

CHAPTER 10

Suicide Prevention in Asia: Future Directions

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Abstract

The goals of the Strategies to Prevent Suicide (STOPS) project in Asia of Suicide Prevention International (SPI) are to understand the current status of suicide and suicide prevention work in each of the participating countries and, based on this information, to develop and undertake high-priority projects that are likely to make a difference. Previous chapters have reviewed the extent of the problem in each of the countries, the cultural context in which suicide occurs, what suicide prevention initiatives are being undertaken to address the problem, and what evidence there is that these interventions are effective. The current chapter summarizes these findings and describes some suicide prevention projects in Asia that SPI is undertaking as an outgrowth of the STOPS initiative.

The extent of the problem

Any systematic attempt at reducing suicide must start with a detailed understanding of the rate and demographic pattern of suicides over time in the community, district, or country in which suicide prevention initiatives are planned. This information should be based on the registration of all deaths within a country and the determination, ideally by a physician, of the cause of death. We saw in Chapter 1 that such complete registration and medical certification of deaths occurs only in high-income countries or regions (Japan, Australia, Singapore, China, Hong Kong Special Administrative Region [Hong Kong SAR], New Zealand, and Singapore); low and middle-income countries with large rural populations (e.g., China, India, and Pakistan) lack the administrative and medical resources needed to implement a comprehensive death registration system. This poses substantial problems for the assessment of the effectiveness of suicide prevention efforts in these countries.

China has a death registration system that covers a sample of about one-tenth of the population; as noted in Chapter 1, it needs to be substantially improved and expanded before it can provide reliable estimates of national suicide rates. In India, Thailand, and the Republic of Korea death registration is completed by the police, often without medical certification, so underestimation of suicides has been a problem. Assessment of suicide prevention initiatives in these countries requires the

development of improved methods of registering deaths in the specific regions where the monitoring has been inadequate.

In Viet Nam, it is suspected that rapid economic development is resulting in a parallel increase in suicides but the evidence for this is fragmentary because only deaths that occur in hospitals are recorded. SPI is working with a leading suicide researcher in Viet Nam, who has studied the current monitoring system (Huong, 2007a) and has developed a comprehensive plan for improving it (Huong, 2007b) that SPI is helping to implement. The project will randomly select one district (average population of 250,000) from each of seven geographically representative provinces; develop and pilot test verbal autopsy and attempted suicide monitoring instruments, and then institute the monitoring system for all deaths and attempted suicides in the target districts over a one-year period.

The cultural context in which suicide occurs

Socio-economic, cultural, and religious considerations significantly affect both the pattern of suicides and the acceptability of different types of suicide prevention strategies. With the exception of Japan, Australia, Hong Kong SAR, and New Zealand, lack of resources and the need to divide them among so many social and health care priorities make international support for suicide prevention efforts essential. In low and middle-income countries the cost effectiveness of pilot programmes will be one of the major determinants of whether or not specific initiatives get scaled-up to regional or national programmes.

Paradoxically, rapid economic development may contribute to increasing the suicide rates and the changing demographic pattern of suicides in China, the Republic of Korea, and Japan where rates are highest in the rural areas and for youth and the elderly. Asian social scientists and clinicians believe that the migration of young people to the cities where economic opportunities are greater leaves many elderly behind without traditional social support and help from their children. At the same time making a living farming has become increasingly difficult for young and old alike (Sundar, 1999).

In countries where attempted suicide and suicide are considered crimes, great stigma attaches to the surviving family members and there is an understandable reluctance to report suicide or to seek help following a suicide attempt. When suicide is also considered an unforgivable sin as it is in Moslem countries like Pakistan, the

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stigma is even greater, so much so that a suicide in the family will seriously diminish a young woman's marital prospects. Governments in these countries are also less willing to acknowledge the problem of suicide or to devote resources to suicide prevention. As was noted in Chapter 2, there is evidence, however, that strong religious prohibitions against suicide can reduce suicide.

Increasing public awareness

All of the Asian countries involved in the STOPS project except for India and Viet Nam are undertaking depression and suicide awareness activities. Most are conducted by government health departments or, as in Sri Lanka and Pakistan, by nongovernmental organizations. The methods employed include the distribution of pamphlets and posters, commentaries in newspapers and on television, and postings on websites. Evaluation of these programmes, when undertaken, has focused on improvement in mental health literacy in regions exposed to the information campaigns. The next step is to see if the change in literacy actually results in greater willingness to seek help on the part of those who need it. The success of the controlled multi-faceted community suicide prevention project in Japan (see Chapter 3) provided some evidence of the success of such an approach.

Improving media coverage

Media reporting of suicide that is sensational and can encourage suicide contagion ('copycat suicides') was seen to be as much of a problem in Asian countries as it is in Europe and the United States of America. So too is misinformation about suicides that simplistically gives the impression that suicide is caused by immediate stressors rather than linked to mental illness and/or substance abuse. Australia, Malaysia, and the Republic of Korea have developed and promulgated national guidelines for reporting on suicide in print media; activities in other countries (China, Hong Kong SAR, India Thailand, and Sri Lanka) have been limited to meetings with the press that are usually organized by nongovernmental organizations. In the Republic of Korea, after the promulgation of guidelines, suicide-related stories were more likely to include helpful information about warning signs and the possibilities of treatment; in Australia there is evidence that reporters have read the guidelines and made use of them. So far neither country has evaluated any improvement in the stories resulting from familiarity with media guidelines; the possibility of doing so was recently

demonstrated in a project in the United States of America (described in Chapter 4) that could easily be replicated and has been distributed to interested researchers in participating Asian countries. As yet, there is no concerted effort to affect suicide-related content in TV, films, and on the internet.

Educating gatekeepers

Many of the Asian countries have instituted gatekeeper training to equip community members who regularly come into contact with individuals or families in distress with suicide prevention skills. Training programmes have commonly focused on teachers but have also included social workers, hotline volunteers, youth leaders, family members and caregivers of depressed or suicidal individuals, police and prison staff, and religious leaders. These programmes are rarely evaluated; when they are, assessment is typically limited to before-and-after changes in participants' knowledge of suicide prevention, confidence in dealing with suicidal individuals, and satisfaction with the training programme. What is missing is a determination of whether the gatekeeper training actually results in a change in gatekeeper behaviour and whether it results in greater willingness to seek help on the part of those who need it.

Innovative screening approaches for at-risk populations (elderly depressed patients, suicide attempters etc.) are another way of identifying individuals at risk for suicide. Such approaches are being implemented in Australia, China, Hong Kong SAR, New Zealand, the Republic of Korea, Sri Lanka, and Viet Nam. The few programmes reporting evaluations of their approaches report the overall results of the services in which they are embedded, not the independent effect of the screening process. Only Hong Kong SAR makes extensive use of the internet for such screenings ('The Little Prince is Depressed'), an approach increasingly used in Europe and the United States of America that will undoubtedly increase in use in developing Asian countries as internet penetration increases.

Reducing access to lethal means of self-harm

Restricting access to means of self-harm shows promise as a suicide prevention strategy in Asian countries, particularly in circumstances where the suicide method in question is responsible for a high proportion of overall suicides. In Chapter 7, we documented the steps participating countries are currently taking to reduce access to poisoning agents such as pesticides (China, India, Japan, and Sri Lanka); carbon

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monoxide from charcoal (Hong Kong SAR) or from car exhaust (Australia); jumping sites like bridges (New Zealand), high rise flats (Hong Kong SAR and Singapore), and train platforms (Hong Kong SAR and the Republic of Korea); and firearms (Australia, New Zealand, and Thailand).

Restricting access to means in this way may have the effect of decreasing suicidal behaviours (particularly among those who engage in impulsive, low-intent acts), and may reduce the overall case fatality rate of those who engage in self-harming behaviour. In better resourced Asian countries, it may also result in increased opportunities for therapeutic interventions by increasing the time needed to plan and enact a suicidal intention. Good monitoring systems to determine the effectiveness of restricting access to lethal methods of suicide are not yet in place; cost-effectiveness assessments need to be conducted over a long enough period (typically 3-5 years) to evaluate accurately the degree of substitution of the restricted method by other methods of suicide and to determine the level of public acceptance of the specific steps taken to restrict access to the suicidal method.

Improving treatment of depression and other disorders that convey suicide risk

Training primary care physicians to recognize and treat psychiatric disorders, particularly depression and other mood disorders, is a primary focus of Asian countries seeking to improve mental health services. Efforts are also being made to optimize the treatment of mood disorders by testing new antidepressants, by making such medications more available, and by improving psychological therapies. Some countries have developed guidelines to assist primary care physicians to diagnose and treat depression and related disorders. There have been few efforts, however, to evaluate these training programmes and their effect in preventing suicide. The one such comprehensive project conducted by the International Clinical Epidemiology Network and the World Psychiatric Association in Chennai, India 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).

There are major barriers that have to be overcome. In China, for example, most primary care in urban areas is provided in busy outpatient departments in large general hospitals where patients receive care from a different clinician at each visit, multiple patients are simultaneously assessed in the same examination room, and the

clinical encounter is rarely longer than 10 minutes, a system that is not conducive to recognition and treatment of depression and other related disorders. It is unlikely that simply increased training of clinicians about depression will have much effect in this setting unless there are simultaneous changes in the organization of services. The situation is even more problematic in the rural areas of countries like China and India where the majority of the population live in villages that have no doctors or only partially trained medical personnel who have not received any mental health training and may not be licensed to prescribe psychotropic medications.

Support for survivors

In the United States of America there are several million survivors of suicide and about 500 groups that provide support for them. With 60% of world's suicides and about three to five million new survivors each year, there is an acute need for such groups in Asia but few services for survivors are available in the countries participating in the Strategies to Prevent Suicide (STOPS) project; only six of the countries have any survivor support groups and only two of these have more than a few groups.

Suicide Prevention International (SPI) partnered with Loving Outreach for Survivors of Suicide (LOSS), a model programme for survivors in Chicago, United States of America, to train qualified mental health professionals from Asia how to organize and run survivor support groups and programmes. The LOSS programme has an organized plan for individual treatment for survivors, weekly support groups of ten sessions for the recently bereaved, and ongoing monthly support groups. All of their programmes are led by trained professionals, and have formal evaluation and oversight to ensure that guidelines are followed. An initial three day pilot training workshop was conducted by LOSS and SPI in Chicago in 2006 for mental health professionals from the Hong Kong Jockey Club Centre for Suicide Research and Prevention. LOSS and SPI conducted a more comprehensive training programme in Beijing in 2008 for mental health professionals at the Beijing Suicide Research and Prevention Center. The Beijing Center will be implementing all aspects of the LOSS programme and will be training other groups in China. The plan is to institute similar training sites at several locations throughout Asia.

Combined community initiatives

Most of the participating countries in the STOPS project are undertaking some initiatives aimed at increasing public awareness, improving media reporting of suicide, screening for persons at high risk of suicide, restricting access to means, and improving treatment of suicidally depressed patients. This volume has examined suicide prevention initiatives in separate chapters, but it is important to keep in mind that the synergistic effect of a multi-faceted suicide prevention effort has probably a greater potential for success than the application of a single approach. Public education campaigns and appropriate media coverage help increase public and governmental support for suicide prevention efforts and, perhaps more importantly, destigmatize depression and suicide thus increasing care-seeking among those who need help. Gatekeeper training and other screening programmes could increase the recognition of high-risk individuals and, thus, increase the likelihood that they will receive needed care. Improved treatment for depression will increase the likelihood that those who receive care will be effectively helped.

Investigators in Nuremberg, Germany developed a community-based action programme to improve the care of depressed people and to prevent suicidality. It is based on a multilevel approach targeting four key groups: primary care physicians, media and the general public, community gatekeepers, and depressed and/or suicidal individuals and their families. Launched in 2000, the central message that depression is a treatable disease was tailored for each of the four groups. The outcome measure was a significant reduction in total suicidal acts (suicides plus attempted suicides) in Nuremberg compared to the control region of Würzburg. Based on those results, the programme became a model for 16 countries in Europe and spread to regions throughout Germany (Hegerl et. al., 2003; Hegerl et al., 2006; Hegerl et. al., in press). Only in Germany, however, are data being collected for control sites for each of the regions adopting the programme. That data collection has created the exceptional opportunity of examining a large enough sample population, and an even larger control group, with enough statistical power to demonstrate a significant effect on completed suicide as an independent variable. SPI plans to work with German investigators on the important and challenging task of analyzing this data.

Australia, Japan, New Zealand, and the Republic of Korea have instituted such a community based approach but only Japan utilized a control group which enabled it to demonstrate the success of the programme in reducing suicide (described in Chapter

3). Japan's success will serve as a stimulus to implementing comparable suicide prevention initiatives in Asian countries with the resources to do so, but the initiative will need to be adapted to work in lower income Asian countries.

Two Suicide Prevention International projects in rural China

One of the major objectives of SPI's STOPS project is to develop, implement, and fund suicide projects in Asia. The selection of projects is based not only on need, but also on the presence of suitable investigators, the willingness of governmental authorities to cooperate with the study, and the possibilities of the project serving as a cost effective model that could be replicated in other communities in the country and, eventually, in other countries.

As noted in Chapter 1, China has 21 per cent of the world's population but between 30 and 40 per cent of the world's suicides. Suicide is the fifth most important cause of death in the country, and suicide is the leading cause of death for young people 15-34 years of age (Phillips et al., 2002a). At least three quarters of the suicides are in rural China where the suicide rates are estimated to be three times the urban rates (Phillips et al., 2002a). Despite increased governmental recognition of the importance of the problem of suicide, suicide prevention and treatment services are not usually available in the rural areas of China, largely due to the shortage of doctors and other health care providers (Phillips et al., 2002b). In addition, the medical personnel who are working in rural areas receive little if any mental health training. Suicide Prevention International is supporting two demonstration projects that implement and evaluate models for addressing this problem.

Expansion of mental health services in rural China

The aim of this project is to develop a cost-effective mental health service system based on the existing Three-Tier Network of Health Care and Prevention in rural China that was set up in the 1960s and 1970s. This network includes the health care providers at village, town, and county levels, virtually none of whom have received training in the management of mental illnesses.

In this project rural health care providers in the village clinics and town health stations in Liuyang county in Hunan Province will be trained to 1) identify and refer patients who need mental health treatment to the county mental hospital, 2) provide community mental health care to these patients with supervision from psychiatrists in

the county mental hospital, and 3) work with health care providers in the village clinics to monitor the follow-up care of these individuals. Doctors in the county-level hospitals will be trained to identify and refer patients to the county mental hospital for treatment but will also be trained to improve medical resuscitation of suicide attempters (many of whom ingest highly lethal pesticides). The effectiveness of the project will be assessed by comparing the proportion of individuals at high-risk for suicide who receive appropriate treatment and the rates of suicide and attempted suicide before and after the intervention in both the target communities and in a control region (Xiao, 2007).

Socio-educational intervention for rural suicide attempters in China

In China, 16-25% of those who die by suicide have made previous attempts; the majority of suicide attempters do not have a diagnosable mental disorder at the time of their attempt; a high proportion of medically treated attempted suicides are impulsive acts following acute interpersonal crises; and acute and chronic stress are independent risk factors for both attempted and completed suicide (Phillips et al., 2002b; Li et al., 2001, 2002, 2003, 2007). Given the important causative role that social factors play in suicide in China, strengthening social support networks for individuals who make an initial suicide attempt is intended to help suicide attempters find alternative ways of dealing with interpersonal conflicts and other stresses and, thus, reduce the risk of repeated suicidal behaviour.

SPI is working with Chinese investigators on a demonstration project aimed at assessing the feasibility of such an approach in rural China. This work expands previous work done by the Beijing Suicide Research and Prevention Center as part of WHO's SUPRE-MISS project dealing with the psychosocial support for suicide attempters. Suicide attempters in Yuncheng County in Shandong Province will be recruited from emergency rooms in two county hospitals and randomly assigned to an intervention group or a control group. In the intervention group, a trained clinician (either a psychiatrist or an emergency room doctor) will provide a brief mental health education session to the attempter (and accompanying family members) and then make home visits to the patients' villages 1, 2, 3, 6, 9, and 12 months after the patients are first seen in the emergency room. At the time of the visits they meet with the patients, with co-resident family members, and with a 'guardian' (often a relative or close friend) who the suicide attempter identifies as someone in whom he or she

can confide. They discuss interpersonal conflicts and other stresses experienced by the subject, attempt to mobilize social support in the family and the village to help the subject, discuss different methods of reducing stress, and establish a 'crisis warning system' to ensure that appropriate health care professionals are notified if the subject starts to deteriorate psychologically. The measures of the success of strengthening patients' social support networks will be the reduction of hopelessness, depressive symptoms, suicidal ideation, and suicidal behaviour (Li, 2007).

Conclusion

The STOPS project in Asia seeks to stimulate suicide research, to create awareness that depression is treatable and suicide is preventable, and to provide support for valuable suicide prevention initiatives. This monograph provides an overview of the current range of suicide prevention activities in the Asian countries currently participating in the STOPS initiative, highlighting those interventions that have evidence of effectiveness, or that have instituted evaluative procedures that will permit a future evaluation of effectiveness.

In setting priorities for its efforts STOPS relies on an international network of suicide prevention experts (www.SuicidePreventionInternational.org) and on input from the World Health Organization, with whom it has a cooperative relationship. The first three SPI-sponsored projects in Asia – the monitoring project in Viet Nam, and the two intervention projects in rural China – have the potential to become models in their own countries and, more generally, in other low and middle-income countries with weak death registry systems and limited mental health services in rural areas. Suicide Prevention International will continue to work with capable researchers to develop projects in Asian countries.

References

- Gajalakshmi V, Peto R (2007). Suicide rates in Tamil Nadu, South India: Verbal autopsy of 39,000 deaths in 1997-1998. *International Journal of Epidemiology*. 36:203-207.
- Hegerl U, Althaus D, Stefanek J (2003). Public attitudes towards treatment of depression: effects of an information campaign. *Pharmacopsychiatry* 36:288-291.

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- Hegerl U, Althaus DI, Schmidtke A, Niklewski G (2006). The European alliance against depression: 2-year evaluation of a community based intervention to reduce suicidality. *Psychological Medicine* 36:1225-1234.
- Hegerl U, Wittmann M, Arensman E, Van Adenhove C, Bouleau JH, Van Der Feltz C, Gusmao R, Kopp M, Löhr C, Maxwell M, Meise U, Mirjanic M, Oskarsson H, Perez Sola V, Pull C, Pycha R, Ricka R, Tuulari J, Värnik A, Pfeiffer-Gerschel T (in press). The 'European Alliance against depression' (EAAD): A multifaceted, community-based action programme against depression and suicidality. *World Journal of Biological Psychiatry*.
- Huong TT (2007a). Study on current system for recording and reporting of suicides/attempted suicides in Vietnam (unpublished paper).
- Huong TT (2007b). Model for monitoring suicide and attempted suicided in Viet Nam (unpublished paper).
- Joseph A, Abraham S, Muliyl JP, George K, Prasad J, Minz S, Abraham VJ, Jacob KS (2003). Evaluation of suicide rates in rural India using verbal autopsies, 1994-99. *British Medical Journal* 326:1121-1122.
- Li XY, Yang RS, Zhang C, Bian QT, Ji HY, Wang YP, Zheng YX, He FS, Phillips MR (2001). A case-control study of the risk factors in attempted suicide. *Chinese Journal of Epidemiology* 22:281-283 (in Chinese).
- Li XY, Xu YC, Wang YP, Yang RS, Zhang C, Ji HY, Bian QT, Ma ZW, He FS, Phillips MR (2002). Characteristics of serious suicide attempts treated in general hospitals. *Chinese Mental Health Journal* 16:681-684 (in Chinese).
- Li XY, Phillips MR, Wang YP, Yang RS, Zhang C, Ji HY, Bian QT, Xu YC, Ma ZW, He FS (2003). The comparison of impulsive and non-impulsive suicide attempts. *Chinese Journal of Nervous and Mental Diseases* 29:27-31 (in Chinese).
- Li XY (2007). A randomized control trial of socio-economic intervention for rural China (unpublished paper).
- 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.

Sundar M (1999). Suicide in farmers in India. *British Journal of Psychiatry* 175:585-586.

Xiao S (2007). Mental health development in rural areas of China: a quasi experimental study (unpublished paper).