



## RECOVERY

# Schizophrenia across the world: outcome and recovery

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**The International Pilot Study of Schizophrenia (IPSS) was a seminal, ground-breaking study that revealed important information regarding schizophrenia on a global scale. Perhaps the most interesting and controversial finding was that for all outcome variables considered, patients suffering from schizophrenia in Nigeria and India ('developing countries') tended to 'recover' better than patients in the other six sites. However, in recent times, this finding has been repeatedly challenged. The renewed debate led to a vigorous rebuttal by some of the original IPSS study authors. In an increasingly globalised world, the IPSS stands as a reminder of the importance of the cultural determinants of recovery from schizophrenia.**

The World Health Organization (WHO) was ratified as an agency of the United Nations on 7 April 1948, which is commemorated annually as World Health Day. The charter of the WHO states that the

enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being without distinction of race, religion, political belief, economic or social condition. (WHO, 2011a)

The WHO describes itself as:

the directing and coordinating authority for health within the United Nations system. It is responsible for providing leadership on global health matters, shaping the health research agenda, setting norms and standards, articulating evidence-based policy options, providing technical support to countries and monitoring and assessing health trends. (WHO, 2011b)

In this respect, the WHO has developed a mental health programme with a cross-cultural agenda furthering the generation, translation and dissemination of knowledge across the world.

An expert committee on the epidemiology of mental disorders met in 1960 and recommended that the WHO undertake research which would allow standardisation of psychiatric patients across cultures and carry out comparative studies on mental disorders in different cultures (WHO, 1960). This led to the launch of the International Pilot Study of Schizophrenia (IPSS) some years later. This was a seminal, ground-breaking study that revealed vital information regarding schizophrenia on a global scale. There had been a dearth of cross-national information on the presentation, clinical course and outcome of schizophrenia in

different settings. The IPSS aimed to illuminate many unanswered questions in schizophrenia research from a global perspective, including the following.

- Does schizophrenia exist in different parts of the world? If so, how and to what extent?
- What are the commonalities and differences in the presentation of schizophrenia across cultures? What may explain any areas of divergence?
- What are the variations in clinical course and outcome of schizophrenia across the world? What may explain any such variation?

Furthermore, this study was the first to tackle the significant methodological and logistical hurdles involved in developing standardised research instruments and procedures, and training research workers from different theoretical backgrounds and widely separated countries with different cultures, socioeconomic and political conditions, to use them to make comparable observations. Further issues of standardisation and coordination of multicentre data collection, transmission and analysis were also addressed. No previous study had made such bold attempts and little was known about the characteristics and clinical course of schizophrenia across cultures and settings (WHO, 1979).

The IPSS used a comparative prospective design, where patients with psychotic illnesses were selected from nine countries across the 'developing' and 'developed' world (Colombia, China, Czech Republic, Denmark, India, Nigeria, Russia, the UK and the USA). Case finding for the study began on 1 April 1968 and a total of 1202 patients who equally represented the nine countries received intensive evaluation using eight previously standardised instruments (including the Present State Examination), resulting in the accumulation of some 1600 data items. All centres participated in 2- and 5-year follow-up studies and three of the sites (Colombia, Nigeria and India) followed up their original cohorts after 26 years.

The results of this novel and unique international study were interesting, informative and unexpected. From a methodological point of view, they did affirm that large-scale cross-cultural investigation of psychiatric disorders was possible, that transculturally applicable instruments for research can be produced and sufficient training can be provided to international researchers from diverse settings and contexts to enable comparable

observations to be made. Although they confirmed the presence of chronic psychotic disorders across cultures, they also highlighted striking and surprising differences in outcome at different centres. The rates of schizophrenia were found to be similar across different countries. Stressful life events were also similar across countries. The suicide rate was as high in schizophrenia as it was in the IPSS subsample of people with depression. Perhaps the most interesting and controversial finding was that, for all outcome variables considered, patients with schizophrenia in Nigeria and India ('developing countries') tended, on average, to have better outcomes than patients with the same condition in the other sites. There was no specific character of the individual patient, environment or disorder that could be considered in isolation to have affected this outcome (Harrison *et al.*, 2007).

The finding from the IPSS that patients in developing countries on the whole have better outcomes than those in developed countries has been repeatedly challenged. Cohen *et al.* (2008) conducted a literature review of 23 longitudinal studies of schizophrenia outcome in 11 middle- and low-income countries and observed a heterogeneous picture, one neither favouring these countries nor showing any specific pattern indicative of positive outcome. Some of the reports included in their review pointed out that large numbers of symptomatic individuals with schizophrenia were found in rural areas of countries such as China, where 77.9% were assessed at 2-year follow-up as experiencing either 'continued marked symptoms' or 'further deterioration of illness' (Ran *et al.*, 2001).

Cohen *et al.* (2008) also considered that individuals tended to change over time and their presentation tended to approach the 'intermediate' category, from an initial 'best' or 'worst' category. They also appeared to have high levels of social disability across developing countries, with lower levels of marriage and higher unemployment.

It was further contended by Cohen *et al.* (2008) that treatment with psychotropic medication was associated with a better prognosis, in contrast to the findings of the IPSS, where the ultimate outcome appeared not to be associated with psychotropic medication treatment *per se*, but with a variety of other factors. For example, Cohen *et al.* pointed out that, in China, lack of treatment of any kind and duration of untreated psychosis greater than 1 year were associated with poor clinical status and the patients at 2-year follow-up who had gone without treatment were, on average, assessed as having a poor clinical status. They also suggested that excess mortality due to suicide in low- and middle-income countries had not been taken into account, thus giving the impression of a favourable prognosis. They speculate that withdrawals or attrition due to premature mortality may not have been considered in the IPSS measure of final outcome, giving further weight to the impression of a more favourable prognosis in developing countries. They conclude by urging caution regarding the making of broad assumptions about the outcome

of schizophrenia based on country of origin, and suggest a picture of complexity that defies such generalisation.

This led to a renewed debate on the subject. There was a vigorous rebuttal from some of the IPSS study authors (Jablensky & Sartorius, 2008). They pointed out that a second epidemiological study was launched in 1980 by the WHO to review the findings of the IPSS. Titled Determinants of Outcome of Severe Mental Disorders (DOSMeD), it was designed to be more representative, with 1379 participants from 12 international centres who were rigorously assessed using standardised instruments, unified design and stringent methods (Jablensky *et al.*, 1992). The DOSMeD study used incident first-episode cohorts and made an attempt to overcome selection bias by recruiting people from non-medical centres, such as primary care, police/prisons, traditional healers and religious shrines (notably, 28% of the cases in India and Nigeria were recruited through such 'alternative' care sources). Less than 10% had been prescribed antipsychotics prior to entry into study and 86% had been experiencing first-episode psychosis lasting under 12 months. The cohort was followed up at 1 year, 2 years and 15 years. This study showed complete clinical remission to be significantly more common in developing countries (37%) than in developed countries (15.5%), although the proportions of people with continuous unremitting illness (11.1% and 17.4%) did not differ significantly across the two types of setting. Patients in developing countries experienced significantly longer periods of unimpaired functioning in the community even though only 16% of them were on continuous antipsychotic medication (compared with 61% in the developed countries). Across all centres, the best predictors ( $P < 0.001$ ) of outcome were type of onset (insidious *v.* acute) and type of setting (developed *v.* developing country), followed by marital status ( $P < 0.01$ ), gender ( $P < 0.05$ ), social isolation ( $P < 0.05$ ) and drug misuse ( $P < 0.05$ ).

Regardless of the comments and criticisms of the methodology and limitations of the IPSS, it truly was a ground-breaking study and a quantum leap in epidemiological and cross-cultural psychiatric research. It paved the way for other rigorous studies in the area and informed practice and thinking. It highlighted the influence of culture and social support on the trajectory of chronic psychotic disorders and thereby spawned interest in this field of research. Respected experts in the field have described this as 'arguably the single most important finding' in cross-cultural research into mental illness (Lin & Kleinman, 1988). As a forerunner of other cross-cultural studies, it achieved its stated aims in establishing the existence of schizophrenia across cultures, probing determinants of its variation across cultures and establishing standardised, comparable research tools in a global field. In an increasingly globalised world with changing social fabric, the IPSS stands as a reminder of the importance of cultural determinants of recovery from schizophrenia.

## References

- Cohen, A., Patel, V., Thara, R., et al (2008) Questioning an axiom: better prognosis for schizophrenia in the developing world? *Schizophrenia Bulletin*, 34, 229–244.
- Harrison, G., Janca, A., Sartorius, N., et al (2007) *Recovery from Schizophrenia: An International Perspective. A Report from the WHO Collaborative Project, the International Study of Schizophrenia*. Oxford University Press.
- Jablensky, A. & Sartorius, N. (2008) What did the WHO studies really find? *Schizophrenia Bulletin*, 34, 253–255.
- Jablensky, A., Sartorius, N., Ernberg, G., et al (1992) Schizophrenia – manifestations, incidence and course in different cultures. A World Health Organization ten country study. *Psychological Medicine*, monograph supplement.
- Lin, K. M. & Kleinman, A. M. (1988) Psychopathology and clinical course of schizophrenia: a cross-cultural perspective. *Schizophrenia Bulletin*, 14, 555–567.
- Ran, M. S., Xiang, M. Z., Huang, M. S., et al (2001) Natural course of schizophrenia: 2-year follow-up study in a rural Chinese community. *British Journal of Psychiatry*, 178, 154–158.
- WHO (1960) *Epidemiology of Mental Disorders*. Eighth report of the Expert Committee on Mental Health. Technical report series no. 185. World Health Organization.
- WHO (1979) *Schizophrenia: An International Follow-Up Study*. John Wiley & Sons.
- WHO (2011a) *Health and Human Rights*. Available at <http://www.who.int/hhr/en> (accessed 22 November 2011).
- WHO (2011b) *About WHO*. Available at <http://www.who.int/about/en> (accessed 22 November 2011).



# Mental health in Bhutan

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The Kingdom of Bhutan lies in the folds of the eastern Himalayas, sandwiched between India to the south and China to the north. It has a total area of 38 394 km<sup>2</sup>, which is roughly the size of Switzerland, and a population of a little over 700 000 (Royal Government of Bhutan, 2002). It is a mountainous country, except for a small flat strip in the southern foothills. The official language is Dzongha, but English is widely spoken. English is the medium of instruction from pre-primary level onwards. In 1999 Bhutan allowed viewing of television and use of the internet, as a step towards modernisation. In the early 20th century, Bhutan came into contact with the British Empire; Bhutan maintains strong bilateral relations with India. *Business Week* magazine in 2006 rated Bhutan the happiest country in Asia and the eighth happiest in the world, based on a global survey. Bhutan is in fact the only country where happiness is measured in the form of an index, 'Gross National Happiness'. The main religion practised in the country is Buddhism, with Hinduism as the second most prevalent. The capital and largest city is Thimphu. In 2007, Bhutan made the transition from absolute monarchy to constitutional monarchy, and held its first general election in 2008. Bhutan is a member of the United Nations and of the South Asian Association for Regional Cooperation (SAARC); it hosted the 16th SAARC summit in April 2010.

## Health indicators

According to the Bhutan Ministry of Health (2010a), life expectancy is 65.5 years; further health indicators include the following:

- the infant mortality rate (per 1000 live births) is 40.10
- the mortality rate among under-5s is 61.50 per 1000 live births
- 83% of the population have access to safe drinking water
- the incidence rate of diabetes is 38 per 10 000
- the incidence rate of cancer is 17 per 10 000
- the incidence rate of hypertension is 310 per 10 000.

## Healthcare system

Modern healthcare started in the early 1960s; prior to that, the use of traditional methods of healing was very popular. Since then, the primary healthcare system has been progressing.

The health human resources, according to the 2010 *Annual Health Bulletin* (Ministry of Health, 2010a), include the following national totals:

- doctors (MB BS/specialists) 176
- nurses 556
- nursing assistants 92
- health workers 505