

RESEARCH REPORT**Suicidal process, suicidal communication and psychosocial situation of young suicide attempters in a rural Vietnamese community****DANUTA WASSERMAN¹, HUONG TRAN THI THANH^{1,2}, DUC PHAM THI MINH², MAX GOLDSTEIN¹, ANA NORDENSKIÖLD¹, CAMILLA WASSERMAN¹**¹Swedish National and Stockholm County Centre for Suicide Research and Prevention of Mental Ill-Health (NASP) at the Department of Public Health Sciences, Karolinska Institute, P.O. Box 230, SE-171 77 Stockholm, Sweden²Hanoi Medical University, Hanoi, Vietnam

The study aimed to explore the suicidal process, suicidal communication and psychosocial situation of young suicide attempters in a rural community in Hanoi, Vietnam. Semi-structured interviews were conducted, in a community setting, with 19 suicide attempters aged 15-24 who had been consecutively hospitalized in an intensive care unit. In 12 of 19 cases, the first pressing, distinct and constant suicidal thoughts appeared less than one day before the suicide attempt in question. However, distress and mild, fleeting suicidal thoughts had been present up to six months before the suicide attempt in 16 cases. Five respondents had a suicide plan one to three days before attempting suicide. Altogether, 13 engaged in some form of suicidal communication before their attempt. This communication was, however, difficult for outsiders to interpret. Twelve of the respondents were victims of regular physical abuse and 16 had suffered psychological violence for at least one year before attempting suicide. Eighteen of the respondents used pesticides or raticides in their suicide attempts. None sought advice or consultation in the community despite long-standing psychosocial problems. The strategy of reducing the availability of suicide means (e.g., pesticides or raticides) in Asian countries should be complemented with a long-term suicide-preventive strategy that targets school dropouts and domestic violence, and promotes coping abilities and communication about psychological and social problems as well as recognition of signs of distress and suicidal communication.

Key words: Suicide attempters, suicidal communication, psychosocial situation, preventive strategies*(World Psychiatry 2008;7:47-53)*

Over the last 45 years, mortality due to suicide has increased in some developed and developing countries, among both adults and young people (1-2). Depending on age, sex and location, suicide attempts are 10-40 times more frequent than completed suicides (3-5). The results of SUPRE-MISS (the World Health Organization's Multisite Intervention Study on Suicidal Behaviours, within the Suicide PREvention initiative) show that suicide attempts, plans and ideation varied by a factor of 10-14 among the study sites in the ten countries concerned, in five continents (5). The incidence ratios of suicide attempts to suicide plans and thoughts varied substantially. The authors concluded that the idea of the suicidal process as evolving continuously from thoughts to plans and attempts needs further investigation, and that the process appears to depend on the cultural setting (6).

A study from China (6) found that younger individuals are more likely to attempt low or intermediate-planned acts than high-planned acts. The attempts were classified as "low-planned" when the time lag between the first reported suicidal thought and the suicide attempt itself was less than two hours. Those who attempted low-planned acts were found to be more likely to have experienced greater acute stress than those whose attempts were characterized as "high-planned" (6). The majority of low-planned suicides in the study were carried out with pesticides, which were readily available at home.

The results from the SUPRE-MISS study showed that 71.6% of female and 61.5% of male attempters in China,

compared with 33.8% of male and 23.8% of female attempters in India, used pesticides as a means of attempting suicide (7). Studies from China and India conclude that restriction of access to toxic means of suicide, safer storage and a reduction of the toxicity of agricultural chemicals and rat poisons are advisable. An evidence-based suicide-preventive strategy focusing on restriction of lethal means of suicide is widely advocated (8,9). Other suicide-preventive strategies include improved recognition of suicidal communication (10-13) and better risk recognition of depression and substance abuse, especially in schools (14) and by primary care physicians (15).

Several investigations in Western countries show that 48-84% of people who committed suicide repeatedly communicated their suicidal intentions to their significant others and to more than one person. Significant others' responses to the suicidal communications of distressed, suicidal persons and lack of support have an impact on the course of the suicidal process (13). Significant others often fail to recognize suicidal communication, owing to their lack of knowledge, but also because their own ambivalent attitudes and behaviour towards self-destructive persons come to the fore when they are confronted with suicidal communication.

Suicidal communication can be divided into direct and indirect verbal communication, on the one hand, and direct and indirect non-verbal communication on the other. "Direct verbal suicidal communication" refers to clearly expressed suicidal intentions. "Indirect verbal suicidal communication"

means the expression, in various ways, of the feeling that one's situation is hopeless, that life has no meaning, that there is no solution to one's current problems and that it would be better to disappear or die. In "direct non-verbal communication", a suicidal person undertakes various kinds of preparation for the suicide attempt, such as collecting drug prescriptions, buying pesticides or raticides, or writing a farewell letter. "Indirect non-verbal suicidal communication" refers to withdrawal, deliberate self-isolation, weakening or rupturing ties with family and friends and/or taking concrete steps to put personal affairs in order before committing suicide.

The present study was based on a sample of young suicide attempters in a rural community in Hanoi, Vietnam. The aim of the study was to explore the suicidal process (from the onset of suicidal ideation to the appearance of suicide plans and attempted suicide), suicidal communication and the psychosocial situation of suicide attempters. The theoretical background of the study was the stress-vulnerability model and the notion of the developing suicidal process (16,17).

METHODS

Procedures

All suicide attempters who were hospitalized from August 2001 to August 2003 in the Intensive Care Unit at the Socson District Hospital in Hanoi were studied. All 29 suicide attempters from rural areas aged 15-24 years were selected for in-depth interviews. Four respondents had moved from the catchment area at the time of the study, three gave incorrect addresses and three patients refused to participate, which resulted in a total of 19 interviews. Interviews were performed using a uniform procedure and method. The time interval between the suicide attempt and the interview was 5-6 months (range 1-11 months).

The interviews lasted up to two hours and were performed by one of the authors (HT). The location was chosen by the participants. In 14 cases it was the participant's home, in three the community health centre and in two a rice field. Basic sociodemographic data were collected and semi-structured interviews then enabled the participants to describe the course of events freely. In each case, however, structured questions were posed covering the following areas: I. Family relations and psychosocial situation as risk or protective factors; II. Presence of suicidal communication before attempted suicide; and III. Development of the suicidal process from suicidal thoughts to suicide plans and suicide attempts. The detailed questions asked during the interview are presented in Table 1.

The in-depth interview records were translated into English and then interpreted by five persons (MG, AN, HT, CW, and DW) independently. After careful revision of the interview records, coding was used, based on the theoretical concept of the developing suicidal process and on the types of suicidal communication used. A peer-review group of

Table 1 Structured questions posed in the interview

Area I. Questions concerning family relationships and psychosocial situation

Theme 1. Motives for suicide attempt

- Describe the motives that led you to attempt suicide.

Theme 2. Ability to seek help

- Did you try to get help and advice, and to communicate your needs, if and when you had difficulties in your everyday life?

Theme 3. Mental health, alcohol problems, attempted suicide or suicide among family members

- Is there anyone in your family with a mental health problem?
- Is there anyone in your family with an alcohol problem?
- Has anyone in your family made a suicide attempt?
- Has anyone in your family committed suicide?

Theme 4. Violence

- Have you ever suffered physical abuse from your family or a partner?
- Have you ever suffered psychological abuse from your family or a partner?

Theme 5. Support from family and partners

- Describe your family situation.
- Describe your relationships with your family members.
- Have you ever been in need of financial support from your family or a partner?
- Have you ever been in need of psychosocial support from your family or a partner?
- Have you ever received any financial support from your family or a partner?
- Have you ever received any psychosocial support from your family or a partner?

Area II. Questions related to various types of suicidal communication

- Did you tell your family members, friends and/or neighbours explicitly that you had the intention of taking your life? [*direct verbal communication*]
- Did you tell your family members, friends and/or neighbours implicitly that you thought life was not worth living, or that you wanted to disappear from this life, or take a break from this life, that you saw death as a solution, etc? [*indirect verbal communication*]
- Did you prepare for the suicide attempt in any way (e.g. by saving pills or buying pesticides or raticides, or writing a farewell letter)? [*direct non-verbal communication*]
- Did you do anything like paying bills, saying goodbye, writing your will, disrupting ties with your family, deliberately self-isolating yourself or withdrawing once you had decided to take your own life? [*indirect non-verbal communication*]

Area III. Questions concerning the suicidal process

Theme 1. Previous suicide attempts and suicidal thoughts

- Had you ever attempted suicide before?
- When did you first think about suicide?
- When did you first experience mild suicidal thoughts, fleeting and sporadic suicidal thoughts, pressing and distinct suicidal thoughts, and constant suicidal thoughts?

Theme 2. Suicide plan and probability of detection after suicide attempt

- Did you have a plan before attempting suicide?
- What was your plan?
- How long before the attempt did you make the plan?
- Did you do anything to prevent someone from finding you?
- Was anyone near you at the time of the suicide attempt?

Theme 3. Method

- What method did you use to attempt suicide?
- Why?
- How did you get hold of what you needed? From neighbours, at home, purchased?

Theme 4. Retrospective feelings after the suicide attempts

- How did you feel after the suicide attempt(s)?

qualitative researchers from the Swedish National and Stockholm County Centre for Suicide Research and Prevention of Mental Ill-Health (NASP) discussed both the

coding scheme and coding decisions. Analysis was based both on the three selected themes listed above and on narrative descriptions of the cases. Results for each theme were identified in the interviews and afterwards pooled.

Subjects

Ten females and nine males participated in the interviews. The mean age of the subjects was 19.5 years (range 15-24 years). Five of the 19 subjects were married. Fifteen were primary or secondary school dropouts. The parents of 12 respondents had primary education, while seven respondents' parents had attended secondary school. Most of the participants lacked hobbies, with the exception of one male who was interested in football. None of the subjects had previously attempted suicide. Eighteen of the subjects were given the diagnosis of X68 (intentional self-harm by exposure to pesticide or raticide), according to ICD-10, while one subject received the diagnosis of X83 (intentional self-harm by other specific means). None were given psychiatric diagnoses by doctors during their stay in hospital after their suicide attempt. Their hospital treatment lasted from one to three days.

RESULTS

Area I. Family relationships and psychosocial situation as risk or protective factors

Theme 1. Motives for suicide attempt

Personal conflict was the main motive of attempted suicide for 18 suicide attempters. Seven committed a suicidal act after being scolded by a parent, five after quarrelling with partners and two after quarrelling with other family members. In three cases, the act took place after a parent had interfered in the subject's love life; in one after a parent refused to give the subject money to buy a birthday present for a friend; and in one because the subject felt sad.

"... I was very upset and depressed, and I did not want to suffer from my mother's blame any more. I thought that death could free me from my current terrible life ..." (Participant 4, male).

"... He still blamed me when he sobered up. I ran to my parents' house and told them what had happened. My parents also beat me and chased me back. I did not have any friends to confide in. I thought of death as a solution..." (Participant 17, female).

Theme 2. Ability to seek help

None of the suicide attempters sought advice, consultation or communicated with parents, relatives or communi-

ty services concerning the difficulties in their lives during the year before their attempted suicide.

Theme 3. Mental health and alcohol problems among family members

Four of the participants had fathers (2) or husbands (2) who were alcohol abusers. One of them had an elder brother who had abused drugs. None of them had anyone in the family with mental health problems or who had attempted or committed suicide.

Theme 4. Violence

Ten of the young suicide attempters were regularly beaten by their parents. It happened *"all the time"* and *"without reason"*. Two of the four young married female suicide attempters regularly suffered from domestic violence.

Sixteen of the suicide attempters were psychologically abused by their families for at least one year before attempting suicide, incurring regular scolding, blame, and criticism, or being reproached in ways that made them feel guilty and sad.

Theme 5. Support from family and partners

Fourteen participants wanted financial support from their parents and four received it. Sixteen reported that they had asked their parents and family for psychological and moral support, but none of them received it.

"... I sometimes felt my life was meaningless, and I wanted to put an end to my life. I was the only son in my family, but most of my family members have hardly spoken to me. An only son is said to be treated beautifully, but it seemed to be the opposite in my case. Almost every day, I was blamed for various things during mealtimes. I was even treated worse than a dog ..." (Participant 4, male).

"... Every day, my husband gambled and his behaviour affected our family finances. I tried to tell him, but he did not change. On that day, my husband continued gambling. I felt angry. We had an argument, I felt that life was not worth living and I went out to buy raticide..." (Participant 15, female).

"... I had to pay a tuition fee of 20,000 Vietnam Dong (that's about 1.5 US dollars). My father refused to give it to me. I didn't think it was that much money. At the time, my father drank a lot and scolded me all the time. I felt sad, so I attempted suicide..." (Participant 5, male).

Area II. Suicidal communication

Three of the 19 respondents used direct verbal suicidal

communication. Sixteen of the 19 respondents felt deep frustration with their life situations for at least six months before they attempted suicide, and ten of them for at least one year, but they were unable to express in words to their families not only their need for help, but also their fleeting, vague suicidal thoughts.

Seven of the 19 respondents communicated with their friends or peers about their distress and their wish to disappear from life. However, they were afraid of self-exposure and negative repercussions. They also thought that it is "sick" to harbour suicidal thoughts and they felt that it was easier to acknowledge or to talk about feelings of unhappiness, despair and distress. There was a marked discrepancy between what those young people expressed verbally and the desperation they felt. They were ashamed and they felt that they should cope on their own without intervention from outside. They wanted to give the impression of being strong. Feelings of being strong alternated with feelings of being useless and worthless. Their feelings of anxiety and anguish were not expressed either.

Ten youngsters expressed their distress in a non-verbal way by deviant behaviour and weakening or rupturing ties with their families. They also had time to buy raticide in a shop. Two of the 19 respondents wrote farewell letters before attempting suicide.

Area III. Suicidal process

Theme 1. Previous suicide attempts and suicidal thoughts

For 12 suicide attempters, the first suicidal thoughts became overwhelming, very pressing and constant less than one day before the suicide attempt in question. In five cases, the suicidal thoughts became overwhelming one to three days before the suicide attempt. One male had had fairly pressing, but sporadic suicidal thoughts for approximately a year before the attempt.

At least six months before they attempted suicide, 16 of the 19 respondents were "very sad", "wanted to cry", felt "unpleasant", "self-pitying" and thought that "life was meaningless" and not worth living. They wanted to disappear or take a break from life. Sometimes they thought that death might be a solution to their problems. They acknowledged vague and fleeting suicidal thoughts, which could disappear quickly and recur equally fast in response to new or renewed strains. Ten of the respondents had felt deeply distressed for at least one year before their suicide attempt. Only two believed that those vague and fleeting suicidal thoughts were serious or could lead to a suicidal act. Almost all of them thought that their suicide attempt was due to chance circumstances. The information concerning the suicidal process and the presence of suicidal thoughts was unclear for one participant. All the young persons studied hoped that their difficulties would pass without any active steps being taken by themselves or others, and that their lives would be better in the future.

Theme 2. Suicide plan and probability of detection after suicide attempt

Five respondents had a suicide plan for one to three days before attempting suicide.

"...I had planned suicide two days before I attempted it. That morning I bought six or seven ampoules of raticide. After finishing work on the field and in the house, I took the raticide at around 5 pm, because my husband was often drunk and frequently beat me..." (Participant 17, female).

All the young interviewees thought it highly unlikely that their suicide attempt might be interrupted or that external intervention could save them. On the other hand, 14 subjects had someone nearby or present when they displayed their suicidal behaviour.

"...During dinner my mother like always repeatedly blamed various things on me. Moreover, my older sister came home and backed my mother up in the way she was speaking to me. I became very upset because I thought I was right, yet I was seriously blamed by both my mother and sister. I was tired after a long day's work, and very irritable. I did not have any hope for a change in my life. I stopped eating, left the living room and went to my bedroom. This was a small room next to the living room, separated from it by a curtain. I poured a packet of pesticide into my mouth without hesitation..." (Participant 4, male).

Theme 3. Method

Pesticides were used by nine subjects, raticide was also used by nine, and one male used allergy medication in his suicide attempt. According to the young suicide attempters interviewed, raticides are cheap and pesticides easily available for purchase in rural areas.

"...because raticide was cheap and easy to buy. First, we wanted to use an electric wire [for hanging] but this way [raticide] was quicker..." (Participant 7, male)

Theme 4. Retrospective feelings after the suicide attempt

Eight of the subjects felt regret, another eight were ashamed, two had feelings of failure and shame, and one was unclear about his feelings.

"... I felt tired, and regretted my actions. I realised that my parents were right and I had failed..." (Participant 6, male).

"... I was very upset and depressed and I did not want to suffer from my mother's blame any more. I thought that

death could free me from my current terrible life. Unfortunately, my action was discovered and I felt like a failure. I was sad that I could not kill myself. Rumours about my act will spread widely, and I will suffer from it for the rest of my life.” (Participant 4, male).

DISCUSSION

Methodology

The interviews were performed after treatment, outside hospital settings, confidentially and in an empathic atmosphere. These conditions helped respondents to freely express their experiences, which also included positive and negative aspects of their stay in the ward. However, the respondents may not have described their experiences in full, for two reasons. First, some of the subjects were interviewed 10-11 months after their attempt and may therefore have forgotten some details about past events. Second, the participants may not have wished to be reminded of the negative circumstances that led to their suicide attempts, and may therefore have evaded answering questions that were emotionally challenging. The dropout rate (approximately 30%, i.e. 10 of the 29 consecutively selected patients) limits generalization of the results of this study. Suicide attempters who were not hospitalized were not included in the study.

Suicidal communication and length of suicidal process

Suicidal communication is a manifestation of personal style, reflecting a person's capacity to ask for help. For suicide-preventive purposes, it may be important to uncover various manifestations of suicidal communication, as well as the subject's despair and motives for attempting suicide. In the present study, seven of the 19 respondents used indirect verbal forms of suicidal communication and three engaged in direct verbal suicidal communication.

Ten of the 19 patients felt they were in desperate straits and experienced profound and prolonged distress for at least one year before their suicide attempt. Sixteen of the 19 had experienced an intense and constant sadness, as well as fleeting, vague suicidal thoughts, and felt that “life is meaningless”, for one week to six months prior to their suicide attempt. However, they were unable to communicate constructively with their parents or other family members about their feelings. Inability to seek advice and communicate in a dialogue with others about their distress and a need for psychological or financial support were obvious in almost all the persons studied. The fact that vague and fleeting suicidal thoughts, which are dependent on stressful life situations, are not taken seriously is also seen in patients from Western cultures (18,19).

Although 12 of the 19 youngsters showed a short time lag (less than one day) and five of the 19 had a time lag of be-

tween one to three days between their first distinct, pressing suicidal thought and their suicide attempt, they had experienced vague and fluctuating suicidal thoughts in the preceding months and 13 of them had used some form of suicidal communication. However, indirect communication can be difficult for outsiders to interpret, and direct suicidal communication was utilised by only three people.

In this investigation, only very distinct, constant and pressing thoughts centred on suicide shortly before the suicide attempt were perceived by respondents as suicidal thoughts. Studying the presence of suicidal thoughts and of suicidal communication is difficult from a methodological point of view, since it requires a quantitative interview methodology. Experiences from this study show that further development of the concepts and measurements used, as well as interpretation, is necessary.

Five of the 19 young people had some kind of suicide plan one to three days before the suicide attempt. Results from Western studies also show that young people have a short suicidal process (20, 21). The short decision time was used by young suicide attempters in this investigation for buying raticides or pesticides. If they had been taught to communicate, or if their distress had previously been understood by significant others, they might possibly have been able to speak to someone instead of buying poison.

It was apparent from the narrative analysis that the young people in our study displayed their distress in several ways, often by deviant behaviour, not only to their families but also to the immediate community. The majority of youngsters felt a lack of acceptance in the community, and this feeling exacerbated their deviant behaviour and led to isolation. Absence of constructive communication and dialogue is characteristic of suicide attempters in the Western countries as well (13).

A study of adult suicide attempters in Sweden (13) has shown that almost total silence was not an unusual response to suicidal persons' communication. Anxiety, anguish and tensions grew in silence; problems became more insoluble and overwhelming; and in some cases there were aggressive undertones in significant others' treatment of the distressed suicidal person. From other Western studies, it is known that family members can show indifference, ambivalence and, in some cases, anger and hostility – even explicit death wishes – towards a suicidal person (22-25). This absence of good communication and dialogue seems not to be characteristic of the young rural Vietnamese families studied here alone.

In a Chinese study (6) the association between impulsive, low-planned suicidal actions and acute life events was described. Our study results confirm the important role played by these acute and prolonged psychosocial stressors in the suicidal process.

Given the high proportion of low-planned suicides that involve pesticides stored in the home, Phillips et al (26) recommend restricting the accessibility of these drugs as an effective suicide-preventive strategy. This is important, but re-

stricting the means of committing suicide may only postpone suicidal acts. On the basis of the interviews in the present study, teaching young people and their parents to use communication skills and coping abilities, instead of resorting to violence and punishment when problems arise in everyday life, appears to be an equally important strategy.

The low educational level of the suicide attempters' parents may be a limitation on their ability to understand these young people's communication of distress. However, the same problems may exist in suicidal families where the parents' educational level is high (20, 21). The barriers characteristic of Vietnamese culture, in which disclosure of emotional problems is unusual, are of limited explanatory value, since lack of communication between parents and suicidal young people is also observed in Western studies (13,20,21).

Perception of support from the family

The young persons in the present study felt, deeply and bitterly, that they did not receive practical, financial and psychological support when they felt distressed. Moreover, 15 of the 19 young people were primary or secondary school dropouts. Reactions from the school, society and the family were lacking.

The Programme on Global Child Mental Health (www.globalchildmentalhealth.com) recently launched by the WPA, in cooperation with the World Health Organization and the International Association for Child and Adolescent Psychiatry and Allied Professions (IACAPAP), makes school dropouts the focus of interventions aimed at preventing mental problems and suicide. Dropping out of school is one of the most significant indicators of mental distress and mental problems, of which suicide attempts and suicide are the ultimate consequence.

Suicide prevention

Is suicide prevention through detection of suicidal communication and distress possible? It is difficult to judge how much this kind of intervention could prevent suicide attempts among Vietnamese youngsters. However, it seems meaningful to supplement restriction of highly toxic and lethal means of suicide with some kind of psychosocial strategy. Psychosocial strategies that focus on young people at risk, such as school dropouts, and on teaching families how to communicate about problems and distress, can be tested. Teaching young people where to find other people for a dialogue if the family fails to give them support is another strategy.

Based on the stress-vulnerability model, suicidal behaviour occurs when there is imbalance between risk factors and protective factors. In our study, personal conflicts and lack of support were found to be the main reason for suicide attempts. Suicide attempts usually occurred after physical or psychological abuse such as blame or scolding by the

respondents' parents or husbands. This kind of phenomenon is highlighted by World Health Organization's strategies of how to prevent domestic violence and avoid battering of children and partners (27).

Psychological environmental stressors as risk factors for attempted suicide

Attempted suicide and suicide are complex behaviours that do not result from a single disease or a single social or psychological problem. There are usually several interacting factors, such as psychiatric disorders, physical illnesses, personality disorders and stress factors, that may result in suicidal behaviour at times of brief or prolonged distress. In this study, no research diagnoses were made concerning psychiatric disorders. Nor were there, in the hospital records, any notes on psychiatric or personality disorders. It is unknown whether these young people had any kind of depression, post-traumatic stress disorder or personality disorder. Only their method of attempting suicide, impulsively using pesticides and raticides, was specified. In some suicidal adults and many young suicidal people, impulsivity is a salient personality characteristic. Their underlying genetic vulnerability may be expressed in a situation of stress (28,29). In a recent study (30), both healthy and suicidal persons characterised by an "angry hostility" personality type, that is often linked with impulsivity, showed modifications of the genetic system involved in the regulation of the hypothalamus-pituitary-adrenal axis.

The role of protective factors – such as problem-solving capacity, asking for help and good relationships with the family and other close associates – in reducing stress seems to be important. Poor relationships and inadequate problem-solving strategies can be expressed in not asking for help and, as this study has shown, lead to attempted suicide in times of distress. The role of "psychological environmental stressors" in suicide risk has been relatively little explored for the purpose of suicide-preventive strategies. We would like to encourage more qualitative studies focusing on the suicidal process and suicidal communication, and on long-term and short-term stressors in suicidal behaviour.

Conclusions

Psychosocial interventions in the form of programmes targeting school dropouts, domestic violence, communication and coping abilities in distress should complement the well-known suicide-preventive strategy of decreasing the availability of lethal means of suicide and attempted suicide, such as pesticides and raticides.

References

1. Bertolote JM. Suicide in the world: an epidemiological overview

- 1959-2000. In: Wasserman D (ed). *Suicide – an unnecessary death*. London: Dunitz, 2001:3-10.
2. Wasserman D, Cheng Q, Jiang GX. Global suicide rates among young people aged 15-19. *World Psychiatry* 2005;4:114-20.
 3. Platts S, Bille-Brahe U, Kerkhof A et al. Parasuicide in Europe: the WHO/EURO multicentre study on parasuicide. I. Introduction and preliminary analysis for 1989. *Acta Psychiatr Scand* 1992;85:97-104.
 4. Schmidtke A, Bille-Brake U, De Leo D et al (eds). *Suicidal behaviour in Europe: results from the WHO/EURO multicentre study on suicidal behaviour*. Göttingen: Hogrefe and Huber, 2004.
 5. Bertolote JM, Fleischmann A, De Leo D et al. Suicide attempts, plans and ideation in culturally diverse sites: the WHO SUPREMISS community survey. *Psychol Med* 2005;35:1457-65.
 6. Conner KR, Phillips M, Meldrum S et al. Low-planned suicides in China. *Psychol Med* 2005;35:1197-204.
 7. Fleischmann A, Bertolote JM, De Leo D et al. Characteristics of attempted suicides seen in emergency-care settings of general hospitals in eight low- and middle-income countries. *Psychol Med* 2005;35:1467-74.
 8. World Health Organization. *Guidelines on the management of public health pesticides*. Report of the WHO Interregional Consultation, Chiang Mai, 25-28 February 2003. Geneva: World Health Organization, 2003.
 9. Mann JJ, Apter A, Bertolote J et al. Suicide prevention strategies: a systematic review. *JAMA* 2005;294:2064-74.
 10. Robins E, Gassner S, Kayes J et al. The communication of suicidal intent: a study of 134 consecutive cases of successful (completed) suicide. *Am J Psychiatry* 1959;115:724-33.
 11. Yessler PG, Gibbs JJ, Becker HA. On the communication of suicidal ideas. I. Some sociological and behavioral considerations. *Arch Gen Psychiatry* 1960;3:612-31.
 12. Rudestam KE. Stockholm and Los Angeles: a cross-cultural study of the communication of suicide intent. *J Consult Clin Psychol* 1971;36:82-90.
 13. Wolk-Wasserman D. Suicidal communication of persons attempting suicide and responses of significant others. *Acta Psychiatr Scand* 1986;73:481-99.
 14. Shaffer D, Gould M. Suicide prevention in schools. In: Hawton K, van Heeringen K (eds). *Suicide and attempted suicide*. Chichester: Wiley, 1999:645-60.
 15. Rutz W, von Knorring L, Walinder J. Long term effects of an education programme for general practitioners given by Swedish committee for the prevention and treatment of depression. *Acta Psychiatr Scand* 1992;85:83-8.
 16. Mann JJ. The neurobiology of suicide. *Nature Med* 1998;4:25-30.
 17. Wasserman D. A stress-vulnerability model and the development of the suicidal process. In: Wasserman D (ed). *Suicide – an unnecessary death*. London: Dunitz, 2001:13-27.
 18. Wolk-Wasserman D. Contact of suicidal neurotic and prepsychotic/psychotic patients and their significant other with public care institutions before the suicide attempt. *Acta Psychiatr Scand* 1987;75:358-72.
 19. Wolk-Wasserman D. Contact of suicidal alcohol and drug abuse patients and their significant other with public care institutions before the suicide attempt. *Acta Psychiatr Scand* 1987;76:394-405.
 20. Runeson BS, Beskow J, Waern M. The suicidal process in suicides among young people. *Acta Psychiatr Scand* 1996;93:35-42.
 21. Runeson BS. *Suicide and mental disorder in Swedish youth*. Dissertation, University of Goteborg, 1990.
 22. Richman J, Rosenbaum M. A clinical study of the role of hostility and death wishes by the family and society in suicidal attempts. *Isr Ann Psychiatry Relat Discipl* 1970;8:213-31.
 23. Rosenbaum M., Richman J. Suicide: the role of hostility and death wishes from the family and significant others. *Am J Psychiatry* 1970;126:128-31.
 24. Richman J. The family therapy of attempted suicide. *Fam Process* 1979;18:131-42.
 25. Richman J. Symbiosis, empathy, suicidal behavior, and the family. *Suicide and Life-Threatening Behavior* 1978;8:139-48.
 26. Phillips MR, Yang G, Zhang Y et al. Risk factors for suicide in China: a national case-control psychological autopsy study. *Lancet* 2002;360:1728-36.
 27. Krug EG, Dahlberg LL, Murcy JA et al (eds). *World report on violence and health*. Geneva: World Health Organization, 2002.
 28. Caspi A, Sugden K, Moffitt TE et al. Influence of life stress on depression: moderation by a polymorphism in the 5-HTT gene. *Science* 2003;301:386-9.
 29. Wasserman D, Geijer T, Sokolowski M et al. Nature and nurture in suicidal behavior - the role of genetics: some novel findings concerning personality traits and neural conduction. *KI's Special Issue on Neuroscience* (in press).
 30. Wasserman D, Geijer T, Sokolowski M et al. Genetic variation in the hypothalamic-pituitary-adrenocortical (HPA) axis regulatory factor, T-box 19, and the angry hostility trait. *Genes, Brain and Behavior* (in press).