

Symptoms analysis of mental illness among Saudi adults attending Primary Care

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ABSTRACT

Objectives: To determine the more common symptoms of mental illness among Saudi adult primary health care (PHC) patients, and to apply the factor analysis of the Rahim Anxiety and Depression (RAD) Scale.

Methods: This is a cross-sectional study of a sample of 641 patients that attended the PHC clinics in Al-Kharj city, from July to November 2000. Their ages ranged from 15 to 65 years. The RAD Scale was used as a self-administrating questionnaire to explore the common symptoms of mental illness. A factor analysis was performed by principle component analysis with varimax rotation of RAD Scale, with an eigen value of >1.5 for factor extraction. Only those items loading ≥ 0.4 were included.

Results: A total of 609 patients with the mean age \pm SD of 33.7 ± 13.4 responded, and of these men formed 46.6%. The most common mental illness symptoms were getting angry easily (46%), tension (35%), sleeping badly (27%), not enjoying daily activities (15%), and

unhappiness (14%). Physical symptoms reported were headaches (43%), joint pains (38%), fatigue (36%), stomach problem (33%), and dizziness (27%). All the 39 items of the RAD Scale were included for factor analysis. Five factors (groups) were generated, which together accounted for 47% of the total variance. These factors were represented as: psychic depressive, psychic and somatic (headache and bodily pains) anxiety symptoms, somatization in the form of gastrointestinal complaints, somatization in the form of cardio-respiratory symptoms, and somatic anxiety symptoms.

Conclusion: Both physical and psychological symptoms of mental illness are a burden on the PHC patients. Consequently, using the RAD scale is helpful in diagnosis. The factor analysis categorizes the items into different groups to save time and specify the disorder. This will be a simplified method in the PHC settings.

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Mental disorders, known to be common among primary health care (PHC) patients, account for 30% of the attendees.¹⁻³ Most present with obvious somatic symptoms instead of emotional ones.^{1,4} However, patients suffer concomitantly from incompliant emotional symptoms such as sadness and tearfulness, fear, loss of interest, anxiety/irritability, hopelessness, lack of concentration, guilt, and suicidal ideation.⁵ It has been found that 80% of PHC patients with a mental illness such as depression present with a complaint exclusively related to physical symptoms.⁶ Jackson

et al⁷ reported that having 5 or more physical symptoms are an independent predictor of major depression in the outpatients department. This was supported by the findings of Kroenke et al⁸ stating that the probability of depression increased with the number of physical complaints. Thus, the PHC physicians need to be aware of these hidden problems and have easy, quick screening tools for them. The Rahim Anxiety Depression (RAD) Scale assists self-reporting psychiatric screening questionnaires for minor mental disorders (depression, anxiety and somatization) in PHC

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settings.⁹ It is a valid and reliable tool for detecting minor psychiatric morbidity.⁹ However, factor analysis is an analytic procedure that reveals a simple pattern of relationship among the variables of the questionnaire to reduce and summarize data with a view to specifying the diagnosis. Generally, factor analysis studies in PHC settings are limited.¹⁰ Sen¹¹ analyzed depressive phenomena in India in 1987, and he isolated 7 factors; Factor I represented anxiety-depression/dysphoria. Factor II represents uniquely depressive symptoms, Factors V and VI correspond to somatization. Incoponi and Mari¹² applied a factor analysis in Brazil and extracted 4 factors. Factor I, III and IV consist of anxiety and depressive symptoms, somatic symptoms load on factor II. In an Ethiopian community study Tafari et al¹³ expressed the 4 factors of self-reporting questionnaire (SRQ)-24. They distinguished between neurotic items (1-20) and psychotic items. Arabi et al⁹ applied the RAD Scale to target diabetic patients in the Al-Khobar PHC settings. They generated 5 factors that represented depressive, somatic, and anxiety symptoms. This has, however, not been generally applied to PHC patients.

This study had 2 objectives; to report the more common symptoms of mental illness among PHC patients and to apply the factor analysis of RAD Scale in the PHC setting.

Methods. A cross-sectional study whose target population consisted of 641 Saudi adults aged 15-65 years, attending the Family and Community Medicine Clinic of the Al-Kharj Armed Forces Hospital, Dammam, Kingdom of Saudi Arabia from July to November 2000 was performed. Out of these, 609 patients completed the questionnaire with a response rate of 95%. The RAD Scale, with a sensitivity of 94% and 84% specificity, was administered randomly. More details of the method of selection are described in a previous study.³ Factor analysis was performed by principal components analysis with varimax rotation of RAD Scale, with an eigen value of >1.5 for factor extraction. Only those questionnaire items loading ≥ 0.4 were included. The collected data were analyzed by using the Statistical Package of Social Science Release 10.

Results. Demographic and socio-cultural characteristics of the study population are described in a previous study.³

Mental illness symptoms. The most common mental illness symptoms were getting angry easily (46%), tension (35%), sleeping badly (27%), not enjoying daily activities (15%), and unhappiness (14%). Except for the significant difference in gender, being more common in females for not enjoying daily activities and unhappiness, there

were no statistical differences between males and females. Physical symptoms reported were headaches (43%), joint pains (38%), fatigue (36%), stomach problem (33%), and dizziness (27%). There was a statistical significant difference between females and males regarding headaches ($p=0.0001$), tiring easily ($p=0.0001$), and dizziness ($p=0.0001$).

Factor analysis. All the 39 items on the RAD Scale were included for factor analysis, utilizing the standard statistical minimums of 1.5 eigen value factor extractions and 0.4 loading for item inclusion. Five factors were generated, together accounting for 47% of the total variance. Factor I, which contains items: 4, 8-17, represents uniquely psychic depressive symptoms. This factor, which explains 28.9% of the variation, corresponds with depression. Factor II, contains items: 1, 6, 18, 20-24, 28, and 29, represents psychic and somatic, headache and body pains, for anxiety symptoms. Factor III, items: 7, 19, 34-38, represents somatization in the form of gastrointestinal complaints. Factor IV, items: 25-27, 30, and 31, represents somatization in the form of cardio-respiratory symptoms. Factor V, items: 32, 33, and 39, is related to the somatic anxiety symptoms. Items 2, "is your appetite poor?" Item 3, "do you sleep badly?" and Item 5, "do your hands shake?" were loaded less than 0.4. Subsequently, factors to be extracted were limited to 3 factors with similar loading and eigen value. Together, they accounted for 39.4% of the total variance. Factor I represented the depressive symptoms added to 2 items, which were presented in factor IV earlier, "do you have difficulty in breathing?" and "do you have a sense of being suffocated?" Factor II was composed of anxiety and somatization symptoms in the form of cardiac and body pains. Factor III represented the somatization in the form of gastrointestinal symptoms. It included the items of factor III and factor V earlier mentioned.

Discussion. Both physical and psychological symptoms of mental illness are a burden on the PHC patients. However, physical symptoms are often the chief complaint of minor mental disorders reaching 70% of presentations.¹⁴ Kirmayer et al⁶ documented that highly somatic presentations of depression (78%) were missed more often than those with significant psychosocial complaints (23%). Headaches and bodily pains were the most common physical presentation agreeing with the findings of Simon et al.¹⁴ Getting angry easily was found in half of the sample, one-fourth of whom complained of sleep disturbance. As reported, women were more likely than men to have a higher number of symptoms of mental disorders.¹⁵ Thirteen percent of the sample had suicidal thoughts, which needed more exploration and attention. Emotional or psychological symptoms are usually missed unless

properly explored by the PHC physician.¹⁶ In addition, sometimes the problem is labeled as a physical disorder, thus aggravating patient's problems, which in turn lead to the misuse of medical resources.¹ However, some physicians avoid stigmatizing their patients with a diagnosis that they are not familiar with or feel concerned that patients would be unhappy with the treatment. The limited time available for interviews and the presence of co-morbid medical illness in PHC settings are factors that engender miss-diagnosis.

The RAD scale was one of the screening tools used in different Arab countries.^{2,3,9} Owing to the limited time available for patient's interview in PHC settings, and the high prevalence rate of mental disorders among PHC patients, it is important to have a short, quick screening tool for suspected psychiatric disorders in PHC. Consequently, the factor analysis applied to the RAD Scale and categorized into different groups, each representing the usual cause of the disturbance, can be of use.

Similar findings were reported by Al-Arabi et al⁹ that, factors I and III form psychological symptoms of depression and somatization related to gastrointestinal tract. Incompatibility with other factors may be related to the nature of the co-morbid medical illness, diabetes mellitus, among the Al-Arabi et al sample. Factor II includes the psychological symptoms of anxiety besides the presence of headache, bodily pains, and joint pains. This factor can reflect the presence of the anxiety disorder. Somatization relating to cardio-respiratory systems was included in factor IV. This marked distribution may contribute to the formulation of mini-screening questionnaires for the different minor mental disorders. Poor appetite (item 2), shaking hands (item 3), and sleep disturbance (item 5) were excluded because their loading were less than 0.4. They reported within more than one factor, which means they could present in different disorders. This categorization will be helpful in reducing the screening tool items for use with uncertain diagnosis.

It is important for the clinician to be aware that certain physical symptoms such as low energy, fatigue, and pain are commonly associated with mental disorders. Frequency of office visits relating to somatic complaints may also be another key indicator of the diagnosis to mental illness.^{7,8} However, PHC Physicians are not qualified to deal with such disorders.^{4,17,18} Inevitably, there are problems when patients are treated repeatedly for physical symptoms while an underlying mental illness is overlooked and remains undiagnosed.

In conclusion, one of the greatest challenges for a PHC physician is to refocus on the somatically presenting mental ill patient in a way that would make the connection between physical symptoms

and mental illness better appreciated. It is necessary to develop a new approach for mental illnesses in medical health planning. This underscores the need to review our present treatment approach and to re-evaluate accepted practice guidelines. However, a random control trial study is needed to test the reliability and validity of these sub-screening tools (factors).

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