

## CHAPTER 8

### **Improving Treatment in Asia of Depression and Other Disorders that Convey Suicide Risk**

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#### **Abstract**

The risk of suicide is significantly elevated in people with depression and related disorders. For this reason, many of the Asian countries represented in the Strategies to Prevent Suicide (STOPS) project have developed training programmes aimed at improving the ability of primary care professionals to recognize and treat depression. Some of the countries have also looked at ways of optimizing the clinical outcomes of pharmacological and psychological treatments and, more importantly, of streamlining the systems within which they are delivered so that more at-risk individuals receive needed care. Most of these projects are relatively small in scale and – like similar projects in Europe or the United States of America – have not yet convincingly demonstrated their effectiveness. A more co-ordinated, systematic approach is needed if the strategies to improve the treatment of depression and related disorders are to achieve their potential in terms of suicide prevention in Asia.

Studies in European countries and the United States of America consistently implicate psychiatric disorders – particularly depression and other mood disorders – in suicide. Descriptive psychological autopsy studies suggest that as many as 90% of those who die by suicide have pre-existing psychiatric disorders and fifty to sixty percent may have depression and related affective disorders (Barraclough and Hughes, 1987; Henriksson et al., 1993; Isometsa et al., 1995; Runeson and Rich, 1992). Case-control studies have also suggested that depressive disorders place individuals at heightened risk of suicide (Lesage et al., 1994).

In Asia, a recent Chinese psychological autopsy study that employed a case-control design found that thirty percent of those who died by suicide had high depressive symptom scores, and although this is much lower than that found in Europe and the United States of America, this was still the single most important factor associated with suicide (Phillips et al., 2002b). Others have argued that socio-cultural stressors play a greater role in suicide in Asian countries than they do in Europe and the United States of America, and as a consequence depression and related disorders may assume lesser significance as risk factors (Zhao et al., 2000; Zhang et al., 2000; Vijayakumar

et al., 2005). A psychological autopsy study done by the Hong Kong Jockey Club Centre for Suicide Research and Prevention at Hong Kong University (Chen et al., 2006) suggested that both clinical and psychosocial factors are important in understanding suicide in Hong Kong SAR: factors found to be significantly and independently significant ranged from psychiatric illness and a history of past suicide attempts to unemployment and the absence of social support.

Irrespective of whether their absolute level of risk is somewhat lower in Asian countries, people with depression and related disorders form a distinct group for whom suicide prevention efforts should be targeted. There are three ways in which such efforts might occur. The first is encouraging community members with affective disorders to seek professional care; the second is educating physicians and other professionals (particularly those in primary care settings) to recognize and treat depression and related disorders; and the third is improving the quality of treatment for depression and other disorders that convey suicide risk. The issue of community education was addressed in Chapter 3. This chapter describes efforts to improve the recognition and treatment of depression by non-specialist physicians that are currently underway in Asian countries participating in the Strategies to Prevent Suicide (STOPS) project.

### **Educating physicians and other professionals to recognize and treat depression and related disorders**

Reviews of the literature provide strong evidence that a significant minority of people who die by suicide make contact with mental health care providers in the months, weeks and days before death, and an absolute majority see primary care providers in the same periods (Luoma et al., 2002; Pirkis and Burgess, 1998). The studies included in these reviews have tended to be conducted in the United Kingdom and other European countries. In a small number of studies undertaken in Asian countries with high per capita numbers of doctors and mental health care providers this also appears to be true (Cheng, 1995). In less developed Asian countries, and particularly in rural areas, the proportion who make contact with mental health care providers prior to suicide is much lower (Phillips et al., 2002a).

The above findings suggest that in urban areas in developed Asian countries, these frontline providers may be well-placed to help prevent suicide if they are equipped with the skills to diagnose and manage depression and related disorders. Where

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specialist mental health services are scarce (particularly in rural areas), primary care providers may have a particularly important role to play. Because of the stigma associated with mental illness, even where specialist mental health services are available, many people with depression and related disorders may choose to visit primary care providers where they are more likely to report physical complaints rather than psychological symptoms.

For this reason, a number of the Asian countries participating in the STOPS project have made efforts to educate physicians and related health professionals to recognize and treat depression and other common mental health problems in general, and to assess and manage suicide risk in particular. These programmes tend to involve four major components, along the lines of those recommended in a study by Hirschfeld and Russell (1997) in the United States of America, namely: diagnosing and treating psychiatric disorders; assessing suicide risk; removing the means for suicide and offering intervention to reduce the likelihood of a suicidal act; and, where appropriate and possible, referring to specialist mental health services.

Some countries have developed and disseminated guidelines designed to assist primary care professionals to detect, diagnose and treat depression and related disorders. In New Zealand, a government-funded set of guidelines was published which were designed to offer advice on depression, rather than to be prescriptive. The Japanese Medical Association, the Hong Kong Jockey Club Centre for Suicide Research and Prevention, the Thailand Ministry of Public Health and the Korean College of Neuropsychopharmacology and the Korean Academy of Schizophrenia have published similar guidelines in their respective countries.

Other countries have offered formal training sessions for relevant professionals, sometimes in tandem with the sorts of guidelines described above. In countries like Sri Lanka and Viet Nam, undergraduate and postgraduate training is provided for medical students. In the Republic of Korea, training has largely been geared towards psychiatrists rather than primary care physicians, and the content has focused on monitoring and reducing suicide risk among people with mental health problems.

More commonly, however, training is offered at a higher level to general practitioners and other primary care providers working in the field. For example, the Hong Kong Jockey Club Centre for Suicide Research and Prevention and the Mood Disorders Centre of the Chinese University of Hong Kong both run training programmes for doctors (e.g., emergency department physicians and general

practitioners) on managing depression and suicide risk in various settings. In China, the National Mental Health Center in Beijing has organized classes to educate physicians to recognize and manage depression, and some provinces and cities have developed similar programmes. In India, a project supported by the International Clinical Epidemiology Network and the World Psychiatric Association was conducted in the Corporation of Dispensaries in Chennai, with a view to orienting physicians to depression, its risk factors, its manifestations and its medical management. The Thailand Ministry of Public Health, the Royal College of Psychiatrists of Thailand and the Association of Thai Psychiatrists have run suicide prevention seminars and conferences for primary care physicians (drawing heavily on the guidelines, described above). In Pakistan, physician training has been undertaken by various mental health organizations, as part of the continuing medical education they offer to primary care physicians, which emphasizes the timely recognition and treatment of depression, particularly for those at heightened risk of suicide. In Malaysia, physicians are offered training on depression and suicidality through a broader continuing medical education programme delivered by the Ministry of Health, the Malaysian Psychiatric Association and the Association of Family Medicine Specialists. In Singapore, the Institute of Mental Health and psychiatric units in five major general hospitals have programmes to upgrade general practitioners' knowledge of mental illness.

In most cases, the training offered is somewhat piecemeal and unlikely to have a broad reach. This is not a comment on the commitment of the training providers or the quality of the education offered, but is a reflection of the priority that has been afforded to mental health care and the competing demands faced by primary care physicians. Undergraduate and postgraduate psychiatry courses are not considered core curriculum in most medical schools, and consequently junior doctors may not have ever been trained to recognize common mental psychiatric disorders, such as depression. Continuing medical education programmes often involve only a limited numbers of sessions aimed at identifying depression and suicide risk (e.g., two sessions were offered by the Ministry of Public Health in Thailand in 2005). Furthermore, only a relatively small number of the given country's primary care physicians may attend. For example, about 500 of Malaysia's 10,000 doctors have attended the training described above. In countries with large populations, like China

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and India, providing training opportunities for a greater proportion of these providers will require a substantial investment of financial and human resources (see below).

Australia provides an example of a systematic approach that addresses many of the issues faced by other participating countries. It is acknowledged, however, that this has occurred in the context of Australia being a relatively wealthy country with a comparatively small population. The approach taken in Australia has occurred under the aegis of a large-scale national initiative known as the Better Outcomes in Mental Health Care programme. This programme is designed to improve the capacity of general practitioners to respond to the needs of people presenting with depression and anxiety and involves several inter-locking components.

Education and training for general practitioners is the first of these. Level 1 training equips general practitioners to perform mental health assessments, develop mental health plans and conduct mental health reviews; Level 2 training equips them to provide evidence-based mental health care. Completion of the different levels of training enables general practitioners to access other components within the initiative. For example, Level 1 trained general practitioners can receive government payments for providing what is known as a 3-step mental health plan, and Level 2 trained general practitioners can be recompensed for providing sessions of ‘focused psychological strategies’. Level 1 trained general practitioners are also eligible to refer their patients to psychologists and other allied health professionals for low-cost, specialist mental health care. All training offered through the programme is accredited by a body known as the General Practice Mental Health Standards Collaboration.

In all the countries, however, the guidelines and face-to-face training sessions described above have not been well evaluated. Where evaluation has occurred, it has often been limited to monitoring the number of attendees at the given training. Over and above this, most training has been evaluated in terms of change in the participants’ knowledge from pre-training to post-training. Very few evaluations have taken the next step and considered whether the training has led to increased recognition and improved treatment of depression by participating clinicians, although there are some exceptions. For example, the above-mentioned project conducted by the International Clinical Epidemiology Network and the World Psychiatric Association in Chennai in India was subject to a careful evaluation which showed that training increased physicians’ rates of diagnosis of depression and led to greater

correspondence between their diagnosis and their prescription of selective serotonin reuptake inhibitors (SSRIs).

**Improving treatment of depression and other disorders that convey suicide risk**

Educating physicians and other professionals to recognize and treat depression and related disorders will only have value if efforts are also made to optimize the treatment of these disorders. Optimizing treatment involves developing and refining the most cost-effective pharmacological and psychological treatments. It also involves delivering services in a manner which provides appropriate, equitable and effective care when needed, and does so in a comprehensive, co-ordinated fashion. The latter involves ensuring that both primary care services and specialist mental health care services are available as necessary, and that the interface between the two is smooth.

Countries participating in the STOPS project have taken various steps to improve the treatment of depression and other disorders that convey suicide risk. Some have put in place specific systems to facilitate improved treatment of people with mental health problems in the context of suicide prevention. In China, Hong Kong Special Administrative Region (Hong Kong SAR), for example, the government has set up a fast-track referral system for older adults with depression, pledging that the first assessment will be provided within a week or so.

Other countries, like Japan and Sri Lanka have focused on drug therapies. Japan has tested new antidepressants, monitoring the impact of SSRIs on depressive symptoms and suicidality. Sri Lanka has made psychotropic drugs available in local outpatient departments, even in hospitals where there is no consultant psychiatrist. This means that patients do not have to visit larger general and teaching hospitals, which are quite dispersed.

Still other countries, like Australia, have concentrated their efforts on improving psychological therapies. The Better Outcomes in Mental Health Care programme, mentioned above, provides general practitioners with the skills to deliver psychological care in a structured, evidence-based manner. It also provides avenues for general practitioners to refer patients for inexpensive, specialist psychological care. Access to such care was previously limited, largely by cost.

Most countries, however, face significant barriers to improving the treatment of depression and other psychiatric disorders that convey suicide risk. Firstly, there are often national and/or state policy impediments, particularly in countries where low

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priority has been given to mental health care, mental health care is costly, and the rights of people with mental health problems are not sufficiently regarded.

Secondly, there are community-level barriers in many places. Appropriate primary care services and mental health services are often not available. Taking China as an example, most primary care in urban areas is provided in busy outpatient departments in large general hospitals. Patients receiving care in these settings typically see a different clinician at each visit, and each visit lasts an average of 5-10 minutes. This is not conducive to optimal recognition and treatment of depression and related disorders, but changing from this system to one of individualized, longer appointments is not practical at present (Ustun & Sartorius, 1995; Zhang et al., 2006).

Finally, these national/state-level and community-level barriers are compounded by individual-level barriers. Individuals may be reluctant to seek mental health care, even when primary care and specialist services do exist, because of the considerable stigma associated with mental illness. When individuals do seek care, the care they receive may be variable and, as a consequence, may not always meet their needs.

These barriers may be compounded in countries like China and India, which account for 40%-50% of the world's suicides (see Chapter 1). Both countries are under-resourced, and have large populations, significant proportions of whom live in rural areas where mental health services are generally unavailable. In China, for example, people in rural areas are reliant on health stations which serve 10 to 15 villages. Doctors at these health stations have usually had three years of medical training, but this training does not include mental health training so the Chinese Government does not permit them to prescribe antidepressants or other psychotropic medication. Villagers have to travel considerable distances to county-level hospitals to see fully-certified doctors (with a 5-year undergraduate medical degree) for prescriptions of antidepressants or other psychotropic medication. The government is now planning an extensive training programme to upgrade the standards of rural doctors, but as currently designed this programme will not include mental health training, so it is unlikely that it will result in an increase in access to mental health care. One positive development is a project launched by the Ministry of Health to improve the identification and management of people with schizophrenia in about 60 rural pilot sites across the country, part of which includes a provision for people with this illness to apply for free antipsychotic medication. The impact of this project is yet to be determined.

### **Next steps**

Improving the treatment of depression and other disorders that convey suicide risk requires a multi-pronged approach. Primary care providers must be given training opportunities to equip them to diagnose and manage mental health problems, particularly in circumstances where specialist mental health services are scarce. Over and above this, appropriate systems must be put in place to ensure that people with these disorders can readily access high quality care when they need it. These systems should facilitate the provision of evidence-based pharmacological and psychological therapies.

In order for this to happen, priority must be given to mental health care at a national and local level. In the majority of participating countries, there are positive examples of ad hoc projects or local-level system responses. There is a need to systematize these in strategic, co-ordinated ways, and to expand their scope. For example, the training that is offered to physicians in many participating countries should ideally be strengthened and broadened, in order that significantly greater numbers of providers can help prevent suicide by providing optimal care for people with depression and related disorders. Similarly, ways of ‘rolling out’ some of the innovative means of enabling people to access drug treatments and psychological care should ideally be explored.

Given the less than dramatic results of training general physicians found in well-controlled studies in Europe and the United States of America (Tiemens et al., 1999; Thompson et al., 2000) a formal evaluation component that assesses patient outcomes—not just changes in knowledge of participating physicians—must be included with these efforts to ensure the expenditure of resources actually results in improved rates of recognition and treatment of persons with depression and/or at high-risk of suicide. This is particularly the case in developing countries that have the ‘collective care’ system of primary care (where patients see different physicians for 5-10 minutes at each clinic visit); in these settings providing short-course training to clinicians is unlikely to result in a substantial improvement without concurrent changes in the organization of primary care services, e.g., having nurses screen patients for depression prior to seeing the physician.

For systematic efforts to occur in participating Asian countries, the commitment of financial and human resources will be necessary. Obviously, in some developing Asian countries, there is high demand for limited resources, and suicide prevention

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efforts of the sort described above will compete with a range of other priorities. The burden of disease associated with depression and related disorders is sufficiently high, however, that efforts to reduce depression will have economic and societal benefits that extend beyond the arena of suicide prevention. It may also be possible to seek some economies in expanding the reach of some of these initiatives by, for example, co-ordinating projects funded by different organizations or identifying basic modules for training that could be adapted in different settings. Suicide Prevention International (SPI) is beginning to address these problems, and the ways in which it is doing so are discussed in Chapter 10.

### **Summary and conclusions**

Reducing depression and related disorders can be one of the strongest weapons against suicide, both at an individual level and at a population level. Strategies to reduce these disorders must be multi-faceted, and should include providing adequate training to frontline primary care providers and putting in place systems to enable the best available treatment to be accessed by all who need it. Many of the countries participating in the STOPS project have developed initiatives in this regard, but it is fair to say that their reach has, as yet, been sub-optimal. To ensure the appropriate use of limited resources, in the initial stages formal evaluations of the actual benefit for at-risk individuals of specific initiatives to improve the recognition and treatment of depression should be undertaken in relatively small, rigorously managed projects. Once Asia-specific evidence-based approaches are identified, each country will need to assemble the key stakeholders who will mobilize the resources needed and coordinate the promulgation, implementation and monitoring of the corresponding initiatives. The types of initiatives and the methods for assessing them will likely be similar for countries within Asia that have similar primary care health care systems and similar urban-rural population structures, so there is a lot of opportunity for cross-fertilization of ideas and methods within the Asian region.

### **References**

Barracough BM, Hughes J (1987). *Suicide: Clinical and Epidemiological Studies*.  
London:Croom Helm.

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- Chen EY, Chan WS, Wong PW, Chan SS, Chan CL, Law YW, Beh PS, Chan KK, Cheng JW, Liu KY, Yip PS (2006). Suicide in Hong Kong: a case-control psychological autopsy study. *Psychological Medicine* 36:815-825.
- Cheng ATA (1995). Mental illness and suicide: A case-control study in East Taiwan. *Archives of General Psychiatry* 52:594-603.
- Henriksson MM, Aro HM, Marttunen MJ, Heikkinen ME, Isometsä ET, Kuoppasalmi KI, Lönnkvist JK (1993). Morbidity and Comorbidity in Suicide. *American Journal of Psychiatry* 150:935-940.
- Hirschfeld RM, Russell JM (1997). Assessment and treatment of suicidal patients. *New England Journal of Medicine* 337:910-915.
- Isometsä E, Henriksson M, Marttunen M, Heikkinen M, Aro H, Kuoppasalmi K, Lönnkvist J (1995). Mental disorders in young and middle aged men who commit suicide. *British Medical Journal* 310:1366-1367.
- Lesage AD, Boyer RB, Grunberg F, Vanier C, Morissette R, Ménard-Buteau C, Loyer M (1994). Suicide and mental disorders: A case-control study of young men. *American Journal of Psychiatry* 151:1063-1068.
- Luoma JB, Martin CE, Pearson J (2002). Contact with mental health and primary care providers before suicide: A review of the evidence. *American Journal of Psychiatry* 159:909-916.
- Phillips MR, Li X, Zhang Y (2002a). Suicide rates in China, 1995-99. *Lancet* 359:835-840.
- Phillips MR, Yang G, Zhang Y, Wang L, Ji H, Zhou M (2002b). Risk factors for suicide in China: A national case-control psychological autopsy study. *Lancet* 360:1728-1736.
- Pirkis J, Burgess P (1998). Suicide and recency of health care contacts. *British Journal of Psychiatry* 173:462-474.
- Runeson B, Rich C (1992). Diagnostic comorbidity of mental disorders among young suicides. *International Review of Psychiatry* 2:197.
- Tiemens BG, Ormel J, Jenner JA (1999). Training primary-care physicians to recognize, diagnose and manage depression: does it improve patient outcomes? *Psychological Medicine* 29:833-45.
- Thompson C, Kinmonth AL, Stevens L, Peveler RC, Stevens A, Ostler KJ, Pickering RM, Baker NG, Henson A, Preece J, Cooper D, Campbell MJ (2000). Effects of a clinical-practice guideline and practice-based education on detection and

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outcome of depression in primary care: Hampshire Depression Project randomised controlled trial. *Lancet*. 355:185-191.

Ustun TB, Sartorius N (1995). *Mental Illness in General Health Care: An International Study*. Chichester, England: John Wiley & Son.

Vijayakumar L, John, S, Pirkis, J, Whiteford, H (2005). Suicide in developing countries (2): Risk factors. *Crisis* 26:112-119.

Zhang YP (2006). A cross-sectional study of depressive disorders in outpatients of 50 general hospitals in Beijing. *Chinese Journal of Psychiatry* 39:161-164. (in Chinese).