

Policy Implications of The Singapore Mental Health Study

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Abstract

This paper discusses the implications of the key findings of the Singapore Mental Health Study (SMHS) in the context of the first ever National Mental Health Policy and Blueprint (NMHPB). The SMHS was a cross-sectional epidemiological survey of the adult Singapore residents. The policy implications emanating from the findings of this study are discussed in this commentary. These pertain to initiatives to improve help-seeking behaviour, further developing the capability of the primary healthcare providers and the better integration of primary and specialist mental healthcare. Incorporation of mental health education and screening of mental disorders in the workforce should also be augmented with work practices that protect against discriminating those with mental disorders.

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Introduction

Mental health issues have taken on greater importance with the growing awareness among policy makers of the importance of mental health for the development of human, social and economic capital of a country and the realisation that it is illogical to introduce health-sector reforms without paying due attention to the mental health sector.¹

In 2005, the Ministry of Health of Singapore convened a committee of psychiatrists, medical administrators, other mental health professionals and representatives from non-governmental organisations to draw up a National Mental Health Policy for the country. The subsequent Blueprint was a 5-year plan which was implemented in 2007 and focused on 4 strategic areas: (i) Mental health education and promotion, (ii) Integrated mental health care—through community-based mental health programmes and integration of psychiatric services in general hospitals, (iii) Developing mental health professionals, and (iv) Developing mental

health research—an important component of which was a nationwide epidemiological study on the mental health status of the resident population.

Epidemiology is the key to the overall goals of the National Mental Health Policy and Blueprint (NMHPB) as it informs public health by answering the questions of just how common mental illnesses are, who gets what illness, when, and why. It also assesses the impact of these illnesses and how services are being used and by whom, and whether these services are effective and cost effective.² Such surveys, which obtain representative information of the population on the rates of disorders, could also identify the barriers to care, and enable the tracking of the population's state of mental health trends and the potential identification of modifiable risk factors. Effective national policy should be evidence-based and national surveys on the epidemiology and the social and economic consequences of psychiatric

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morbidity furnish much of these information.

A national survey gives more accurate and actionable information when compared to surveys on select clinical populations which are biased by the illness behaviour of those seeking help and the exclusion of the ill who did not seek help. To date, there are no population-based studies that go beyond establishing the rates of mental disorders in Singapore to examine the unmet needs, help-seeking behaviour and the impact of mental disorders on the workforce. These were the considerations that led to the Singapore Mental Health Study (SMHS), which was a household survey of the adult resident population. The survey was conducted between December 2009 and December 2010. Face-to-face interviews were completed with 6616 respondents giving a survey response rate of 75.9%.³

Such a study yields a wealth of information which gives a more detailed description of the present mental health landscape in Singapore. It also identifies the gaps for which the appropriate policies and initiatives can be developed. Furthermore, it provides high quality baseline information to enable the tracking of future trend of the state of mental health in the local population. We discuss in this commentary some of the policy implications in the context of the NMHPB.

Rates of Mental Disorders

The prevalence of mental disorders, their associated risk factors and impact of these disorders have been extensively studied across different countries. The SMHS is the most comprehensive of such epidemiological surveys in Singapore which also examined risk factors, access to care, and impact on productivity. These findings enable evidence-based policy making for the rational allocation of resources to treat and manage people with mental disorders.

The SMHS showed that 12.0% of the population had at least one life-time affective, anxiety, or alcohol use disorders and 4.5% had current nicotine dependence. The 12-month prevalence of at least one affective, anxiety or alcohol use disorder was 4.4%,⁴ and the most prevalent 12-month disorder was major depressive disorder (MDD) (2.5%).⁵ Socio-demographic risk factors for mental disorders were also identified. For example, MDD was more prevalent among women, those who were divorced/separated/widowed, and those of Indian ethnicity.⁵

Our findings of the differences in the rates of some mental disorders among the 3 ethnic groups as well as the identification of those who are at risk provide relevant information for a more targeted (and non-stigmatising) approach in raising awareness and detection of those at risk. This might involve working with the various ethnic

communities in raising awareness as well as equipping organisations and agencies, like the Family Service Centres who would be most likely to come into contact with those seeking help for marital difficulties, with the relevant skills and knowledge.

Unmet Needs of People with Mental Disorders

Apart from understanding the magnitude of mental disorders in a population, it is equally important to investigate whether people with these disorders have sought help and whether this was done in a timely manner. One aspect of unmet need is “the proportion of people who meet the criteria for a disorder and do not see a health professional”.⁶ Other aspects are the inordinately long delay of those who eventually sought help, and the appropriateness and quality of care that were provided to them. The evidence of poorer prognosis with longer duration of untreated illness in common mental disorders such as anxiety and depression, as well as for psychosis is compelling.⁷

The SMHS found that the majority of mentally ill individuals did not seek help and this is consistent with other international studies.⁸⁻¹⁰ Of those who sought help, there was a considerable delay before doing so: the shortest was among those with MDD (median of 4 years) and the longest was alcohol abuse (median of 13 years).¹¹

From our findings, a large proportion of mentally ill in Singapore were not seeking any help has major implications for policy formulation; and research to understand why people with disorders do not access treatment and ways to address this gap is essential for service development. There are likely to be multiplicity of reasons for this lack of service contact—from the individual’s perception and beliefs, to the prevailing attitude of family and friends, to economic factors like financial resources and the availability of insurance coverage, and the possibility (real and perceived) of discrimination and stigma. As part of the strategy for mental health promotion, the Health Promotion Board (HPB) has embarked on a series of public awareness campaigns, with the intention of getting the average Singaporean to be aware of his/her mental health, and the importance to actively stay mentally well; the National Healthy Lifestyle Campaign for instance, has such a focus on mental health, with the slogan “Healthy Mind Happy Life”. In the light of the SMHS findings, there is probably a need to focus on certain mental disorders and to improve mental health literacy, including the recognition of symptoms of common mental disorders, knowledge to access available and effective treatments,¹² the importance of early detection and treatment, as well lessening the stigma of mental disorders. There are examples, outside Singapore, of effective and successful policies and practices to combat the stigma.¹³ Any

of these initiatives would have to take into consideration the particular cultural and religious beliefs and attitudes present in Singapore.

Role of Community Service Providers

The SMHS is the first local study to examine the pattern of service contact across the country. More than 13% of those with any lifetime disorder and who were help-seeking, sought treatment from a psychiatrist, 5.8% sought help from a psychologist, 8.4% saw a general practitioner (GP), 9.6% went to a counsellor, and 6.6% consulted a spiritual or religious healer.¹⁴ However, compared with mental health professionals, the GPs in Singapore are consulted less often, unlike those in other developed countries like the US, UK, Netherlands, Australia and New Zealand.¹⁵⁻¹⁸ In this aspect, there seems to be an over-reliance on the specialised mental health providers, which would (or already has) lead to a strain on this sector and even perhaps a misuse of services where patients with milder forms of anxiety and depressive disorders manageable by GPs are being attended to by mental health specialists. The NMHPB has identified the shortfall in the number of mental health providers in Singapore and various measures have been implemented to increase this number. At the same time, there is an effort to engage the GPs through the General Practitioner Partnership Programme. This was first initiated in the Institute of Mental Health with a group of GPs who were trained to identify and treat persons with mental disorders. Since its inception, the GP Partnership Programme has enrolled more than 70 GPs, and more than 900 patients with stable mental health problems have been referred to the GPs for continuing care. The programme is currently being expanded to include the restructured hospitals in the network. The eventual plan is for all new GP partners to be trained via the newly launched Graduate Diploma in Mental Health. For a more complete involvement and engagement of the primary healthcare sector, there must be easy access to and backup by specialist mental healthcare support. The government must also play a role to facilitate the integration of mental health care into primary healthcare, and it should provide that additional support including staffing and making available the necessary psychotropic medicines at the polyclinics. For the GPs, some sort of economic incentives, such as appropriate reimbursement by the government may be important complementary strategies to facilitate the change.

Other than the GPs, there are also a considerable number of counsellors and social workers working in various Family Service Centres scattered throughout the country. Research needs to be carried out to estimate the prevalence of mental disorders among the clients of these providers, to find out the types of services provided, as well as the level of mental

health literacy among these providers as they represent a potential source of help in meeting the unmet needs. One possible strategy in enlisting the potential of these providers is through task-shifting which is the deliberate and rational redistribution of specific tasks from highly specialised mental health workers to other health workers with shorter and less specialised training in order to make more efficient use of the available human resources for mental health.¹⁹ For this task-shifting to work, the mental health specialists must continue to provide not only training but ongoing supervision, quality assurance and support to these community health workers.²⁰

For Singapore where the populace still has deep rooted Asian cultural and religious beliefs, mental health policies should not be based entirely on the western models of care and service provision but should seek to incorporate socio-cultural and religious dimensions.²¹ The findings of the SMHS have clearly shown the relative importance of the traditional and spiritual healers—who were almost as often consulted as the GP. It therefore seems obvious that they ought to be involved in the management of the mentally ill and it is likely that some sort of collaboration and exchange of ideas would be helpful.¹

Productivity and Employment among People with Mental Disorders

Work and unemployment have been shown to have a considerable influence on mental health and mental illness and utilisation of mental health services.²²⁻²⁴ Personal struggles faced by those with mental illness are compounded by the stigma. Employees often fail to seek treatment because they react with denial or they believe that seeking help may expose their condition which may result in stigmatisation and possible job loss. In Germany for instance, strong negative responses to people with schizophrenia returning to their place of employment have been reported,²⁵ and employers are often reluctant to take on an individual with a history of mental health needs.^{26,27} People with mental health needs are understandably reluctant to seek employment for fear of having to disclose their condition. A Scottish survey found that 43% of those with mental disorders had not gone ahead with a job application because of a concern about how their mental health history might be perceived.²⁸ It is hence important to assess the impact of mental disorders on work productivity in the Singapore sample.

People with any of the mental disorders experienced twice as many days out of role i.e. inability to carry out their usual activities in the previous 30 days as those without mental disorders. The rate of unemployment among those with mental disorders was also significantly higher than those without (11.1% vs 6.7%).²⁹ Those with life-time prevalence

of mental disorders also have more days of absenteeism and presenteeism relative to those without these disorders.

The SMHS findings in this area have obvious economic implications. One of Singapore's economic assets has been its educated and well-trained workforce which has contributed significantly to its economic stability and productivity. The loss of productivity—from both absenteeism and presenteeism—caused by common mental disorders is considerable³⁰ but much of the lost productivity can be averted as there are effective treatments for common mental disorders.³¹ Employers should understand that untreated mental health problems among their employees will have an economic impact and there are programmes in which they can invest to reduce this impact.³¹

Denial, fear of discovery, and insurance inadequacy among an organisation's employees often delay treatment which would harm organisational productivity and raise healthcare costs related to both the mental illness itself and other associated medical conditions. Hence, employers in both public and private sector have a responsibility and an interest to prevent the negative impact of mental illnesses on productivity.

Within the NMHPB is a workplace mental well-being education programme called *Treasure Your Mind* which was developed by HPB in association with local mental health providers to equip employees and supervisors with the skills to achieve mental well-being. This is carried out through a 3-module programme comprising an awareness talk and a series of skills workshops. However, workplace health policies need to incorporate more than educational programmes to combat and deal with workplace stress. It is important to increase the understanding of causes of mental health problems in the workforce, assistance to manage mental health problems effectively through early recognition and screening, and to take action to ensure that people with mental disorders are not discriminated against but are given the necessary assistance to re-enter the workforce.

Mental and Physical Comorbidity

The SMHS confirmed that comorbidity between mental disorders and medical disorders is common—a finding that has been replicated in many countries. In our survey, 14.3% of people with a chronic medical condition had at least one mental disorder, and 50.6% of those with a mental disorder had a chronic medical condition.³² This comorbidity was associated with increased severity and days out of role.

The policy challenge is to break down the silos in our specialised healthcare and create a collaborative system in which people with chronic physical health disorders would be screened for psychiatric morbidity and have their mental

disorders properly managed. By the same token, mental health specialists should routinely assess their patients for physical health problems, and should encourage them to attend regular health checks in primary care, attend smoking cessation programmes, and help their patients in making the necessary lifestyle changes. One such approach that targets persons with serious mental illness is through an unified primary care and behavioral healthcare system where health staff interact regularly and typically have an integrated medical record and single treatment plan. This would mean among others, developing a mental health expertise within the polyclinics.

A few programmes have already been initiated under the NMHPB, which seek to integrate mental health services within certain medical and women's healthcare services. This is done through the embedding of specialised mental health hospital teams in the general hospitals. These dedicated multidisciplinary hospital teams provide screening, early identification and intervention for psychiatric morbidity in medical or surgical conditions where putatively there is a high comorbidity of mental disorders. Eight integrated hospital teams have been established under the NMHPB, and each team focuses on a different group of patients with higher risk of mental health problems. Continued evaluation of these initiatives is necessary to assess their outcomes and to learn about the factors facilitating and obstructing such integration.

The SMHS has also identified those chronic medical conditions with high rate of mental disorders—particularly respiratory diseases like asthma, and chronic pain conditions like migraine and arthritis. The successful collaborative models which are currently in place should be extended to those medical conditions with high rates of comorbidity.

Conclusion

The SMHS has provided good quality data on the prevalence rates, unmet needs, disabilities and service use for mental disorders. These are vital information on the impact of mental disorders in Singapore and will guide the development and delivery of services in the next phase of the NMHPB.

These epidemiological data can also be used to calculate the burden of disease estimates and for the use of cost-effectiveness analyses of future clinical and preventative interventions.³³ However, further epidemiological studies on children and adolescents as well as the elderly are needed to fully describe the mental health status of the entire Singapore population.

Mental health of the Singapore population is influenced not just by the medical community, social services sector and the Ministry of Health and its policies but also by

policies from other ministries including the Ministry of Community, Youth and Sports, Ministry of Education, Ministry of Manpower, and Ministry of Finance. Schools, for example, are important settings for mental health promotion and implementing preventive measures where children are taught important skills in stress management and basic understanding of mental illnesses. At the community level, there ought to be opportunities to learn life skills, coping strategies, building up social support systems, and inculcating responsible community attitudes towards mentally ill people. In the workplace, there should be policies that are committed to building a healthy workforce and to root out discriminatory practices. Most of these mental disorders have their onset early in life, run a chronic course with considerable disability and at catastrophic costs to these individuals and their families—indicating the need for some policies for pre-payment, risk pooling and financing mechanisms like social health insurance or tax-financed arrangements.³⁴

Epidemiological data are a basic prerequisite for evidence-based policies formulation and expert professional and epidemiological advice to ministries is essential. It is therefore important to develop the capacity for policy work in the psychiatric profession. There are other areas that psychiatrists should be involved in. Psychiatrists must assume leadership and proficiency in training and supervising; they must also acquire the knowledge in monitoring and evaluation to ensure quality assurance of mental healthcare programmes, and they must possess the core management skills essential for leading teams of health workers.¹⁹

There must also be an ongoing process to gather good quality accurate information on rates of disorders, service contact, quality of care and economic evaluation to enrich the evidence base for informed policy formulation, service development and preventive measures. Such information can only be gathered in Singapore as we cannot use data from studies done elsewhere because of the vast differences in healthcare and financing structures as well as in the sociodemographic and socio-cultural characteristics of the population.

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REFERENCES

- Jenkins R. Making psychiatric epidemiology useful: the contribution of epidemiology to government policy. *Acta Psychiatr Scand* 2001;103:2-14.
- Williams R, Wright J. Epidemiological issues in health needs assessment. *BMJ* 1998;316:1379-82.
- Subramaniam M, Vaingankar J, Heng D, Kwok KW, Lim YW, Yap M, et al. The Singapore Mental Health Study: An overview of the methodology. *Int J Methods Psychiatr Res* 2012;21:149-57.
- Chong SA, Abdin E, Vaingankar JA, Heng D, Sherbourne C, Yap M, et al. A population-based survey of mental disorders in Singapore. *Ann Acad Med Singapore* 2012;41:49-66.
- Chong SA, Vaingankar J, Abdin E, Subramaniam M. The prevalence and impact of depression among Chinese, Malays and Indians in an Asian multi-racial population. *J Affect Disord* 2012;138:128-36.
- Andrews G. Meeting the unmet need with disease management. In G. Andrews and S Henderson, *Unmet need in psychiatry: Problems, resources, responses*. Cambridge: Cambridge, 2000.
- Kisely S, Scott A, Denney J, Simon G. Duration of untreated symptoms in common mental disorders: association with outcomes: International study. *Br J Psychiatry* 2006;189:79-80.
- Kessler RC, McGonagle KA, Zhao S, Nelson CB, Hughes M, Eshleman S, et al. Life-time and 12-month prevalence of DSM-III-R psychiatric disorders in the United States; Results from the National Comorbidity Survey. *Arch Gen Psychiatry* 1994;51:8-19.
- Newman DL, Moffitt TE, Caspi A, Magdol L, Silva PA, Stanton WR. Psychiatric disorder in a birth cohort of young adults: prevalence, comorbidity, clinical significance and new case incidence from ages 11 to 21. *J Consult Clin Psychol* 1996;64:552-62.
- Regier DA, Narrow WE, Rae DS, Manderschied RW, Locke BZ, Goodwin RK. The de-facto US mental and addictive disorders service system. Epidemiologic catchment area prospective 1-year prevalence rates of disorders and services. *Arch Gen Psychiatry* 1993;50:85-94.
- Chong SA, Abdin E, Sherbourne C, Vaingankar J, Heng D, Yap M, et al. Treatment gap in mental health care: The Singapore perspective. *Epidemiol Psychiatr Sci* 2012;21:195-202.
- Whiteford H, Groves A. Policy implications of the 2007 Australian National Survey of Mental Health and Wellbeing. *Aust NZ J Psychiatry* 2009;43:644-51.
- Sartorius N. Iatrogenic stigma of mental illness. *BMJ* 2002;324:1470-1.
- Chong SA, Vaingankar JA, Abdin E, Kwok KW, Subramaniam M. Where do people with mental disorders in Singapore go to for help? *Ann Acad Med Singapore* 2012;41:154-60.
- Bijl RV, Ravelli A. Psychiatric morbidity, service use, and need for care in the general population: results of the Netherlands Mental Health Survey and Incidence Study. *Am J Public Health* 2000;90:602-7.
- Wang PS, Lane M, Olfson M, Pincus HA, Wells KB, Kessler RC. Twelve-month use of mental health services in the United States: results from the National Comorbidity Survey Replication. *Arch Gen Psychiatry* 2005;62:629-40.
- Hornblow AR, Bushnell JA, Wells JE, Joyce Pr, Oakley-Browne MA. Christchurch psychiatric epidemiology study: use of mental health services. *NZ Med J* 1990;103:415-7.
- Andrews G, Henderson S, Hall W. Prevalence, comorbidity, disability and service utilisation. Overview of the Australian National Mental Health Survey. *Br J Psychiatry* 2001;178:145-53.
- Patel V. The future of psychiatry in low- and middle-income countries. *Psychol Med* 2009;39:1759-62.
- Patel V, Kirkwood B. Perinatal depression treated by community health workers. *Lancet* 2008;372:868-9.

21. Jaju S. Holistic approach for global mental health. *Indian J Medical Res* 2009;129:338.
 22. Banks MH, Jackson PR. Unemployment and risk of minor psychiatric disorder in young people: cross sectional and longitudinal evidence. *Psychol Med* 1982;12:789-98.
 23. Kasl SV, Gore S, Cobb S. The experience of losing a job: reported changes in health, symptoms and illness behaviour. *Psychosom Med* 1975;37:106-22.
 24. Meltzer H, Gill B, Petticrew M, Hinds K. OPCS surveys of psychiatric morbidity report 2. Physical complaints, use of services and treatment of adults with psychiatric disorders. HMSO: London, 1995.
 25. Schulze B, Angermeyer, MC. Subjective experiences of stigma. A focus group study of schizophrenic patients, their relatives and mental health professionals. *Soc Sci Med* 2003;56:299-312.
 26. Stuart H. Mental illness and employment discrimination. *Curr Opin Psychiatry* 2006;19:522-6.
 27. Manning C, White P. Attitudes of employers to the mentally ill. *The Psychiatrist* 1995;19:541-3.
 28. See Me Scotland. See me so far: A Review of the First Four Years of the Scottish Anti-Stigma Campaign. Scottish Executive 2006. Available at: <http://www.seemescotland.org.uk>. Accessed 6 March 2012.
 29. Chong SA, Vaingankar JA, Abdin E, Subramaniam M. Mental disorders: employment and work productivity in Singapore. *Soc Psychiatry Psychiatr Epidemiol* 2012 June 3. [Epub ahead of print].
 30. Sanderson K, Andrews G. Common mental disorders in the workforce: recent findings from descriptive and social epidemiology. *Can J Psychiatry* 2006;51:63-75.
 31. Wang PS, Simon GE, Avorn J, Azocar F, Ludman EJ, Mc Culloch J, et al. Telephone screening, outreach, and care management for depressed workers and impact on clinical and work productivity outcomes: a randomized controlled trial. *JAMA* 2007;298:1401-11.
 32. Chong SA, Abdin E, Nan L, Vaingankar JA, Subramaniam M. Prevalence and impact of mental and physical comorbidity in the adult Singapore population. *Ann Acad Med Singapore* 2012;41:105-14.
 33. Chisholm D. Choosing cost-effective interventions in psychiatry: results from the CHOICE programme of the World Health Organization. *World Psychiatry* 2005;4:37-44.
 34. Knapp M, Funk M, Curran C, Prince M, Grigg M, McDavid D. Economic barriers to better mental health practice and policy. *Health Policy Plan* 2006;21:157-70.
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