

Medical Illnesses in Psychiatric Patients — a Review

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Abstract

There is a high prevalence of physical disorders in psychiatric patients. However, physical disorders often go unrecognised and untreated in routine psychiatric clinical practice. This paper reviews the available literature on the association between medical illnesses and psychiatric disorders. There is a well-established relationship between major medical disorders and most psychiatric disorders. Early medical diagnosis in psychiatric patients has important clinical significance. Physical disorders may coexist with psychiatric disorders or occur as side effects of psychotropic medications. It is important that psychiatrists perform adequate clinical examination of their patients in order to recognise and treat the medical disorders. Remedies suggested are adequate training and research, interdepartmental teaching programmes, refresher courses, and active consultation-liaison services in clinical practice.

Key words: Anxiety disorders, Comorbidity, Depressive disorder, Schizophrenia

Introduction

Medical illnesses are more prevalent in psychiatric patients than in the general population. However, these often go unrecognised and untreated in routine clinical psychiatric practice.¹ Physical disorders may coexist with psychiatric disorders or may occur as side effects of psychotropic medication. Patients suffering from schizophrenia and other psychiatric disorders have a higher rate of preventable risk factors such as smoking, alcohol consumption, poor diet, and lack of exercise.² On the other hand, patients with physical disorders are likely to be non-compliant and have higher dropout, morbidity, and mortality rates. Despite the evidence, psychiatrists consider the medical care of their patients to be beyond the scope of their care. They are also reluctant to perform general physical examination of their patients, fearing that this would disrupt the therapeutic relationship. Two-thirds of psychiatrists have never performed physical examination of their patients. According to the available data, a physical examination is performed on only 13% of inpatients and 8% of psychiatric outpatients.³ This is of increasing concern for mental health professionals in clinical practice.⁴

All major psychiatric disorders, such as depressive disorders, schizophrenia, and anxiety disorders are closely associated with physical disorders. By understanding the medical problems of psychiatric patients, psychiatrists can explain to their colleagues in other specialties some significant medical findings that may require immediate attention. Since physical and psychiatric comorbidity is relatively common in general practice, these aspects should be given equal importance.⁵

Prevalence of Medical Illnesses among Psychiatric Patients

Comorbidities between physical and psychiatric disorders are not uncommon. Over the last 30 years, several studies conducted to determine the prevalence of medical illnesses among psychiatric patients reported prevalence rates of 28% to 92% (Table 1).⁶⁻¹⁴ In one study, physical illness was underdiagnosed and not diagnosed in 67% and 50% of the patients, respectively.⁶ An unusually high prevalence rate of 90% was reported by a study that included 100 state hospital psychiatric patients who were consecutively admitted to a research ward. In this study, 46% of the patients had an unrecognised medical illness that either caused or exacerbated their psychiatric illness, 80% had physical illnesses that required treatment, and 4% exhibited precancerous conditions.⁸ In a study by Bunce et al, 50% of 2395 psychiatric outpatients and 52% of 1448 psychiatric inpatients were found to have a major medical disorder.¹⁰

In a study conducted in a public mental health system, 529 psychiatric patients were medically evaluated. The results revealed important physical diseases in 200 patients; 12% of the patients were found to have physical diseases. It was estimated that of the more than 300,000 patients treated

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Table 1. Rates of medical illness in psychiatric patients.

Reference (year)	Treatment setting	Prevalence of medical illness (%)
Koranyi (1972) ⁶	Outpatients	67
Koranyi (1979) ⁷	Outpatients	43
Hall et al (1981) ⁸	Inpatients	80
Summers et al (1981) ⁹	Outpatients	41.3
Bunce et al (1982) ¹⁰	Outpatients Inpatients	50 52
Maricle et al (1987) ¹¹	Outpatients	88
Koran et al (1989) ¹²	Inpatients Outpatients	57 28
Sheline (1990) ¹³	Inpatients	92
Ta et al (1996) ¹⁴	Outpatients	55

in this public mental health system in the fiscal year 1983 to 1984, 45% had an important physical disease.¹²

In 1980, Koranyi reviewed 12 studies conducted over a 40-year period, involving 4000 people with mental disabilities, and found that 50% of the psychiatric patients had medical illnesses.¹⁵ In a survey of 2090 psychiatric clinic patients 43% were found to have associated physical disorders; of these, 50% had been underdiagnosed by the referring source.¹⁶ In another study, the association between physical morbidity and recovery from psychiatric illness was examined in a primary care setting. Cases were assessed at the time of initial screening and at 1-year follow-up. Information on physical, psychiatric, and social status was obtained using the Composite International Diagnostic Instrument Primary Health Care Version and the Groningen Social Disability Schedule. The authors concluded that physical disorder is independently associated with psychological outcome.¹⁷

Medical illnesses in psychiatric patients have been shown to increase the number of hospital admissions and the length of hospital stay.^{18,19} Sloan et al examined the effect of comorbid physical and psychiatric illness on the length of hospital stay in 2323 psychiatric inpatients. The average length of stay was significantly longer for patients with comorbid physical diagnoses (mean, 20.01 days) than for patients with no physical diagnoses (mean, 16.63 days). The average length of stay for depressed patients was significantly greater for those with comorbid physical diagnoses (mean, 19.73 days) than for depressed patients with no medical comorbidity (mean, 13.96 days).²⁰ Another study conducted in psychiatric inpatients found that medical comorbidity was present in 15% of patients at the time of admission and 12% at discharge. The average length of stay was prolonged due to physical disorders (mean, 3.25 days).²¹

Importance of Early Recognition of Medical Illness

The detection of physical disorders by the mental health professional has important clinical significance. Physical

disorders in psychiatric patients predict a poorer outcome. Ignoring these medical illnesses can lead to treatment failure in psychiatric patients. These patients are 2 to 4 times more likely to die prematurely.²² Underdiagnoses of physical disorders can lead to patient non-compliance, poor quality of life, increased relapse rate, and hospitalisation. Patients with psychiatric disorders have high rates of mortality due to undetected and untreated medical problems, as the mental state of these patients often affects help-seeking behaviours.²³ Medical comorbidity is a central contributor to one of the most important factors of hospital cost, the length of stay. The predicted number of hospital admissions and the length of hospital stay increase substantially when the psychiatric condition is accompanied by a medical illness.²⁴ Early recognition of physical problems can help in prompt management of these patients.

Many psychiatric patients with medical illnesses, who approach psychiatrists, show poor adherence to drug treatment. This leads to poor recovery and prolonged suffering. With early and quick medical diagnosis, patients can be given the needed drugs at an early stage of the treatment. The patient's illness is considered in totality and this will enhance doctor-patient relationships.

Schizophrenia and Medical Illness

Although the relationship between medical illness and schizophrenia has been of concern for some time, only a few studies have addressed this issue. Medical disorders in schizophrenic patients are usually diagnosed only at an advanced stage when the disease is very severe, painful, or life threatening. Some medical illnesses are based on lifestyle factors such as poor diet, lack of exercise, and cigarette smoking. Smoking is a common habit among patients with schizophrenia; between 50% and 90% of schizophrenic patients are nicotine dependent.^{25,26} Smoking is the most prevalent risk factor for cardiovascular and respiratory disease.

Schizophrenia is associated with different medical disorders.²⁵ Patients with schizophrenia are also more likely to have abnormal variations in cardiac rate and are predisposed to obesity and type II diabetes mellitus.²⁷ Other physical illnesses such as irritable bowel syndrome, sleep apnoea, malnutrition, osteoporosis, and poor pregnancy have also been reported.^{28,29} Diabetes in these patients may result from impaired glucose tolerance, insulin resistance, or the use of antipsychotic drugs. In addition, schizophrenic patients seem to be at an increased risk for contracting human immunodeficiency virus (HIV) and hepatitis B and C.³⁰ Patients may be less aware of behaviours that increase their risk of acquiring HIV. The coexistence of HIV infection complicates diagnosis and treatment. Patients with schizophrenia have a high threshold for pain.³¹ Bunce et al found that only 23% of 102 consecutive patients admitted to the acute medical care unit of a psychiatric hospital could adequately describe the nature or location of their pain or illness.¹⁰ Conversely, several studies have reported a negative association between rheumatoid arthritis and schizophrenia.^{32,33} Other less

prevalent medical conditions reported include osteoarthritis, gall bladder stones, appendicitis, lung cancer, and varicose veins.²⁹

Depressive Disorders and Medical Illness

Lifetime prevalence of chronic lung disease, heart disease, hypertension, arthritis, and neurological diseases has been reported to be significantly higher in patients with depressive disorders than in the general population. Some medical illnesses directly affect the brain neurotransmitter systems that control mood and behaviours. These physical illnesses are more likely to occur in people with depressive disorders. Several studies demonstrated that patients with depression had 1.7-4.5 times higher risk of developing cardiovascular disease.³⁴ Patients who are depressed and have suffered a recent myocardial infarction have a 2- to 4-fold higher risk compared with non-depressed patients.³⁵ Endocrine disorders directly interact and disturb the neurochemistry of the nervous system. The high coincidence of thyroid diseases in affective disorders is well known.³⁶ Atherosclerotic changes can lead to both depressive disorders and ischaemic heart disease. Depression increases the chance of osteoporosis.³⁷

Depressive disorders are associated with higher rates of heart disease.^{38,39} A greater risk of sudden death is found in postmyocardial patients having both arrhythmias and depressive disorders. Multiple interactive factors are likely to be contributory to this observation. Platelet supersensitivity response to activation in these patients causes increased platelet coagulability.⁴⁰ Depression is known to be associated with increased cortisol and changes in heart variability.²⁵ Alteration in lipid metabolism in depressed patients may increase the risk of vascular disease.⁴¹ Patients with depressive disorders are more likely to have an unhealthy lifestyle, making them prone to medical illnesses. These lifestyle patterns include increased cigarette smoking, increased alcohol intake, decreased exercise and decreased adherence to treatment.⁴²

Anxiety Disorders and Medical Illness

Some physical disorders are more prevalent in patients with anxiety disorders. Prominent among them are cardiovascular diseases (atherosclerosis and ischaemic heart disease), cerebrovascular diseases, and gastrointestinal disorders (duodenal and peptic ulcer, gastritis and duodenitis). Anxiety increases the risk of hypertension, that could be the mediating factor for the development of coronary heart disease. The association between anxiety, cardiovascular, and cerebrovascular diseases may be attributable to unhealthy lifestyles of psychiatric patients and reduced compliance with medical treatment.⁴³ Increased noradrenergic and corticotrophin-releasing factors observed in anxiety disorders are associated with arrhythmias and increased platelet aggregation. Patients with panic disorder are at a high risk for developing stroke, and a higher incidence of respiratory disorders is also observed in these patients.⁴⁴

Role of Psychotropic Medications

The adverse consequences of psychotropic medications are also related to the increased risk of medical illness. Psychotropic medications may cause medical morbidity such as metabolic disturbances, cardiovascular effects, tardive dyskinesia, and glucose intolerance. Tricyclic antidepressants cause urinary retention, weight gain, blurred vision, postural hypotension, sinus tachycardia, and cardiac conduction abnormalities.⁴⁵

Most antipsychotics (conventional and atypical) have the potential for serious adverse cardiovascular events (prolonged QTc interval, torsade de pointes, and sudden death).⁴⁶ Other common concerns with atypical antipsychotics have been weight gain, development of diabetes mellitus, and increase in serum lipid levels.^{47,48} Most of the studies linking hyperglycemia and elevated lipid profile with atypical antipsychotics have been focused on North American and European populations. There is a dearth of data from South Asian countries in this area of research. Asian patients have low body weight and different dietary habits compared with their American and European counterparts. In a recent South Asian study, treatment duration with atypical antipsychotics was also found to be significantly associated with hyperglycemia.⁴⁹

Course of Action

Medical Evaluation of Psychiatric Patients

A thorough medical evaluation should be mandatory for all new psychiatric patients.⁵⁰ Timely treatment of acute and chronic medical conditions will improve the health of the psychiatric population.⁵¹ It should be ensured that all patients have access to care from a medical professional, if required. Psychiatrists must remain vigilant in ruling out physical illness as a cause of the psychiatric symptoms. Positive psychological outcomes of performing a physical examination have been documented.⁵²

Interdepartmental Teaching Programmes

This is another essential step towards integrated health care. Newer developments and latest information can be discussed with other departments dealing with patients who have both psychiatric and physical problems. Regular clinical meetings, workshops, and symposia should be held. The communication process between the psychiatrist and other health professionals must be prioritised to optimise patient care.⁵³

Active Consultation-Liaison Services

Active consultation-liaison (C-L) services should be made an essential component of the basic health services in all hospitals. The C-L team should be responsible for strategic planning for management of physical and psychiatric illnesses to decrease the morbidity and mortality rates of psychiatric patients. It is also useful to have a social worker who can act as a liaison among the different members of a C-L team, patients, and their families.⁵⁴

Facilities for Investigations

Health care organisations such as long-stay homes dealing with psychiatric patients are not fully equipped for performing various diagnostic investigations. The setting up of laboratories will be helpful for making quick and reliable diagnoses. This will promote the confidence of patients and clinicians. Some authors have recommended an extensive diagnostic laboratory for all new psychiatric patients.⁵⁵ The critical role played by laboratory facilities in monitoring the drug levels of various psychotropic medications has been emphasised.⁵⁶

Training and Research

The training programme (undergraduate and postgraduate) requires some modifications to give more emphasis on the physical and psychological problems of psychiatric patients. Additional training should be provided in medicine, neurology, and allied fields during the postgraduate period. In some Asian countries, this practice is being followed in a few medical institutions. More research projects may be planned to elucidate the difficulties in handling these problems. Health care workers should also be trained to recognise physical illnesses in psychiatric patients. Regular refresher courses for practising psychiatrists are another important remedial measure. Honing of clinical skills in the diagnosis and treatment of common physical disorders should be the major component of these courses. These courses should be made available to every psychiatrist.

Minimisation of Barriers in Seeking Medical Help

It is frequently observed that psychiatric patients often do not receive adequate emergency medical services. Back-up for these services is very useful in dealing with medical emergencies and other life-threatening situations in psychiatric patients. There are also certain barriers in the health care system in delivering adequate medical care to psychiatric patients residing in institutions. An important barrier is the stigma associated with psychiatric illnesses. These barriers could be minimised by seeking support through different allied health agencies.

Conclusions

Medical illnesses are prevalent in psychiatric patients. Around half of all psychiatric patients have significant medical disorders. The examination for medical illnesses in a routine clinical evaluation is often overlooked. There are many advantages of early detection of medical illnesses in these patients. If treated adequately, it can lead to decreased relapse rate and hospitalisation. Medical comorbidity is an important contributor to hospital costs. Evidence suggests that psychiatric patients should be screened regularly for physical disorders and their physical health needs should receive greater attention. Psychiatrists must inculcate the habit of routine general physical examination of their patients. More research is warranted in developing countries for improving intervention processes.

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