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Common mental disorders and the utilisation of health services in Nicosia, Cyprus: A population-based cross-sectional study

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ABSTRACT

Background: This study is a population-based cross-sectional survey in the health cities framework for improving and directing health policies. The aim of the study was to examine the prevalence of common mental disorders (CMD) and their relationship with the health services use in adults living in Cyprus. More specifically, among many of the health-related behaviours addressed in this paper, we investigate the association between diagnosed mental disorders and self-reported CMD[1] via the use of health services and the factors contributing to those disorders.

Methods: A representative, stratified sample of 1002 people from Cyprus was collected between April 2013 and April 2014. Structured, face-to-face interviews were used to assess people's use of the health services, psychiatrist-diagnosed depression, anxiety and self-reported depression and anxiety. Associations of health services use and CMD were made via Pearson's chi-square test and, in order to investigate the CMD relationship with socioeconomic factors further, we used multivariate logistic regression models.

Results: The prevalence of psychiatrist-diagnosed CMD was 3.5%, and CMD symptomatology was 29.8%. Hospital admission within the last 12 months was 28.6% among CMD-diagnosed cases, compared to 6.4% in non-CMD cases. Further, doctor visit rates were 54.3% among those with CMD, compared to 23.1% in non-CMD participants. Relative results are also shown for CMD symptomatology. Multivariate logistic regression analyses identified the predictive factors for CMD diagnoses and CMD symptomatology.

Conclusions: Recognition, diagnosis and proper management of populations at risk for a CMD is of special interest, with respect to their associations with socioeconomic factors.

1. Introduction

This survey was conducted in the framework of WHO Health Cities. The purpose of the WHO Healthy Cities Network was to put health high on the social, economic and political agenda of city governments in order to protect and promote their citizens' health and well-being. The main idea of the project was to identify and report on the characteristics that influence and shape the health status and quality of life of citizens, aimed at targeted health policies among population groups most in need of intervention (Hoeijmakers, De Leeuw, Kenis, & De Vries, 2007).

In this study, we focus on common mental disorders (CMD) by reporting on the prevalence of disease, exploring the risk and protective factors related to them and, more importantly, examining the association of those mental conditions with the use of health services.

First, we must make the aforementioned term clear; in this paper, CMD refer to a range of depression and anxiety disorders (National Collaborating Centre for Mental Health, 2011). The aetiology of common mental health disorders is multi-factorial and involves psychological, social and biological factors. A number of demographic and socioeconomic factors are associated with a higher risk of disorders, including gender, age, marital status, ethnicity and socioeconomic deprivation. Estimates of the prevalence of common mental health disorders vary considerably depending on where and when the surveys were carried out, and the period over which the prevalence was measured. The magnitude of variability is clear when considering the range of common mental disorder recorded, from 3.1% in Tanzania using the

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[1] Common mental disorder.

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Clinical Interview Schedule-Revised (CIS-R) (Jenkins, Mbatia, Singleton, & White, 2010) to 77.7% in a rural region of Udmurt Republic, Russia, on the basis of the Composite International Diagnostic Interview (CIDI 2.1) (Pakriev, Vasar, Aluoja, & Saarma, 1998). As a result, common mental disorders, often showing comorbid patterns, are highly prevalent, affecting substantial sections of all the populations surveyed. A mean of 17.6% met criteria for a common mental disorder during the previous 12 months and 29.2% met lifetime prevalence (Steel et al., 2014b). In the UK, it was found that 16.2% of adults aged 16–64 years met the diagnostic criteria for at least one disorder in the week prior to the interview (McManus, Meltzer, & Brugha, 2009).

Similarities between the Cypriot health system and other European island nations such as Malta and the UK (both Cyprus and Malta were colonies) existed with marked differences. For example, in Malta and the UK, there is universal access for all people free of charge whilst in Cyprus persons with a high income must pay user charges. Examination of the health systems shows large private health care sectors which are mostly financed through out-of pocket payment (Jonathan Cylus Malta & Cyprus, 2014).

To explore the nature of CMD we should know that these are quite common in the population and have the potential to cause extreme emotional distress and daily dysfunction, though they do not usually affect cognition. The symptomatology of depression is referred to as low mood and a loss of interest and enjoyment in ordinary things and experiences. By contrast, anxiety disorders include feelings of anxiety and fear, or worrying about future events and/or feeling fearful in reaction to current events. These feelings may cause physical symptoms, such as an elevated heart rate and shakiness (American Psychiatric Association, 2013). There are a number of anxiety disorders, including generalised anxiety disorder, specific phobias, social anxiety disorder, separation anxiety disorder agoraphobia, panic disorder and selective mutism. Symptoms of depression and anxiety frequently co-exist, and, as a result, many people meet the criteria for more than one CMD (Haug, Mykletun, & Dahl, 2004). Some of the consequences of this are social problems and impaired functioning at work.

Access to healthcare is a large and diverse topic with a range of complex issues and considerations. For people experiencing mental health problems across a range of social and demographic groups, access to healthcare can be challenging. Factors that affect access can be grouped around a number of themes, which can be represented by Andersen's conceptual model (Andersen, 1995). In this, there are 3 major factors affecting healthcare utilisation; those are predisposing factors depicting the demographic characteristics of age and sex, social factors such as education, occupation, ethnicity and social relationships (e.g., family status). Enabling factors serve as conditions enabling services utilisation, such as income and insurance status and need factors with differentiation between perceived need for health services (i.e., symptoms) and evaluated need (i.e., professional assessments and objective measurements of patients' health status and need for medical care) (Andersen & Davidson, 2001; Andersen & Newman, 1973; Andersen, 1968; Davidson, Andersen, Wyn, & Brown, 2004).

In contrast, both anxiety and depression often go undiagnosed (Kessler, Bennewith, Lewis, & Sharp, 2002), and sometimes individuals do not seek a specialist's help or treatment. In cases of undiagnosed and untreated CMD, the possibility of long-term impairment increases, causing both physical and mental disability (Zivin et al., 2015). In addition, there are constant impediments to these patients when seeking help, due to a lack of knowledge about mental disorders, or fears of stigma and discrimination (Alonso et al., 2009, Hinshaw & Stier, 2008).

During our research, we could find no study on the prevalence or epidemiology of CMD or the use of mental health services in Nicosia, a city that is home to more than half the population of Cyprus. This study aims to describe the issue presented here by reporting on the prevalence of CMD, sociodemographic associations and the help-seeking behaviours of people with CMD.

2. Materials and methods

Based on the 2011 census, a representative stratified random sample of the population of the Cypriot-Greek city of Nicosia was selected consisting of 447 males and 525 females aged 18 or older. Each was asked to answer a validated questionnaire in a personal interview setting. Experienced interviewers who have had passed a one-day preparatory course were recruited. A quite high participation rate was obtained, nearly 92%. Prior to beginning the surveys, we obtained ethical approval for the study by the Cyprus National Bioethics Committee and the Cyprus Data Protection Authority, and all participants signed a written informed consent form.

The questionnaire consisted of 7 blocks of information, including personal and sociodemographic data and an evaluation of the participant's health services use. It was developed by the Department of Operational Research and Management of the University of Patras, Greece. Among the questions asked were the following: "Have you visited any health facility/provider in the last three months", "Have you been hospitalised within the last 12 months", "Have you been diagnosed with a CMD (list provided)", "Have you ever had CMD symptoms within the last 12 months (self-reported)". All data was collected during a one-year period, from April 2013 through April 2014.

The variables of interest were CMD diagnosed by psychiatrists and CMD symptoms that were self-reported by the respondents. From the CIS-R, we used the list with the 14 symptoms used for detection of CMD and we asked participants to mark if they had ever felt one or more of those symptoms the last week before the interview. Those symptoms were: somatic symptoms, fatigue, concentration and forgetfulness, sleep problems, irritability, worry about physical health, depression, depressive ideas, worry, anxiety, phobias, panic, compulsions and obsessions (Brugha et al., 1999). The purpose of the study were not the CIS exact scores; we reported if participants had experience of a CMD symptom and only the diagnosis by psychiatrists were taken into account. The diagnosis was confirmed by report letter from the psychiatrists.

Furthermore, we considered the following sociodemographic factors: sex, age as a categorical variable, nationality (Cypriot/other), marital status (married/divorced or separated/single), educational status as a categorical variable (in years of overall education), total household income for all family members (in euros/month), smoking status defined as yes for current and previous smokers alike and no for those who have never smoked. Also, we used body mass index (BMI) in kg/m^2 as a categorical variable, employment status defined as yes for those with a current paid post and no for those who did not work neither paid for public insurance which is defined as free coverage of all health costs. The variables that depicted health services use were at least one hospital admission within the past 12 months (yes/no), at least one visit to a health professional within the last three months (yes/no) and also the type of doctor's specialty in this last visit defined as General Practitioner, Psychiatrist or another specialty doctor.

All statistical analyses were completed using SPSS v.24 (Corp, 2016). Descriptive statistics were presented in the tables for all the above characteristics. Univariate logistic regression analyses were performed to assess all statistically significant sociodemographic factors associated to a diagnosed CMD and CMD symptomatology. After that, the statistical significant factors were included to the multivariate logistic regression analysis model. All multivariate analyses were adjusted by age.

Chi-square tests were used to describe the association between health service use and physician-diagnosed or self-reported CMD symptoms. A p-value of less than .05 was considered statistically significant.