

Schizophrenia care: an overview considering family burden, medication adherence, and pharmacoeconomics

Abstract

Schizophrenia is one of the leading causes of disability among all health problems. The discrimination and stigma are two unavoidable consequences of schizophrenia that individuals suffer most in developing countries. Management of schizophrenia has been brought out from silent asylums to community, providing them with more care and supports from family, healthcare professionals, and society. This article deals with the important aspects that one comes across while taking care of schizophrenic patients, such as family burden, medication adherence, and pharmacoeconomics. There are many interventions that should be implemented in solving problems associated with management of schizophrenia. Among them, role of psychotherapy and pharmacy-based intervention is unavoidable.

Keywords: Discrimination. Stigma. Cost Effectiveness. Cost of Illness. Interventions.

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The mental health problems and their therapy are most challenging and complicated among all health problems. Among them, schizophrenia ranks tenth leading cause of disability. The prevalence of schizophrenia approaches one per cent worldwide. The incidence is about 1.5 per 10,000 people.[1] Management of schizophrenia has been brought out from silent asylums to community, providing them with more care and supports from family, healthcare professionals, and society. This has forced healthcare professionals to consider different aspects of treatment planning, such as adherence, family burden, and pharmacoeconomics. Schizophrenia not only influences the lives of those affected, but also those around them, especially their caregivers. Studies have shown that serious mental illness, including schizophrenia, is a catastrophic event in families. It has been referred as “a disaster in which all are victims of the event and its sequelae.” Recently, the trend of involving the families actively in the care of mentally ill persons has shown a decline in the relapse of the condition and considerable improvement.[2] This article deals with the important aspects that one comes across while taking care of schizophrenia patients, such as family burden, medication adherence, and pharmacoeconomics. The association of these factors and schizophrenia care is given in the Figure 1.

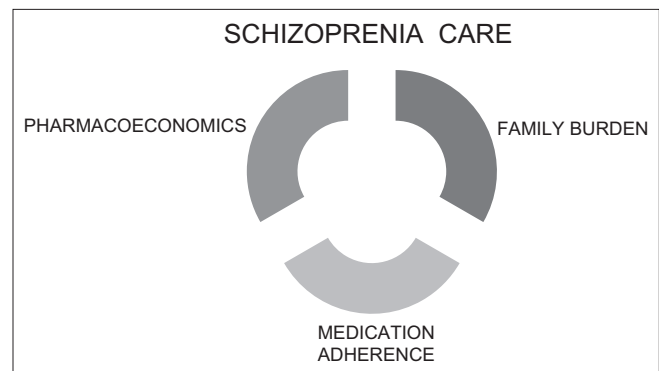


Figure 1: Factors in schizophrenia care.

Within the society, away from the society

The discrimination and stigma are two unavoidable consequences of schizophrenia that individuals suffer most in India and other developing countries.[3-8] Isolation from society and family are the main losses of these patients. Most of the patients have no friends, no spouse, and sometimes no family, who understand, trust, and care them. Schizophrenia

patients in India are under the influence of socio-cultural barrier and various myths related to the disease.[9] People creates a different story behind the origin of mental disorder to a specific individual and thinks that schizophrenia is the result of their own bad activities. While many have traditional beliefs including “these people are having super natural power and can see all the evil trace in the environment”, which all are scientifically defined differently (hallucination). Thus, unlike any other chronic disease like diabetes, hypertension, or arthritis, these patients are maintained in a different world away from society within the society. The fact that if “they are also provided with appropriate lifelong medications like any chronic illness, can considerably reduce social impairment” is always neglected by society. One study in India discloses that percentage of people now recognising mental illness as a disease are 49.2% urban, 31.6% rural, and 82.4% professionals. Even though percentage has increased than previous years, still many people in India do not consider mental illness as disease and do not know psychiatry as a branch of medicine.[10]

Globally, pattern of discrimination against people with schizophrenia reveals that 64% experience in applying for work, training, or education, and 55% in looking for a close relationship; 72% felt the need to conceal their diagnosis.[11] Frustration in securing a job and working, dilemmas faced during pregnancy and childbirth, staying unmarried are main stigma of women and men suffering from schizophrenia. Internalised stigma will prevent them to come forward in the society as well as to accept their illness in front of others. Similarly, concept of discrimination, stigma, and disability can be gender-based and socio-cultural-based.[12] Even though they sense different word meaning, impact on mentally ill patients are the same. They are added burden to the management of schizophrenia. This may also delay initiation of appropriate treatment in early realisation of disease. Community-based awareness programmes and psycho-education can considerably reduce the problems associated with discrimination and stigmatisation.

Family burden

Family burden or burden of care is ineluctable component of schizophrenia care plan. In India, family is the most important social unit which provides main support or primary care to schizophrenia patients. The role of primary caregiver is often taken by spouse, parents, or siblings. The concept of burden of care explains impacts and consequences on caregivers in different aspects such as emotional, psychological, physical, and economic consideration. Family members require a different sort of adaptive skills for caring schizophrenia due to its unpredictable, continuous, relapsing, and even frightening nature. When the positive symptoms disrupt the family dynamics, negative symptoms also affect family interaction.[13] The lower functioning of schizophrenia patients, chronic course, and lack of insight makes the caregiver more miserable than other psychiatric disorders.[14-18]

Even ethnicity, gender, and social ecology have influence on family burden; among them, gender is proved to have significant association with it. Research reveals that male relatives or male spouse suffering from schizophrenia

require higher supervision than females.[19,20] The female caregivers suffer higher burden in all areas, such as external support, caregiver's routine, support of patient, patient's behaviour.[21] Another important factor that contribute burden is socioeconomic status of families.[22] Psychiatric epidemiological surveys clearly show that there is a significant association between major mental illnesses like schizophrenia and low-income communities.[23] Psychiatric diagnosis can lead to poverty, which is explained in “drift hypothesis”. According to this hypothesis, these disorders result in deterioration in functioning to such an extent that the individual drifts down to a lower socioeconomic state. The hypothesis is commonly explained in schizophrenia.[24] Even though the impact of family interventions revealed the positive results, but the underlying cost of care giving should also be considered, which is difficult to quantify.[25] Psychosocial interventions for reducing burden and distress among the primary caregivers should also be implemented, while intervening to reduce the level of the disability, to accomplish an overall adequate treatment planning.[26]

Medication adherence

Medication adherence is the term which has been widely discussed in medical field. Apart from diagnosis and prescribing, it is equally important to make sure that patients are taking medication and are adherent to therapy. The World Health Organization (WHO) defines adherence as “the extent to which a person's behaviour – taking medications, following a diet and/or executing lifestyle changes – corresponds with agreed recommendations from a healthcare provider.”[27] As complexity and duration of therapy increases in chronic illnesses, non-adherence stands as the major threat. The medication adherence of psychiatry patients is highly important area which requires more care due to lifelong drug therapy needed. Approximately 450 million persons in the world are said to be suffering mental health problems. Non-adherence occurs in majority of cases which further complicates therapy.[28-31] Poor adherences to antipsychotic medication in schizophrenia have been mainly associated with rehospitalisation and relapse.[32,33]

Cause, consequences and interventions

The prevalence of non-adherence is much higher in psychiatric patients than any other diseases. Adherence decreases as the complexity, dose, and duration increase. Psychotropic drugs like antipsychotics, antidepressants, and mood stabilisers are associated with adverse effects which can affect the compliance and course of treatment in mental disorders. Adverse events associated with drugs may force the patient to think treatment is ineffective and results in non-adherence.[34] The other common reasons for medication non-adherence includes financial problem, long distance to facilities, forgetting to take medication, symptom improvement.[35] Among them, the most common reasons were forgetting to take medication and feeling better or healthy. Case studies reported that rather than concerned with adverse drug reaction or treatment efficacy, psychiatry patients simply think they need no medication.[36] One study reported that due to lack of insight, 12% patients were

non-compliant and in six per cent cases, lack of awareness about mental illness was main reason. Also, multiple factors are associated with medication adherence.[35]

As the prevalence of non-adherence is increasing in both developed and developing countries, healthcare professionals should give importance in recognition and management. Adherence requires an integrated effort of both medical professionals and caregivers. Efforts should be made for enhancing regular follow-up, social support, and creating awareness among the professionals. Adherence is essential for improving future prognosis, quality of life, and functionality of psychiatry patients.[37] Different interventions alone or in combination have proved to be effective in enhancing medication adherence in common psychiatric disorders (such as family therapy, compliance counselling of patient, supervised community treatment, education to healthcare professionals). While considering schizophrenia, concrete problem solving or motivational techniques were common characteristics of successful intervention. Interventions should be more specific towards solving problems of non-adherence rather than being more broadly based treatment interventions (26%).[38-40] The Figure 2 shows different interventions that should be included in schizophrenia care plan for successful management.

The pharmacy-based interventions are also equally important as schizophrenia patients need long-term or even lifelong medication, whether they experience less improvement with medication or feel complete cure with it. The psychotropic drugs affect mood, thinking, and behaviour, daily activities both in positive and negative way. The unwanted effects follow along with their beneficial effects which require careful monitoring. The common side effects include weight gain, type II diabetes mellitus, hyperlipidaemia, QTc interval prolongation, myocarditis, sexual side effects, extrapyramidal side effects, and cataract.[41] Anticholinergic and allergic side effects are commonly experienced by older patients than younger patients. Hormone-related side effects are more seen in younger women patient than older patients.[42] Management of side effect is important area in schizophrenia care plan and to improve medication adherence. More care should be given for monitoring of age- and gender-specific side effects.[43] Long-acting depot injections have proved their role in reducing non-adherence, relapse rates, hospitalisation, and improving symptomatic response.[31,44]

Pharmacoeconomic evidences

As availability of costly antipsychotics has increased, careful consideration of pharmacoeconomics become crucial nowadays.[45] Pharmacoeconomic principles are complex and reveals efficacy of the therapy or drug, comparing cost and outcome. More than considering cost of specific drug, it focuses on the costs and benefits of drug therapy (quality of life in case of schizophrenia) in a particular period.[46] In the pharmacoeconomics, input of the therapy is in the form of cost, and outcome is assessed as quality of life, both are carefully calculated. The cost of illness is one of the pharmacoeconomic studies which assesses the burden of the disease or measure all the costs of a particular disease.[47] In a developing country like India, even though schizophrenia is an expensive

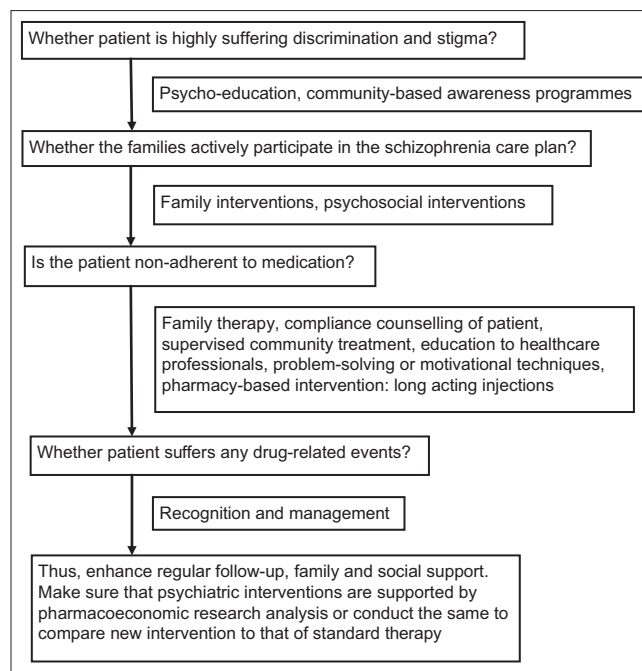


Figure 2: Psychiatric intervention to be implemented in schizophrenia care plan.

illness, costs of care are similar to those of chronic physical illness, such as diabetes mellitus. Schizophrenia has shown successful outcomes as comparable to any other chronic non-psychiatric illness with continuous rational therapy. The cost of drugs contributes a significantly less amount in the total cost of treatment of the disorder, i.e. indirect costs are higher than direct costs.[48,49] This fact is clearly supported by international studies, while cost of illness show wide variation.[50,51] The cost of illness studies reveal that rapid hospitalisation is the largest cost driver for direct costs, suggesting that relapse prevention can considerably reduce the healthcare costs.[52]

The cost effectiveness is another important decision making tool in pharmacoeconomics. Many cost effective studies have been ongoing to compare two or more alternative interventions in terms of their health and economic consequences.[53] Evidence from cost effectiveness research have proved positive and negative side of many psychiatric interventions. For example, psychotherapy is a highly cost effective medical intervention for many serious psychiatric conditions such as schizophrenia. It can considerably reduce healthcare costs and improve quality of life. Many patients need prolonged and intensive psychotherapy.[54,55] The cost effectiveness comparisons before and after switching antipsychotic medication to long-acting injectable risperidone reveals that long-acting risperidone is cost effective per month per patient.[56] Also comparing with other depot preparations, long-acting risperidone is more effective than the other antipsychotics depots (olanzapine and haloperidol). Study shows percentage of patients treated successfully is 82.7% for long-acting risperidone, 74.8% for olanzapine, and 57.3% for haloperidol depot.[57,58] The main aim of these pharmacoeconomic analysis is to support economically effective psychiatric intervention and to guide the physicians

in decision making. Pharmacoeconomic studies provide a platform to compare new psychiatric interventions to that of standard therapy.

Conclusion

In short, schizophrenia care is an integrated process in which healthcare professionals, family, and society have equal role. The different cost effective interventions should be included in the treatment plan along with the drug therapy. The psychotherapy and pharmacy-based interventions are equally important components that should not be neglected. The rapid hospitalisation is the result of poor drug adherence. Efforts should be made for enhancing regular follow-up, social support, and creating awareness among the professionals.

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