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Treating Schizophrenia: Forced Medication Is Not the Cure

People with schizophrenia suffer in 2 ways: On the one hand they have a serious brain disease that heavily affects their quality of life and general well-being; on the other hand, they are isolated and even shunned by society due to stigma and misconception that stems from lack of public education and from sensationalist, misguided coverage.

The term schizophrenia, introduced in 1911 by Swiss physician Eugen Bleuler, literally comes from the Greek root words "split mind" (Shean 2004). While the term does evoke the state of fragmentation of the schizophrenic patient's mind, and their divergent perception of reality, it is also the source of many misconceptions. The term "schizophrenia" does not mean split personality. This concept applies to people suffering from "dissociative disorder", which is a completely different illness (Shean 2004).

Schizophrenia is characterized by disturbances in a person's perceptions, thoughts, emotions and behaviour (Shean 2004). The condition affects one out of every 100 people worldwide; those affected are usually in the prime of their lives, between the ages of 15 and 34 (website: schizophrenia.com). This year alone, it is estimated that 1.5 million people will be diagnosed with the illness throughout the globe; a number of others contracting it will not seek medical help (website: schizophrenia.com). In Canada it is estimated that 280 000 people are currently living with the debilitating illness (website: schizophrenia.com).

Treatment of schizophrenia has been difficult since the cause is still unknown. In the first half of the 20th century, the many treatments available were costly to the patient

and unsuccessful. These included fever therapy, gas therapy, sleep therapy, insulin therapy, electroconvulsive or "shock" therapy and the ever infamous and inhumane lobotomy (Lehmann and Ban 1997). Nowadays, however, treatment has improved and many of the symptoms of schizophrenia are alleviated by antipsychotic medication. However, for several reasons, including the side-effects of medication, patients with schizophrenia often refuse medication.

During the last decades, a great deal of debate has arisen about the right of patients with mental illness to refuse medication once hospitalized or detained. After providing background on the debate over involuntary administration of medication, I will show that despite some benefits both to the individual and to society, forced treatment is not only a violation of human rights but serves to impede the integration and quality of life of schizophrenics.

To understand treatment options past and present for people suffering from schizophrenia, it is important to review what little is known of the illness and to understand that even less was known in the past.

Schizophrenia is hard to define as an illness since the symptoms are behavioural and psychological and assessment relies heavily on patient subjectivity and honesty rather than objective measurements or clinical tests. In North America, schizophrenia is grouped into 4 main categories based on the specificities of the symptoms: paranoid, catatonic, hebephrenic, or undifferentiated (Warner and Girolamo 1995). To be diagnosed with schizophrenia one must exhibit one of the following symptoms: thought projection (echo, insertion, withdrawal or broadcasting), delusion (of perception, control, influence or passivity) and hallucinatory voices (Warner and Girolamo 1995). Other

symptoms might include interruptions in the train of thought resulting in incoherence and irrelevant speech, catatonic behaviour and marked apathy "paucity of speech" and "blunting or incongruity of emotional responses" (Warner and Girolamo 1995).

With the era of shock therapy and lobotomies behind us, the treatments existing today have been achieved through advances in neurochemistry. One large advance that led to the elaboration of the first generation of antipsychotics ("typical antipsychotics") was the dopamine hypothesis (Shean 2004). It was discovered that dopamine was involved in the symptoms of psychosis and schizophrenia, since drugs that blocked or interfered with dopaminergic transmission of nerve impulses were found to reduce acute psychotic symptoms (Shean 2004). Currently 6 classes of typical antipsychotics exist in the US and Canada: phenothiazines, thioxanthenes, butyrophenones, dibenzoxanpines, dihydroindolones, and dibenzodiazepines (Shean 2004). These differ chemically but have different pharmacological effects. However, side effects known as extrapyramidal symptoms (EPS) or pseudoparkinsonism (Shean 2004) led to the elaboration of a new class of antipsychotics: the atypicals. These antipsychotics are able to block dopamine receptors in the limbic and mesocortical areas without affecting the corpus striatum or pituitary thereby reducing side effects (Shean 2004). In 1989, the drug clozapine was introduced, which was highly effective despite the risk of causing agranulocytosis in some patients (Shean 2004). Soon after in the mid 90s to today, a series of new antipsychotics appeared, among them risperidone, olanzapine, ziprasidone and quetiapine; these agents lessened side effects while eliminating the risk of agranulocytosis (Shean 2004). Two theories have been advanced that could lead to better drugs and possibly even a cure. The first is the hyperdopaminergic and glutamate

hypothesis, which states that glutamate may be a key player controlling the effects of dopamine on psychosis (Gao et al 2001). The second is the neurotransmitter imbalance hypothesis, which was advanced by Carlsson and Carlsson in 1990, which states that schizophrenia might be induced by a deficiency in the corticostriatal glutamate pathway, meaning glutaminergic agonists may possess antipsychotic properties, and neurotransmitter imbalances may play a role in the illness.

All these advances in schizophrenia research and treatment have led many psychiatrists and others to advocate and attempt to apply forced medication treatment. This is particularly evident in cases where patients are disruptive or exhibit violent or threatening behaviour. In the past the mentally ill were often imprisoned, restrained, forcefully sedated and submitted to various painful, mind numbing treatments. However, with today's advances, many feel that involuntary treatment is a humane way of helping the mentally ill. However, this political issue has caused controversy within the judicial system. In 1998, Scott Starson, a published physicist with schizoaffective disorder was detained for the criminal charges of uttering death threats. He refused medication that would have allowed him to be discharged, and in 1999, his psychiatrists went to court to try to forcefully medicate him since they claimed that he was incapable of deciding what was best for him. The Ontario Superior Court overturned the psychiatrists' "finding of incapacity," and in 2001 the Ontario Court of Appeal upheld the lower court finding. The psychiatrists then took the case to the Supreme Court, and on June 6th 2003, the Supreme Court decided that Scott Starson was capable of refusing treatment (website: schizophrenia.ca). This case was important since it gave schizophrenics and people with other serious mental illnesses a voice. Unfortunately, however, Starson was obviously

very sick, having been hospitalized 17 times with relapsing acute symptoms and it is questionable whether one should pay attention to a person that is highly irrational and very confused.

Many believe that schizophrenics are not fit to decide what is best for them. Recent studies have shown that between 40-50% of individuals with schizophrenia have an impaired awareness of their illness (also called impaired insight) (Amador and David 1998). Their illness impairs function in their prefrontal cortex, which is the part of the brain used for self-reflection and to look out for one's needs (website: National empowerment). Involuntary medication would thus enable patients with the illness to slowly clear their minds of delusion, and presumably to allow them to lead a better life. Dr. E. Fuller Torrey, a strong advocate of involuntary medication, believes this measure is humane because it saves people from personal harm (website: National empowerment). For instance, it was found that people with schizophrenia are 50 times more likely to attempt suicide than the general population, 10-13% of schizophrenics will commit suicide, and 40% will attempt suicide at least once, due to extreme depression and psychosis. In the general population, suicide rates are roughly 0.01% (website: schizophrenia.com). Some advocates also argue that involuntary medication could save patients' lives. Dr. E. Fuller Torrey maintains that concern over being deprived of personal freedom is overstated since homeless schizophrenics can hardly be considered free; moreover, medication would enable them to function in society and potentially to support themselves.

It was found that between 25-33% of homeless people have a serious mental illness such as schizophrenia (Folsom and Jester 2002). These homeless persons do not

have a regular source of health care and the daily struggle for food and shelter takes priority over concern about mental health care (Folsom et al 2005). In a recent 3 year study, it was found that 10% of patients treated for schizophrenia used a public shelter compared to 2.8% for the general population (Folsom et al 2005). Finally, many argue that involuntary medication will help prevent schizophrenics from getting in trouble with the law and save them from conviction and jail time. It was found by the American Psychiatric Association, that as many as 20% of the 2.1 million Americans in jail are seriously mentally ill, which greatly outnumbers the number who are in mental hospitals (website: schizophrenia.com).

However, despite all the above noble arguments in favour of forced treatment, that is, to spare the individual suffering from the illness, the real reason behind involuntary administration of medication in schizophrenics is the issue of public and health care professional safety.

Numerous studies have found that there is an association between violence and positive psychotic symptoms (delusions, hallucinations, conceptual disorganization) of schizophrenia (Krakowski 2005, McNiel and Binder 1994). It was also found that patients with schizophrenia who suffered a greater cognitive deficit were more violent (Barkataki et al 2005). When patient records were examined for aggressive behaviour and progression of neuroleptic treatment, it was found that the day-by-day decline of aggressive incidents after the start of the neuroleptic treatment was a highly significant correlation (Steinert et al 2000). This suggests that the increased rates of violence by schizophrenics are at least in part due to the lack of adequate treatment.

Although it is easy to dismiss the non adherence and refusal of medication as mere irrational schizophrenic behaviour, one must ask oneself why a mentally ill person would refuse medication in the first place. Hudson et al (2004) did a pilot study on the "barriers to medication adherence" in schizophrenics, and found that the most commonly reported barriers were stigma, adverse drug reactions, memory problems, and lack of social support (Figure 1). Furthermore, the study found that 28% of patients had barriers in the "other" category, and substance abuse and homelessness were most common.

While Geddes et al (2000) were able to show that the newer atypical antipsychotics reduced extrapyramidal symptoms, a major nervous system side effect of antipsychotic medication, this finding could have been due to the choice of the "typical" comparator agent haloperidol in the majority of trials (Barnes 2004). Haloperidol is known as a high potency antipsychotic that was associated with extrapyramidal symptoms – moreso than the more common low potency typical antipsychotics, which were not found to induce any more extrapyramidal symptoms than atypical antipsychotics (Leuch et al 2003). Furthermore, the side effects of the new generation atypicals are still an area of concern since they have been linked to obesity, diabetes, and dyslipidaemia as well as cardiac and sexual side effects (Barnes 2004), although more research in this area needs to be done.

Homelessness and poverty are often linked to patients with schizophrenia who do not receive adequate treatment. However, one must ask oneself whether adequate medication truly enables better cognitive functioning to allow one to hold a job and function in society. Unfortunately, medication compliance does not in itself alleviate the problem of homelessness, although disease symptoms might improve slightly. Research

has shown that roughly 85% of patients with schizophrenia are cognitively impaired (Medalia and Lim 2004). This includes a large proportion who are compliant with medication.

The lack of effectiveness of medications to relieve symptoms remains a significant challenge. An even greater challenge is the lack of accessibility to drugs: patients with a first episode of psychosis or those who relapse but are lucky enough to be admitted to a mental health center may not be prescribed the newer and better atypical drugs, which are costlier to the health system; frequently patients receive older generation antipsychotics with more adverse side effects. After discharge from hospital, patients may discontinue drugs because they lack financial support or health benefits to pay for them. Without drugs most suffer a serious relapse that can lead to despair and distrust in the health system.

Another characteristic identified as a frequent barrier to compliance is substance abuse; interestingly this link suggests that substance abuse might be one of the root causes of violence in schizophrenics. For example the cost of supporting a drug habit could be the cause of non adherence to expensive medication; likewise the erosive effect of drug abuse on personal responsibility and sense of duty. Substance abuse has been linked to violence both in the general population and in psychiatric patients, and it is found that rates of substance abuse use are higher in schizophrenics than in the general population (Krakowski et al 2005). Also linked to violence is lack of insight (Krakowski et al 2004). It was found by Cernovsky et al (2004) that 97% of schizophrenic patients receiving medication had poor insight into their illness at some point in the past and 58% had poor insight at the time of assessment. This suggests that medication is not

thoroughly helping patients gain insight, which is essential to recovery from the illness. This lack of insight makes compliance to medication difficult, and has been linked to cognitive impairment (Medalia and Lim 2004), which causes a severe social and intellectual handicap, making social integration very difficult.

Social integration is a chief concern among schizophrenics, with only 28% living independently and supporting themselves (website: schizophrenia.com). While it is essential to help schizophrenics lead happy, socially connected, fulfilling lives, one huge impediment to social integration is stigma. People with schizophrenia are often vilified or mocked by the media, and are often viewed with fear and animosity by the general public. In a 1996 public survey on the subject of mental health, it was found that 60% of respondents who watched a vignette of a schizophrenic showing no signs of violent behaviour, were afraid he was going to commit an act of violence (Maj and Sartorius 2002). With respect to patients, as shown by a pilot study on medication adherence, stigma is a huge barrier to proper treatment, since it stimulates fear and denial in response to the stereotype of “mental” patients and of psychiatric treatments and professionals (Maj and Sartorius 2002). It is evident that greater understanding and acceptance of schizophrenics is crucial. There is a need for better public education, even at the primary or high school level; in particular, children and teenagers at risk need to gain understanding of the illness so they will be better able to accept treatment and feel comfortable among their peers after they are diagnosed with the illness in their early adulthood.

A more welcoming, secure environment for schizophrenics will make them more apt to understand the benefits of treatment and see the importance of taking

antipsychotics, in the same manner as a diabetic takes insulin, to regulate chemical imbalances in their bodies.

Notwithstanding the importance of medication compliance, economic hardship is a further hurdle associated with schizophrenia care. Treatment is costly, whether voluntary or involuntary. In Canada alone, it is estimated that health care expenditures for schizophrenia alone cost taxpayers 4 billion annually due to indirect and direct costs (website: schizophrenia.ca). Indirect costs are particularly high since many schizophrenics are unemployed and highly dependent on disability allowances. Also despite this outlay of resources, the financial allocations are insufficient to adequately treat all new cases emerging daily. Moreover, relapses due to non compliance cause a severe strain on health care due to costs of rehospitalization.

Reversal of stigma and advances in psychiatric research are the cure. With progress in this direction schizophrenics will have the resources and courage to seek help and obtain effective medication to recover, support themselves, and lead happy healthy lives. The sense of belonging in society and greater financial security will in turn reinforce compliance taking medication, while preventing relapses and thereby lessening strain on health care dollars.

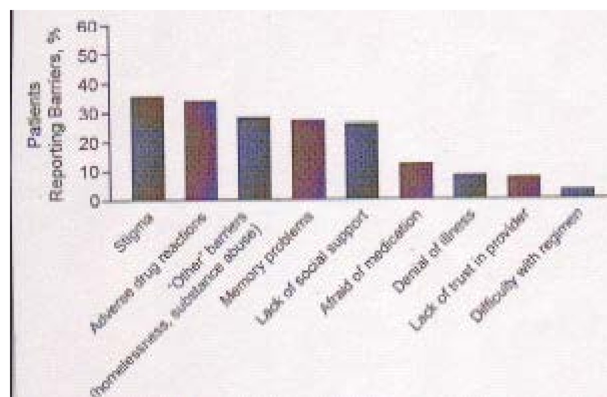

Fig 1: Frequency of barriers to medication in patients with schizophrenia (Hudson et al 2004)

Resources

Web sources:

Schizophrenia.com website
www.schizophrenia.com/szfacts.htm

Schizophrenia Society of Canada
www.schizophrenia.ca

National empowerment center inc. website
www.power2u.org/debate.html

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