

Inequalities in healthcare provision for people with severe mental illness

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Abstract

There are many factors that contribute to the poor physical health of people with severe mental illness (SMI), including lifestyle factors and medication side effects. However, there is increasing evidence that disparities in healthcare provision contribute to poor physical health outcomes. These inequalities have been attributed to a combination of factors including systemic issues, such as the separation of mental health services from other medical services, healthcare provider issues including the pervasive stigma associated with mental illness, and consequences of mental illness and side effects of its treatment. A number of solutions have been proposed. To tackle systemic barriers to healthcare provision integrated care models could be employed including co-location of physical and mental health services or the use of case managers or other staff to undertake a co-ordination or liaison role between services. The health care sector could be targeted for programmes aimed at reducing the stigma of mental illness. The cognitive deficits and other consequences of SMI could be addressed through the provision of healthcare skills training to people with SMI or by the use of peer supporters. Population health and health promotion approaches could be developed and targeted at this population, by integrating health promotion activities across domains of interest. To date there have only been small-scale trials to evaluate these ideas suggesting that a range of models may have benefit. More work is needed to build the evidence base in this area.

Keywords

Bipolar disorder, co-morbidity, health status, quality of care, schizophrenia, severe mental illness

Introduction

The excess mortality associated with severe mental illness (SMI) is well known and has long been documented (Brown, 1997; Harris and Barraclough, 1998; Saha et al., 2007). While much attention has been focused on suicide and homicide which are associated with higher rate ratios, the public health burden associated with major chronic diseases is much higher in people with SMI. The majority of excess deaths in this population are due to physical illnesses, in particular cardiovascular disease, respiratory illness and cancer (Kisely et al., 2005; Lawrence et al., 2001; Leucht et al., 2007). Both incidence rates and mortality rates are elevated for cardiovascular disease and respiratory illness, but mortality is higher than expected based on incidence alone so higher incidence of disease and worse outcomes both contribute to the excess mortality (Laursen et al., 2009; Lawrence et al., 2001). For cancers there is little evidence of excess incidence, but worse case fatality has been reported (Kisely et al., 2008; Lawrence et al., 2000), suggesting that factors associated with diagnosis, progression and treatment of disease play a role.

Although substance use, unhealthy lifestyles, and the side effects of medications increase the risk of physical illness in people with SMI, there is a growing body of evidence that unequal healthcare provision also plays a role in this disparity. In some cases, unequal quality of healthcare provision seemed to explain much of the subsequent excess mortality

(Druss et al., 2001a). Although the highest number of excess deaths in schizophrenia is associated with cardiovascular disease, people with schizophrenia have low rates of surgical interventions such as stenting and bypass grafting (Druss et al., 2000; Kisely et al., 2007; Lawrence et al., 2003; Laursen et al., 2009). People with psychosis are less likely to receive cerebrovascular arteriography or warfarin following stroke (Kisely et al., 2009). The quality of medical care contributes to excess mortality in older people with mental disorders after heart failure (Rathore et al., 2008). Diabetes patients with mental health conditions are less likely to receive standard levels of diabetes care (Desai et al., 2002; Frayne et al., 2005; Nasrallah et al., 2006). People with SMI are less likely to receive routine cancer screening (Carney and Jones, 2006; Xiong et al., 2008). Schizophrenia patients with appendicitis have been found to be more likely

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to present late, have more complications such as gangrene or perforation of the appendix, and have worse outcomes from surgery (Cooke et al., 2007). Patients with psychotic disorders are less likely to receive medical treatments for arthritis (Redelmeier et al., 1998). Mitchell et al. (2009), in a recent meta-analysis of quality of medical care for people with comorbid mental illness, reported that the majority of studies demonstrate significant inequalities in receipt or uptake of medical care for people with SMI. McIntyre et al. (2007) reviewed medical co-morbidity in bipolar disorder and found that chronic health problems are very common in patients with bipolar disorder, and tend to be under-recognized and sub-optimally treated. Patients with SMI are more likely to have physical co-morbidities, more likely to have physical health problems that are not being treated, and more physical co-morbidities are associated with worse mental health (Dixon et al., 1999).

The aim of this review was to consider the evidence in relation to healthcare provision for people with SMI, identify gaps in knowledge and provide an overview of the field.

Method

Owing to the large number of physical conditions indexed, the lack of standardized keywords in the area of inequalities in healthcare provision and the very large number of papers that would need to be searched in a broad-based search strategy, this is an overview rather than a systematic review. Papers were initially selected by undertaking a search of Medline (1966–December 2009). We identified papers relevant to SMI by searching for ‘schizophrenia’, ‘psychotic disorders’, ‘mood disorders’, ‘affective disorders’ and ‘depressive disorder’. We then selected papers that overlapped with any of the following search terms ‘health status’, ‘quality of health care’, ‘cardiovascular disease’, ‘neoplasms’, ‘stroke’ or ‘diabetes’. We supplemented this search with reviews of the bibliographies of relevant articles. As most of the relevant papers found related to describing the excess of physical health problems in people with SMI, we have focused on articles that discuss levels and standards of healthcare provision, factors influencing access and use of healthcare services and the small number of trials that have investigated ways of improving physical healthcare outcomes for people with SMI.

Healthcare provision for people with SMI

Barriers to effective healthcare provision for the mentally ill can be split into system-level issues, provider issues and patient-related factors (Druss, 2007; Lambert et al., 2003). Systemic issues include the geographic, managerial and resource separation of physical and mental healthcare facilities, lack of clarity as to who takes responsibility for the physical health of patients with SMI, fragmentation of care across providers, lack of integration between medicine and psychiatry, lack of continuity of care, and under-resourcing of mental healthcare that provides little opportunity for specialists to focus on issues outside their core specialty (Druss, 2007). At the provider level there are the effects of stigma, time and resource constraints, and the possibility of regarding physical complaints as psychosomatic symptoms (Leucht et al., 2007).

Patient-related factors include health risk factors and lifestyle factors such as substance use, diet, lack of exercise and obesity (Brown et al., 1999; Kendrick, 1996), side effects of medications (Mitchell and Malone, 2006) and the effects of mental illness including cognitive impairment, social isolation and lack of family support, higher pain threshold or reduced sensitivity to pain, suspiciousness or fear, self-neglect, lack of motivation, socio-economic factors and difficulties in communicating health needs (Dworkin, 1994; Sokal et al., 2004).

It has been suggested that not only do patients with schizophrenia have less access to medical care, and consume less medical care, they are also less compliant with medical care (Brugha et al., 1989; Hennekens, 2007). This lack of compliance with follow-up care has been suggested as a reason why patients with schizophrenia may be less likely to receive invasive cardiac procedures (Shander, 2000). People with schizophrenia also have higher rates of adverse events during medical and surgical care (Daumit et al., 2006). More aggressive or high-risk treatments such as more complex surgeries or chemotherapy may be contra-indicated if the patient has multiple co-morbidities. There can also be ethical and consent issues in undertaking high-risk procedures. Mateen et al. (2008) undertook a small study of lung cancer care for patients with schizophrenia. They described a small number of cases where non-optimal cancer care was provided. In some cases the patient declined chemotherapy treatment or was considered unable to consent to it, while in others the presence of co-morbid physical conditions was considered a contra-indication for chemotherapy.

Who should provide primary healthcare for physical problems?

There has long been concern as to whether psychiatrists should provide primary healthcare assessments for people with SMI, or whether people with SMI have access to, and utilize appropriately, primary care physicians. McIntyre and Romano (1977) reported that most psychiatrists acknowledge the importance of physical examination of their patients, but that few routinely undertake these assessments, either because they believe the patient’s physical health is being assessed by another physician or they do not feel competent to perform such an examination. Psychiatrists often delegate the responsibility for physical examination of their patients (Patterson, 1978). Not all psychiatrists keep up to date on the management of chronic medical conditions (Cradock-O’Leary et al., 2002).

At the same time, there are barriers to people with SMI accessing primary care. Some primary care physicians see patients with SMI as being disruptive to their practices or feel uncomfortable treating them (Goodwin et al., 1979; Karasu et al., 1980). The likeability of patients has also been linked to the amount of attention they receive in primary care (Gerbert, 1984; Hall et al., 1993). However, problems in access to primary care are not the entire explanation. For instance, in the Australian Study of Low Prevalence Disorders, 81% of people with psychosis had been seen by a general practitioner in the year prior to the survey (Jablensky et al., 2000). It is possible that primary care

physicians feel that they have insufficient time to provide both physical and mental healthcare for patients with SMI, limiting opportunities for health screening (Jaen et al., 1994). Both primary care settings and psychiatric settings regularly fail to diagnose physical illnesses in patients with mental illness (Koranyi, 1979, 1982; Koran et al., 1989).

Because patients with SMI fare poorly in primary care, there have been calls for psychiatrists to take primary responsibility for the overall health of their patients (Lancet, 1979; Lamb, 1989; Shore, 1996). However, these calls have had little impact (Daumit et al., 2002). As the treating psychiatrist may only see the patient infrequently, it has also been suggested that this responsibility needs to be shared with the mental healthcare team. Two consensus conferences have called on mental healthcare providers to take responsibility for the physical health of their patients (Fleischhacker et al., 2008; Marder et al., 2004). As the burden of physical illness is so high in this population the risk of over-servicing is considered to be minimal even if patients are also seen in primary care, and more frequent monitoring would increase the likelihood of early detection of medical conditions. To address the concern that mental healthcare professionals do not feel competent to take on this responsibility, these calls have been accompanied by calls for better and more comprehensive training in primary healthcare for mental health professionals. With appropriate medical support, psychiatrists have been considered as appropriate treatment providers for many physical conditions (Golomb et al., 2000). However, it should be recognized that mental healthcare facilities in many countries are under-resourced compared with other healthcare facilities, and that many mental healthcare providers are already stretched in attempting to manage the mental health of their patients (Sartorius, 2007a). It is unlikely that calls such as these will be successful in improving the primary healthcare of people with SMI unless they are accompanied by investments and resourcing models that recognize the time requirement associated with this expanded role, as well as addressing the logistical and cultural barriers to their implementation.

This issue has been compounded by a long tradition of separation of mental healthcare facilities from general healthcare, both in the physical location of facilities and in the resourcing and management models employed. Patients do not necessarily perceive this separation, and do not always appreciate that they should seek the help of multiple care providers.

In recent years, some jurisdictions have issued guidelines on healthcare for people with SMI that have included minimum standards of physical healthcare. For instance, the European Psychiatric Association has recently issued a position statement on cardiovascular disease and diabetes management that sets out standards for monitoring body weight, blood lipids, blood glucose and smoking status on a regular basis (de Hert et al., 2009). Responsibility for coordinating assessment and management is assigned to psychiatrists, ideally as part of a shared care arrangement. The Spanish Societies of Psychiatry and Biological Psychiatry call for six-monthly monitoring of blood pressure, blood lipids, blood glucose, height, weight, and medication reviews for schizophrenia patients in outpatient treatment (Sáiz Ruiz et al., 2008).

In recognition of the metabolic effects of antipsychotic medications, both the US and the UK have guidelines for the monitoring of metabolic risk factors in schizophrenia patients on antipsychotic medications (National Institute for Clinical Excellence, 2002; American Diabetes Association, American Psychiatric Association, American Association of Clinical Endocrinologists and North American Association for the Study of Obesity, 2004). Where applied these guidelines may be cost-effective, as screening costs are more than offset by savings in chronic disease management and care (Bruggeman et al., 2008). However, while these guidelines are helpful in setting expectations for standards of care, compliance is often low (Citrome and Yeomans, 2005; Haupt et al., 2009), and health of people with SMI may not have improved (Mackin et al., 2007). Work is required to develop and fund systems that allow these standards of care to be routinely applied. To date, the development of standards has mainly been in response to the metabolic effects of antipsychotics, and focus on these risk factors. More general guidelines for physical healthcare of people with SMI, regardless of medication, remain to be developed.

Integrated care trials

To address the systemic separation of mental healthcare and physical healthcare, a range of integrated care models have been proposed (Vreeland, 2007). These include co-location of services, having staff from one service visit another on a regular basis, or appointing case managers to liaise between services and co-ordinate the overall care for the patient.

Some small-scale trials have been conducted which show benefits associated with various types of integrated care models. Griswold et al. (2005, 2008) found that nurse case managers were effective in increasing the percentage of patients with SMI who were successfully linked to primary care services. A randomized trial of an integrated care model within a Veterans Administration mental health clinic found a significant improvement in overall health status after 1 year, and increased likelihood of patients receiving a range of preventive health measures (Druss et al., 2001b).

Shared care with primary care physicians is another approach that has several advantages. These include accessibility, reduction in stigma, and potential for long-term continuity of care, and integration with management of medical problems. In the United States, the use of care managers for liaison with primary care physicians was associated with significant improvements in the quality and outcomes of primary care (Druss et al., 2010a). The Consultation and Liaison in Primary Care Psychiatry (CLIPP) project in Victoria, Australia (Meadows, 1998) provides a protocol to support primary care physicians in managing people with SMI as they reintegrate into the community. This includes a management plan with support to the primary care physician after the transfer. Involvement of the primary care physician is encouraged early with an increasing degree of shared care in transition towards discharge. The development of 'super-clinics' affords the opportunity to develop 'one stop shops' that increase the opportunity and capacity to promote access, early intervention with respect to mental and physical healthcare while also enabling engagement with specialized medical

services (Crompton et al., 2010). Larger-scale and longer-term trials are required to determine whether these models of care can improve morbidity and mortality of people with SMI.

Addressing patient-level factors

People with SMI may be naturally disadvantaged in their ability to maintain good physical health and attend to their physical health needs due to the range of patient-level factors that commonly accompany SMI including cognitive impairment, social isolation and lack of family support, self-neglect, lack of motivation and socio-economic factors. Countering these factors may help to address the inequality in health outcomes for people with SMI. It is widely recognized that additional investments and infrastructures are entirely appropriate to compensate for physical disabilities to allow people with disabilities to participate more fully in life. Steps that actively redress the negative consequences of mental illness may also be appropriate for people with SMI.

There is an extensive literature relating adverse socio-economic factors to poor health outcomes in the general population (Marmot and Wilkinson, 2006). Socio-economic disadvantage is more common in people with SMI, and adversely affects the course of their mental illness (Muntaner et al., 2004; Saraceno et al., 2005). Socio-economic disadvantage is associated with unhealthy lifestyles and reduced access to healthcare. While these factors would be expected to have an impact on the physical health of people with SMI, they do not fully explain the differential in health outcomes between people with SMI and the general population. Studies that have adjusted for socio-economic status still find significantly worse morbidity and mortality for people with SMI (Kisely et al., 2007, 2009).

The cognitive impairment associated with schizophrenia has been estimated as a reduction of around one standard deviation of IQ across a range of domains (Fioravanti et al., 2005), and often persists after remission of other symptoms (Szöke et al., 2008). Impairment may be particularly severe in the area of social cognition (van Os and Kapur, 2009) which affects the ability to understand and interact with our surroundings which may impair the ability to distinguish between health promotional and advertising messages, and to understand and prioritize various sources of health information or misinformation.

Folsom (2009) suggested that one possible approach to addressing the sequelae of SMI is to provide healthcare skills training for patients. This approach aims to develop skills in accessing and understanding health information and the healthcare system. There have been a couple of specific trials of this type of approach. McKibben et al. (2006) trialled a skills training intervention aimed at older schizophrenia patients with diabetes which achieved a significant reduction in weight gain at 6 months. Wu et al. (2008) undertook a lifestyle intervention aimed at reducing antipsychotic-induced weight gain, which achieved significant benefits at 12 weeks. Further trials are needed to assess longer-term benefits and applicability of the approach to broader health needs than just weight control.

Another approach to this problem has been the use of peer supporters. In this model, former patients provide support

services which may take the form of peer-led training, facilitation of access to or liaison with healthcare providers, or the provision of support services such as case management (Davidson et al., 2006). Peer support is more established in areas such as addiction and cancer, and is a relatively recent innovation in mental healthcare. As yet there is little evidence base to support long-term benefits because of the lack of trials in the area (Kemp et al., 2009), although a trial of a peer-support service in Western Australia has shown initial promising results (Bates et al., 2008). In addition, Druss et al. (2010b) have reported the results of a trial of a peer-led medical self-management program, in which mental health peer leaders deliver a six-session programme. After 6 months there was a significantly elevated rate of access to primary care.

Stigma

The stigma of mental illness pervades all aspects of society, including the healthcare system. Severe mental illness too often robs people of the characteristics that otherwise we find most endearing. If there is one sector of society that should be able to recognize that the behaviours that are otherwise seen as signs of a difficult or negative person are actually symptoms of illness, it would be expected to be the healthcare sector. Sartorius (2007b) has suggested that, as part of the overall goal of reducing the stigma of mental illness, the healthcare sector should be particularly targeted. As noted previously, one issue in the reduced access to primary care for people with SMI is the way that some practitioners regard people with SMI as being difficult or disruptive, attributing abnormal behaviour as an individual characteristic rather than one of the symptoms of an illness. Sartorius (2007b) has suggested that a campaign to reduce stigma and discrimination within the healthcare sector should be a high priority in efforts to reduce the stigma associated with mental illness in the population at large.

Population healthcare and health promotion

Population health programmes have been credited with improvements in health risk factor profiles and improved life expectancy in developed countries. Common chronic diseases such as cardiovascular disease, cancers and diabetes have been major targets for these strategies which combine a range of legislative and promotional approaches to reduce exposure to known health risk factors. Probably the biggest success in this regard is the reduction in smoking rates, but major programmes have also been developed to address other substance misuse including alcohol, diet and exercise, and sun exposure.

As inpatient treatment for psychiatric illness has been reduced and community-based care has become the norm in most Western countries, preventive healthcare measures are becoming more important for improving the health of people with SMI (Salokangas, 2007). The need to integrate general medical and mental healthcare and to treat the person rather than specific diseases has been recognized for some time. However, population health has been significantly slower to respond to this trend, with most population health initiatives targeted at single diseases or risk factors. Agencies taking

responsibility for population health initiatives are often organized around specific diseases, such as heart disease, diabetes or cancer, with mental illness seen as a separate group. Population-health-based groups that address major chronic diseases are reluctant to view people with mental illness as an important target group. There is evidence that people with SMI can quit smoking, become more physically active and improve their diets but programmes should be tailored to address the neurological, cognitive, behavioural and social deficits associated with SMI (Addington et al., 1998; Robson and Gray, 2007).

Despite the high rate of smoking in people with SMI (de Leon and Diaz, 2005), it is rare to see population-health-based anti-smoking measures targeted at people with SMI. Where mental illness is identified as an important target in smoking cessation, the suggested strategies are almost always service-based, such as smoke-free units, with often disappointing long-term results (Lawn and Pols, 2005; Prochaska et al., 2006). For instance, of 100 patients admitted to a smoke-free psychiatric unit, all resumed smoking within about 5 weeks of discharge. The median time from discharge to first cigarette was 5 minutes, and the range was a few seconds to 36 days (Prochaska et al., 2006). While some have argued that the entire population, including people with SMI, respond to general smoking-cessation programmes (Chapman, 2007), the persistent high rate of smoking in this group would suggest these programmes are not equally effective in this group. People with SMI could well benefit from targeted messages, as there are specific issues around smoking in people with SMI that need to be addressed. The interactions between nicotine and anti-psychotics and anti-depressive medications mean that people with SMI may need to have their medications or doses adjusted when quitting smoking, and the possibility that nicotine withdrawal symptoms can be mistaken for symptoms of mental illness are specific areas where people with SMI could benefit from targeted information (Ziedonis et al., 2008). Some of the general anti-smoking messages are also less relevant in this group. For instance, campaigns around the idea that an early smoking-related death may mean you will not be around to see your children and loved ones as they grow older may be less relevant for people who do not have children or who are estranged from their families, demographic groups over-represented among people with SMI (Compton et al., 2006). Similarly the attempt to stigmatise smoking behaviour (Chapman and Freeman, 2008) may have less of an impact on a population already facing the stigma of mental illness, and a strategy that may be effective in those without mental illness may cause harm to those with SMI (Bayer and Stuber, 2006).

Conclusion

People with SMI have higher rates of mortality and reduced life expectancy, with deaths from common physical illnesses such as cardiovascular disease, cancers and respiratory illnesses representing the largest number of excess deaths. There is a range of contributing factors that may be responsible for this excess mortality, and while we do not know how much these various factors contribute to the overall excess

mortality, inequalities in healthcare access and delivery have been repeatedly documented and are likely to be a contributing cause. These inequalities can be attributed to a combination of factors including systemic issues, such as the common separation of mental health services from other medical services, healthcare provider issues including the pervasive stigma associated with mental illness, and consequences of mental illness and side effects of its treatment.

Fleishhacker et al. (2008) have suggested that parity in healthcare for people with mental illness should be regarded as a basic human right. This raises the question of whether we would regard equality in health as meaning equality in access to healthcare, equality in the use of healthcare, use of healthcare in proportion to need or equality in health outcomes. A human rights argument could be made that people with a higher burden of physical illness, such as people with SMI, should be entitled to higher use of healthcare given the higher level of health need.

There have been some small-scale trials examining ways to address these issues which have shown promise (Druss and von Esenwein, 2006), however there is a need to build the evidence base on which to formulate programmes to address the inequities in healthcare provision in this population. To build this evidence base, it is important to include a trial and evaluation component in policy and programme changes, to determine which strategies are effective and aid in their refinement. With the increasing availability of administrative data in electronic form, evaluations can be carried out at minimal cost using record linkage methodologies.

The complex and multifactorial nature of the problems underlying the inequalities in healthcare provision for people with SMI will require multifaceted solutions. It is unlikely that any one of the initiatives mentioned above will completely resolve the problem. The growing literature in the field including some trials suggests that there is building momentum to address health inequalities in people with SMI. The health system has long been better at treating people with single problems. While recognizing that treating multiple health problems concurrently is more difficult, it may well be the case that this approach would have substantial benefits including possible long-term cost savings, as treating the physical health problems of people with SMI may improve their mental health as well as their physical health and vice versa.

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