

Suicide and Suicide Prevention in Asia

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Foreword

The research and policy attention that suicide prevention has received in Asia has been relatively small in comparison with the magnitude of the problem. More than half of the suicides that occur globally every year come from the South-East Asia and Western Pacific regions. Suicide is among the leading causes of death and, among young people, the leading cause of death in many Asian countries.

Suicide is a complex, yet preventable public health problem resulting from the interaction of psychological, social, biological, and environmental factors. The prevention of suicide is equally complex and, while feasible, is no easy task: it involves a whole series of activities, ranging from the environmental control of risk factors and means, through the early identification and effective treatment of people with mental and substance use disorders, to the responsible reporting of suicide in the media. Comprehensive public health action to prevent suicide addresses the population at large as well as particularly vulnerable groups, such as young people or those who attempted suicide. The involvement of various sectors (e.g., health, education, labour, agriculture) needs to be sought as well as the engagement of various partners (e.g., governments, nongovernmental organizations).

Although there are examples of excellent achievement, suicide prevention efforts have been limited in Asian countries. The present publication makes a case for enhancing the commitment to the prevention of suicide and for implementing effective strategies to reduce the burden, both in terms of mortality and morbidity related to suicidal behaviours. These overall objectives are shared by the WHO worldwide initiative for the prevention of suicide. It is hoped that Suicide Prevention International continues its work and that this publication will be widely disseminated in order to serve and strengthen suicide prevention efforts in Asian countries.

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The World Health Organization (WHO), the Hong Kong Jockey Club Centre for Suicide Research and Prevention, and Suicide Prevention International (SPI) sponsored the workshop; the Faculty of Social Science and the University of Hong Kong joined SPI in providing financial support for the meeting.

A first draft of most of the chapters in this monograph was written by Jane Pirkis. Josephine Hendin did much of the research that went into writing the monograph and edited the manuscript. Esther Kim assisted in the research. Herbert Hendin, CEO and Medical Director of SPI, revised the manuscript and José Bertolote and Alexandra Fleischmann finalized it at WHO where administrative support was provided by Rosa Seminario.

The following websites provide further information:

<http://www.suicidepreventioninternational.org>

http://www.who.int/mental_health/prevention/suicide

Introduction

Suicide and Suicide Prevention in Asia

Herbert Hendin

Suicide is a global public health problem, particularly in Asia where high suicide rates in a few countries with large populations account for a majority of the world's suicides. Efforts to address the problem have been unsystematic but there is increasing recognition by governments, community members, and professional groups of the need to do more. This monograph is the product of Suicide Prevention International's (SPI) Strategies to Prevent Suicide (STOPS) project, currently focused on Asia. STOPS in Asia aims to describe systematically and, where possible, evaluate current suicide prevention strategies in the participating Asian countries and to help stakeholders in these countries to develop, implement, and fund innovative, culture-sensitive suicide prevention initiatives that are likely to be effective.

Each year worldwide approximately one million individuals die of suicide, 10-20 million attempt suicide, and 50-120 million are profoundly affected by the suicide or attempted suicide of a close relative or associate. Asia accounts for 60 percent of the world's suicides, so at least 60 million people are affected by suicide or attempted suicide in Asia each year (Beautrais, 2006).

Despite this, suicide has received relatively less attention in Asia than it has in Europe and North America. Lack of resources and competing priorities in many Asian countries have contributed to this under-emphasis. Cultural influences, religious sanctions, stigmatization of the mentally ill, political imperatives, and socio-economic factors have also played a significant role. As a result, the magnitude of the problem is unknown in some Asian countries and – although there are some highlights in terms of preventive initiatives – overall efforts are uncoordinated, under-resourced, and generally unevaluated (Vijayakumar et al., 2005a; Vijayakumar et al., 2005b; Vijayakumar et al., 2005c; Beautrais, 2006; WHO, 2007).

SPI is a nongovernmental organization based in the United States of America that develops, implements, and funds suicide prevention projects in the United States of America and worldwide. SPI utilizes its international network of experts to decide what projects are most likely to prevent suicide, selects the investigators to work on

them, and is an active partner in conducting the projects from the beginning to the end.

STOPS steers a mid-course between two approaches on evaluating suicide prevention activities: one that considers statistically significant reduction in suicide or suicide attempts as the only meaningful measure of outcome and another that employs token measures (e.g., participant satisfaction) or non-measurable parameters (e.g., clinicians' impressions) to assess outcome. The former is often unfeasible because of the huge sample sizes required to demonstrate effectiveness; the latter does not provide meaningful information upon which to base or modify suicide prevention efforts. STOPS supports the use of intermediate evaluative measures such as improvements in the ability to identify and provide help for individuals at risk for suicide. STOPS also encourages the use of the 'harder' outcome measures of fatal and non-fatal suicidal behaviour where feasible.

Methodology

In 2006, the Planning Committee, composed of Herbert Hendin, José Bertolote, Michael Phillips, and Danuta Wasserman developed the STOPS Project in Asia and was instrumental in implementing it. The initiative brought together suicide prevention experts from Asian countries whose governments have undertaken or are considering undertaking national strategies designed to prevent suicide and from countries where less government-led progress has been made but nongovernmental organizations or a group of investigators have been active in suicide prevention research. The goal is to stimulate and improve suicide prevention initiatives in participating Asian countries and to help develop, implement, and fund suicide prevention initiatives that seem likely to be effective. Initiatives that have effective evaluation measures are highlighted to serve as a model for others. Many of the suicide prevention initiatives presented have no evaluation components built into them. They are described and discussed to present a picture of what is currently being done, to examine what might be possible in the way of evaluation, and to stimulate further suicide prevention research in the participating countries.

STOPS is currently focused on three South Asian countries (India, Sri Lanka, and Thailand), belonging to the WHO South-East Asia Region, one country belonging to the WHO Eastern Mediterranean Region (Pakistan), and eight countries (Australia; China; Japan; Malaysia; New Zealand; the Republic of Korea; Singapore; Viet Nam;

and China, Hong Kong, Special Administrative Region [Hong Kong SAR]), belonging to the WHO Western Pacific Region. For the remainder of this report, these 12 countries and Hong Kong SAR are collectively termed ‘participating Asian countries.’ They provide a spectrum of examples in which there is governmental or nongovernmental interest in suicide prevention. Some have instituted national strategies designed to prevent suicide (e.g., Australia, New Zealand, Sri Lanka, and Japan); others are in the process of doing so (e.g., Malaysia, the Republic of Korea, and Thailand). All rely to varying degrees on nongovernmental organizations to develop and implement prevention strategies. There are striking cultural differences among the countries and major economic differences among them that transcend their geographic location. Australia, Hong Kong SAR, Japan, New Zealand, the Republic of Korea, and Singapore are relatively affluent so they have more resources that can be allocated to suicide prevention than other less affluent countries.

Participants were chosen on the basis of their being known internationally as outstanding experts on suicide in their countries. In some cases, they were known to the STOPS project’s planning committee from their published work and their participation in regional and/or international workshops. Others were known in Asia and recommended by the initial group of chosen representatives, who were familiar with their work. The project’s director contacted potential representatives directly, sought written and oral confirmation of their expertise in the area, and explored their willingness to be involved. This information was shared with the project’s Planning Committee, which made the final determination about membership.

Once the country representatives were selected, they were invited on the basis of expertise and preference to join one or more (at most three) of the nine topic-specific task forces established by the Planning Committee:

- Epidemiology of suicide in Asia
- Socio-economic, cultural, and religious factors affecting suicide prevention
- Creating public awareness of depression as treatable and suicide as preventable
- Improving portrayal of suicide in the media
- Educating gatekeepers
- Innovative approaches to identifying those at risk for suicide
- Reducing access to lethal means of self-harm

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- Improving treatment of depression and other disorders that convey suicide risk
- Addressing the problems of survivors of suicide

The planning group appointed a leader for each task force and a delegate from Europe or the United States of America who was a recognized expert in the topic area covered by the task force. The task forces were responsible for summarizing information about the current status of their respective topics in the participating countries.

Each participant completed a two-part country-specific questionnaire, drawing on official statistics, documentary evidence, and the expertise of others in his or her own country. The first part sought data on the epidemiology of suicide; the second elicited information on the contextual factors influencing suicide and suicide prevention efforts. Task force leaders combined the information from the questionnaires with a selective literature review to prepare topic-specific reports which summarized the situation in each country and highlighted common barriers and facilitators to action. These preliminary task force reports were circulated to task force members for comments and revised accordingly. Then the reports were circulated in advance of a four-day workshop, held in Hong Kong SAR in November 2006. The workshop, which brought together participants who until then had been in touch by email and by phone, was hosted by the Hong Kong Jockey Club Centre for Suicide Research and Prevention which joined WHO and SPI in sponsoring the workshop.

The workshop began with country-specific presentations and then moved on to task force presentations in which the task force leader integrated the relevant results from the country reports and the European or American task force member described the European/American experience in the topic area. The workshop was designed to be interactive, so brief preliminary presentations were followed by much longer discussion sessions. Task force leaders subsequently revised their reports based on suggestions made at the workshop and on a comprehensive search by SPI of relevant publications on Medline, WHO, and PsychINFO databases from 1975 to February, 2008 using terms related to suicide and suicide prevention in Asia. This monograph is based on all of this information.

The first chapter of the monograph describes the epidemiology of suicide in the participating Asian countries. It is followed by a chapter discussing socio-economic, cultural and religious factors affecting suicide and suicide prevention in Asia. That

chapter is followed by seven chapters (Chapters 3-9) which concentrate on particular suicide prevention strategies that are being undertaken in participating countries and a final chapter (Chapter 10) which considers the implementation of strategies that could make a meaningful difference. Several country-specific proposals for suicide prevention initiatives were presented and discussed at the workshop. SPI has worked collaboratively with principal investigators on three of the initiatives to develop, implement, and fund them. These projects are discussed in the final chapter.

References

- Beautrais AL (2006). Suicide in Asia. *Crisis* 27:55-57.
- Vijayakumar L, Nagaraj K, Pirkis J, Whiteford H (2005a). Suicide in developing countries (1): Frequency, distribution, and association with socio-economic indicators. *Crisis* 26:104-111.
- Vijayakumar L, John S, Pirkis J, Whiteford H (2005b). Suicide in developing countries (2): Risk factors. *Crisis* 26:112-119.
- Vijayakumar L, Pirkis J, Whiteford H (2005c). Suicide in developing countries (3): Prevention initiatives. *Crisis* 26:120-124.
- WHO (2007) Meeting on Suicide in the Western Pacific Region. (Report on meeting held in Manila, Philippines in 2005).

CHAPTER 1
Epidemiology of Suicide in Asia

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Abstract

Although suicide in Asia is widely recognized as a compelling problem, obtaining accurate data about suicide in Asia has proved difficult. Some countries make no effort to collect data on the causes of death. In many Asian countries deaths occur without medical certification of the cause and may be reported by family members or other lay people who do not wish to acknowledge suicide for fear of stigma or shame. In many Asian settings suicide contravenes religious, cultural, or legal traditions (suicide is still criminalized in several countries) or is seen as a reflection of poor governance, so there is an understandable reluctance to compile and report accurate suicide statistics. This chapter discusses available rates and the issues involved in assessing their validity.

Suicide Rates

Taking the available data at face value, Table 1 presents the overall suicide rates for the participating countries. Wherever possible, and unless otherwise indicated, the latest official statistics are presented for the participating countries; footnotes indicate the source of the figures. Pakistan has the lowest estimated prevalence of less than 3 per 100,000, followed by Thailand at 7.3 per 100,000. Australia, Malaysia, New Zealand and Singapore have low to medium rates of between 9.9 and 13.1 per 100,000. Higher rates of above 15 per 100,000 are seen in China, Hong Kong Special Administrative Region (Hong Kong SAR), and India and still higher rates of above 20 per 100,000 are seen in China, Japan, the Republic of Korea, and Sri Lanka.

Quality of data

The validity of reported prevalence of suicide depends to a considerable degree on the method for determining the cause of death, the comprehensiveness of the death reporting system, and the procedures employed to estimate national rates based on crude cause of death data. Thus the reported prevalence of suicide for each country must be interpreted with some knowledge of the procedures used by that country. The Department of Measurement and Health Information of the WHO has developed a 4-level rating system for assessing the quality of death data (Mathers, 2005). Mortality

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data from Australia; China, Hong Kong SAR; Japan; Malaysia; New Zealand; the Republic of Korea; and Singapore are rated as level-1 or level-2 evidence, which means that they are considered reliable estimates of the cause of death and, thus, of the prevalence of suicide. The Japanese procedure described below is illustrative of level-1 evidence for this group; only recent changes in the recording methods in Malaysia and the Republic of Korea permit their reported rates to be seen as reliable.

In Japan a doctor must sign the death certificate in every case. If the death is certified as a suicide the police must be notified. If death occurs at home, and the patient is not under medical care, it must be reported to the police and a qualified medical pathologist (coroner) examines the body and determines the cause of death based on a history obtained from whoever can provide the most detailed information about the decedent's physical and mental health. If the cause is unclear, a pathological autopsy is conducted to help determine the cause of death. In such cases the medical pathologist issues the death certificate. A relative of the deceased must bring this certificate to a specified municipal office to obtain permission to bury the body. All the death certificates are sent to the Ministry of Health, Labour, and Welfare, which records all deaths in Japan. The Ministry issues regular reports on the causes of death each year and sends an official report to the World Health Organization. The National Police Agency also issues a report of deaths which includes more suicides because it includes foreigners who are not included in the Ministry's registry system.

In the Republic of Korea before recent changes which made the data more reliable, a death was reported by a family member, close friend or neighbour to the local public office. If a suicide was reported or suspected it was to be reported to the police. A physician could then be called in to examine the body and take a history from the closest available person. A suspected suicide might then be examined by a medical examiner or a forensic pathologist, but the examination would be waived if the family could prove the deceased had been in psychiatric treatment. Death certificates were filed with the Ministry of Health and official reports were released. Researchers in the Republic of Korea considered that the death registration and certification were incomplete since the cause of death was certified by a physician in only about 30 percent of cases (Suk, 1992; Ruzicka, 1998). The government recognized the inadequacy of the certification and made changes that culminated in a revision in 2000. An analysis of the certification data was made for us by a representative of the Korean National Statistics Office. The analysis indicated that the percentage of deaths

that were medically certified gradually increased from 74% in 2000, to 87% in 2003 (Nam, 2007).

Despite the relatively good mortality registration in Malaysia, its official statistics on suicide are still regarded as underestimates primarily due to misclassification. Systematic misclassification of medically certified suicides as ‘violent death from undetermined cause’ seems to be a primary factor in the reported drastic drop in Malaysia’s suicide rate starting in 1975. At the same time the ratio of uncertified to certified suicides went up four-fold after 1975 (Maniam, 1995). Non-reporting and under-reporting in predominantly Muslim countries have been attributed to religious, cultural, and legal factors (in Malaysia attempting suicide is illegal) (Khan, 2005), which are described in detail in Chapter 2 of this report.

The quality of evidence used in mortality estimates for four of the STOPS countries – China, India, Thailand and Sri Lanka – is poor to fair (level 3 in the WHO rating system). The official suicide rate for China comes from the National Surveillance of Disease System which includes 145 surveillance sites across the entire country. These surveillance sites are sample based using cluster random sampling. The population in surveillance sites represents about 10% of the overall population in China or more than 100 million individuals (Phillips, 2002). The statistics from these sample sites are used to calculate the suicide rates for the country overall (Centre for Chronic Disease Control, China CDC, 1999). Death registration is one of the major components in this system. The surveillance system projected the death rate due to suicide as 13.9/100,000 for the year 1999; a higher suicide rate was projected for the rural areas (16.8/100,000) than the urban areas (4.0/100,000).

The Chinese suicide rates are considered underestimates based on the inability of the national surveillance system to track adequately suicides in rural China, where most of the population lives, and where studies confirm that the suicide death rate is three to four times higher than in the urban areas. In urban China, the death certificate is typically signed by a medical practitioner who has seen the body and talked to the family; the police are involved only in the small percentage of cases where a homicide is suspected. In rural China the ‘village doctors’ – typically health workers with little or no formal medical training – sign most of the death certificates of those who do not die in hospitals (the majority of suicides). These village doctors may not interview the family to verify the cause of death and can simply accept the family’s report as to the cause. In addition, they may not have adequate knowledge to recognize suicide as a

cause of death. Efforts being undertaken in China to train doctors in the rural areas will be discussed in the final chapter.

Researchers recalculating the rates to correct for the population distribution have found rates for China ranging from 22 to 30 per 100,000 (Murray et al., 1996 a, 1996 b; Phillips et al., 2002; Yip et al., 2005). With 21 percent of the world's population, China has been estimated to account for 30% to 44% of global suicides (Murray et al., 1996 a, b; Beautrais, 2006).

India has a population size comparable to that of China, and also estimates suicide rates based on a sample of the population. In India, however, suicide is illegal so there is an even greater danger of under-reporting. Although the police investigate all suspected suicide cases, before a final verdict is passed the case is reviewed by 'panchayatdars', who are prominent citizens in the locality and neighbours of the deceased. Many deaths, particularly in the rural areas, are not registered at all partly because of an inefficient registration system (Bose et al., 2006) and partly because families fear the social and legal consequences associated with suicide. Only about 25 percent of deaths in India are registered and only about 10 percent are medically certified (Bhat, 1991; Ruzicka, 1998). The source of the data is the National Crime Records Bureau in the Ministry of Home Affairs. Large scale verbal autopsy studies of all deaths in rural regions reveal that the suicide rate in the rural areas is three to four times higher than that reported by the government, so the official suicide rate reported for the country is probably significantly lower than the actual rate (Joseph et al., 2003; Gajalakshmi et al., 2007).

In Thailand a new registration system introduced in 1996 helped ensure that deaths would be recorded but did not require that the cause of death be medically validated. Preliminary studies found that 'ill-defined causes' or non-specific cardio-vascular disease (i.e., 'the heart stopped beating') were the most frequently reported causes of death. (Choprapawon et al., 1996) so the Thai Ministry of Health appointed a special research team to verify the causes of death and recommend reforms to the death registration system. A retrospective population based study collected information provided by family-member informants, death certificates, and medical records (if available) on all deaths between 1997-1999 from 15 provinces reflecting the country's geographic variability. Qualified physicians reclassified the cause of death based on ICD-10 criteria (Choprapawon et al., 2005). In nearly half of the cases, the original cause of death recorded had been supplied by relatives; medical doctors had

determined the cause of death in only 28% of cases. The overall agreement between cause of death in the survey and on the death certificates was 29.3%. On ill defined causes of death the level of agreement was 33%. For suicide it was only 4%. Based on these troubling findings the expert group recommended medical certification of all deaths. In 2001, the Thailand government implemented a new, more rigorous reporting system in 18 pilot provinces. Subsequent evaluation indicated that the new system was successful so it was implemented nationwide in 2003 and is currently being adjusted by incoming data. It is projected that the validity of mortality data should improve from 70 to 80 percent within five years. If it does, the most striking improvement is likely to be in the accuracy of the suicide rates.

Although Sri Lanka has a high reported suicide rate, there is still substantial under-reporting. Civil war resulting in large numbers of refugees is believed to contribute to the suicide rate (Berger, 1988), but has also made it impossible to collect suicide data from the north-eastern region of Sri Lanka, which is known to have the highest suicide rate in the country. Moreover, a large number of deaths from pesticides – the most common method of suicide in the country – are misclassified as accidental or as deaths of undetermined cause (Asian Legal Resource Center, 2003).

At the other end of the spectrum are Pakistan and Viet Nam in which the evidence used to report mortality is rated poor (level–4 in the WHO rating system). In Pakistan national suicide data are not reported but there are published estimates based on police and hospital data; these estimates are considered underestimates by experts who have analysed them (Ghaffar et al., 2001; Hang et al. 2003; Khan and Hyder 2006, Khan et al., 2007). In Viet Nam the fact of death, but not the cause of death, is reported to a local health official (Huang, 2007). Hospitals keep records of the causes of death in their facility and report them to the Ministry of Health. The figures are available to researchers but since they are partial figures no official report is released.

Underreporting and misclassification of suicide is not, of course, unique to Asian countries. Underreporting takes place in every country regardless of the system used to determine causes of deaths. Misclassification, both deliberate and non-deliberate, occurs in all countries that have examined the problem. A recent study in France, using established criteria for classifying a death as suicide, reclassified 35% of the undetermined deaths, and 25% of the deaths from unknown causes as suicides, resulting in an increase of over 20% in the suicide rate of virtually all age groups, though the 10% drop in suicide mortality in the country from 1980 to 1988, remained.

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After correcting suicide rates in 17 European countries using the same method for reclassifying deaths due to undetermined or unknown causes, the rank order of the suicide rates in the countries were largely unchanged; only the rank order of Denmark and Portugal changed (Andriessen, 2006). The Danish rate went from 19.8 to 31.9 per 100,000 and the Portuguese rate increased even more substantially from 6.6. to 25.3 per 100,000. Recognizing limitations of the study, the authors conclude the total epidemiological picture seems reliable and international suicide rates can be compared over time: 'Suicide rates can have a weak validity but an acceptable reliability' (Jouglu et al., p. 60, 2002).

Of course rates of undetermined causes of death will vary from country to country and the variation is likely to be greater among some of the Asian countries, like the Republic of Korea and Thailand, based on improvements in the method of reporting. It is encouraging that there are dedicated researchers in each of the countries participating in the STOPS project who are determined to correct the problem and an increasing willingness on the part of some of their governments to consider suicide a public health problem that needs to be addressed rather than a political liability that needs to be hidden. For example, Viet Nam, a country with no system in place for recording causes of death, seems among those most committed to change.

Age, sex, and location of residence

Table 1 also provides information on suicide rates by sex, age group, and location of residence in the participating countries. In Australia and New Zealand, the male:female ratio is typical of that in most European countries and the United States of America, at about 4:1. However, in most other Asian countries where data are available, the ratio is much lower, and in China the female rate is higher than the male rate. In Australia, Pakistan, Sri Lanka, and Thailand young people have the highest rates; in China, Hong Kong SAR; Japan; Malaysia; the Republic of Korea and Singapore suicide is a relatively greater problem for older people; in China and New Zealand there are high rates in both the young and the old; and in India middle-aged individuals have the highest rates. For some countries, the age-specific suicide rates have shifted substantially over time. Rural rates of suicide are higher than urban rates in Australia, China, India, the Republic of Korea and Sri Lanka, but in New Zealand urban rates are higher than rural rates.

The social and cultural factors contributing to differences in the demographic profile of suicide among Asian countries, European countries, and the United States of America will be discussed in Chapter 2.

Methods of suicide

Table 1 also indicates the most common methods of suicide in the participating countries. In Australia, Japan, New Zealand, Pakistan, and Thailand, hanging dominates as the most common method of suicide. In China, Hong Kong SAR, and Singapore, jumping (typically from apartment buildings) is the most frequent method used (Ung, 2003; Yip, 1996). In countries with larger rural populations, such as China, India and the Republic of Korea, poisoning (usually by pesticides) is common (Bose et al., 2006; Shin et al., 2004). Some new methods are also emerging, such as carbon monoxide poisoning by intentionally burning charcoal in a confined space. In China, Hong Kong SAR charcoal-burning accounted for a single suicide in 1997 but it is currently among the top three most common methods of suicide (Chan et al., 2005; Chung et al., 2001; Yip et al., 2007).

The importance of restricting the availability of commonly employed means as part of the overall suicide prevention effort will be discussed in Chapter 7.

Summary and conclusions

Efforts to address suicide in Asian countries have, to date, been relatively unsystematic. The STOPS project aims to strengthen suicide prevention efforts in participating Asian countries by focusing attention on particular strategies. Describing the epidemiology of suicide in these countries and understanding the weakness of the current mortality monitoring systems in the target countries is an important first step, since it provides a baseline against which suicide prevention efforts can be implemented and evaluated. Despite the weakness of some of the epidemiological data, it is clear that the epidemiological picture differs from country to country, and this has implications for the kind of suicide prevention activities which might be most useful. The next chapter in this report deals with socio-economic, cultural and religious factors affecting suicide and suicide prevention in Asia, and provides a perspective that may help to understand some of the epidemiological differences observed in the current chapter.

References

- Andriessen K (2006). Do we need to be cautious in evaluating suicide statistics? *The European Journal of Public Health* 16:445.
- Asian Legal Resource Center (February 2003) Preventing Suicide in Sri Lanka. Written statement submitted to the UN Commission on Human Rights. 59th session. – Preventing Suicide in Sri Lanka (25 June 2008)
http://search.ohchr.org/search?q=cache:_GH0mMB8F2cJ:daccess-ods.un.org
- Beautrais AL (2006). Suicide in Asia. *Crisis* 27:55-57.
- Berger LR (1988). Suicides and Pesticides in Sri Lanka. *American Journal of Public Health* 78:826-828.
- Bhat M (1991). Mortality from accidents and violence in India and China. Research Reports 91-06-1, Center for Population Analysis and Policy, Humphrey Institute of Public Affairs, University of Minnesota, Minneapolis MI.
- Bose A, Konradsen F, John J, Suganthy P, Muliylil J, Abraham S (2006). Mortality rate and years of life lost from unintentional injury and suicide in South India. *Tropical Medicine and International Health* 11:1553-1556.
- Centre for Chronic Disease Control, China CDC (1999). 1998 Annual Report of National Surveillance of Disease, China CDC.
- Chan K, Yip PSF, Au J, Lee DTS (2005). Charcoal-burning suicide in post-transition Hong Kong. *British Journal of Psychiatry* 186:67-73.
- Choprapawon C, Suriyawong P, Chunharas S et al. (1996). National Epidemiology Board of Thailand. Review of the Health Situation in Thailand Priority Ranking of Diseases, 1996 Edition.
- Choprapawon C, Porapakham Y, Sablon O, Panjajaru R, Jhantharatat B (2005). Thailand's National Death Registration Reform: Verifying the Causes of Death between July 1997 and December 1999. *Asia-Pacific Journal of Public Health* 17:110-116.
- Chung WS, Leung CM (2001). Carbon monoxide poisoning as a new method of suicide in Hong Kong. *Psychiatric Services* 52:836-837.
- 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.
- Ghaffar A, Hyder AA, Bishai D (2001). Newspaper reports as a source for injury data in developing countries. *Health Policy Planning* 16:322-325.

EPIDEMIOLOGY OF SUICIDE IN ASIA

- Hang HM, Ekman R, Bach TT, Byass P, Svanström L (2003). Community-based assessment of unintentional injuries: A pilot study in rural Vietnam. *Scandinavian Journal of Public Health* 62(Supplement):38-44.
- Huong TT (2007). Study on current system for recording and reporting of suicides/attempted suicides in Vietnam (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.
- Jouglu E, Pequingnot F, Chappert J, Rossollin F, Le Toullec A, Pavillon G (2002). The quality of suicide mortality data (in French) *Revue d' Epidemiologie et de Sante Publique* 50:49-62 (Medline).
- Khan M (2005). Suicide prevention and developing countries. *Journal of the Royal Society of Medicine* 98:459-463.
- Khan MM, Hyder AA (2006). Suicides in the developing world: Case study from Pakistan. *Suicide and Life-Threatening Behavior* 36:76-81.
- Khan MM, Haider N, Thaver D, Prince M (2008). Epidemiology of suicide in Pakistan: determining rates in six cities. *Archives of Suicide Research* 12:TBD (in press).
- Lotrakul M (2006). Suicide in Thailand during the period 1998-2003. *Psychiatry and Clinical Neurosciences* 60:90-95.
- Maniam T (1995). Suicide and undetermined violent deaths in Malaysia, 1966-1990. Evidence for the misclassification of suicide statistics. *Asia Pacific Journal of Public Health* 8:181-185.
- Mathers CD, Lopez AD, Murray JL (2006). The burden of disease and mortality by condition: methods and results for 2001. In *Global Burden of Disease and Risk Factors*, Eds. Lopez AD, Mathers CD, Ezzati M, Jamison DT, Murray CJL. New York: The World Bank and Oxford University Press.
- Mathers CD (2005). Uncertainty and data availability for the global burden of disease estimates 2000-2002. *Evidence and Information for Policy Working Paper*. Geneva, World Health Organization. <http://www.who.int/evidence/bod>.
- Murray CJL, Lopez AD (1996a). *Global Health Statistics: a compendium of incidence, prevalence, and mortality statistics*. Cambridge, MA: Harvard University Press.

SUICIDE AND SUICIDE PREVENTION IN ASIA

- Murray CJL, Lopez AD (1996b). *Global Health Statistics: a comprehensive assessment of mortality and disability from diseases, injuries, and risk factors in 1990 and projected to 2020*. Cambridge, MA: Harvard University Press.
- Nam Y-Y (2007). Report on death certification in Korea 2000-2003 from Korean National Statistical Office. Email from Youn-Young Nam to Herbert Hendin, April 23, 2007.
- Phillips MR, Li X, Zhang Y (2002). Suicide rates in China, 1995-99. *Lancet* 359:835-840.
- Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat (2006). *World Population Prospects: The 2004 Revision and World Urbanization Prospects: The 2003 Revision*. New York: United Nations.
- Ruzicka LT (1998). Suicide in countries and areas of the ESCAP region. *Asia Pacific Population Journal* 13:55-74.
- Shin SD, Suh GJ, Rhee JE, Sung J, Kim, J (2004). Epidemiologic characteristics of death by poisoning in 1991-2001 in Korea. *Journal of Korean Medical Science* 19:186-194.
- Suk J (1992). Suicidal behaviour in Korea, in: Peng KL, Tseng W-S Eds. *Suicidal Behaviour in the Asia-Pacific Region*. Singapore: Singapore University Press:41-57.
- Ung EK (2003). Youth suicide and parasuicide in Singapore. *Annals of the Academy of Medicine Singapore* 32:12-18.
- Yip PSF (1996). Suicides in Hong Kong, Taiwan, and Beijing 1981-1994. *British Journal of Psychiatry* 169:495-500.
- Yip PSF, Lee, DTS (2007). Charcoal-burning suicides and strategies for prevention. *Crisis* 28: (Supplement 1)21-27.

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Table 1: Epidemiology of suicide in participating countries

Country	Population	Total rate (per 100,000)	Male rate (per 100,000)	Female rate (per 100,000)	Male: Female rate ratio	Age group(s) for whom rates highest	Area for which rates highest	Most common method(s)
AUSTRALIA	20.2 million	10.4 ^b	16.8 ^b	4.3 ^b	3.9:1.0 ^b	Young adults ^b	Rural ^b	<ul style="list-style-type: none"> • Hanging (48%)^b • Poisoning (30%)^b
CHINA	1.3 billion ^a	20.8 ^c ;23.2 ^d	20.7 ^d	25.9 ^d	0.8:1.0 ^d	Young adults ^d Older adults ^d	Rural ^d	<ul style="list-style-type: none"> • Poisoning (by pesticides) (62%)^e
CHINA, HONG KONG SAR	7.0 million ^a	15.3 ^f	20.1 ^f	10.9 ^f	1.8:1.0 ^f	Older adults ^f	Urban ^f	<ul style="list-style-type: none"> • Jumping (49%)^f • Poisoning (25%)^f
INDIA	1.1 billion ^a	17.38 ^c	18.0 ^c	15.0 ^c	1.2:1.0 ^c	Adults (30-59yrs) ^g	Rural ^h	<ul style="list-style-type: none"> • Poisoning (38%)^g • Hanging (29%)^g
JAPAN	128.0 million ^a	23.8 ⁱ	35.2 ⁱ	12.8 ⁱ	2.8:1.00 ⁱ	Adults (50-65+) ⁱ	Not available	<ul style="list-style-type: none"> • Hanging (60%)ⁱ
MALAYSIA	25.3 million ^a	13.1 ^j	Not Available	Not Available	Not Available	Young adults (20-30) ^j	Rural	Pesticides (% Not Available)
NEW ZEALAND	4.0 million ^a	12.8 ^k	20.3 ^k	5.8 ^k	3.5:1.0 ^k	Older adults (85+yrs) ^k Adults (20-29yrs) ^k	Urban ^k	<ul style="list-style-type: none"> • Hanging (48%)^k
PAKISTAN	157.9 million ^a	0.43;2.86 ^l	.61-5.2 ^l	0.23—1.77 ^l	2.2:1.0 ^l	Young adults ^l	Urban ^l	<ul style="list-style-type: none"> • Hanging (37%)^l • Poisoning (29%)^l
REPUBLIC OF KOREA (THE)	47.8 million ^a	26.1 ^m	34.9 ^m	17.3 ^m	2.0:1.0 ^m	Older adults ^m	Rural ^m	<ul style="list-style-type: none"> • Poisoning (45%)^m • Hanging (26%)^m
SINGAPORE	4.3 million ^a	9.9 ⁿ	11.9 ⁿ	8.0 ⁿ	1.5:1.0 ⁿ	Older adults ⁿ	Urban ⁿ	<ul style="list-style-type: none"> • Jumping (70%)ⁿ
SRI LANKA	20.7 million ^a	23.9 ^o	18.8 ^o	5.1 ^o	3.7:1.0 ^o	Young adults (25-44) ^p Older adults (60+) ^p	Rural ^o	<ul style="list-style-type: none"> • Poisoning (by pesticides) 40-80%^o
THAILAND	64.2 million ^a	(7.3) ^q	11.0 ^q	3.3 ^q	3.3:1.0 ^q	Young adults (25-29) ^q	Not available	<ul style="list-style-type: none"> • Hanging (55%)^q
VIET NAM	84.2 million ^a	NA	NA	NA	Not available	Not available	Not available	Not available

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- a. 2005 population estimates: Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat (2006), World Population Prospects: The 2004 Revision and World Urbanization Prospects: The 2003 Revision. New York: United Nations
- b. 2004 suicide estimates: Australian Bureau of Statistics (2006), Suicides, Australia (Catalogue No. 3309.0), Canberra: Australian Bureau of Statistics
- c. 2002 suicide estimates: World Health Organization (2007), http://www.who.int/mental_health/prevention/suicide/suiciderates/en/
- d. 1995-1999 suicide estimates: Phillips MR, Li X, Zhang Y. (2002a), Suicide rates in China, 1995-99. Lancet 359: 5835-5840
- e. 1998-2000 suicide estimates: Phillips MR et al. (2002b), Risk factors for suicide in China: A national case-control psychological autopsy study. Lancet 360:1728-1736
- f. 2004 suicide estimates: Hong Kong Census and Statistics Department
- g. 2003 suicide estimates: National Crime Research Bureau (2003), Accidental Deaths and Suicides in India, New Delhi: Ministry of Home Affairs, Government of India
- h. 1994-1999 suicide estimates: Joseph A et al. (2003)
- i. 2002 suicide estimates: Ministry of Health, Labour and Welfare (2004), The Vital Statistics, Tokyo: Ministry of Health, Labour and Welfare
- j. 2000 suicide estimates: No national figures available since 2000 and no age group figures since 1990.
- k. 2004 suicide estimates: Ministry of Health (2006), Suicide Facts: 2004-2005 Data, Wellington: Ministry of Health
- l. 1991-2006 suicide estimates (Khan et al., 2007)
- m. 2005 suicide estimates: Korean Statistical Information System (2006), Korea National Statistical Office
- n. 2004 suicide estimates: Data collected from Coroner's Court Suicide Case Files
- o. 2003 suicide estimates: National Police Department statistics
- p. 1950-1996 suicide estimates: WHO 2006
- q. 2003 suicide estimates: Ministry of Public Health. Lotrakul (2006)

CHAPTER 2

Socio-economic, Cultural and Religious Factors Affecting Suicide Prevention in Asia

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Abstract

A range of socio-economic, cultural, and religious factors influence patterns of and responses to suicide in the Asian countries involved in the Strategies to Prevent Suicide (STOPS) project. As a general rule, suicide rates are highest among relatively more prosperous countries, particularly those which have developed rapidly. Within these countries, suicide rates are highest for sub-groups that have remained socio-economically disadvantaged. Economic development has seen movement from rural villages to urban centres, and this has been associated with a heightened risk of suicide among those remaining in rural settings, perhaps because of economic hardship, lack of social support, isolation and access to lethal means like pesticides. Cultural factors also play a role in shaping the profile of suicides in participating countries. For example, cultural attitudes towards the woman's role in marriage have been implicated in the comparatively high ratio of female to male suicides seen in several participating countries. The easy availability of pesticides resulting in death in cases that might otherwise have been non-fatal also plays a role. Religion – or the absence of religious belief – also exerts an influence on the pattern of suicides: it may be protective in circumstances where a given faith expressly forbids suicide or it may be permissive of suicide. Religious, legal, and cultural factors also affect the willingness to report a death as a suicide and contribute to the under-reporting and misclassification of suicides which, as we have seen in Chapter 1, are significant in a number of the participating countries. Taken together, these social factors may be more salient as risk and protective factors for suicide than they are in Europe or the United States of America.

Socio-economic, cultural, and religious characteristics of the countries participating in the Strategies to Prevent Suicide (STOPS) project appear to play a role in the epidemiological profile of suicide described in Chapter 1. In some cases, these factors may have a direct influence on rates of completed and attempted suicide (e.g., when a country's religion forbids suicide). In other cases, they may have an indirect influence in that they contribute to the degree to which people acknowledge their own suicidal behaviour and/or that of individuals in their families, and

consequently affect the accuracy of official suicide statistics. The current chapter outlines the key socio-economic, cultural and religious factors identified by the STOPS project.

Economic factors

Economic prosperity varies across participating countries, according to the Human Development Index (HDI), which is a composite index that factors in life expectancy, literacy, education levels, and standard of living (United Nations Development Programme, 2006). As Table 1 shows, around half of the participating countries score well on the HDI (ranked 63rd or better among 177 ranked countries), indicating that they have a strong economic base; the remainder fall into the medium range (ranked between 64th and 146th). Among the STOPS countries Australia is ranked highest (3rd) and Pakistan the lowest (134th). All of the participating countries have experienced relatively rapid economic growth over the past 30 years; the HDI for several of the countries, e.g. Pakistan, India, and China, increased by almost 50% between 1975 and 2004.

There is substantial variability in the within-country levels of prosperity, as evidenced by the Gini Index, an index used to measure income inequality, with a value of 0 representing perfect equality and a value of 100 representing complete inequality. Scores on the Gini Index range from 24.4 in Japan to 49.2 in Malaysia (see Table 1). High levels of inequality can occur in both rich and poor countries; so even in countries with rapid economic growth there are still many people facing severe economic hardship (United Nations Development Programme, 2006).

Suicide rates are higher in Asian countries that have achieved a high HDI quite rapidly (China, Hong Kong Special Administrative Region; Japan; and the Republic of Korea) than in those that experienced more gradual development (Australia, New Zealand and Singapore). For instance, the suicide rate of the Republic of Korea increased between 1990 and 2004 by 250% for the general population and by over 400% for those over 70. Sri Lanka would seem to be the exception since it has had one of the highest suicide rates in Asia for forty years but is only in the mid-range on the HDI. The social and political turmoil in the country has been considered a determining factor since extremely high rates are found in the northeast which is the most unstable part of the country. The 700 percent rise in the suicide rate since 1960, however, has almost entirely involved an increase in the use and availability of

pesticides as a result of a revolution in agriculture during this period (Eddleston et al., 2004).

Within highly developed countries the highest suicide rates are found among those who have not been able to take advantage of the rapid development. Higher expectations accompanying economic prosperity may play a role here. Suicides in these countries are more likely to occur among individuals experiencing poverty, unemployment and/or debts (Collings, 2004; Gururaj et al., 2004; Kim et al., 2006; Zhang et al., 2004). Other groups who seem to be at particular risk include young people who have migrated to the cities but have had problems in establishing themselves and older people in rural areas who have been left behind in increasingly difficult economic circumstances without the support of their children who have left for city life. Inability to afford health care, even if it is available, is likely to be a significant factor.

Rurality/urbanity

Participating countries vary in their degree of urbanization, from 100% in Hong Kong SAR and Singapore to 21% in Sri Lanka. The proportion of the total population living in urban areas is increasing rapidly in countries with the fastest economic growth, as people move from rural villages to metropolitan towns and cities to seek educational and employment opportunities (Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, 2006).

Rurality seems to be a risk factor for suicide in developing Asian countries with large rural populations. In China the suicide rates are three times higher in the rural areas than they are in urban areas (Cao et al., 2000; Phillips et al., 2002a;). In Sri Lanka, the average suicide rate in rural farming areas is more than twice that of Colombo, the commercial capital of the country (De Silva and Jayasinghe, 2003). In India, the suicide rate in rural areas is also three times higher than the overall national rate (National Crime Records Bureau, 2000; Joseph et al., 2003; Gajalakshmie et al., 2007).

Those who have studied the problem suggest that this may relate to the difficulties associated with making a living in rural areas, particularly in the face of stressors like drought, fire, and flood. They provide evidence from studies of particular occupational groups, noting particularly high rates of suicide among agricultural and fishery workers in countries like India (Sundar, 1999). Problems facing rural workers

may be exacerbated by a lack of services in rural areas. As noted above, the movement from rural to urban areas may also mean that those left behind, especially older people, are particularly vulnerable because of poverty, loneliness, and lack of family support. They also have greater access to more lethal means of suicide (e.g., pesticides) with the result that many impulsive, low-intent suicide ‘attempts’ become fatal because of the lethality of the method and the lack of high-quality resuscitation services (Eddleston and Phillips, 2004).

Cultural factors

With the exception of Australia and New Zealand, which share similarities with European countries and the United States of America, participating Asian countries have traditionally been characterized by the dominance of extended family systems, dependence on the family, and the fact that family loyalty overrides individual concerns.

These factors may help to explain some of the patterns of suicide that are characteristic of participating countries. In countries that have developed rapidly, the role of the family seems to be changing. Being married, for example, appears to be less protective against suicide in developing Asian countries than it is in Europe and the United States of America, with studies in China and India finding that single individuals are no more vulnerable to suicide than their married counterparts (Phillips et al., 2002b; Rao, 1991).

Cultural attitudes toward the woman’s role in marriage may also partially explain the comparatively higher ratio of female to male suicides found in Asian countries as compared to Europe and the United States of America (see Chapter 1). In countries like India, Pakistan, and Sri Lanka where arranged marriages are common, the social and familial pressure on a woman to stay married even in abusive relationships appears to be one of the factors that increases the risk of suicide in women (Gururaj et al., 2004). Dowries, which involve a continuing series of gifts before and after marriage, complicate the problem. When dowry expectations are not met, young brides can be harassed to the point where they are driven to suicide (Kumar, 2004). In some cases young couples prevented from marrying by family opposition, who face the unresolvable conflict of either living apart or severing ties with their families, choose suicide—either together or alone (Vijayakumar and Thilothammal, 1993).

SOCIO-ECONOMIC, CULTURAL AND RELIGIOUS FACTORS

In China the suicide rate for women is higher than that for men. This is the result of the high suicide rate for women in rural China where over three quarters of suicides in China take place. The high suicide rate of women in rural China has been attributed to the situation of women in the traditional patriarchal structure of Chinese society which causes the woman's social and economic status to be problematic in and out of marriage (Lee et al., 2000). In a study of women treated in hospital emergency rooms after a suicide attempt, over 40 percent were young rural women 15-34 years of age. An unhappy marriage (over 60%), financial problems (over 40%), and having been beaten by a spouse (almost 40%) were the most frequently cited stressful events they had experienced (Pearson et al., 2002). The situation may be exacerbated by the polarization of rural and urban areas due to different rates of economic development (Pearson et al., 1995).

Another explanation for the high rate of completed suicide in rural Chinese women is that the ready access to highly lethal pesticides results in an increased fatality of impulsive, low-intent suicidal behaviour. In China, as in most countries, suicide attempts in women are much more frequent than in men (2.5:1), so as the proportion of 'attempts' that become fatal increases so, too, does the relative proportion of suicides among females (Yang et al., 2005; Conner et al., 2005).

The pressure to do well on exams and the shame associated with failure have been cited as the cause for suicide among young people in countries like Sri Lanka, India, China, Japan and Malaysia. There is considerable concern about suicide among this group in these countries, even though Sri Lanka is the only one of them with a notably high youth suicide rate. Researchers have noted that there is heavy competition for college/university places, and considerable media hype associated with final school exam results. As a result, the shame associated with failure has been felt to have pushed distressed adolescents to attempt and complete suicide (Vijayakumar et al., 2005).

There are strong cultural prohibitions regarding suicide in many of the Asian countries. In some countries, (e.g., India, Malaysia, and Pakistan) there are also legal sanctions; attempted and completed suicide are regarded as crimes. These actions can consequently bring much shame and stigma to families. Funeral rites may be denied or conducted differently, and relatives of the person who died by suicide may have trouble finding a marriageable partner. Religion in these countries (discussed below) is a significant factor in determining these attitudes. These prohibitions make it

extremely difficult to get accurate estimates of completed and attempted suicides in these countries.

Suicide is nevertheless accepted in certain circumstances. In China, for example, it is treated sympathetically if it is done for the family, the community or the country, in response to a chronic physical illness, or to redeem oneself from disgrace. Similarly, in Japan, suicide practiced out of loyalty or to restore injured honour (harakiri) is respected and may even be glorified. Suicide has also been used in India and other Asian countries as a means of social protest over political, economic or cultural issues, particularly by those who are marginalized and powerless and who have no other means of protesting. However, such 'acceptable' suicides usually account for only a small minority of all suicides; in most Asian countries community members condemn suicide and consider the majority of suicides the result of personal weakness. If the family is felt to have contributed to the suicide they may be blamed, and may therefore be inclined to conceal the suicide whenever possible. For example, there are anecdotal reports in India (where suicide is both culturally stigmatized and illegal) of enticements given by families to the police not to report an attempted suicide and to report a suicide death as due to some other cause. Mental health professionals believe these attitudes contribute to a reluctance to seek help on the part of many who are suicidal or by families struggling with the loss of a loved one.

Religion

The major religions practised in participating countries are Islam, Hinduism, Buddhism and Christianity, and additional religions include Taoism, Sikhism, Jainism and Shintoism (see Table 1). Religion may be protective against suicide, both at the individual and societal level, and this effect may be mediated by the degree to which a given religion sanctions suicide (Vijayakumar, 2002). This suggestion is consistent with ecological studies that have observed suicide rates to be high in countries where religious beliefs are not actively promoted by the state, and to be low in countries where they are (Neeleman and Lewis, 1999). It also coincides with individual-level studies which have found variables such as lack of religious conviction to be a risk factor for suicide (Gururaj et al., 2004).

Islam provides clear rulings against suicide. The Koran strictly prohibits suicide, maintaining that it is an unforgivable sin. Islam also forbids the use of alcohol, which is a known risk factor for suicide. In Pakistan, where the vast majority of the

population (over 95%) are Moslem, hospital and police statistics suggest that the suicide rate is very low (although national suicide statistics are not kept). In Malaysia, which also has a predominantly Moslem population (around 60%), the overall suicide rate is low and is higher among Buddhists, Christians and Hindus than among the majority Moslems. Religious (and legal) imperatives in countries like Malaysia may lead to some under-reporting, but Moslems living in non-Moslem countries such as Thailand also have lower suicide rates than the Buddhist population (which itself has a low rate), suggesting that the effect is not just an artifact of the degree to which countries acknowledge suicides in their formal statistics.

Hinduism is less clear about suicide. In general, it strongly condemns suicide, but suicides committed in the name of religion or for religious purposes have been tolerated and even accepted. Patterns of suicide as they relate to the Hindu religion are unclear. The reported suicide rate in India, which is predominantly Hindu, is relatively low at 10.8 per 100,000 although, as noted in Chapter 1, there is evidence that the actual rate is considerably higher. Hindus in Malaysia have higher rates than other religious groups (Maniam, 2003), but this may be related to their marginal social and economic status in the country.

Buddhism extols the value of human life, for birth as a human being is the culmination of the individual's efforts through many previous cycles of birth, and a step on the way to ultimate enlightenment. Suicide is therefore seen as an empty act, which will lead to unpleasant consequences such as the loss of a child in the next rebirth. Predominantly Buddhist countries, however, have relatively high suicide rates. For example, the rates in Japan, the Republic of Korea and Sri Lanka are 25.3, 26.1 and 23.9 per 100,000, respectively (see Chapter 1). The exception is Thailand, where the rate is 6.3 per 100,000, and where taking one's own life is believed to lead to condemnation to hell for 500 lifetimes.

Christianity forbids suicide, viewing it as an act which is contrary to God's plan for each individual's life. However, there are a number of examples of suicide in the Bible, and Christian teachings do not explicitly preclude a person who dies by suicide from entering Heaven, providing he or she has faith in God. Both Australia and New Zealand are predominantly Christian, although neither country has a state religion and many people who list themselves as Christian are not 'practising'. Suicide rates in these countries fall in the lower to middle range among participating countries (see Chapter 1).

Summary and conclusion

Suicide in Asia is a significant and complex phenomenon. The epidemiological profile of suicide in Asian countries differs from the typical profile reported in the scientific literature, because the latter has generally been gleaned from studies conducted in European countries and the United States of America. This may be explained, at least in part, by the complex web of socio-economic, cultural and religious factors in Asian countries. Suicide prevention activities in these countries clearly need to take these contextual issues into account.

References

- Cao W, Wu, T, An T, Li L (2000). Study on the mortality of injury in Chinese population in urban and rural areas from 1990 to 1997. *Zhonghua Liu Xing Bing Xue Za Zhi* 21:327-329.
- Collings SCD (2005). *Suicide Trends and Social Factors - New Zealand from 1981 to 1999: Analyzes from the New Zealand Census-Mortality Study*. Wellington: University of Otago.
- Conner KR, Phillips MR, Meldrum S, Knox K, Zhang Y, Yang G (2005). Low-planned suicides in China. *Psychological Medicine* 35:1197-204.
- De Silva D, Jayasinghe S (2003). *Suicide in Sri Lanka*. In *Suicide Prevention: Meeting the Challenge Together*. Ed. L Vijayakumar, Chennai, India: Orient Longman.
- Eddleston M, Phillips MR (2004). Self poisoning with pesticides. *British Medical Journal* 328:42-44.
- Gajalakshmi V, Peto R (2007). Suicide Rates in Tamil Nadu, South India : Verbal autopsy of 39,000 deaths in 1997-98. *International Journal of Epidemiology*. 36:203-207.
- Gururaj G, Isaac G, Isaac MK, Subbakrishna DK, Ranjani R (2004). Risk factors for completed suicide: A case-control study from Bangalore, India. *International Journal of Injury Control and Safety Promotion* 11:183-191.
- 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.
- Kim MD, Hong SC, Lee SY, Lee CI, Kwak YS, Lee CI, Hwang SW, Shin TY, Lee SM, Shin JM (2006). Suicide risk in relation to social class: A national

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- register-based study of adult suicides in Korea, 1999-2001. *International Journal of Social Psychiatry* 52:138-151.
- Kumar V (2004). Poisoning deaths in married women. *Journal of Clinical Forensic Medicine* 11:2-5.
- Lee S, Kleinman A (2000). Suicide as resistance in Chinese society. In EJ Perry & M Seiden Eds., *Chinese Society: Change, Conflict, and Resistance*, (pp.240-241). London: Rutledge.
- Maniam T (2003). Why do Malaysian Indians have higher suicide rates? In *Suicide Prevention: Meeting the Challenge Together*. Ed. Vijayakumar L, Chennai, India: Orient Longman.
- National Crime Records Bureau (2000). *Accidental Deaths and Suicide in India*. Government of India.
- Neeleman J, Lewis G (1999). Suicide, religion and socio-economic conditions: An ecological study in 26 countries, 1990. *Journal of Epidemiology and Community Health* 53:204-210.
- Pearson V (1995). Goods on which one loses: Women and Mental health in China. *Social Science and Medicine* 41:1159-1173.
- Pearson V, Liu M (2002). Ling's death. An ethnography of a Chinese woman's suicide. *Suicide and Life-Threatening Behavior*. 32:347-348.
- 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.
- Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat (2006). *World Population Prospects: The 2004 Revision and World Urbanization Prospects: The 2003 Revision*. New York: United Nations.
- Rao AV (1991). Suicide in the elderly: A report from India. *Crisis* 12:33-39.
- Sundar M (1999). Suicide in farmers in India. *British Journal of Psychiatry* 175:585-586.
- United Nations Development Programme (2006). *Human Development Report 2006*. New York: United Nations Development Programme.
- Vijayakumar L (2002). Religion: A protective factor in suicide. *Suicidologi* 2:9-12.

SUICIDE AND SUICIDE PREVENTION IN ASIA

- Vijayakumar L, Pirkis J, Whiteford H (2005). Suicide in developing countries (3): Prevention initiatives. *Crisis* 26:120-124.
- Vijayakumar L, Thilothammal N (1993). Suicide pacts in India. *Crisis* 14:43-46.
- Yang GH, Phillips MR, Zhou MG, Wang LJ, Zhang YP, Xu D (2005). Understanding the unique characteristics of suicide in China: national psychological autopsy study. *Biomedical and Environmental Sciences (China CDC)* 18:379-389.
- Zhang J, Conwell Y, Zhou L, Jiang C (2004). Culture, risk factors and suicide in rural China: A psychological autopsy case control study. *Acta Psychiatrica Scandinavica*. 110:430-437.

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Table 2: Socio-economic, cultural and religious profiles of participating countries

Country	Total ^a	% Urban ^a	% Rural ^a	Human Development Index (HDI) (and rank) ^b	Gini Index ^c	Gender-related Development Index (GDI) (and difference between HDI and GDI rank) ^d	Major religions
AUSTRALIA	20.2 million	92.7	7.3	0.957 (3 rd)	35.2	0.956 (0)	Christianity
CHINA	1.3 billion	40.5	59.5	0.768 (81 st)	44.7	0.765 (+2)	Atheism, Buddhism, Christianity, Islam, Taoism
CHINA, HONG KONG SAR	7.0 million	100.0	0.0	0.927 (22 nd)	43.4	Not available	Buddhism, Taoism
INDIA	1.1 billion	28.7	71.3	0.611 (126 th)	32.5	0.591 (0)	Hinduism, Islam, Christianity, Sikhism, Buddhism, Jainism
JAPAN	128.0 million	65.7	34.3	0.949 (7 th)	24.9	0.942 (-5)	Shintoism, Buddhism
MALAYSIA	25.3 million	65.1	34.9	0.805 (61 st)	49.2	0.795 (0)	Islam, Buddhism, Taoism, Hinduism, Christianity, Sikhism
NEW ZEALAND	4.0 million	86.0	14.0	0.936 (20 th)	36.2	0.932 (0)	Christianity
PAKISTAN	157.9 million	34.8	65.2	0.539 (134 th)	30.6	0.513 (-4)	Islam
REPUBLIC OF KOREA (THE)	47.8 million	80.8	19.2	0.912 (26 th)	31.6	0.905 (-1)	Buddhism, Christianity
SINGAPORE	4.3 million	100.0	0.0	0.916 (25 th)	42.5	Not available	Taoism, Buddhism, Islam, Christianity
SRI LANKA	20.7 million	21.0	79.0	0.755 (93 rd)	33.2	0.749 (+4)	Buddhism, Hinduism, Islam, Christianity
THAILAND	64.2 million	32.5	67.5	0.784 (74 th)	42.0	0.781 (+2)	Buddhism
VIET NAM	84.2 million	26.7	73.3	0.709 (109 th)	37.0	0.708 (+2)	Buddhism

- a. 2005 population estimates taken from Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat (2006).
- b. The Human Development Index (HDI) provides a composite measure of three dimensions of human development: living a long and healthy life (measured by life expectancy), being educated (measured by adult literacy and educational enrollment at the primary, secondary and tertiary level) and having a decent standard of living (measured by purchasing power parity income). 2004 figures taken from United Nations Development Programme (2006). Rankings ascend from most developed to least developed.
- c. The Gini index measures income inequality, with a value of 0 representing perfect equality and a value of 100 representing perfect inequality. Figures calculated from surveys conducted between 1993-2003, reported in United Nations Development Programme (2006).
- d. The Gender-related Development Index (GDI) adjusts the average achievement measured by the HDI to reflect inequalities between men and women. 2004 figures taken from United Nations Development Programme (2006). HDI ranks used in the calculation of HDI-GDI differences recalculated for countries with a GDI value. Positive differences indicate relatively low levels of inequality; negative differences indicate high levels of inequality.

CHAPTER 3

Creating Public Awareness in Asia of Depression as Treatable and Suicide as Preventable

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Abstract

Improving public understanding of depression and suicide may help reduce stigma and increase help-seeking. Most of the Asian countries participating in the Strategies to Prevent Suicide (STOPS) project have undertaken public education campaigns to create awareness of depression as treatable and suicide as preventable. These have varied in scope: some are national, large-scale and multi-faceted, and others are more local, targeted, and single-dimensional. Evaluating these community-based programmes can be difficult for a number of reasons, but every effort should be made to demonstrate their effectiveness by showing that they increase knowledge about depression and, more importantly, increase help-seeking by persons who are depressed or at high risk of suicide.

Suicide and depression are serious, inter-related public health problems, accounting for a significant proportion of the overall global burden of disease (Lopez et al., 2006). The World Health Organization (WHO) estimates that by 2020 depression will be the most important single cause of disability in both the developed and the developing world. Globally, the majority of persons with depression and other mental disorders related to suicide do not receive treatment, so this health burden and disability could be substantially reduced if more people with depression and related disorders received adequate treatment and other interventions aimed at reducing the risk of suicide.

Failure to receive treatment can be caused by a variety of factors. In some instances appropriate treatments are unavailable and/or primary care physicians and other professionals are ill-equipped to provide care (see Chapter 8). In other cases, a lack of public understanding of depression and suicide or the stigma associated with psychological problems prevents at-risk individuals from seeking needed care.

For this reason, many countries have put in place activities aimed at educating the public about suicide and depression, that is, improving their 'mental health literacy' (Jorm et al., 1997). The current chapter describes the efforts of the countries involved in the Strategies to Prevent Suicide (STOPS) project in this regard.

Public education activities in Asian countries

With the exception of India and Viet Nam, all of the Asian countries involved in the STOPS project are undertaking depression and suicide awareness-raising activities. Most are being conducted by government health departments, supplemented by non-governmental organizations, although in Pakistan and Sri Lanka the initiatives are conducted entirely by nongovernmental organizations. A few are large-scale, multi-faceted national programmes while others are local programmes that tend to involve more targeted, single-dimensional approaches.

Japan provides a model of a multi-faceted programme and is the only one of its kind to have demonstrable measures to evaluate its success. Japan's Ministry of Health, Labour and Welfare in cooperation with Akita University introduced a community-based public health suicide prevention programme. The project targeted six towns in Akita, a prefecture with the highest suicide rate in the country, and used six other towns in the prefecture as a control group. In addition to raising public awareness, the project provided specialist training in suicide prevention, screening for depression, counselling for those who needed it, and communal activities for senior citizens to decrease isolation. The project was able to demonstrate significant reduction of suicide in the targeted towns (Motohashi et al., 2007). This success has encouraged the government to fund comparable projects in other prefectures with high suicide rates.

In Australia, general mental health public education has occurred via beyondblue, an independent group that receives funding from the government, some state and territory governments, and private sources. It has reached the public in a national public awareness campaign run in cinemas and on television, commentaries about depression in print and broadcast media, pamphlets, posters and a website. It has used innovative methods including supporting a play about the psychiatrist who discovered the value of lithium for treating bipolar disorder. Beyondblue has also undertaken community-based forums and projects aimed to decrease the stigma associated with depression and anxiety and raise awareness of depression among particular groups (Pirkis et al., 2005).

The Republic of Korea has undertaken national public awareness programmes sponsored by the Ministry of Health and Welfare, and the Korean Association for Suicide Prevention. Supported by private companies, these initiatives have included: 1) community service announcements aired on television and radio and displayed in subways; 2) an educational programme on depression and suicide prevention which was televised, placed on the internet and distributed in CD form; 3) wide distribution of

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leaflets, pamphlets, stickers and posters; 4) a Depression Screening Day during which detection and counselling services and seminars on depression were made available to the community; and 5) community activities during World Suicide Prevention Day, held each year on September 10th.

Researchers in New Zealand have conducted a literature review of depression awareness campaigns and, based on this review, developed and obtained funding for a national suicide prevention strategy. A national depression awareness campaign will be a core component of a project known as the Public Health Depression Initiative that will include a mass media campaign, written resources, a free telephone service, website content, guidelines for suicide prevention in special groups (prison officers, social workers, school staff, and mental health staff), training of community organizations, and a Maori-specific community action project.

In China, Hong Kong Special Administrative Region (Hong Kong SAR), various nongovernmental organizations run programmes aimed at increasing public awareness of depression and encouraging help-seeking. Castle Peak Hospital ran a three-year 'Defeat Depression' campaign in its catchment area, which involved educational talks for the public and medical professionals, exhibitions, radio programmes, media productions and pamphlets. Nongovernmental organizations have run campaigns with similar aims targeting the general community and school students. The Hong Kong Jockey Club Centre for Suicide Research and Prevention currently hosts a website known as 'The Little Prince is Depressed', which is designed to educate the community in general and young people in particular about depression and its treatment, with a view to reducing the stigma surrounding the condition and increasing the likelihood that those who need help will seek it. The website (www.depression.edu.hk) has received the Silver Innovation Award of the *Wall Street Journal Asia* in 2005 and was selected to be among ten websites to receive merit awards in 2004 and 2006 from the Hong Kong Television and Entertainment Licensing Authority for its contribution to the Hong Kong SAR community.

In China, the Ministry of Health, the Ministry of Civil Affairs, the Ministry of Public Safety and the Association for the Disabled issued the 'National Plan for Mental Health Development from 2002 to 2010', which called for national action to increase public awareness of depression. In line with this, mass media attention has been drawn to depression and suicide, with a number of programmes on major television stations. Related activities have been organized by various academic centres, including awareness-

raising initiatives designed to coincide with World Mental Health Day and World Suicide Prevention Day.

In Singapore, raising public awareness of depression and its association with suicide has taken various forms. The Institute of Mental Health has conducted studies about the prevalence of depression which have helped raise awareness of the fact that it is a common mental disorder and provided the impetus for public education activities co-ordinated by the Ministry of Health and the Health Promotion Board. Community education programmes designed to raise awareness and encourage help-seeking include distributing pamphlets, arranging public lectures/forums, organizing hotline and email services, and supporting television announcements and documentaries. There are also professional educational activities aimed at updating physicians' knowledge of depression via face-to-face sessions and the distribution of booklets. A recent international conference on suicide in Singapore also helped to raise awareness and encourage discussion about the problems of suicide and depression.

Other countries' efforts have been less comprehensive, but have utilized many of the approaches described above. In Malaysia, for example, the Ministry of Health, the Befrienders, and the Malaysian Psychiatric Association have attempted to improve community understanding of depression via posters, radio and television broadcasts, and public forums. In Sri Lanka, nongovernmental organizations such as Sumithrayo, Befrienders International and Christian churches have distributed brochures and pamphlets and developed a website with information for those who need help. In Thailand, the Ministry of Public Health has sponsored a radio programme, published a book about depression and suicide prevention, and supported events held on World Suicide Prevention Day. The Pakistan Association of Mental Health and Aga Khan University have also conducted public awareness programmes, disseminating relevant messages through print and broadcast media. In 2006, on World Suicide Prevention Day (September 10th) and World Mental Health Day (October 10th), the Indian Psychiatric Society conducted awareness programmes dealing with mental illness and suicide. Psychiatrists and other mental health professional in states around the country participated in radio and TV programmes and gave interviews to the print media.

Research and evaluation

Public education efforts are difficult to evaluate, and as a consequence, with the exception of Japan, the initiatives described above have not been properly evaluated.

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Where efforts at evaluation have been made, they have relied on assessments of changes in attitudes and knowledge among a random selection of community members before and after the campaign. This is the approach taken in the Republic of Korea, for example, which has evaluated its national programmes by conducting annual random surveys to monitor the general population's views on depression and suicide since 2004. It is also the approach taken in Hong Kong SAR, where population-based pre- and post-surveys were administered to assess the effectiveness of both the 'Defeat Depression' campaign and the 'Little Prince is Depressed' project. This method provides some insights into whether public attitudes and knowledge are changing, but it does not correlate individuals' exposure to the programme with their changes in knowledge and attitudes and, more importantly, it does not include assessment of changes in care-seeking behaviour so it is impossible to determine if the public education campaign actually increases knowledge, changes attitudes, or enhances care-seeking in those who most need it.

Stronger evaluation procedures tend to try to overcome this problem by monitoring changes in attitudes and knowledge over the period of the given public education campaign in a control community as well as in the intervention community. This is difficult in circumstances where the public education campaign is national and therefore the entire population is potentially exposed to the campaign, but is sometimes possible where campaigns are more localized. In Australia, a detailed evaluation of beyondblue was conducted which drew on a number of data sources (Pirkis et al., 2005), one of which was a population-based survey of mental health literacy conducted in a number of Australian states and territories. The survey found that mental health literacy had improved during the life of beyondblue, and that improvements were significantly greater in those states and territories that had had greater exposure to beyondblue's messages (Jorm et al., 2005; Jorm et al., 2006).

This stronger evaluation procedure, however, also has limitations in common with the others described. They are all essentially ecological studies which involve comparing two groups on the basis of a particular outcome variable (e.g., level of awareness about depression and suicide). The groups are differentiated in terms of their level of exposure to the given public education campaign on the basis of their location, but all of the members of the intervention group are assumed to have been exposed and all of the members of the control group are assumed to have been unexposed (or to have received lesser exposure). Although these evaluations can point to an association between the campaign and improvements in attitudes and knowledge, they cannot permit definitive conclusions to be

drawn about the causal nature of the association. Erroneously drawing conclusions about individual-level improvements in knowledge of attitudes based on the results of such ecological studies is known as the 'ecological fallacy' (Selvin, 1958; Yip et al., 2006).

To some extent, this problem can be overcome in evaluations which carefully examine individuals' levels of exposure to the given public education campaign, or, better still, to specific elements of it. By combining this individual-level data on exposure with individual-level data on changes in attitudes and knowledge, it is possible to draw firmer conclusions about causal linkages. The proposed evaluation of the New Zealand Public Health Depression Initiative involves an assessment of individual respondents' change in attitudes and knowledge (e.g., retention of key messages about depression and suicide) as well as their exposure to various components of the campaign (e.g., community awareness of written resources). The challenge will be combining these data in a manner that allows the findings to be interpreted in the most informative manner. Both the Australian and the New Zealand evaluation have a further limitation. Neither can ascertain whether or not the improved mental health literacy they observed actually resulted in any change in the willingness to seek help by those who need it.

Limitations

Most of the Asian countries involved in the STOPS project are undertaking some form of public education designed to raise community levels of mental health literacy. The activities vary in scope. Some well-resourced countries with manageable populations are undertaking impressive national programmes. Others, which are less affluent, are conducting more localized efforts. It would not be realistic to expect countries lacking the resources of Australia, China, Hong Kong SAR, Japan; and the Republic of Korea or with populations the size of China and India to undertake sustained, comprehensive national campaigns. An equally important limitation has to do with the country's ability to provide help to those who are stimulated by the public awareness campaign to seek it.

The experience from European countries suggests that improving public awareness about depression and suicide needs to be accompanied by adequate training of physicians and other professionals in the recognition and treatment of suicidal behaviour. This makes good sense; increasing public awareness of depression as treatable and suicide as preventable is only viable if appropriate treatment and prevention services are available. (Hegerl et al., 2006).

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Many of the Asian countries involved in the STOPS project have recognized that public awareness-raising campaigns cannot occur in isolation. The Australian and Japanese programmes involve a consumer and carer participation element, a prevention and early intervention component, a primary care component, and a targeted research component. Countries that are less advanced in their public education activities should consider how best to align them with a broader, strategic approach to suicide prevention.

Summary and conclusions

Creating awareness of depression as treatable and suicide as preventable would appear to have much potential as a suicide prevention strategy in Asian countries, particularly if education campaigns are conducted as an integrated part of a broader suicide prevention programme. It is important that any institution initiating such a campaign be prepared to handle the potential increase in demand after those campaigns. The majority of the Asian countries participating in the STOPS project have put in place public education campaigns of some sort, although these have varied in scope, involving a range of elements and a variety of different media. But in most cases in Asia, as in Europe and the United States of America, the evaluation component of the programmes is relatively weak. To date there is little evidence to show that such programmes actually increase care-seeking in persons with depression or those who are at high-risk for suicide – the final goal of these programmes – so rigorous evaluations of their ability to do so need to be conducted to justify the substantial investment of resources required to initiate and sustain public education campaigns.

References

- 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.
- Jorm AF, Christensen H, Griffiths KM (2005). The impact of beyondblue: the national depression initiative on the Australian public's recognition of depression and beliefs about treatment. *Australian and New Zealand Journal of Psychiatry* 39:248-254.
- Jorm AF, Christensen H, Griffiths KM (2006). Changes in depression awareness and attitudes in Australia: The impact of beyondblue: the national depression initiative. *Australian and New Zealand Journal of Psychiatry* 40:42-46.

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- Jorm AF, Korten AE, Jacomb PA, Christensen H, Rodgers B, Pollitt P (1997). 'Mental health literacy': A survey of the public's ability to recognise mental disorders and their beliefs about the effectiveness of treatment. *Medical Journal of Australia* 166:182-186.
- Lopez AD, Mathers CD, Ezzati M, Jamison DT, Murray CJL (2006). *Global Burden of Disease and Risk Factors*. Washington, D. C.: Oxford University Press and The World Bank.
- Motohashi Y, Kaneko Y, Sasaki H, Yamaji M (2007). A decrease in suicide rates in Japanese rural towns after community-based intervention by the public health promotion approach. *Suicide and Life-Threatening Behavior*. 37:593-599.
- Pirkis J, Hickie I, Young L, Burns J, Highet N, Davenport T (2005). An evaluation of beyondblue, Australia's national depression initiative. *International Journal of Mental Health Promotion* 7:35-53.
- Selvin HC (1958). Durkheim's 'Suicide' and the problems of empirical research. *American Journal of Sociology* 63:607-619.
- Yip PS, Liu KY (2006). The ecological fallacy and the gender ratio of suicide in China. *British Journal of Psychiatry* 189:465-466.

CHAPTER 4

Improving Portrayal of Suicide in the Media in Asia

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Abstract

Media portrayal of suicide has been associated with copycat suicidal acts, particularly if the reported suicide is glorified or sensationalized, or the method is explicitly described. In addition, the media can be a source of misinformation about suicide, often simplistically giving the impression that it is predominantly caused by immediate stressors (e.g., problems with work, study or relationships) rather than linked to mental illness and/or substance abuse. There is some evidence that reporting of suicide in a few Asian countries is more graphic, explicit, and simplistic than in Europe and the United States. For these reasons, improving media reporting of suicide has been viewed as an important suicide prevention strategy. Although there are examples of innovative local activity in the countries involved in the STOPS project, only a few countries have national guidelines on media reporting of suicide. Work in this area should certainly be encouraged. Consideration should be given to the content of any guidelines, the most appropriate way to disseminate them, and the best way to evaluate their implementation.

There is strong evidence that media portrayal of suicide can lead to suicide contagion ('copycat suicides'), particularly if the original suicide is given undue prominence, sensationalized, glorified, or explicitly described (Pirkis et al., 2001; Stack, 2005, Yip et al., 2006). For this reason, the World Health Organization has developed guidelines to encourage responsible reporting of suicide (World Health Organization, 2003). Many European countries and the United States and some Asian countries have also developed guidelines (Pirkis et al., 2006). The current chapter considers the extent to which inappropriate media portrayal of suicide poses a problem in the Asian countries participating in the Strategies to Prevent Suicide (STOPS) project. It describes current efforts in these countries in terms of media guidelines or resources, and explores some of the generic and specific barriers to action in this area.

The nature of media reporting of suicide in Asian countries

There are indications that the print media in some Asian countries use more explicit accounts and photographs/footage of suicide than media in Europe and the United States. In particular, celebrities who die by suicide may be lauded, suicide methods and sites may

be graphically described, and bereaved families may be pressured to take part in interviews. In China, Hong Kong Special Administrative Region (Hong Kong SAR), for example, several newspapers published reports of a mother and son who died by jumping from a building, accompanying the reports with photographs of the pair's fall. The suicide of a renowned singer and actor was prominently reported in Hong Kong SAR as well, with some stories appearing on the front page and many stories identifying him by name in the headline (Yip et al., 2006). Similarly, in Japan, the suicide of a famous young singer was reported extensively and sensationally, often with photographs and detailed descriptions (Takahashi, 2004). In Viet Nam, by contrast, newspaper reports of suicide tend to be short and avoid describing the method or process of suicide, rarely occur on the front page, and are generally not repeated.

Table 3 provides a snapshot of the nature of media reporting of suicide in the participating countries, drawn from information provided by the STOPS country representatives in response to a questionnaire. It should be noted that these data relate specifically to print media, and do not include broadcast media. Sensationalization of suicides, misinformation about suicide and other problematic media reporting about suicide occur to at least some degree in all participating countries. In some cases, such reporting is restricted to large cities, but it is generally more widespread.

The potential for introducing guidelines on media reporting in Asian countries

Table 4 gives an indication of the potential for introducing guidelines on media reporting in participating countries, again taken from information from questionnaire responses by representatives of the participating countries. In China, Hong Kong SAR, Japan, Pakistan, the Republic of Korea and Thailand, introducing such guidelines is considered possible, but there are various impediments. The main difficulties are that reporting of suicide 'sells' newspapers, and guidelines are often viewed by journalists and editors as censorship or an invasion of their right to report.

In Australia, India, Malaysia, New Zealand, Singapore and Viet Nam there appears to be a greater potential to implement guidelines and have them accepted by media professionals. Various strategies might assist in realizing this potential. One is involving journalists and editors in the development of guidelines, in order to ensure that guidelines are accessible and informative to media professionals. A second is disseminating guidelines in a manner that maximizes the likelihood of their being used in practice. This might involve providing media professionals with consistent and ongoing education and

training (presented via workshops, personal briefings, websites, etc.), including presenting them with evidence about the negative impacts of irresponsible reporting. It might also involve giving priority to particular sub-groups of media professionals, such as health reporters, editors, and publishers. A third strategy is ‘rewarding’ journalists for good practice (e.g., via public awards). A fourth strategy is garnering the support of other relevant bodies (e.g., government departments or nongovernmental organizations) which may be able to exert influence by, for example, promoting the guidelines or monitoring reporting.

Efforts to improve media reporting of suicide in Asia

National efforts

Relatively few of the countries participating in STOPS have appreciated the importance of developing and implementing national guidelines (Table 4). This is not surprising since most of the countries lack a national suicide prevention strategy within which to develop and give ‘authority’ to media guidelines. The size and heterogeneity of some of the countries may make it difficult for some of the countries to develop and administer national-level activities. An inability to identify sources of funding for guideline development and dissemination may also limit national efforts.

Australia’s guidelines have received attention because of the considered way in which they have been developed and disseminated (Pirkis et al., 2006). The Australian Government Department of Health and Ageing worked with media professionals, suicide and mental health experts and consumer organizations to develop a set of guidelines known as Reporting Suicide and Mental Illness. The guidelines, and their accompanying quick reference cards and online resources, have been strategically and comprehensively disseminated by the Hunter Institute of Mental Health. The Hunter Institute was contracted to support media organizations in their understanding and use of the guidelines by: 1) distributing the guidelines and supporting materials, 2) conducting face-to-face briefings, 3) offering ad hoc advice, 4) working with influential media organizations to incorporate aspects of the guidelines into codes of practice and editorial policies, and 5) providing ongoing follow-up and promotion. The Hunter Institute has also contributed to the curricula of journalism schools in universities across Australia (Skehan et al., 2006). As a consequence, Australia’s guidelines have been relatively well received by media professionals (see below) (Skehan et al., 2006).

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Malaysia, the Republic of Korea and New Zealand have also developed and distributed national guidelines. Like Australia, Malaysia and the Republic of Korea have involved key stakeholders in the development process. Malaysia's guidelines were collaboratively developed in 2004 by the Ministry of Health, the Malaysian Psychiatric Association and the Befrienders, with input from senior editors of relevant newspapers. The Republic of Korea's guidelines were also developed in 2004, and involved the efforts of the Korean Association for Suicide Prevention, the Korean Ministry of Health and Welfare and the Journalists' Association of Korea. New Zealand adopted a less inclusive approach: the Ministry of Health developed the original guidelines without much consultation in 1998. The Ministry then re-issued a modified version in 1999 after complaints from journalists but has not disseminated the guidelines effectively. These guidelines have been rejected by New Zealand journalists who are now writing their own guidelines without input from suicide prevention researchers.

Local efforts

Although only a minority of participating countries have developed national guidelines, a number of specific organizations within these countries have engaged in local efforts aimed at improving media reporting of suicide. Some have translated and modified existing guidelines on media reporting of suicide from other countries, and distributed them to journalists and editors. The Suicide Prevention Institute of the Central South University in Changsha, China, for example, has translated the World Health Organization's guidelines (World Health Organization, 2003) and distributed them to reporters and editors.

Others have developed their own local resources and disseminated them to media professionals. The Beijing Suicide Research and Prevention Center in China has produced a pamphlet and the Hong Kong Jockey Club Centre for Suicide Research and Prevention has produced a booklet and a joint statement with the Hong Kong Press Council, all of which provide recommendations about media reporting of suicide in general. SNEHA in India has taken a more targeted approach, focusing specifically on the reporting of suicides related to exam failure – observed to be particularly likely to lead to copycat behaviours – and developing guidelines in this area.

In addition to disseminating the above resources, a number of organizations have considered ways of communicating messages about responsible reporting, arranging meetings with media professionals to discuss the issue. For example, the Ministry of

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Public Health in Thailand has held two seminars on how to present suicide news, the Beijing Suicide Research and Prevention Center has held meetings with members of the press, and the Hong Kong Jockey Club Centre for Suicide Research and Prevention has organized workshops with the Hong Kong Press Council to provide training for journalists. Sri Lanka's Health Education Bureau of the Ministry of Health has held media briefings highlighting the need for balanced reporting of suicides, and plans to make use of regular media seminars and radio talk-back slots on other health-related issues to discuss suicide. The Samaritans of Singapore (SOS), the main suicide prevention organization in Singapore, has worked with major press outlets to reduce over-dramatization in suicide reporting.

Fostering positive reporting has also proved a valuable strategy. In Japan, *Asahi Shimbun* (a leading newspaper) reports suicide prevention issues (e.g., suicide warning signs, effective psychiatric treatments) in preference to suicide itself, with encouragement from the National Defense Medical College Research Institute. In Hong Kong SAR, the Hong Kong Jockey Club Centre for Suicide Research and Prevention regularly contributes responsible research-based articles and opinion pieces to local newspapers.

Evaluation activities

There is a dearth of evaluative activity occurring alongside the above efforts to improve media reporting of suicide. This situation is not unique to the countries participating in the STOPS project, nor to Asian countries more broadly, but is a phenomenon that has been observed worldwide by the Institute of Medicine of the US National Academy of Sciences (Institute of Medicine of the National Academy of Sciences, 2002).

In most of the participating Asian countries, no formal evaluations have been undertaken. In some, there is anecdotal evidence that reporting is improving. In China, for example, there is a perception that journalists are gradually becoming more skilled in terms of reporting on suicide. Likewise, in Thailand there is an impression that the practice of reporting suicides on the front page of newspapers has decreased over time. In Singapore, it appears that reporting of suicide is more factual, provides less detail about methods, uses fewer pictures, and is more likely to include helpline numbers; but there are still few positive, informative stories that would increase public awareness of the importance and preventability of suicide.

In Australia, the Hunter Institute of Mental Health has conducted an extensive evaluation of the influence of Reporting Suicide and Mental Illness, a set of guidelines

prepared for the media. At the most basic level, the evaluation examined the reach of the guidelines, finding that 2,500 copies of the resource had been distributed nationally and over 800 journalists had received face-to-face briefings. To address the question of whether use of such guidelines influences the practices of journalists, the Hunter Institute examined awareness and use of the resource: 67% of those who had been exposed to briefings were aware of the resource several months later, and 80% of these had made use of it (Skehan et al., 2006). Additional evaluation activities being conducted by the Universities of Melbourne and Canberra will examine the quality and nature of reporting of suicide pre- and post- the introduction of Reporting Suicide and Mental Illness and will consider whether any changes are correlated with exposure to the guidelines (Skehan et al., 2006).

The Republic of Korea has also undertaken evaluation efforts, with early data showing a greater propensity for the media to include helpful information, to provide information about suicide (e.g., suicide warning signs, suicide rate data), and to describe alternative courses of action. Some other participating countries have access to good baseline data, and could conduct similar evaluation exercises. In Hong Kong SAR in 2000, for example, examination of the reporting styles of five major Chinese newspapers found that 6% of suicide stories appeared on the front page, 87% of them were illustrated with photographs or diagrams, and 93% mentioned the suicide method in the headline (Au et al., 2004). Sri Lanka has conducted a similar cross-sectional study of reporting of suicide in the print media.

These evaluation efforts have involved the degree of distribution of guidelines for reporting, the percentage of reporters who are familiar with them, the percentage who claim to have made use of them, and the frequency with which stories that violate guidelines are printed. They do not attempt to evaluate any possible improvement in the stories resulting from familiarity with media guidelines, although this is one of the aims of the Australian evaluation currently being conducted by the Universities of Melbourne and Canberra.

International precedents for this exist, notably a study conducted by the Annenberg Public Policy Center in the United States (Garczynski et al. forthcoming). The Center identified 705 newspaper reporters who had written stories about suicide and sent them consensus recommendations for media coverage of suicide (developed by leading US governmental and non-governmental organizations concerned with suicide). Subsequently, the Center identified a sub-set of 90 reporters who had written a subsequent story on

suicide, and rated their stories before and after their receiving the guidelines according to an index of positive attributes. One point was scored for each of the following: (1) story does not mention suicide in the headline; (2) story does not detail the method of the suicide; (3) persons are not blamed for the death; (4) story does not focus on life problems as the primary motive for the suicide; (5) depression or another mental disorder is linked to the suicide or to the victim; (6) story is not on the front page or section of the paper. The study found a statistically significant increase in the mean number of recommended practices, even after controlling for newspaper circulation, type of reporter, and newspaper. The study did not have a control sample (i.e., a group of reporters who had not received the consensus recommendations) but could easily be replicated with such a sample and could serve as a model in Asia and elsewhere.

Summary and conclusion

It is fair to say that there is room for improvement in efforts at encouraging responsible media reporting of suicide in Asia. Although there are examples of innovative local activity, only a few countries have national guidelines on media reporting. As a region, however, Asia has some assets which might maximize the potential for introducing media guidelines and undertaking related activities. There are a number of organizations (e.g., Suicide Research and Prevention Centres) and individuals with an active interest in pursuing efforts in this regard, some with established relationships with media professionals. There are opportunities for local demonstration projects, since many countries, areas and towns do not have existing media guidelines. International precedents exist – e.g., the World Health Organization guidelines (2003), the Australian guidelines and their associated model of dissemination and evaluation (Department of Health and Ageing, 2004; Skehan et al., 2006), and consensus recommendations in the United States (Reporting on Suicide, 2002) – which could be translated and/or adapted to the local setting.

Work in this area should certainly be encouraged. Consideration should be given to the most appropriate content of any guidelines, with some of the specific issues (e.g., suicide by charcoal burning in Hong Kong SAR, and internet suicide pacts in Japan) around suicide in some countries providing the potential for a focused approach in the same way that work in India has targeted media reports of suicide related to exam failure. Thought should also be given to the most appropriate way to develop and disseminate guidelines, and how to involve the media in these processes. It is not enough to alert the print and

visual media to the fact that sensationalizing suicide contributes to copycat suicides; they need to be made aware of the preventive possibilities of responsible and informative reporting. The full range of dissemination opportunities should be explored, and attempts should be made to identify critical elements of dissemination campaigns.

Finally, attention should be paid to issues of evaluation. There are clear opportunities for controlled before-and-after evaluation designs which both examine demonstrable improvement in reporting practices in line with established guidelines and explore the contribution any such improvement may make to changes in the rates of completed or attempted suicide.

References

- Au JSK, Yip PSF, Chan CLW, Law YW (2004). Newspaper reporting of suicide cases in Hong Kong. *Crisis* 25:161-168.
- Department of Health and Ageing (2004). *Reporting Suicide and Mental Illness*. Canberra: Commonwealth of Australia.
- Garczynski JV, Jamieson PE, Romer D, Jamieson KH Changing newspaper coverage of suicide: A minimal intervention (submitted for publication).
- Institute of Medicine of the National Academy of Sciences (2002). *Reducing Suicide: A National Imperative*. Washington, DC: The National Academies Press.
- Pirkis J, Blood RW (2001). Suicide and the media: (1) Reportage in non-fictional media. *Crisis* 22:146-154.
- Pirkis J, Blood RW, Beautrais A, Burgess P, Skehan J (2006). Media guidelines on the reporting of suicide. *Crisis* 27:82-87.
- Reporting on Suicide: Recommendations for the Media (2002). www.SPIorg.org.
- Skehan J, Greenhalgh S, Hazell T, Pirkis J (2006). Reach, awareness and uptake of media guidelines for reporting suicide and mental illness: An Australian perspective. *International Journal of Mental Health Promotion* 8:29-35.
- Stack S (2005). Suicide in the media: A Quantitative review of studies based on non-fictional stories. *Suicide and Life Threatening Behavior* 35:121-133.
- Takahashi Y (2004). Improving portrayal of suicide in the media; Presentation at international workshop, Salzburg, Austria.
- World Health Organization (2003). Preventing suicide: A resource for media professionals. *Suicidologi* 8:11-13.

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Yip PSF, Fu KW, Yang KCT, Ip BYT, Chan CLW, Chen EYH, Lee DTS, Law, FYW, Hawton K (2006). The effects of a celebrity suicide on suicide rates in Hong Kong. *Journal of Affective Disorders* 93:245-252.

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Table 3: Reporting of suicide in print media in participating countries

	Australia	China	China, Hong Kong SAR	India	Japan	Malaysia	New Zealand	Pakistan	Republic of Korea (the)	Singapore	Sri Lanka	Thailand	Viet Nam
Do print media sensationalize suicide by:													
• Mentioning suicide in the headline?	Sometimes	Sometimes	Frequently	Frequently	Sometimes	Sometimes	Sometimes	Frequently	Frequently	Not at all	Not available	Sometimes	Sometimes
• Detailing the method employed?	Sometimes	Sometimes	Frequently	Frequently	Sometimes	Frequently	Sometimes	Frequently	Frequently	Sometimes	Not available	Frequently	Sometimes
• Blaming people for the death?	Sometimes	Frequently	Frequently	Frequently	Sometimes	Sometimes	Sometimes	Sometimes	Sometimes	Not at all	Not available	Sometimes	Sometimes
• Placing the story on front page or section?	Sometimes	Sometimes	Frequently	Sometimes	Sometimes	Sometimes	Sometimes	Frequently	Sometimes	Sometimes	Not available	Sometimes	Not at all
• Using pictures of the victim or the method?	Sometimes	Sometimes	Frequently	Sometimes	Sometimes	Frequently	Sometimes	Frequently	Sometimes	Not at all	Not available	Sometimes	Not at all
Do print media misinform by:													
• Focusing on life problems as the motive for suicide?	Sometimes	Frequently	Sometimes	Frequently	Sometimes	Frequently	Sometimes	Frequently	Frequently	Frequently	Not available	Sometimes	Sometimes
• Failing to recognize that mental disorder is usually linked to suicide?	Sometimes	Frequently	Sometimes	Frequently	Sometimes	Sometimes	Sometimes	Frequently	Sometimes	Frequently	Not available	Sometimes	Frequently
How widespread are any of the above practices?	Widespread	Widespread	Widespread	Widespread	Widespread	Widespread	Widespread	Just in large cities	Widespread	Just in large cities	Not available	Widespread	Just in large cities

IMPROVING PORTRAYAL OF SUICIDE IN THE MEDIA

Table 4: Guidelines on media reporting of suicide in participating countries

	Australia	China	China, Hong Kong SAR	India	Japan	Malaysia	New Zealand	Pakistan	Republic of Korea (the)	Singapore	Sri Lanka	Thailand	Viet Nam
Would it be possible to persuade the media to accept recommendations for reporting a suicide?	Yes	Possibly	Possibly	Yes	Possibly	Yes	Yes	Possibly	Possibly	Yes	Not available	Possibly	Yes
Have national guidelines or resources on media reporting been introduced?	Yes	No	No	No	No	Yes	Yes	No	Yes	Not available	No	No	No

CHAPTER 5

Educating Gatekeepers in Asia

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Abstract

Many of the Asian countries involved in the Strategies to Prevent Suicide (STOPS) project have instituted gatekeeper training in an effort to equip key community members who regularly come into contact with individuals or families in distress with appropriate suicide prevention skills. Training programmes have been provided for a range of gatekeepers, including teachers, social workers, hot line volunteers and youth leaders, family members and caregivers, police and prison staff, and religious leaders. These groups have been selected on the grounds that they come into contact with vulnerable individuals by virtue of their day-to-day roles.

The caregiver groups selected for training are acceptable to the community, and have the confidence and respect of the people. Some of the training programmes are initial efforts in the countries in which they are initiated, limited to a few regions, and not given on a regular basis. The content and delivery of gatekeeper training varies, depending on the particular gatekeeper group(s) in question and the degree of support available to them. Evaluation of gatekeeper training has been limited to date, and should desirably be strengthened.

Gatekeepers are usually described as people who, in non-medical settings, in the course of their work regularly come into contact with individuals or families in distress. They make daily contact with vulnerable individuals and can play significant roles in identifying risk behaviour at an early stage and, in many cases, facilitating pathways to mental health care. The current chapter discusses the skills these gatekeepers require to fulfil this role, and describes some examples of gatekeeper education in the Asian countries participating in the Strategies to Prevent Suicide (STOPS) project.

For the purposes of the current chapter, gatekeepers have been taken to include non-medical professionals, such as teachers, social workers and related professionals, volunteers and lay people, family members and caregivers of people with psychiatric disorders, police and prison staff, and religious leaders. Although in some countries non-specialist medical and nursing staff (e.g., general practitioners and non-psychiatric nurses working in primary care or emergency department settings) are regarded as gatekeepers, they are not included here since such groups provide a more direct clinical service. In some cases, they may refer on to specialist psychiatric providers, but in many other cases

they will be the final point of contact for suicidal individuals. For this reason, they are considered in Chapter 8, which deals with improving treatment for depression and other disorders that convey suicide risk.

Equipping gatekeepers with initial assessment and intervention skills

Given that gatekeepers are well-placed to identify and intervene with people at risk of suicide, it makes sense to provide them with initial assessment and early intervention skills. They should be educated in the psychiatric disorders most frequently associated with suicide, and in the warning signs and risk and protective factors for suicide. They should be equipped with the skills to establish rapport with potentially vulnerable individuals, to convey their sincere concern, to listen actively and empathetically, to ask direct questions about suicide risk, and to assess safety and danger. They should also be taught how to keep a suicidal individual safe. In addition, they should be equipped to remain calm, supportive, interested and non-judgmental.

Gatekeepers need basic intervention skills, but should be encouraged to recognize their limits and know when and how to ask for professional help if necessary. They should be made aware of available emergency services, crisis support services and mental health services in their local area, and should be trained in how to determine when the distressed individual should be referred on for clinical assessment and treatment. Of course, the threshold for referral will be influenced by the availability of such services.

Gatekeeper education in Asian countries

The nature and extent of gatekeeper education varies widely from country to country (see Table 5). Some participating countries, such as New Zealand, have invested heavily in gatekeeper education and have a national strategy in the area. In most of the other Asian countries the approach has been more ad hoc, with individual institutions providing different educational programmes in limited geographical areas, to different target groups (or combinations of target groups) of gatekeepers. Other countries, like Malaysia, Pakistan and Viet Nam, currently have no non-medical gatekeeper education underway.

Gatekeeper education programmes for teachers

Out of concern for youth suicide, a number of participating countries have in place gatekeeper training programmes for teachers. For example, the Korean Association for Suicide Prevention provides an education programme for middle and high school teachers which is run over three 16-hour sessions, with supporting documentation in the form of a

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teachers' guidebook. The programme has the goal of equipping teachers with basic knowledge about youth suicide and depression and their treatment and prevention, and providing teachers with practical skills in communicating with students and assisting them to resolve problems.

Similarly, the Hong Kong Education and Manpower Bureau Quality Education Fund has supported a number of projects which train teachers to provide onsite support to students to enhance their mental health, strengthen their coping skills and improve their resilience. The Student Psychological Resilience and Emotional Intelligence Enhancement (SPREE) Project is one such example. Through this project, 155 teachers from seven schools received training from the Hong Kong Family Welfare Society in 2003/04. The Hong Kong Jockey Club Centre for Suicide Research and Prevention has provided additional training programmes in this regard, offering suicide crisis management skills for secondary teachers.

In New Zealand, gatekeeper education for teachers is addressed by the Ministries of Education, Health and Youth Development. Two resources have been produced: (Young People at Risk of Suicide: A Guide for Schools, 1998; Youth Suicide Prevention in Schools: A Practical Guide, 2003). Together, these outline the roles and responsibilities of school personnel in suicide prevention, offer guidance about best practice regarding suicide prevention in the school setting, and provide criteria against which schools can assess providers of suicide-related programmes or activities run in schools. Both resources have been distributed widely to schools across the country.

In Australia, education for teachers has been the responsibility of the Australian Government-funded MindMatters programme. MindMatters takes a whole-of-school approach to mental health promotion and suicide prevention, offering training for staff and a range of resources to be used within the school curriculum. Much of its emphasis is on building resilience among members of the whole school community, but it includes training and resources for identifying and working with students at high risk. MindMatters is complemented by a range of other initiatives, including CommunityMindEd which focuses on teachers working within the vocational education and training sector, equipping them with skills in suicide prevention.

In middle schools across China, teachers, school health workers, social workers, teachers and other school personnel who may play a mentoring role have received intensive training in mental health and suicide prevention in three national School Health Training Centers established by the Chinese Ministry of Education in Beijing, Changsha

and Shanghai. The Beijing Suicide Research and Prevention Center has also worked with tertiary education personnel, supporting the Women's Federation to educate gatekeepers in several university-based, small-area projects.

In Sri Lanka, the Ministry of Health developed a national programme aimed at training teachers to identify children with behavioural problems and schools are inspected to see that it is being implemented. In Chennai, India a nongovernmental organization (SNEHA) concerned with suicide prevention has trained teachers in 46 schools in how to identify students at risk for suicide.

Gatekeeper education programmes for social workers and related professionals

Social workers and others involved in the welfare and/or pastoral care of particular groups in the community may be faced with suicidal individuals in the course of their work. As a consequence, several participating countries have focused attention on training these professionals as gatekeepers.

In China, Hong Kong Special Administrative Region (Hong Kong SAR), the Hong Kong Jockey Club Centre for Suicide Research and Prevention has provided intensive training in suicide prevention for social workers and professionals providing support and advocacy services to people who have experienced domestic violence. In New Zealand, similar training is provided to workers in contact with distressed youth, via the Department of Child, Youth and Family Services. The Samaritans of Singapore have organized training courses that provide training for frontline staff, including counsellors and welfare workers, in various agencies, to identify signs of distress and react appropriately.

Gatekeeper education programmes for volunteers and lay people

Several participating countries have developed training for volunteers working in the field (e.g., providing telephone counselling, support and advice via crisis hotlines) and lay people who may have the potential to intervene in a time of suicidal crisis, by virtue of where they sit in the community. These people are interested in helping others but have no previous training in suicide prevention.

The LifeForce Suicide Prevention Program run by Wesley Mission in Australia aims to equip community members from a range of backgrounds to deal with a suicidal crisis in an appropriate manner. Similarly, the Ministry of Public Health's Department of Mental Health in Thailand has run workshops and forums designed to train volunteers and

community leaders, with a view to equipping them to recognize depression and suicide risk, to be able to screen and give preliminary assistance to at-risk individuals, and to develop appropriate referral networks within their local community (Wongchai, 2006).

Sumithrayo, under the auspices of the Befrienders International, invites volunteers in Sri Lanka to join them to provide support and counselling to those who seek help, in times of crisis, when people contemplate suicide, have emotional problems, and feel lonely.

Gatekeeper education programmes for family members and caregivers

A number of participating countries have developed training for the relatives and caregivers of particularly vulnerable individuals such as those with mental illness and those who are already exhibiting suicidal behaviour.

In China, there are examples of gatekeeper training for family members of people with mental illness. Specifically, in Zhejiang, family members (particularly those with a relative with schizophrenia) have been invited to attend courses on mental health and suicide prevention. In a demonstration project as part of the World Health Organization's SUPRE-MISS project aimed at helping individuals who have attempted suicide, the Beijing Suicide Research and Prevention Center worked in Shandong province in rural China with family members and others in the community to give social support to individuals who have been seen in emergency rooms following a suicide attempt.

Likewise, New Zealand has a programme of training for family members and qualified caregivers who are responsible for suicidal 12-16 year olds, either at home or in specialist community-based programmes. The training incorporates a focus on self-harm aimed at identification of young people at risk, familiarization with prevention and intervention techniques, planning intervention procedures and familiarization with coping strategies in the event of a fatal or non-fatal suicide attempt.

Gatekeeper education programmes for police and prison staff

In recognition of the fact that people in contact with the justice system are at increased risk of suicide, several countries have instituted gatekeeper training programmes aimed at police and prison staff. In New Zealand, for example, the Department of Corrections undertakes education for prison officers which focuses on suicide awareness and prevention and is delivered by various experts (e.g., regional training officers, cultural officers, psychologists) via a full-day training module. In Singapore, the Samaritans of Singapore offers training for police officers designed to help them to identify at-risk

individuals (e.g., by looking for signs of distress and suicidal intent) and to react appropriately (e.g., by obtaining help). Programmes with similar intent have been run in China, India and Hong Kong SAR.

Gatekeeper education programmes for religious leaders

Religious leaders are another group who may come into contact with at-risk individuals. Their pastoral care role may put them in a unique position, in that people may disclose suicidal thoughts and feelings to them that they might not otherwise share. It is acknowledged, however, that the degree to which this occurs may be related to the extent to which the given religion sanctions suicide (see Chapter 2).

Some participating countries have provided gatekeeper education to religious leaders, in an effort to increase their capacity to meet the needs of suicidal individuals. In Thailand, for example, a collaboration between the Bureau of Mental Health Technical Development, the Department of Mental Health and the Chang Mai District Public Health Centre has run educational workshops for Buddhist monks as part of a broader programme that included other gatekeepers. The monks were taught how to apply Buddhist dharma (principles of conduct in keeping with one's essential spiritual and moral nature) to assist suicidal individuals. They were also taught specific counselling skills. They were then given opportunities to apply these skills in one-to-one interactions and in preaching to larger groups (Teerawutgulrag, 2006).

General gatekeeper education programmes

Most, but not all, of the gatekeeper education programmes described above target single groups of gatekeepers (e.g., teachers or prison officers), on the grounds that the constituents with whom they deal differ in terms of their profile and needs. There is recognition, however, by a number of gatekeeper education programmes offered in participating Asian countries that many gatekeepers face similar issues, regardless of the particular at-risk group with whom they come into contact, and therefore require similar skills and knowledge. For this reason, several programmes seem to be targeted at a range of gatekeepers, rather than tailored to one specific group. There may be some economies of scale in providing generalist gatekeeper training to mixed groups of recipients.

In Japan, trial programmes have been established in rural areas, such as the prefectures of the northernmost parts of Honshu. Local people with a variety of roles are educated in basic suicide prevention skills. Additional efforts have been made in the context of

broader community-based, multi-modal interventions in Akita, Aomori, and Iwate prefectures with particularly high suicide rates.

The Hong Kong Jockey Club Centre for Suicide Research and Prevention (CSRP) is organizing a series of training programmes for different gatekeepers in a selected community (Tuen Mun) which has relatively high rates of both completed suicide and attempted suicide. The targeted gatekeepers include police, social workers, and volunteers (as well as medical professionals). The training programmes are part of a broader community-based suicide prevention project.

As well as the relatively obvious gatekeepers listed above who are the recipients of the gatekeeper training programmes, there are also some more novel trainees. The Hong Kong SAR programme targets supermarket front-line staff because supermarkets are the major supplier of charcoal, an agent which is now commonly being used in suicides by carbon monoxide poisoning in Hong Kong SAR (see Chapter 1). The programme was successful in reducing availability by removing charcoal from the open supermarket shelves, making it available for purchase only by request. Other participating countries have also targeted innovative groups. For instance, mass rapid transport staff have been offered gatekeeper training by the Samaritans of Singapore, because of their potential role in averting rail suicides.

Research and evaluation

Very few of the above training programmes have been subjected to evaluation, and those evaluations which have occurred have tended to rely on before-and-after assessments of changes in participants' knowledge of suicide prevention and confidence in dealing with suicidal individuals. Participants' satisfaction with the training has also sometimes been assessed. What is currently missing, however, is any data on whether gatekeeper training programmes lead to behavioural improvements in participants' abilities to recognize and deal appropriately with suicidal individuals, and, ultimately, whether they have an impact on the suicidal behaviour of those in the gatekeepers' communities.

Perhaps the best example of a currently-planned evaluation is that of the Hong Kong CSRP's provision of gatekeeper education in Tuen Mun (see above). Process evaluation involving immediate feedback from participants will occur, but this will be augmented by an examination of changes in the attempted and completed suicide rates in this community and in a control community with a similar socio-economic profile (Yuen Long). It would

be valuable to collect evidence on the impact of the intervention on the behavioural responses of gatekeepers and on any individuals they identify as at risk and refer for treatment even if there is no demonstrable change in the rates of attempted and completed suicide.

Optimizing the potential of gatekeepers as suicide prevention agents

Educating gatekeepers is an important addition to the full complement of suicide prevention strategies available in Asian countries. The role of these gatekeepers will vary, depending on the specialist resources that are available in the given country (or region within the country). Where psychiatrists and other dedicated mental health care workers are available, the role of gatekeepers will be one of acting as a channel for those at heightened risk of suicide, and training should therefore focus on assessment and referral skills. The same may be true in circumstances where primary care providers with particular expertise in mental health care are on hand to provide appropriate interventions. In countries like China and India where there are large rural populations and the specialist mental health workforce is thinly spread, however, there may be more of a blurring of the role of gatekeepers as referrers and gatekeepers as direct service providers. By necessity, gatekeepers in these countries are required to offer some degree of intervention themselves, and require additional education in keeping the individual safe, active listening, problem-solving and so on.

Optimizing the potential of gatekeepers as suicide prevention agents in Asian countries will require careful consideration of their role in given locations. The content of training for gatekeepers will vary accordingly, as may the intensity of the training (e.g., the number and duration of training sessions). Modes of delivery may also differ, depending on the target audience(s). At present, little guidance is available regarding the sort of training that may be best for given gatekeeper groups because of the dearth of solid evaluative evidence in this area. For this reason, careful needs analysis will have to be conducted in order to identify the exact requirements of any training. The processes, impacts, and outcomes of such training should be carefully monitored via sound evaluations that are conducted as rigorously as possible.

Summary and conclusion

Educating gatekeepers in suicide prevention shows promise as a means of reducing the suicide rate in Asian countries, provided that due consideration is given to the context in

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which these gatekeepers are operating. Participating countries have put in place a range of gatekeeper education programmes in an effort to improve the assessment, referral, and (in some cases) direct intervention skills of individuals who regularly come into contact with vulnerable members of the community by virtue of their responsibilities. There is as yet no consensus on the core components of gatekeeper training, and it is likely that the nature and structure of the training will desirably vary, depending on the particular gatekeeper group in question and their role in the community relative to the role of others who might be involved in suicide prevention. Improved evaluation efforts are required.

References

- Teerawutgulrag E (2006). The developed Buddhist monk network model in suicidal prevention program: A case study in Chang Mai province. *Journal of Mental Health of Thailand* 14:33-38 (in Thai).
- Wongchai C (2006). Suicide prevention model for local community. *Journal of Mental Health of Thailand* 14:45-52 (in Thai).
- Young People at Risk of Suicide: a guide for schools (1998)
www.nzgg.org.nz/guidelines/0027/Young_people_at_risk_of_suicide_a_guide_for_schools.pdf (25 June 2008).
- Youth Suicide Prevention in Schools - a practical guide (2003).
<http://www.moh.govt.nz/moh.nsf/pagesmh/4420?Open> (25 June 2008)

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Table 5: Key gatekeeper education activities in participating countries *

Country	Identifying actor	Gatekeeper group	Activities	Evaluation
AUSTRALIA	Department of Health and Ageing and Department of Education, Science and Training	Teachers and other school staff	MindMatters programme, which provides training in building resilience and identifying and working with students at high risk	Evaluated
	Wesley Mission	Volunteers and lay people	LifeForce Suicide Prevention Program, which aims to equip community members to deal with a suicidal crisis in an appropriate manner	Not evaluated
CHINA	Beijing Suicide Research and Prevention Center, supporting the Women's Federation	Tertiary education personnel	Several university-based, small area projects	No evaluation
	National School Health Training Centers, established by the Chinese Ministry of Education	School health workers and social workers	Intensive training in mental health and suicide prevention	Evaluated
CHINA, HONG KONG SAR	Hong Kong Jockey Club Centre for Suicide Research and Prevention	Teachers, social workers and related professionals, mixed groups	Training programmes for various frontline staff	Most programmes have been evaluated
	Education and Manpower Bureau Quality Education Fund	Teachers	Training in provision of onsite support to students – e.g., the Student Psychological Resilience and Emotional Intelligence Enhancement (SPREE) Project	Evaluated
INDIA	SNEHA	Teachers and police	Awareness programmes	Not evaluated
JAPAN	Ministry of Health, Labour and Welfare, in co-operation with the Japanese Medical Association	Mixed groups	Education in basic suicide prevention skills	Evaluation planned
	Ministry of Health	Mixed groups	Education delivered as part of the Japanese Multimodal Intervention Trials for Suicide Prevention	Evaluation planned
MALAYSIA			No non-medical gatekeeper education activities	

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NEW ZEALAND	Ministries of Education, Health and Youth Development	Teachers and other school personnel	Resources outlining the roles and responsibilities of school personnel in suicide prevention, and offering guidance about best practice in suicide prevention	Reviewed
	Department of Child, Youth and Family Services	Family members and qualified caregivers	Training on identifying young people at risk and prevention and intervention techniques	Ongoing evaluation
	Department of Corrections	Prison staff	Training focusing on suicide awareness and prevention	Not evaluated
PAKISTAN			No non-medical gatekeeper education activities	
REPUBLIC OF KOREA (THE)	Sponsored by Community Chest of Korea and implemented by the Korean Association for Suicide Prevention	Teachers	Education programme and resources providing basic knowledge about youth suicide and depression and their treatment and prevention, as well as practical skills	N/A
SINGAPORE	Samaritans of Singapore	Counsellors and welfare workers, police officers	Training on identifying signs of distress and reacting appropriately	Not evaluated
SRI LANKA	Ministry of Health	Teachers	Training in identifying children who have behavioural and other problems	Not evaluated
THAILAND	Ministry of Public Health	Youth leaders, volunteers and community leaders	Training in recognizing depression, providing preliminary assistance, and developing referral networks	Not evaluated
	Bureau of Mental Health Technical Development, Department of Mental Health, Chang Mai District Public Health Centre	Buddhist monks	Education on applying Buddhist dharma to assist suicidal individuals and training in specific counselling skills	Not evaluated
VIET NAM			No non-medical gatekeeper education activities	

* Responses to the questionnaire by STOPS country representatives

CHAPTER 6

Innovative Approaches in Asia to Identifying Those at Risk for Suicide

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Abstract

The majority of the Asian countries involved in the Strategies to Prevent Suicide (STOPS) project have adopted novel approaches to identifying those at heightened risk of suicide, with a view to encouraging them to seek help. These approaches include: screening and detection programmes in mental health and suicide prevention services, and identification programmes conducted in the community or by schools, welfare agencies or other non-medical organizations. These approaches appear to have potential as suicide prevention strategies, but their effectiveness may be limited in communities where lack of mental health services or intense stigma about using mental health services makes it unlikely that identified individuals will seek professional help. Further evaluation is necessary before definitive conclusions about the benefit of these innovative identification programmes can be drawn.

Need for innovation

Help-seeking behaviour among suicidal individuals in Asia is generally limited. Although around half of those who die by suicide communicate with friends and family about their intention to die, few seek any sort of professional help (Barnes et al., 2001; Hong Kong Centre for Suicide Research and Prevention, 2005). For this reason, innovative approaches to identifying those at risk of suicide and bringing them to the attention of professionals who can help them may be valuable in saving lives. These professionals may or may not be specialist mental health care providers; in under-resourced countries with few mental health professionals there will need to be a heavy reliance on trained professionals and volunteers from allied sectors.

The current chapter describes some of the innovative approaches to identifying those at risk of suicide that are currently being undertaken by the Asian countries involved in the Strategies to Prevent Suicide (STOPS) project. The focus is on novel approaches to detecting those at risk rather than on the direct provision of specialist care, though the immediate support and referral pathways provided once those at high risk have been identified are also discussed.

Innovative approaches

The approaches employed by Asian countries to identify high-risk individuals can be divided into three types: (1) identification via community-based approaches; (2) identification via services provided in other sectors (e.g., welfare services, education services) and (3) screening and detection via mental health or suicide prevention services. Examples of each are provided below.

Identification via community-based approaches

Several countries have taken a community-based approach to identifying high-risk individuals, using innovative means of delivering positive messages about help-seeking. In India, for example, a street theatre group known as Nalanthana put on 12 street plays for the residents of informal settlements in different parts of Chennai. The plays contained plot-lines related to depression and suicide, in which the main character was about to take his or her life and a kind friend or relative intervened and provided information about a local nongovernmental organization known as SNEHA, which has a befriending service. The character would, with the help of SNEHA, reconsider his or her decision. The rationale was that audience members who might be at risk of suicide would be made aware of the services provided by SNEHA and, thus, be more likely to seek help from the service (Vijayakumar et al., 2005).

Other countries that have taken a community-based approach have focused on improving community capacity to respond to suicidal individuals. In Australia, for example, a number of local projects funded through the National Suicide Prevention Strategy have conducted workshops aimed at teaching key community members how to identify and assist people at risk of suicide (Headey et al., 2006). Similarly, in New Zealand, the Ministry of Health has funded training, resource development activities and community development projects to build the capacity of communities to prevent suicidal behaviour among Maori people by identifying those individuals at highest risk.

Identification via services provided in other sectors

Some countries have used an inter-sectoral approach to identify those at heightened risk of suicide, employing existing services in sectors other than the specialist mental health sector to identify at-risk individuals. The mandate of these services is often quite broad so they routinely come into contact with people who may be considering suicide.

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Some of these approaches have occurred within the education sector. The Travellers programme in New Zealand conducts a needs assessment for Year 9 high school students that identifies distressed individuals and offers them resiliency training. The Republic of Korea trains school staff to identify students at risk. Sri Lanka and China have university-based suicide prevention programmes which, amongst other elements, encourage students to contact academic staff if they are concerned about the emotional wellbeing of a friend.

Some of these non-medical identification efforts have occurred within the social welfare sector. In China, Hong Kong Special Administrative Region (Hong Kong SAR), counsellors involved in the indebtedness counselling services for people with unmanageable debts and problem gamblers (and their families) are trained to recognize signs of suicidality in their clients. Recognizing that their clients may be at increased risk of suicide, Australia's Child Support Agency and Family Court have provided the training, support and infrastructure needed to help staff identify those who may be particularly likely to engage in self-harming behaviour. Similarly, in New Zealand, the Family Start / Early Start intervention programme for families with young children includes the identification of individuals at-risk for suicide.

New Zealand's Towards Well-Being programme is a highly-structured initiative that straddles the welfare and education sectors. The programme assists in identifying and managing young people who are at risk of suicide and may need to be referred to mental health services. Most of them are current clients of the Department of Child, Youth and Family Services. The programme receives case data on each client from the Department and assigns a clinical advisor to help the responsible welfare worker, school social worker or counsellor provide optimal care and (where necessary) referral until the client is assessed as stable.

Programmes aimed at identifying those at risk of suicide are also conducted in other sectors. For example, in the Republic of Korea correctional and army staff are educated to detect those at risk of suicide and take appropriate measures. Army chaplains identify soldiers struggling to adapt to army life or at high risk of suicide and offer them a four-day supportive care programme in a special camp.

Screening and detection via mental health services or suicide prevention services

A number of countries have integrated screening and detection activities for suicide within mental health services, or have developed stand-alone suicide

prevention services that include early identification and intervention components. In Hong Kong SAR, for example, the Hospital Authority runs an Early Assessment Service for Young People with Psychosis and an Elderly Suicide Prevention Program that involve screening, early detection, emergency or fast-track treatment services, and follow-up care. Hong Kong SAR also has a Suicide Crisis Intervention Centre run by Samaritan Befrienders that provides an outreach service to identify people at moderate to high risk of suicide and to offer them crisis intervention and intensive counselling. Sri Lanka, Viet Nam, and the Republic of Korea have similar counselling services, delivered via hotlines (and, in some cases, the Internet). Thailand conducts screening for depression and suicidality in hospital and primary care settings.

Research and Evaluation

Few of the above programmes have undergone rigorous evaluation to determine their effectiveness in reducing suicidal behaviour, but most of the programmes in Hong Kong SAR and New Zealand have assessed 'intermediate outcomes' such as the psychological well-being and level of suicidal ideation in participants. Hong Kong SAR's Elderly Suicide Prevention Program demonstrated an improvement in the psychological profile of elders, and its Suicide Crisis Intervention Centre reports reduced levels of suicide risk among those using the service. A randomized controlled trial of New Zealand's Family Start / Early Start programme and a controlled study of its Towards Well-Being programme both reported positive outcomes for participants.

These identification efforts, however, are typically embedded in larger suicide prevention initiatives so it is not possible to parse out the effectiveness of the identification component of the programmes. Future research should aim to apportion the reported benefits to specific components of the programmes, otherwise it will not be possible to tailor effectively the programmes to the needs of specific populations.

Next steps

Among the strategies that may prove useful in suicide prevention, identifying individuals at high risk would appear to have potential. Such efforts should be fostered in Asian countries, but with some caveats.

Firstly, identifying individuals at high risk is only a useful strategy if there are services in place that can assist them and there are no strong negative attitudes about receiving psychological care that would prevent identified individuals from accepting

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referrals for treatment. In resource-poor countries, where mental health and other relevant services are meagre, identifying such high-risk individuals may only serve to increase frustration over the lack of services. Similarly, in countries where persons who receive psychological services are heavily stigmatized, parallel efforts to reduce this stigma need to be undertaken to increase the likelihood that identified at-risk individuals will, indeed, accept referrals for treatment.

Secondly, some caution must be exercised to ensure that identifying individuals in this way does not label them or breach their confidentiality. Doing so may be counter-productive in that it may increase the stigma they feel and may reduce their likelihood of seeking help.

Thirdly, there is a need for ongoing efforts to be carefully evaluated. Evaluations should be as rigorous as possible and should explicitly consider the effectiveness of the identification component of multi-component prevention programmes. Specifically, these evaluations should consider the extent to which these programmes are successful in identifying suicidal individuals and encouraging them to seek help, and, ultimately, in reducing their suicidal thoughts and behaviours. Wherever possible, comparisons should be made with appropriate groups of individuals who have not had access to the intervention. The evaluations should also consider the context within which these programmes are operating, checking, for example, that they are not creating a demand for services that cannot be met. Consideration should also be given to the extent to which the findings of any evaluation can be generalized to other settings.

Summary and conclusions

The Asian countries participating in the STOPS project have put in place some innovative programmes designed to identify those at high risk – some conducted in mental health and suicide prevention service settings, some based in services provided through other sectors, and some run in community settings. Programmes identifying those at high risk show potential as a suicide prevention strategy, providing they do not increase the stigma felt by suicidal individuals and they occur in circumstances where targeted interventions can be provided to those identified as being at high risk. Further evaluation work is necessary to confirm this potential.

References

- Barnes LS, Ikeda RM, Kresnow MJ (2001). Help-seeking behaviour prior to nearly lethal suicide attempts. *Suicide and Life Threatening Behavior* 32: (Supplement 1):68-75.
- Hong Kong Jockey Club Centre for Suicide Research and Prevention (2005). *Research Findings into Suicide and its Prevention*. Hong Kong: University of Hong Kong.
- Headey A, Pirkis J, Merner B, Vandenheuvel A, Mitchell P, Robinson J, Parham J, Burgess P (2006). A review of 156 local projects funded under Australia's National Suicide Prevention Strategy: Overview and lessons learned. *Australian e-Journal for the Advancement of Mental Health* ISSN:1446-7984, 5:1-15.
- Vijayakumar L, Pirkis J, Whiteford H (2005). Suicide in developing countries (3): Prevention initiatives. *Crisis* 26:120-124.

CHAPTER 7

Reducing Access in Asia to Lethal Means of Self-harm

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Abstract

The majority of the Asian countries involved in the Strategies to Prevent Suicide (STOPS) project have explored various ways of restricting access to means of self-harm, in an effort to reduce their suicide rates. They have tended to focus their efforts on suicide methods that are responsible for a significant proportion of the overall suicide rate, taking steps to reduce access to poisoning agents (such as pesticides, charcoal and car exhaust), to secure jumping sites (such as bridges and high rise flats), and to restrict the availability of firearms. They have used a range of approaches, with the most common being legal restrictions and practical changes to the environment. The mechanisms by which these approaches may impact on individual countries' suicide rates are discussed, as are ways of monitoring their effectiveness.

Reducing access to lethal means of self-harm has been shown to be an effective way of preventing suicide in studies conducted in Europe and the United States of America, with evidence that restricting access to particular methods can reduce both the method-specific suicide rate and the overall suicide rate (Daigle, 2005; Mann et al., 2005). The current chapter considers the potential of means restriction initiatives in the Asian countries participating in the Strategies to Prevent Suicide (STOPS) project, describes some innovative examples, and examines ways of strengthening such initiatives.

The potential for restricting access to means in Asian countries

The primary methods of suicide vary widely in participating countries, and some are more amenable to restriction than others (see Chapter 1). In countries where the most common methods of suicide could be influenced by means restriction – e.g. China, India, Pakistan Sri Lanka, and Viet Nam where pesticide-related suicides are prevalent – this approach should be one of the cornerstones of the overall suicide prevention effort. In countries where the most common methods of suicide are less readily open to restriction, approaches that focus on reducing access to lethal means will be limited to particular subgroups. Restricting access to means is not generally seen as a feasible approach to reducing suicide by hanging because of the difficulty of

limiting hanging points and materials that can be fashioned as nooses. Countries like Australia, Japan, New Zealand, and Thailand in which hanging is a frequent method will need to consider how best to target specific settings (e.g., prisons and psychiatric hospitals) where hanging is a common means of suicide and where restriction may be a realistic option, or they might choose to focus on restricting access to means for subgroups that employ other suicide methods, such as poisoning, jumping or firearms.

Current means restriction activities in Asian countries: Some examples

Some innovative means restriction activities are currently underway in all of the participating countries except Malaysia, Pakistan, and Viet Nam, where reducing access to means as an approach to preventing suicide has received relatively less attention.

A number of participating countries have responded to concerns about suicidal acts involving the ingestion of pesticides, particularly because of the high case fatality rate associated with this method. China, Japan, and Sri Lanka, for example, have introduced legislation to regulate the production, importation, transportation, storage and sale of pesticides, and have conducted small-scale projects to discourage the ingestion of pesticides (e.g., including warnings on labels, adding stanching agents or emetics, and creating solid or diluted forms). China, India and Sri Lanka have also explored the introduction of locked boxes for pesticides. These boxes are located on individual farms or at a central point in the local village, and the keys are held by a trusted family member or a respected community figure (Vijayakumar, 2005). Little formal evaluation of these initiatives has been undertaken to date, but rigorous studies are currently underway in China and Sri Lanka and are planned in Malaysia.

Poisoning by pesticides is largely a problem in rural areas, but concerns have also arisen about poisoning by other agents in some urban settings. Most prominent is carbon monoxide poisoning. Hong Kong SAR has responded to the increasing popularity of charcoal burning as a method by restricting access to charcoal in supermarkets. Participating supermarkets in one local community have agreed to remove charcoal from their shelves and keep it in a locked location for sale only upon request (Yip, 2007). In Australia, carbon monoxide poisoning by car exhaust is recognized as a problem. Work is currently under way on a cost-benefit analysis for the continuation of the development of an Air Quality Monitor for use in existing vehicles and/or newly manufactured vehicles (Galatsis et al., 2000).

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Jumping from heights is a suicide method of concern in urban areas in some participating countries, and some innovative approaches have been adopted to counter the problem. New Zealand, for example, had a particular problem with suicide by jumping from a bridge in one of its major cities, following the removal of barriers from the bridge (Beautrais, 2001). Concerned efforts by suicide prevention advocates led to the re-installation of the barriers, and no further deaths by jumping from the bridge have been recorded. Singapore has also grappled with this issue in the context of having a particularly high rate of suicides by jumping, particularly from high rise flats. These flats house 90% of the population, so trying to prevent suicide by this means is difficult, but efforts have included the removal of long, common balconies that serve as jumping access points, placing higher railings or plastic barriers along these balconies, and even net-like structures to break falls. Families of those at risk are encouraged to secure their windows, and to ensure that the individual is not left in the balconies alone.

Jumping in front of moving objects has also been addressed by means restriction in urban areas in some participating countries. Hong Kong SAR and the Republic of Korea, for example, installed screen doors on platforms in major subway stations in 2004 and 2005, respectively. These screen doors are housed in barriers which effectively wall off the train tracks. When a train arrives, it stops in such a manner that its doors align with the screen doors which then open and allow passengers to get on or off the train. Hong Kong SAR has found that railway suicides have dropped significantly as a result (from 1.4% of all suicides in 2001 to 0.3% in 2004). The Republic of Korea has yet to evaluate its efforts in this regard, but is planning to assess the change in the number of suicide attempts at stations with screen doors relative to those at stations with no screen doors.

Legislation to restrict access to firearms has also been instituted in some participating countries, including Australia, New Zealand, and Thailand. Usually this has not been introduced as a means of reducing suicide, but there is some evidence to show that it has reduced suicides by gunshot. In New Zealand, for example, the introduction of stricter firearms legislation led to a 46% reduction in the mean annual rate of firearm-related suicides for the total population (66% for young people and 39% for adults). The introduction of the firearms legislation, however, was not associated with a reduction in overall suicide rates for young people, adults or the total population (Beautrais et al., 2006).

Optimizing means restriction activities

Three mechanisms are hypothesized to explain the way restricting access to means may operate to prevent suicide. Firstly, in those cases of impulsive suicidal behaviour where the intent to die is not strong, increasing the difficulty of obtaining the means for suicide may give individuals greater opportunity to think through their options and may therefore reduce the likelihood that they will follow through with the suicidal act. Secondly, where the intent to die is stronger but the suicidal behaviour is still impulsive, postponing the act by making it harder to obtain the necessary means will afford a greater opportunity for other preventive interventions to take place. Finally, irrespective of impulsivity or intent, reducing the lethality of means available may result in lower rates of case fatality (i.e., although the rate of suicide attempts may remain the same or may even increase, the rate of completed suicides may come down).

Assuming that these hypothesized mechanisms are operating, several mediating factors that could influence the outcome of different approaches to means restriction should be considered. The potential degree of substitution by an alternative method following restriction of one method and the relative lethality of the alternative method are both important (Daigle, 2005). The proportion of impulsive and low-intent behaviours among all non-fatal and fatal suicidal acts will have a bearing on the success of means restriction efforts. So too will access to crisis services and other forms of mental health care, as well as the availability of other preventive interventions in the target community. Coverage by appropriate resuscitation services will also be crucial, in order to minimize the case fatality rate.

In many of the participating Asian countries, there are few if any mental health services, particularly in rural areas (Vijayakumar et al., 2005). For this reason, 'buying time' as a result of restricting access to lethal means is unlikely to result in increased opportunities for psychological interventions. In these areas, the presumed benefits of restricting access to means would be to decrease suicidal behaviours in those who engage in impulsive, low-intent acts, and to reduce the overall case fatality. Specific activities might therefore best be targeted at subgroups that are most likely to engage in hasty, reckless acts of self-harm (e.g., young people), and might involve restricting highly lethal means (e.g., pesticides).

The successful implementation of any effort to restrict access to means of self-harm is heavily dependent on appropriate support. Garnering such support involves

identifying influential agencies or individuals who will initiate or champion the strategy, recruiting these and other important stakeholders to the effort, counteracting the influence of groups and individuals who will be opposed to the activity for any reason, and securing the financial and other resources necessary to implement the strategy. In some participating countries, nongovernmental organizations (e.g., suicide prevention groups, survivor groups, mental health associations, academic associations) can assume the role of ‘initiator’ of a means restriction initiative. In others, only government agencies have the authority to undertake such initiatives, so interested non-governmental organizations (or other groups or individuals) must convince a government department to take action. The government department will vary, depending on the particular means of interest (e.g., a department of agriculture may be responsible for pesticides, a department of infrastructure may be responsible for subways and bridges). As a consequence, the potential supporters and opponents will differ, depending on the specific means restriction strategy of interest. Therefore, selecting the most feasible means restriction activity from the long list of potential activities will require a detailed understanding of the respective roles of government and non-governmental organizations in the given country, and the motivations and concerns of the many stakeholders.

Research and evaluation

It is clear that the methods employed in completed and attempted suicide vary. It is also clear that there are differences in the methods chosen by different subgroups, and that the relative popularity of particular methods will vary over time. Ongoing, up-to-date information on the methods employed in fatal and non-fatal suicidal behaviour by different subgroups at different points in time is necessary to determine the appropriate focus of means restriction activities and to assess their effectiveness.

Many of the participating Asian countries do not have such monitoring systems in place and are unlikely to do so in the foreseeable future (see Chapter 1), and will therefore be reliant on local studies and regional data. It is hoped that countries that do have good systems for monitoring suicidal behaviour (by method, subgroup and time) will conduct rigorous evaluations, and consider how their findings can be generalized to other Asian countries.

Whether the evaluation relies on purpose-designed data collection activities or draws on routinely-collected data, there are some important considerations that should

be borne in mind. At the very least, evaluations should compare data on suicide rates before and after the introduction of any means restriction initiative. Wherever possible, they should also consider changes in rates over the same time period for a control community that has not been exposed to the intervention. Ideally, they should examine rates of attempted suicide as well as rates of completed suicide, as this will help to tease out the role of some of the above potential mediating factors in influencing the outcome of specific means restriction strategies (e.g., availability and lethality of alternatives, accessibility of crisis and mental health services and resuscitation services). They should also consider issues of substitution, and should go beyond an assessment of pure effectiveness to examine the acceptability and cost-effectiveness of the intervention. Evaluations should also explore the ways in which means restriction efforts can best be integrated with other suicide prevention efforts.

Summary and conclusion

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 and can be controlled. A number of participating countries are currently taking steps to reduce access to poisoning agents such as pesticides, charcoal, and car exhaust, to secure jumping sites like bridges and high rise flats, and to restrict the availability of firearms. 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. In better resourced Asian countries, it may also result in increased opportunities for psychological interventions. Improved evaluation efforts are necessary, but there are early indications that reducing access to means can be effective in addressing the problem of suicide in Asian countries.

References

- Beautrais A (2001). Effectiveness of barriers at suicide jumping sites: A case study. *Australian and New Zealand Journal of Psychiatry* 35:557-562.
- Beautrais A, Fergusson DM, Horwood LJ (2006). Firearms legislation and reductions in firearm-related suicide deaths in New Zealand. *Australian and New Zealand Journal of Psychiatry* 40:253-259.

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- Daigle M (2005). Suicide prevention through means restriction: Assessing the risk of substitution: A critical review and synthesis. *Accident Analysis and Prevention* 37:625-632.
- Galatsis K, Wlodarski W, Wells B, McDonald S (2000). Vehicle cabin air quality monitor for fatigue and suicide prevention. *Society of Automotive Engineers Transactions* 109:55-59.
- Mann JJ, Apter A, Bertolote J, Beautrais A, Currier D, Haas A, Hegerl U, Lonkvist J, Malone K, Marusic A, Mehlum L, Patton G, Phillips M, Rutz W, Rihmer Z, Schmidtke A, Shaffer D, Silverman M, Takahashi Y, Varnik A, Wasserman D, Yip P, Hendin H (2005). Suicide prevention strategies: A systematic review. *Journal of the American Medical Association* 294:2064-2074.
- Vijayakumar L (2005). Challenges in prevention of pesticide suicide in India. Presentation at XXIII IASP World Suicide Prevention Congress, Durban, South Africa, September 13-16, 2005.
- Vijayakumar L, Pirkis J, Whiteford H (2005). Suicide in developing countries (3): Prevention initiatives. *Crisis* 26:120-124.
- Yip PS, Lee DTS (2007). Charcoal-burning suicides and strategies for prevention. *Crisis* 28 (Supplement 1): 21-27.

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.

SUICIDE AND SUICIDE PREVENTION IN ASIA

- 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).

CHAPTER 9

Addressing in Asia the Problems of Survivors of Suicide

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Abstract

In any given year, around 12 million people in Asia may be actively experiencing the aftermath of a suicide. The associated grief and loss may be severe and children who have lost a parent are among the most deeply affected. Because of the disproportionately high rate of suicide in China and India among young married women, large numbers of children have lost their mothers to suicide. Despite this, few services for survivors are available in the Asian countries participating in the Strategies to Prevent Suicide (STOPS) project; only six of the countries have any survivors support groups and only two of these have more than a few groups. In some countries cultural, religious and political factors that shape taboos about suicide contribute to the problem. There is a clear imperative to raise awareness of the needs of survivors among religious and political leaders, and among the general public. There is a need to strengthen and expand service provision in this area; Suicide Prevention International (SPI) is beginning to address that need.

People bereaved by suicide (termed ‘survivors’ in the current chapter) often experience significant emotional sequelae as a result of their loss. Clark and Goldney (2000) and Wong et al. (2007) discuss the kinds of grief reactions that may be experienced by survivors, acknowledging that different people will respond differently. Some may experience shock, disbelief or horror. Others may feel the need to seek explanations of how and why the suicide occurred. Guilt, blame and shame are also common reactions, with many feeling responsible for not having ‘seen the signs’ and prevented the death. These feelings are often accompanied by feelings of stigma, loss of trust and social isolation. Rejection and anger are also experienced by many. Some may experience some sort of relief or feeling that the person is no longer in emotional distress, particularly in circumstances where the suicide has been preceded by depression or other mental illness. Alternatively, the suicide may be viewed as a wasted life or as a family disaster. Survivors often experience suicidal thoughts themselves, either as a result of their wanting to join the deceased or because of depression and grief.

Children are particularly vulnerable not only to the loss of a parent and the weakened economic viability of the household but to the fact that a traumatized surviving parent may be functioning less well as a parent than previously. In addition there is a genetic vulnerability to suicide, and the child, unless adopted, has a genetic link to the deceased parent.

The current chapter examines the emotional support available to survivors of suicide in the countries participating in the Strategies to Prevent Suicide (STOPS) project. It describes the services available for survivors in these countries, and considers some of the impediments to service delivery. It also makes reference to current research and evaluation efforts in this area. Finally, it makes some suggestions regarding future steps that might be taken to strengthen the assistance and support available to survivors of suicide in Asia.

Issues for survivors of suicide in Asia

Clark and Goldney (2000) note that an average of six people experience grief and loss as the result of any given suicide, and that their level of grief may remain high for up to four years. Given that there are around half a million suicides in Asia in any given year (see Chapter 1), this translates to 12 million people actively experiencing loss and grief as a result of suicide at any particular time. In fact, this estimate is probably conservative, given that nuclear families are larger in most Asian countries than in Europe and the United States and there is a greater tendency for people to live in joint and extended family systems.

The issues for survivors of suicide in Asia may be amplified by cultural and religious norms which influence attitudes towards suicide (see Chapter 2). In countries like Pakistan, for example, suicide is strongly condemned on religious grounds and considered a criminal offence. According to Islam, suicide is a sin which results in refusal of entry to heaven. Families in which suicide has occurred may be ostracized and isolated, and the marriage prospects of sisters and daughters of people who die by suicide may be marred (Khan and Prince, 2003). These attitudes may impact the way people respond to survivors and the likelihood that survivors seek help or identify themselves as having been bereaved by suicide.

Services for survivors of suicide in Asia

The above attitudinal problems are further compounded by the fact that very few formal services are provided for survivors of suicide in Asia. According to the country questionnaires completed by the Asian representatives in the STOPS project, few of the participating countries have initiatives in place to address survivors' needs (see Table 6). A number of countries (e.g., Malaysia, Pakistan, Thailand, Viet Nam) have no services in place at all. Examples of professional bereavement support and/or response services for survivors are rare in Asia; only Australia and New Zealand have committed resources in this area, via specific projects and initiatives. These countries have also developed information and support packs for survivors. Hong Kong SAR, however, has initiated a number of pilot projects designed to help survivors.

Although not shown in Table 6, most of the limited services for survivors available are provided by non-professional groups. For example, the Ashinaga Foundation in Japan provides emotional and financial support to children who have lost a parent to suicide. Sri Lankan church organizations provide memorial services and religious ceremonies. The Singapore Local Outreach to Suicide Survivors (LOSS) programme is informed by police when a suicide occurs, and they dispatch a team of two Samaritans to attend the survivors.

The information provided in Table 6 suggests that because of the lack of formal services in most participating countries, there is a reliance on small, local survivor self-help groups and other types of support groups. Table 7 profiles these survivor support groups. Six of the Asian participating countries have survivor support groups (Australia, China, China, Hong Kong Special Administrative Region (Hong Kong SAR), Japan, New Zealand, and Singapore), mostly with formal organizational support of some sort. These are the only services available for survivors in China, Hong Kong SAR, Japan, and Singapore. Most of these countries have only a limited number of such support groups, but Australia and Japan report 'more than a dozen'. They tend to meet at least once a month; occasionally more frequently for the recently bereaved. They tend to be located in cities and suburban areas. Few include a mental health professional, or even offer referral for psychiatric consultation or treatment if it seems indicated. Some of these groups have difficulty reaching out to survivors because of the stigma associated with suicide. The majority of those countries without existing survivor support groups have some potential to start such groups, sponsored by a local organizing body.

According to participants' questionnaire responses, there are some common barriers to the provision of services for survivors in Asian countries. There is a lack of awareness that the aftermath of suicide can be significant and last for some time, and that suicide survivors represent a significant at-risk group. Even in circumstances where there is some awareness, there is often a lack of financial and human resources (e.g., few trained professionals are available to conduct programmes for survivors) and/or a lack of organizational governance of programmes. Perhaps most importantly, however, the cultural, religious and sometimes even political influences on attitudes towards suicide render it a taboo subject. As a consequence, family members are reluctant to identify themselves as having been directly affected by suicide, and are reticent to talk about the topic to strangers. The fact that family members of those who attempt or complete suicide often want this information kept secret means that even when services such as support groups are available, attendance is often poor.

Research and evaluation

Research and evaluation activities in the area of survivor programmes have been limited in participating countries, with a few notable exceptions. In Hong Kong SAR, for example, research is being undertaken into the incidence of and risk factors for posttraumatic stress disorder among suicide survivors. In Thailand, a study considering the impact of a suicide by a patient on Thai psychiatrists has been completed (Thomyangkoon and Leenaars, 2007). In Australia, evaluations are being conducted alongside the development of support and information packs and the delivery of professional bereavement services. In India, efforts were made to evaluate the single survivor support group that previously existed (run by a nongovernmental organization) using a range of mental health outcome measures, but the sample size was too small to draw firm conclusions. In New Zealand, one study has explored the impact of suicide on family members; another study has examined the training and experience of volunteers who provide support to bereaved families. An evaluation is planned of a new national postvention initiative in which clinical psychologists who specialize in suicide prevention train, supervise, and monitor volunteers who provide support for survivors.

Next steps

There is a clear need to raise awareness about the needs of survivors of suicide in many participating Asian countries, and to remove barriers to their seeking support. This is not a simple task, and will involve a multi-faceted approach. Raising awareness among religious leaders is vital, and may help to address the religious censure that prevents many people coming forward to seek help, particularly if churches and mosques give their imprimatur to survivor programmes. Lobbying political leaders is also important, particularly in Asian countries where suicide is still considered a crime, in order that survivors can seek help without fear of being condemned as accomplices. Improving the knowledge and attitudes of the general public (e.g., via print and electronic media) is also crucial, and may help to reduce the stigma experienced by survivors.

Beyond raising awareness, there is a need to strengthen existing efforts to address the needs of survivors. Services should be culturally sensitive in order to address the reluctance of many survivors to discuss suicide and its emotional consequences. Current services should be expanded, and new services developed.

Suicide Prevention International (SPI) is attempting to fill this need by partnering with LOSS, a model programme in the United States for survivors of suicide in Chicago, in training qualified mental health professionals from Asia to organize and run survivor support groups and programmes.

LOSS (Loving Outreach for Survivors of Suicide) has an organized plan for individual treatment for survivors, weekly support groups of ten sessions for the recently bereaved, and ongoing monthly support groups. Started as a single group over 20 years ago, the programme's success led to demand for its services so there are now ten linked groups in the city. All of their programmes are led by trained professionals, have an effective plan for providing help, and central oversight to ensure that guidelines are followed. They have developed evaluation criteria for the individual treatment of survivors that they are now adapting for the weekly bereavement groups.

SPI and LOSS are training mental health professionals representing organizations from a few countries in Asia in effective methods of helping children and family members deal with the impact of suicide. The goal is for those trained not only to develop survivor support programs in their own cities but in time to serve as resources and become centres for training professionals and volunteers from other regions in

their own countries, and possibly from other Asian countries. It will not be possible to have professionals in groups in all regions but the objective then will be to select and train group leaders. This initiative will be discussed in Chapter 10.

Summary and conclusions

The problems of survivors of suicide in Asian countries are under-recognized and under-addressed. In most Asian countries, few or no services are provided for survivors in any systematic way. Cultural, religious, and political factors underpin this picture; taboos about suicide militate against services being provided for survivors and make it difficult for survivors to approach the few services that do exist. There is a clear imperative to raise awareness of the needs of survivors among religious and political leaders, and among the general public. Since the need to expand service provision in this area is so evident it is encouraging that representatives of all participating countries are confident that survivor support groups could be started in their countries and that there would be organizations that would support these efforts. This augurs well for the efforts of SPI in addressing this need.

References

- Clark S, Goldney R (2000). The impact of suicide on relatives and friends. In:
Hawton K, vanHeeringen K, editors. The International Handbook of Suicide
and Attempted Suicide. Chichester: John Wiley and Sons Ltd.
- Khan MM, Prince M (2003). Beyond rates: The tragedy of suicide in Pakistan.
Tropical Doctor 33:67-69.
- Thomyangkoon P, Leenaars A (2008). Impact of death by suicide of patients on Thai
psychiatrists. Suicide and Life-Threatening Behavior. Under review.
- Wong PWC, Chan WSC, Beh PSL (2007). What can we do to help and understand
survivors of suicide in Hong Kong? Crisis 28:183-189.

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Table 6: Services for survivors of suicide in participating countries*

	Australia	China	China, Hong Kong SAR	India	Japan	Malaysia	New Zealand	Pakistan	Republic of Korea (the)	Singapore	Sri Lanka	Thailand	Viet Nam
Information and support packs	Yes	No	No	No	No	No	Yes	No	Not available	Not available	No	No	No
Professional bereavement support and/or response services	Yes	No	No	No	No	No	Yes	No	Not available	Not available	No	No	No
Survivors support groups	Yes	Yes	Yes	No	Yes	No	Yes	No	No	Yes	Not available	No	No

* Information supplied by STOPS country representatives via questionnaire

Table 7: Survivors support groups in participating countries*

	Australia	China	China, Hong Kong SAR	India	Japan	Malaysia	New Zealand	Pakistan	Republic of Korea (the)	Singapore	Sri Lanka	Thailand	Viet Nam
Are there currently survivors of suicide support groups in your country (i.e., groups of survivors that meet at least once a month to discuss their problems)?	Yes	Yes	Yes	None, though there had been one	Yes	No	Yes	No	No	Yes	Not available	No	No
If so, estimate how many there are.	More than a dozen	A few	A few	Not applicable	More than a dozen	Not applicable	A few	Not applicable	Not applicable	One	Not available	Not applicable	Not applicable
Where are they located?	In large cities, suburban areas and rural areas	In large cities	In large cities	Not applicable	In large cities	Not applicable	In suburban areas	Not applicable	Not applicable	Not available	Not available	Not applicable	Not applicable

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	Australia	China	China, Hong Kong SAR	India	Japan	Malaysia	New Zealand	Pakistan	Republic of Korea (the)	Singapore	Sri Lanka	Thailand	Viet Nam
Do any of the groups include a mental health professional?	Don't know	Most	Some	Not applicable	Some	Not applicable	None	Not applicable	Not applicable	None	Not available	Not applicable	Not applicable
Are there support groups meeting weekly for 10 weeks for the recently bereaved?	Don't know	Yes	Don't know	Not applicable	No	Not applicable	No	Not applicable	Not applicable	Yes	Not available	Not applicable	Not applicable
If yes, do they include a mental health professional?	Don't know	Yes	Yes	Not applicable	Not available	Not applicable	Not applicable	Not applicable	Not applicable	No	Not available	Not applicable	Not applicable
Is there organizational support for the survivors groups?	Yes	Yes	Yes	Not applicable	Yes	Not applicable	Not yet	Not applicable	Not applicable	Yes	Not available	Not applicable	Not applicable
Is psychiatric consultation or treatment available if it seems indicated?	Yes	Yes	Don't know	Not applicable	Yes	Not applicable	Not in a co-ordinated way	Not applicable	Not applicable	Yes	Not available	Not applicable	Not applicable
Do you think it would be possible to start survivors groups in your country?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Not available	Not available	Yes
If yes, is there an organization in the country that would support them?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Not available	Not available	Yes
If you don't think it possible to start such groups, why not?	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not available	Not available	Not applicable

* Information supplied by STOPS country representatives via questionnaire

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

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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.

FUTURE DIRECTIONS

- 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.

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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).

