score of 4 or higher were considered to probably have an emotional disorder.

HRQoL is that part of an individual's quality of life that can potentially be influenced by health and healthcare. In the ESCA 2006, HRQoL was measured with the widely used EQ-5D.[15] This tool measures health status across five dimensions (mobility, self-care, usual activities, pain or discomfort and anxiety or depression) and each dimension has three grades of severity corresponding to no, moderate or extreme problems; consequently, the EQ-5D can capture 243 different health states. Each of these health states is assigned a utility score elicited from the general population's preferences, with a value of 1 corresponding to perfect health and a value of 0 to death; health states can be valued as being worse than death and are assigned negative scores. The utility scores used have been validated for the Spanish population, obtained through the time trade-off method.[16] Usually, these health utilities are combined with the duration of the health states to obtain quality adjusted life years (QALYs).[1] However, the ESCA 2006 is a cross-sectional survey and therefore, in this study, when QALYs were calculated, their values only reflected the impact of poor health on quality of life, rather than on the duration of life.

The socioeconomic factors included in the analysis were age, sex, living arrangements (living alone, with a partner or with other people) and educational attainment (primary education not completed, primary education, secondary education and higher education). The variable of social class, based mainly on last professional occupation,[17] was also included as a proxy of individuals' incomes. ESCA 2006 contains information on somatic health problems, which was used in the analysis. Participants were asked (separately for each condition) whether they were suffering or ever had suffered from a list of chronic health conditions including heart and pulmonary diseases, cancer, diabetes and back pain, among others.