Research Article

it Medical Team
www.itmedicalteam.pl

Annals of Clinical and Laboratory Research
ISSN 2386-5180

2023
Vol.11 No.5:484

Prevalence of Common Mental Disorder and Associated Factors among Patients Admitted to Medical and Surgical Ward of Dilla University Referal Hospital, South Ethiopia, 2019

Yetayale Berhanu*

Department of Health Science, Dilla University, Dilla, Ethiopia

***Corresponding author:** Yetayale Berhanu, Department of Health Science, Dilla University, Dilla, Ethiopia; Email: yetalb@yahoo.com

Received: 31-Dec-2021, Manuscript No. IPACLR-23-12224; **Editor assigned:** 05-Jan-2022, PreQC No. IPACLR-23-12224 (PQ); **Reviewed:** 19-Jan-2022, QC No. IPACLR-23-12224; **Revised:** 01-September-2023, Manuscript No. IPACLR-23-12224 (R); **Published:** 29-September-2023, DOI: 10.36648/2386-5180.23.11.484

Citation: Berhanu Y (2023) Prevalence of Common Mental Disorder and Associated Factors among Patients Admitted to Medical and Surgical Ward of Dilla University Referal Hospital, South Ethiopia, 2019. Ann Clin Lab Res. Vol.11 No.5: 484.

Abstract

Background: The American psychiatric association's manual of diagnosis and statistics of psychiatric disorders, 4th edition (DSM-IV), refers to the clinically important term "mental disorders" for people associated with current distress (painful symptoms). I am. It is conceptualized as a behavioral or psychological syndrome or pattern. Or, the risk of suffering from a disorder (disorder of one or more important functional areas) or a significant loss of pain, disability or freedom is greatly increased.

Objectives: To assess the prevalence of common mental disorder and associated factors among patients admitted in the medical and surgical wards in Dilla university referral hospital, Dilla town and South Ethiopia, February 2019.

Materials and methods: Institutional based cross-sectional descriptive study design was conducted by using quantitative data collection methods. The study was conducted at Dilla University Referral Hospital (DURH) from December to May, 2019, which is found in Dilla town, Gedeo zone, SNNPR, Ethiopia.

Results: 176 respondents participated in the study and the response rate was 100%. Studies have shown that the prevalence of common mental disorders in DURH medical and surgical wards is 32.4%. It was found that factors such as gender, age, financial pressure, interpersonal problems and chronic physical diseases were significantly related to the common mental disorders of these patients.

Conclusion and recommendations: The prevalence of common mental disorders in DURH is high. Women, old age, financial stress, relationship problems and chronic medical conditions are all risk factors for a general mental disorder. Thus, patients undergoing treatment in the therapeutic and surgical departments should be screened for general mental disorders.

Keywords: Common mental disorders; Prevalence; Mental illness; Hospital patent; Self reporting questionnaire

Abbreviations: CMD: Common Mental Disorder; COPD: Chronic Obstructive Pulmonary Disease; CVD: Cardio Vascular Disease; DSM: Diagnostic Statistical Manual; DURH: Dilla University Referral Hospital; GHQ: General Health Question; HADS: Hospitalized Anxiety and Depression Symptoms; LSAD: Legal Professionals with Stress, Anxiety and Depression; SRQ: Self-Reporting Questionnaires

Introduction

Background

Mental health is defined as the successful performance of the mental function related to thinking, mood and behavior that leads to productive activities and satisfying relationships with others; the ability to adapt to change and adversity. The American psychiatric association's diagnostic and statistical manual of mental disorders (DSM-IV) describes the term "mental disorder" as a clinically significant behavioral or psychiatric syndrome or pattern that occurs in a person who has pre-existing ailments (painful symptoms) or disability (weakness in one or more important functional areas) or with a significantly increased risk of pain, disability or loss of freedom. A common mental illness is a group of conditions of anxiety, depression and unexplained physical symptoms that are commonly encountered in the community and medical setting. They are a highly prevalent mental illness that affects people of all ages and causes distress to individuals, families and communities. Mental illnesses are more common in the healthcare sector than in the community and some studies have shown that up to 40% of patients in the general medical and surgical wards were depressed and needed treatment. Nearly 450 million people worldwide suffer from mental disorders and neuropathies. Lifetime prevalence ranges from 12.2% to 48.6% and the annual prevalence ranges from 8.4% to 29.1%. Neuropsychiatric disorders account for 14% of the global burden of disease, 75% of which occurs in developing countries.

Due to a lack of understanding of the relationship between mental illness and other health conditions, the burden of mental

disorders can be underestimated and increase the risk of communicable and non-communicable diseases, as well as lead to unintentional or intentional injury. Many studies, contrary to doctors' beliefs, indicate that most patients who are considered worried only on arrival usually suffer from anxiety and depression and 30%-60% of inpatients can be diagnosed. It indicates that you may have a mental disorder. The most common psychiatric disorder among patients admitted to the emergency room is anxiety and most admitted patients suffer from depression. In addition, some illnesses, especially chronic ones, can cause mental problems due to painful experiences and side effects. The most common diagnoses of psychiatric disorders in a typical hospital environment are depression, substance abuse, neurosis-related and anxiety disorders. These are often associated with chronic medical conditions.

Statement of the problem

The term general mental illness (CMD) is a broad diagnostic category of non-psychiatric disorders, depression and anxiety disorders, covering most mental illnesses in the general population. The impact of common mental health problems worldwide is increasing. The World Health Organization has been concerned about the growing global burden of mental illness. It is currently estimated to account for 12% of the world's disease burden and is expected to rise to 15% by 2020, making it the second largest health problem in the world. This burden is considered more severe in low-income countries where poverty and other infectious diseases are prevalent. Not only in developed and developing countries around the world, mental illness is gradually being recognized as a public health problem. Compared with the community, the prevalence of mental illness among inpatients in general medicine and surgery is higher, ranging from 16% to 61%. Depression, anxiety and somatic symptom disorders are the most common psychiatric disorders in general hospitals. Depression is a common mental illness with a lifetime prevalence of 12% to 25% in females and 5% to 12% in males [1]. WHO emphasized that depression is the fourth most common illness and causes physical, emotional, social and financial problems. Depression can cause dysfunction, poor quality of life, adverse effects on physical recovery, increased suicide rates, increased access to medical services and costs, leading to premature death and general health problems. There is a possibility. Depression co occurs with a variety of medical conditions, including pancreatic and bronchial cancer, hypothyroidism, Cushing's syndrome and Cardiovascular Disease (CVD).

Depression is thought to complicate the care of patients in general hospitals in internal and surgical wards. Depressed patients are twice as likely to use emergency department services as non-depressed patients. In diabetes, the total health expenditure of depressed patients is four and one-half times the health expenditure of non-depressed patients. In chronic heart disease, depressed patients have a higher incidence of complications and are more likely to undergo invasive surgery. People with COPD who also have depression spend longer in the hospital and the burden of symptoms will increase. In Ethiopia, based on a WHO study, 2020, it will be the second debilitating disease of all medical and psychiatric disorders after traffic accidents, cerebrovascular accidents and obstructive pulmonary disease. Estimated it would be. Depression is widespread worldwide, but about 50% of patients are untreated and do not receive treatment. Failure to diagnose and treat depression leads to disease resistance and recurrence. In a study by the national center of neurology and psychiatry (NIMH-ECA), anxiety disorders were more common than any other psychiatric disorder (8.3% of the home population surveyed). Studies have shown that the prevalence of anxiety and depression in hospitalized medical and surgical patients, mostly women, is relatively high and has nothing to do with the severity of the disease. Anxiety and depression are associated with more severe illness perception and less improvement. Another study showed that the prevalence of clinically significant symptoms of depression and anxiety in patients with Chronic Obstructive Pulmonary Disease (COPD) is around 50%, while the prevalence of depression is high in hospitalized patients with Congestive Heart Failure (CHF).

In a study conducted through the Hospitalized Anxiety and Depression Scale (HADS) questionnaire in musculoskeletal patients, the high levels of anxiety and depression detected in this sample were psychological comorbidities in a musculoskeletal rehabilitation environment. It shows that it is important to screen for. Unexplained physical symptoms such as pain, discomfort and dizziness are common in primary care and general medical practice. Frequently changing terms for this type of illness include functional, psychogenic, non-organic, somatic, idiopathic and medically unexplained illnesses, as well as a number of historical terms (twenty-five). Females report more somatization symptoms than males, but are more associated with mental distress than gender [2]. In situations where physical symptoms are more tolerable than emotional or psychological symptoms or where physical illness is more easily treated, somatization may increase. Medically unexplainable physical symptoms pose unique challenges for healthcare providers. It is difficult for clinicians to understand the patient's symptoms; suspicion of the patient often leads to conflicts between the patient and the provider; healthcare utilization and related costs are high; although treatment is usually possible, it takes time and between the patient and the provider close cooperation.

Materials and Methods

Study design, area and period

A facility-based cross-sectional descriptive study design was conducted from December to May 2016 at the Dilla University Referral Hospital (DURH) in Dilla town, Gedeo zone, Southern Nations, Nationalities, Ethiopia. DURH was established in 1977 EC/1985 GC as a zone hospital in the Gedeo zone and EC was changed to DURH until June 11, 2001. It is 360 km from Addis Ababa, the capital of Ethiopia and 90 km from Hawassa, the capital of SNNPRE. At the time of establishment, about 154 staff members were hired, 104 of whom were medical professionals and the rest were support staff. Currently, the hospital has five wards. That is, medical care (39 beds), surgery (26 beds), obi/gin (9 beds), pediatrics (18 beds) and psychiatry (12 beds) [3].

Nowadays, the hospital serves around 3 million peoples from which 95% belongs to Gedeo ethnic group. Concerning mental health, there are 625 schizophrenia patients annually.

Sample size determination

The sample size was determined using a single population proportion formula. It was calculated with the assumption of 58% prevalence of common mental disorder from the study done in Gondar university. 0.58 P, 1.96 Z (standard normal distribution), 95% CI, α=0.05. Considering the design effect and adding a 10% nonresponse rate, the final sample size was 410. Since our study population is less than 10,000, it is finite, we can use a correction formula. The average number of patients admitted in both wards within one month is 308 (total population).

$$n = \frac{n_o}{1 + \frac{n_0}{N}}$$

$$= \frac{n \times N}{n + N}$$

$$= \frac{410 \times 308}{410 + 308} = 176$$

Sample techniques

Using systematic sampling techniques, 176 medical and surgical patients were randomly assigned. The sampling period was determined by dividing the total number of study participants who were admitted to the medical and surgical wards during the month of data collection by the total sample size [4]. Relatively speaking, 77 and 99 patients were admitted from the inpatient medical and surgical wards, respectively; the first people from the admission record were selected by lottery.

Data collection instruments and procedures

Data were collected through face-to-face interviews, using semi structured questionnaires, including socio-demographic factors, clinical characteristics, Oslo 3 items, social support scale, substance-related factors and Self-Report Questionnaire (SRQ-20). SRQ-20 was used to evaluate the outcome variables (common mental disorders). SRQ was originally designed by the WHO as a self-managed scale. Due to the low literacy rate in developing countries, SRQ-20 has also been found to be suitable for interviewer-managed questionnaires. Each of the 20 items is recorded as 0 or 1. A score of 1 means that the symptom has appeared in the past month; a score of 0 means that the symptom does not exist, participants who scored 8 or more in the SRQ-20 in the past 4 weeks were considered to have CMD. SRQ-20 has been validated in low- and middle-income countries. Social support was measured using the 3-point social support scale in Oslo. People with 3-8, 9-11 and 12-14 points were viewed as people with little, moderate or strong social support. The magnitude of substances such as lifelong alcohol consumption, nicotine consumption and khat chewing was recorded using a structured questionnaire that was developed. The data were collected in personal interviews with a previously tested questioner. We employed thirteen health advisors (registered nurses) and two psychologists (MSc in integrated clinical and community mental health) as data collectors and supervisors, respectively [5]. The data collectors were trained over two days for research purposes, the content of the data collection tools, ethical issues and how to deal with study participants. Supervisors have been trained to oversee participant recruitment, data collection and data quality review and control. The data-collection process was closely followed up by the supervisors.

Data quality control issues

The questionnaire was translated into Amharic (the local language) by a linguist who speaks Amharic and back-translated into English by a mental health professional. The Amharic version of the questionnaire was pretested in 5% of the total study participants in Chefe to check the consistency and duration of each questioner. Before accepting the interview with the data collector, the prepared questionnaire was thoroughly checked for completeness, objectives and variables.

Data processing and analysis

Check the integrity and consistency of the collected data, enter the epi data 3.1 statistical software and then export it to the SPSS windows 23 program for analysis. Calculate descriptive statistics to explain socio-demographic characteristics, clinical variables, psychosocial characteristics and CMD. Perform bivariate and multivariate logistic regression analysis to determine the relationship between the dependent variable and the independent variable [6].

Results

Socio-demographic characteristics

A total of 176 participants were selected for the study. The response rate was 100%. Of all the participants, 104 (59.1%) were men. The average age of the participants was 34.53 years and the standard deviation was ± 12.34. The majority are Muslims by religion, with 137 (77.8%) and 33 Orthodox Christians (18.8%) married, a total of 140 (79.5%) married, 20 (11.4%) single and 5 (11.4%). 11.4% were divorced and 11 (6.2%) were widowed. Most of them are Gedeo 137 (77.8%), followed by Oromo 31 (17.6%), Amharic and Grage 5 (2.8%) and 3 (1.8), respectively [7]. Regarding the educational background of all respondents, 88 (50%) who cannot read and write, 43 (24.4%) who can read and write, 17 (9.7%) who studied up to elementary school, 20 (11.4%) and 8 in junior high school. 4.5% had higher education (Table 1).

Table 1: Socio-demographic characteristics of respondents (n=176).

Variables		Frequency	Percentage
Age	15-24	14	8
	25-34	50	28.4
	35-44	63	35.8
	45-54	28	15.9
	55-64	10	5.7
	65 and above	11	6.2
Gender	Male	104	59.1
	Female	72	40.9
Marital status	Single	51	29
	Married	105	59.7
	Divorced	10	5.7
	Widowed	10	5.7
Religion	Orthodox	58	33
	Protestant	84	47.7
	Muslim	34	19.3
Ethnicity	Gedeo	142	80.7
	Oromo	13	7.4
	Amhara	10	5.7
	Gurage	11	6.3
Educational status	Unable to read and write	84	47.7
	Able to read and write	60	34.1
	1-8 grade	21	11.9
	9-12, 9-10, grade, 10+/++ and above	11	6.3
Occupational states	Unemployed	2	1.1
	Daily laborer	8	4.5
	Student	10	5.7
	House wife	31	17.6
	Merchant	17	9.7
	Farmer	63	35.8

	Employed	45	25.6
Monthly income	<750	40	22.7
	750-1199	84	47.7
	>1200	52	29.5

Substance use history and clinical characteristics and stressful life event and related factors of the participants

Among the total study participants, 112 (63.6%) had a history of current substance use, among those 62 (35.2%) using a khat, 41 (23.3%) drinking alcohol and 9 (5.1%) used tobacco. Among the respondents, 47 (26.7%), 25 (14.2%) and 6 (3.4%) had chronic physical illness, family history of mental illness and history of any psychiatric illness respectively. Regarding stressful life events, 41 (23.3%), 24 (13.6%), 23 (13.1%) and 14 (8.0%) had financial stress, loss of loved one, relationship related and legal related problems respectively (Table 2) [8].

Table 2: Clinical characteristics and stressful life event related factors of the respondents (n=176).

Variables response		**Frequency**	**Percentage**
Family history of mental illness	Yes	25	14.2
	No	151	85.8
Chronic physical illness	Yes	47	26.7
	No	129	73.3
Any psychiatric illness	Yes	6	3.4
	No	170	96.6
Stress full life event			
Financial stress	Yes	41	23.3
	No	135	76.7
Loss of loved one	Yes	24	13.6
	No	152	86.4
Relationship stress	Yes	23	13.1
	No	153	86.9
Legal issues	Yes	14	8
	No	162	92

Prevalence of CMDS and distribustion of symptoms

Among the studies, participants who scored six and above in SRQ-20 were considered having CMDs as follow. Prevalence of common mental disorders was 32.4%. (11.4% males and 21% females). In majority of the study participants, out of the total twenty symptoms consisted in SRQ, the most commonly reported symptom during the last 30 days were feeling unhappy, poor appetite, sleep badly, di iculty in decision, poor digestion, di iculty to enjoy and loss of interest (Table 3) [9].

Table 3: Distribution of SRQ symptoms among the study participants (n=176).

Symptoms	Frequency	Percent
Feel unhappy	63	35.8
Poor appetite	59	33.5
Sleep badly	57	32.4
Difficulty to enjoy	56	31.8
Easy tired	52	29.5
Feel nervous, tens or worried	48	27.3
Lost interest in things	45	25.6
Unable to play a useful part in life	44	25
Easily frightened	44	25
Feel tired all the time	43	24.4
Daily work suffering	39	22.2
Difficulty in decision making	31	17.6
Feel worthless person	27	15.3
Headache	27	15.3
Poor digestion	26	14.8
Trouble in thinking	25	14.2
Thought of ending life	23	13.1
Crying	22	12.5
Uncomfortable feeling in stomach	21	11.9
Hand shake	11	6.2

Factors associated with common mental disorders

Associations were based on age, gender, marital status, education, profession, income, financial stress, relationship problems, traumatic stress, current substance use, family history of mental and chronic physical illness. Gender, age, financial stress, relationship problems and chronic medical conditions have been found to be significantly associated with common mental disorders. General mental disorders and female gender had significant associations. Women admitted to DURH were twice as likely to have AMD as men. In persons aged 25-34 years, the likelihood of developing an IUD was approximately 3.37 times higher than in persons under the age of 25, the age of 35-44 increased 3 times, 45-54 years increased 4.5 times, 55-64 years increased by 2.57 times and at the age of 65 and over 5 several times increase the likelihood of AMD compared with people under 25 years of age. Those who reported financial stress, relationship problems and living with chronic physical illness were 2.6, 2.3 and 2 times more likely to develop CMDs when compared to those who did not report, respectively [10].

Discussion

This study tried to use SRQ-20 to determine the prevalence of common mental disorders among patients admitted to medical and surgical wards, as well as the association of certain socio-demographic characteristics, clinical and substance use variables. The overall prevalence of CMD was found to be 32.4%. 11.4% males and 21% females, the prevalence of common mental disorders in this study is lower than studies conducted in other parts of the country. According to a cross-sectional study conducted at the Kuwait general hospital, 122 (41.4%) of the 295 medical and surgical inpatients studied were found to have manifestations of one or more mental illnesses. In addition, a study by the general medical institution in Kenya showed that out of a total of 2770 male and female hospitalized patients,

42.3% were screened for CMD. This difference may be due to differences in population, study area and socio-culturally between the two study populations. Similarly, the results of this study were lower than those conducted elsewhere in Ethiopia. Cross-sectional studies conducted on patients admitted to government hospitals, Mek'ele, Tigray and Ethiopia showed about half (54.6%) of the study participants. In an intuitive cross-sectional study from the internal medicine and surgery department of depressive Gondar university hospital, the prevalence of AMD among inpatients was 58.6%. Differences in the equipment (screening and diagnostic tools) they used ((HAADS), (SRQ-25)), socio-cultural characteristics, time duration, sample size, economic differences and the prevalence of the surveyed population may explain the inequality. While this study was heavily related to gender differences, women are twice as likely to develop an IUD as men. This is consistent with other studies done in Kuwait and Gondar. The increase in the prevalence of female CMD may be due to more responsibilities, such as taking care of children, caring for other family members, other hormones or biological mechanisms, women's traditional role in society, which puts women under greater pressure and prevents them from changing their stressful environment, high levels of domestic violence and sexual violence suffered by women. The positive correlation between the age group and CMD seen in this study has also been reported in different previous studies in Kuwait, Mekle and Gondar. This finding may be because people over 60 are five times more likely to develop CMD than people under 25 [11-13].

The possible reasons may be that the elderly are at increased risk of chronic diseases, facing social isolation, economic difficulties and other related social problems, which may increase the incidence of mental illness. In this study, there is a correlation between stressful life events and CMD. Among people who have experienced financial stress and interpersonal relationship problems in the past 6 months, the likelihood of suffering from common mental disorders is about The latter is twice and a half, stress and relationship problems. A study conducted in other areas also supports a significant association between financial stress and interpersonal problems and common mental disorders. Among people who report chronic physical illnesses, the prevalence of CMD is higher. Compared with people who have not reported, people with chronic physical diseases are about twice as likely to suffer from common mental disorders. There are other hospital-based studies that report a positive correlation between chronic physical illness and CMD in Ethiopia. A possible explanation may be that people with chronic physical diseases may be restricted in their daily activities and feel dissatisfied with life, which may make them feel depressed and anxious; therefore, it may increase the risk of acquiring CMD [14,15]. Among the variables that entered the multivariate analysis, marital status, education level, interviewee's job, health risk, loss of relatives, traumatic stress, family history of mental illness and current substance use were not related to CMD.

Limitations of the Study

Some of the patients admitted in surgical wards are refused to give information and withdraw the interview because of the pain of illness.

Conclusion

Prevalence of common mental disorders in DURH is high. Being female, older age, financial stress, relationship problems and chronic physical illness are risk factors for the development of common mental disorder. Patients who are treated in medical and surgical wards should be screened for common mental disorders.

Ethical Consideration

To carry out this research project, the ethical approval of the department of psychiatry, department of health sciences, Dilla university, will be submitted to DURH. A more formal consent form was obtained from the research only used for research and kept confidential. During the study period, the participant has informed him of the right to withdraw from the study at any time. Interviewees were informed of the purpose of the procedure, the risks and benefits and the privacy and confidentiality of the research.

Consent for Publication

Not applicable.

Availability of Data and Materials

The data that support the findings of this study has a sort of identifier of individual participants and researcherreserved to send it.

Competing of Interest

All of the authors declare they have no conflict of interest.

Funding

Not applicable.

Author Contributions

YB has contributed in idea conception, topic selection and writes up of proposal for funding, contributed idea generation in title selection and AE contributed in organizing literatures important to the study, commented both proposal draft and result.

References

1. Sim K, Rajasoorya C, Lam KN, Chew LS, Chan YH (2001) High prevalence of psychiatric morbidity in a medical intensive care unit. Singap Med J 42: 522-525.

2. Marchesi C, Brusamonti E, Borghi C, Giannini A, Di Ruvo R, et al. (2004) Anxiety and depressive disorders in an emergency department ward of a general hospital: A control study. Emerg Med J 21: 175-179.

3. Himelhoch S, Weller WE, Wu AW, Anderson GF, Cooper LA (2004) Chronic medical illness, depression and use of acute medical services among medicare beneficiaries. Med Care 42: 512-21.

4. Egede LE, Zheng D, Simpson K (2002) Comorbid depression is associated with increased health care use and expenditures in individuals with diabetes. Diabetes Care 25: 464-470.

5. Lauzon C, Beck CA, Huynh T, Dion D, Racine N, et al. (2003) Depression and prognosis following hospital admission because of acute myocardial infarction. CMAJ 168: 547-552.

6. van Melle JP, de Jonge P, Spijkerman TA, Tijssen JG, Ormel J, et al. (2004) Prognostic association of depression following myocardial infarction with mortality and cardiovascular events: A meta-analysis. Psychos Med 66: 814-822.

7. Ng TP, Niti M, Tan WC, Cao Z, Ong KC, et al. (2007) Depressive symptoms and chronic obstructive pulmonary disease: Effect on mortality, hospital readmission, symptom burden, functional status and quality of life. Arch Int Med 167: 60-67.

8. Jefferies K, Owino A, Rickards H, Agarwal N (2007) Psychiatric disorders in inpatients on a neurology ward: Estimate of prevalence and usefulness of screening questionnaires. J Neurol Neurosurg Psychiatr 78: 414-416.

9. von Ammon Cavanaugh S (1983) The prevalence of emotional and cognitive dysfunction in a general medical population: Using the MMSE, GHQ and BDI. Gen Hosp Psych 5: 15-24.

10. Mayou R, Hawton K, Feldman E, Ardern M (1991) Psychiatric problems among medical admissions. Int J Psych Med 21: 71-84.

11. Mikkelsen RL, Middelboe T, Pisinger C, Stage KB (2004) Anxiety and depression in patients with Chronic Obstructive Pulmonary Disease (COPD). A review. Nord J Psych 58: 65-70.

12. Gureje O, Simon GE, Ustun TB, Goldberg DP (1997) Somatization in cross-cultural perspective: A World Health Organization study in primary care. Am J Psych 154: 989-995.

13. Russo J, Katon W, Sullivan M, Clark M, Clark M, et al. (1994) Severity of somatization and its relationship to psychiatric disorders and personality. Psychos 35: 546-556.

14. Piccinelli M, Simon G (1997) Gender and cross-cultural differences in somatic symptoms associated with emotional distress. Int Stud Prim Care Psychol Med 27: 433-444.

15. Richardson RD, Engel Jr CC (2004) Evaluation and management of medically unexplained physical symptoms. Neurol 10: 18-30.