Chapter 4

Clinical Management of Suicidality in the Elderly: An Opportunity for Involvement in the Lives of Older Patients

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ABSTRACT

Objective: To review the risk factors for suicide in the elderly and available interventions to avert this tragedy.

Method: Systematic literature review, based on a PubMed search for studies in English. Included were randomized controlled trials (RCTs), controlled cohort studies, and case–control studies. Wherever possible, I reviewed papers dealing with suicide rather than suicide attempts or suicide ideation.

Results: The search for risk factors yielded 2 relevant cohort studies and 17 relevant case–control studies. Relevant to the matter of intervention were 2 RCTs and 5 cohort studies.

Conclusions: Being male as well as having mental illness (particularly depression), physical illness, and interpersonal discord are all risk factors for suicide in the elderly. There is evidence to suggest that conscientious, systematic treatment of depression in elderly individuals reduces the rate of suicide in the elderly.

RÉSUMÉ

Objectif : Examiner les facteurs de risque de suicide chez les personnes âgées et les interventions disponibles pour éviter cette tragédie.

Méthode : Une revue systématique de la documentation, basée sur une recherche dans PubMed d'études en anglais. Étaient inclus les essais randomisés contrôlés (ERC), les études de cohortes contrôlées et les études cas-témoin. Autant que possible, j'ai retenu les articles qui traitaient de suicide plutôt que de tentatives de suicide ou d'idéation de suicide.

Résultats : La recherche de facteurs de risque a donné 2 études de cohortes pertinentes et 17 études cas-témoin pertinentes. En matière d'intervention, 2 ERC et 5 études de cohortes étaient pertinentes.

Conclusions : Le fait d'être de sexe masculin et d'avoir une maladie mentale (en particulier la dépression), une maladie physique, et une discorde interpersonnelle sont tous des facteurs de risque de suicide chez les personnes âgées. Des données probantes suggèrent que le traitement consciencieux, systématique de la dépression chez les personnes âgées réduit le taux de suicide dans cette population.

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Key Words: *suicide, aged, elderly, geriatric, management, treatment, risk factors for suicide, randomized controlled trials, case–control, cohort*

In 2000, there were 3605 suicides at all ages in Canada, a rate of 11.7 per 100 000.[1] That year, 402 of the 3 861 117 Canadians aged 65 years or older completed suicide, a rate of 10.4 per 100 000. Suicide accounted for less than one-quarter of 1% of the 169 400 deaths from all causes in this age group.[2]

Among the elderly, the suicide rate was similar for those over and under 75 years of age. Elderly men were much more likely to commit suicide than elderly women.[1] The rate for men aged 65 to 74 years was 16.9 per 100 000, compared with 4.9 per 100 000 for women; for people 75 years or older, the respective rates for men and women were 22.7 and 2.8 per 100 000.

Between 1981 and 2000, the suicide rate declined steadily in Canada, more steeply for the old than for the young (Figure 4.1). The international rates of suicide among the elderly were higher than rates in Canada, for both sexes. They were also higher worldwide than rates in Canada for the male population in other age groups, at least 15 years of age (Figure 4.2).

In addition to the approximately 400 completed suicides that occur among the Canadian elderly each year, about 1000 people 65 years old or older are admitted to hospital as a result of medically or psychiatrically serious attempts at suicide[5]; there are likely many more suicide attempts that do not result in hospitalization, but this figure is unknown. In 2001–2002, 571 women and 442 men in this age group made suicide attempts serious enough to warrant admission, for rates of 25.3 per 100 000 (women) and 26.7 per 100 000 (men). The rate for the population at large was considerably higher, at 74 per 100 000. The ratio of attempted to completed suicide was 6:1 for elderly women and 1.5:1 for elderly men.[5] In younger people, particularly younger women, this ratio is much higher (Figure 4.3). Presumably, self-injury in men more often has lethal intent than in women.

Suicidal ideation, potentially a prelude to suicide attempts and to suicide itself, is much more prevalent than suicidal behaviour. The Canadian Community Health Survey in 2002 found that, of the 62 000 Canadians aged 65 or older, about 2% acknowledged thinking about killing themselves during the previous 12 months.[7] The annual prevalence of suicidal ideation was similar in elderly men and women. People between 25 and 64 years of age were twice as likely to acknowledge thinking of suicide during the previous year.

During any year, or even during a whole career, most Canadian doctors will not often encounter the problem of geriatric suicide. How, then, ought they to realistically incorporate into their practice an approach to the anticipation and prevention of suicide in their elderly patients? As important as it seems for doctors to know whether their elderly patients are thinking of suicide, asking *unselected* elderly patients whether they have been thinking of killing themselves is likely to be a low-yield strategy. Among the elderly, admitting to suicidal thinking is of relatively low prevalence; among those who think of suicide, a very small proportion actually attempt or complete it. Are there particular subgroups of aged patients whom doctors should be screening for suicidal risk—groups in whom the risk of suicide is higher and among whom pursuing the question is likely to be more fruitful and helpful? Having decided that a patient is at suicidal risk, what should the doctor do?

This paper is a systematic review of controlled studies in the literature that looks for evidence to address the following 2 questions:

- What are the risk factors for suicide in older patients?
- Which interventions are known to reduce the risk of suicide in older patients?

Methods

This systematic review is limited to the medical literature identifiable online through PubMed (starting in 1966), to reports of controlled studies (only randomized controlled trials [RCTs], cohort studies, case–control studies, or metaanalyses of such studies), published in English, with abstracts.

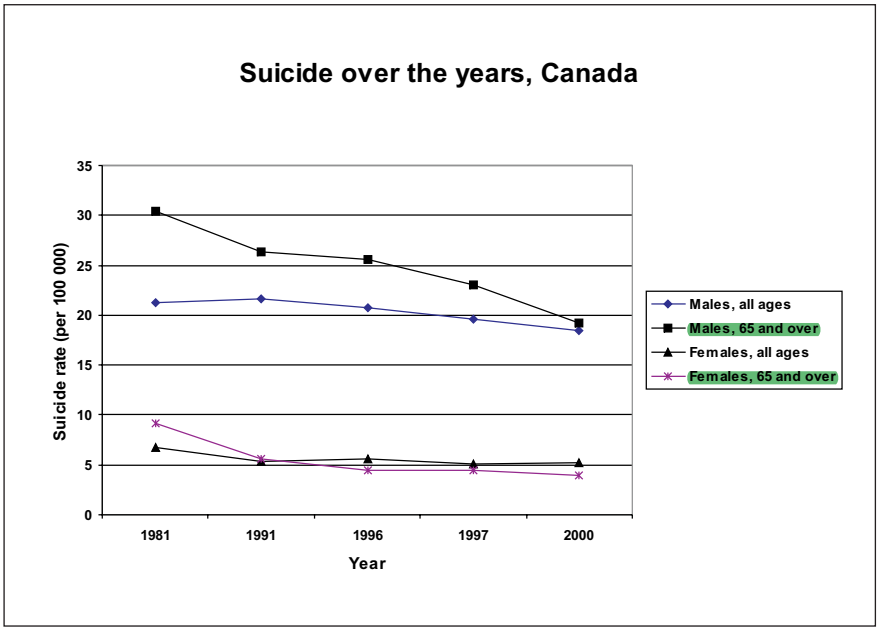
The primary PubMed search term is "suicide." Subsumed under this MeSH topic heading in MEDLINE are the terms "attempted suicide" and "assisted suicide."

In addition to being catalogued under suicide as a major MeSH topic heading, the papers sought for the purposes of this article must be relevant to the elderly. I added MeSH terms that refer to this age group ("aged" and "age factors"), permutations of "text words" (that is, words that appear in the actual PubMed entry) referring to older people, and a list of all the geriatric, psychogeriatric, and gerontological journals that are indexed in PubMed.

Papers have been excluded that were the following publication types: case reports, editorials, reviews, and tutorials.

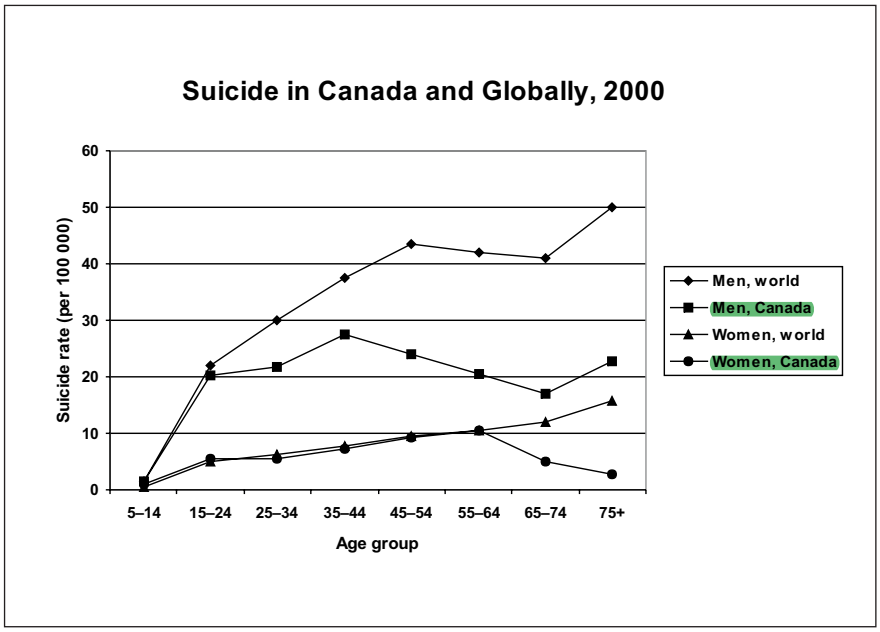
This electronic filter did not necessarily exclude papers about the young or middle-aged because of the ubiquity of the text words "age" and "aged." Therefore, the titles of the citations were scrutinized to identify those specifically relevant to the aged, and the resulting abstracts cross-checked for relevance and to exclude articles that the abstracts do not describe as RCTs, cohort studies, case–control studies, or metaanalyses of such studies or as studies of completed suicide rather than of suicidal ideation or attempted suicide.

Figure 4.1 Annual incidence of suicide in Canada, per 100 000 people



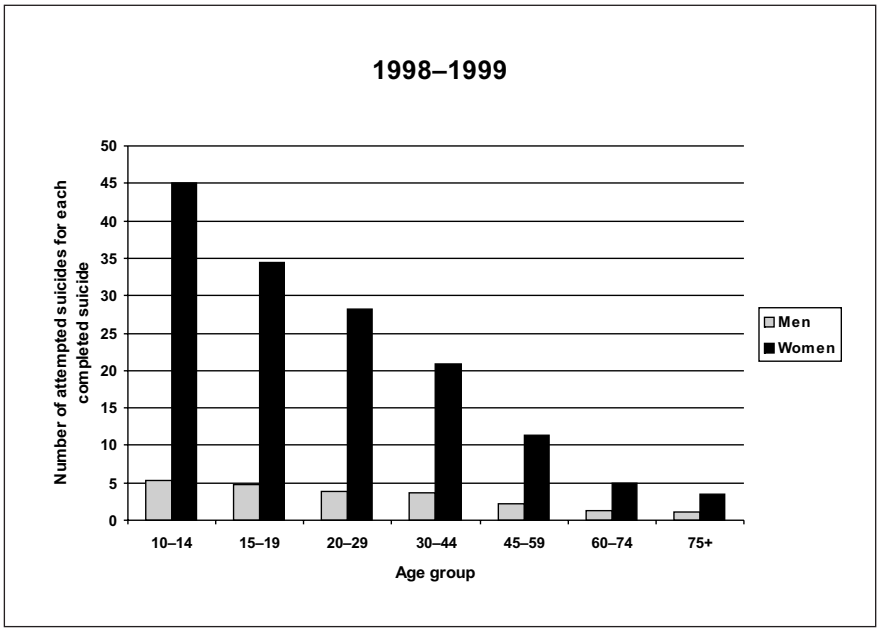
Constructed with data from Statistics Canada[2,3]

Figure 4.2 Annual incidence of suicide (per 100 000) in Canada, compared with the rest of the world



Constructed with data from the World Health Organization[1,4]

Figure 4.3 Attempted and completed suicide, Canada



Constructed with data from Langlois and Morrison[6]

Results

The search for risk factors yielded 2 relevant cohort studies,[8,9] and 17 relevant case–control studies.[10–26] Relevant to the matter of intervention were 2 RCTs[27,28] and 5 cohort studies.[29–34] The studies of risk factors for suicide in the elderly are summarized in Table 4.1.

The 2 cohort studies suggest risk factors that are relevant to clinical practice. Starting in the early 1980s, Ross and colleagues invited about 20 000 residents of a retirement community in California (two-thirds of whom were women; median age 73 years) to complete a health survey.[8] The survey included demographic questions and questions about sleep, alcohol and tobacco use, health practices, and "mental outlook." Mental outlook was measured by a 4-point rating on 7 items: clarity of mind, ease in doing things, hope about the future, ease in decision making, feelings of being useful and needed, fullness of life, and enjoyment of things.

Twelve thousand residents agreed to participate and were followed for up to 4 and a half years after completing the questionnaire. During the follow-up period, 10 men and 9 women committed suicide: the risk ratio (relative risk) for men was 2. For other risk factors, the investigators conducted a nested case–control study of the suicides, comparing each case of suicide to 12 age- and sex-matched control subjects alive on the date of the suicide. The strength of such a design is that the data on risk factors were collected prospectively for suicide cases and control subjects, thereby eliminating the possibility of bias in recollecting the details of the lives of the people who killed themselves. However, a case–control study does not produce risk ratios. The association between an outcome and predictor variables is measured as an odds ratio. A risk ratio of 2 for men relative to women means simply that men are twice as likely to commit suicide as women, but (for example) an odds ratio of 6.1 (within 95%CI, 2.0 to 19.0) for a mental outlook score lower than 20 has a different meaning. It implies that people who committed suicide are 6 times more likely to have had a low mental outlook score than people who did not commit suicide. It does not mean that people with a low mental outlook score are 6 times more likely to commit suicide than those with a high mental outlook score. Further, relative frequency measured as an odds ratio implies a different strength of association than when it is measured as a risk ratio.[35] For this example, an odds ratio of 6.1 (95%CI, 2.0 to 19.0) implies a moderate difference between the suicides and those who did not commit suicide, with 95% confidence that the size of the difference lies between small and large. (In contrast, a relative risk of 2 is moderately large and one of 5.7 is very large.)

In Ross's study, poor mental outlook is a reasonable facsimile of depression, and there is a large difference between the rates of depression among suicide victims and among control subjects. There are similar differences between the groups in the proportions who are not married, who sleep badly, or who take more than 3 drinks daily.

Table 4.1 Studies of risk factors for suicide in the elderly

Paper	Type of study	Type of factor	Factor	Strength of association[35]	CI around the measure of association
Ross[8]	Cohort	Social	Widowed or divorced	Moderate	Wide
		Psychological	Sleeping > 9 hours nightly	Moderate	Wide
		Psychological	Mental outlook score	Moderate	Wide
		Psychological	> 3 drinks daily	Moderate	Very wide
Turvey[9]	Cohort	Social	Attending religious services at least monthly	Small	Narrow
		Social	Having relatives they feel close to	Small	Narrow
		Social	Having friends they feel close to	Small	Narrow
		Social	Having friends they see monthly	Small	Narrow
		Biological	Physical health perceived as poor	Small to moderate	Narrow
		Psychological	Depressive symptoms	Small	Narrow
		Psychological	Good sleep	Small	Narrow
Quan[22]	Case–control	Psychological	Depression	Moderate	Wide
		Psychological	Other psychiatric illness	Small	Narrow
		Biological	Chronic obstructive pulmonary disease	Small	Narrow
		Biological	Cancer	Small	Narrow
		Biological	Nonmalignant prostatic disorder	Small	Narrow
Juurlink[18,19]	Case–control	Psychological	Bipolar disorder	Moderate	Wide
		Biological	Severe pain	Moderate	Wide
		Psychological	Depression	Moderate	Narrow
		Psychological	Psychotic disorders	Small	Narrow
		Psychological	Anxiety disorders	Small	Narrow
		Biological	Seizure disorder	Small	Narrow
		Biological	Moderate pain	Small	Narrow
		Biological	Congestive heart failure	Small	Narrow
		Biological	Chronic obstructive pulmonary disease	Small	Narrow
		Biological	Serotonin-specific uptake inhibitors	Moderate	Wide

continued

Table 4.1 continued

Paper	Type of study	Type of factor	Factor	Strength of association[35]	CI around the measure of association
Beautrais[10]	Case–control	Social	Limited social network	Moderate	Wide
		Psychological	Psychiatric admission in the past year	Large	Very wide
		Psychological	Mood disorder	Very large	Very wide
Duberstein[13,14]	Case–control	Biological	Perception of severe physical illness	Moderate	Very wide
		Social	Single	Large	Very wide
		Social	Widowed	Moderate	Wide
		Social	Poor social interaction	Moderate	Wide
Conwell[12]	Case–control	Biological	Severe physical disease	Very large	Wide
		Psychological	Previous suicide attempts	Large	Wide
		Psychological	Any mood syndrome	Very large	Wide
		Psychological	Major affective disorder	Very large	Wide
		Psychological	Any psychiatric diagnosis	Very large	Wide
Rubenowitz[23] and Waern[24–26]	Case–control	Psychological	Major depression, single episode	Large	Very wide
		Psychological	Major depression, recurrent	Very large	Very wide
		Psychological	Dysthymic disorder	Very large	Very wide
		Psychological	Minor depressive disorder	Very large	Very wide
		Psychological	Psychotic disorder	Large	Very wide
		Psychological	Substance use disorder	Very large	Very wide
		Psychological	Alcohol use disorder (men)	Moderate	Very wide
		Psychological	Alcohol use disorder (women)	Large	Very wide
		Biological	Any serious physical illness	Moderate	Wide
		Biological	Visual impairment	Large	Very wide
		Biological	Malignancy	Moderate	Wide
		Biological	Neurological disorder	Large	Very wide
		Psychological	Mental disorder	Very large	Very wide
		Social	Family discord	Moderate	Very wide

Table 4.1 continued

Paper	Type of study	Type of factor	Factor	Strength of association[35]	CI around the measure of association
Harwood[16,17]	Case–control	Psychological	Personality disorder	Moderate	Wide
		Psychological	Depressive episode	Moderate	Wide
		Psychological	Bereavement > 1 year	moderate	Wide
		Psychological	Accommodation	Moderate	Wide
Chiu[11]	Case–control	Psychological	Previous suicide attempt	Very large	Not given
	Case–control	Psychological	Depressive disorder	Very large	Very wide
Erlangsen[15]	Case–control	Psychological	Affective disorder	Small	Narrow
Kolves[20]	Case–control	Psychological	Alcohol dependence	Moderate	Wide
Preville[21]	Case–control	Psychological	Psychiatric disorder ≤ 6 months before death	Large	Wide

Turvey and colleagues describe a very large prospective study of people aged 65 years or older living at home in several communities in theUnited States.[9] This study also provided an opportunity to assess prospectively the importance of various risk factors for suicide.

Demographic and clinical variables were collected from 14 500 subjects at the beginning of the study and annually thereafter over up to 6 years. Twenty-one suicides occurred during this time, all but one in men. Though the authors do not provide the ratio of men to women in the cohort, it is safe to assume, on the basis of general demographic characteristics, that there were more women than men in the study population and that men were at much higher risk of suicide than women. The authors compared each of the suicide cases with 20 age- and sex-matched control subjects, and produced odds ratios for several risk factors.

There was a small but statistically significant increase in the likelihood of the following factors in the suicide group in comparison with the control group: poor physical health (by self-report), the presence of depressive symptoms, poor sleep, few friends and relatives, and lack of religious participation.

The other studies of risk factors were case-control studies of 2 distinct types: population-based data linkage studies and controlled psychological autopsies.

Data linkage studies of suicide in the elderly were conducted in Alberta[22] and Ontario,[18,19] where the investigators could use databases maintained by the provinces' universal health insurance plans. In these studies, suicide case and control cases were unselected, being drawn consecutively from their respective sources, without the potential for bias; data about the predictor variables had been collected before the suicides occurred and were not subject to recollection bias.

In Alberta, Quan and colleagues used administrative databases from the provincial health insurance plan to compare the rates of several medical illnesses and depression in suicide victims to those in elderly people who died in road accidents.[22] They found a small increase in the rates of several physical conditions among people who committed suicide, compared with those who died in accidents: cancer, chronic lung disease, and nonmalignant prostatic disease; there was a moderate increase in the rate of depression and a small increase in the rates of other psychiatric illnesses. All these differences were statistically significant.

In Ontario, Juurlink and colleagues used population databases to compare the rate of prescription of various drugs in people who commit suicide with that in living age-, sex-, and income-matched control subjects.[18] Patterns of prescriptions were used as markers for 17 conditions thought to be associated with suicide. There was a moderate increase in the rates of markers for severe pain, depression, and bipolar disorder

among suicide victims compared with control subjects and a small increase in the rates of markers for anxiety disorders, psychotic disorders, epilepsy, congestive heart failure, chronic lung disease, and moderate pain. All these findings were significant.

Later, Juurlink and colleagues returned to the same dataset to examine the relation between suicide and the prescription of selective serotonin reuptake inhibitors (SSRIs), compared with the prescription of other antidepressant drugs.[19] Among those Ontarians age 66 years and older who had received a prescription for an SSRI within the past month, there was a moderately increased rate of suicide, compared with those who had received a prescription for another antidepressant, even after adjusting for the diagnosis of depression and receipt of psychiatric care. The authors point out, however, that the absolute risk of suicide among people on SSRIs was very low and that suicide was much more common in people who were on no antidepressant at all.

The group of controlled psychological autopsies yielded findings that corroborate the conclusions of the cohort and data-linkage studies, but with more dramatic magnitudes of association. Important as they are, such studies are more liable to bias, because data for suicide cases are collected from proxy informants, who may be biased by their knowledge of the occurrence of the suicides.

In a series of reports involving the same suicide cases and control cases in Göteborg, Sweden, Waern and others found large to very large increases in rates of mental disorders (especially depression and substance abuse) among suicide victims, compared with control subjects, and moderate to large increases in rates of family discord and physical illnesses.[23–26] All these findings were statistically significant, but the confidence intervals were wide.

Two case–control studies emanating from the University of Rochester were conducted on a series of suicide cases, but with control populations differing from study to study.

In the first of these, the investigators compared people who had visited their family doctors within 30 days of committing suicide with elderly primary care patients (of other physicians) in the same county.[12] There was a very large increase in the rate of psychiatric illness, especially depression, in the suicide group, compared with the control group, and a large increase in the rate of previous suicide attempts, previous psychiatric treatment, and severe physical illness. Scores reflecting functional ability were significantly worse in the suicide group than in the control group.

The other Rochester study was of suicide in people over 50 years of age.[13,14] The first report of this study examined the role of stressful life events in suicide.[13] Once the investigators had controlled for socioeconomic and demographic factors and the presence of active mental illness, they could identify only severe illness (perceived as a stressful life event) as a risk factor. The rate of perceived physical illness was moderately greater in suicide victims than in control subjects. In another report on the same study, Duberstein and colleagues found a moderate to large association between unmarried status and limited social interaction on the one hand and suicide on the other, even after adjusting for affective disorder and substance abuse.[14]

Beautrais's case–control study in New Zealand had as cases both suicide victims and the survivors of serious suicide attempts; control subjects were randomly selected living people over 55 years of age.[10] Information on all subjects was obtained via proxies, rather than directly from the control subjects. Adjusting for confounding factors, Beautrais showed that active mood disorders and psychiatric hospitalization during the past year were greatly more common among the suicide cases than in the control group and that a restricted social network was moderately more common. Physical illness was not a factor.

As part of a larger descriptive study, Harwood and colleagues undertook a case–control study in the United Kingdom.[16,17] They found that depression, personality disorder, and accentuated personality traits were moderately more common among suicide victims than among control subjects.[16] In a subsequent paper, they reported that problems relating to bereavement and accommodation were moderately more common in suicide cases than in the control group; financial problems and problems of retirement were also more common among people who committed suicide, but the numbers were too small to allow the calculation of odds ratios and effect sizes.[17]

In Quebec, Preville and colleagues undertook a controlled psychological autopsy study of suicide in the elderly, matching 95 cases with people who had died of natural causes.[21] Depression, but not physical health problems, socioeconomic status, or social interaction, was more common among the suicide cases. The magnitude of this association was large.

By means of a case–control study, Erlangsen and colleagues examined the characteristics associated with suicide among all older adults admitted to psychiatric wards in Denmark over a 10-year period; they compared patients who committed suicide during their admission or in the first week after discharge with those who did not.[15] Affective disorders were twice as common among patients who committed suicide, an association of small magnitude.

In Estonia, Kolves and colleagues studied the role of alcohol in suicide by means of a case–control psychological autopsy study, comparing suicides during a 1-year period with matched control cases.[20] Among people over 60 years old who

had committed suicide, the rate of alcohol dependence was moderately higher than among control subjects.

> ***Key Point:*** Studies of varying methodology suggest that being male, having mental illness (particularly depression), having physical illness, and experiencing interpersonal discord are all risk factors for suicide in the elderly. Some of these risk factors are susceptible to modification.

Therapy

The intervention studies are summarized below.

Bruce and colleagues carried out a randomized trial of a depression management protocol in primary care that involved a standard clinical treatment (citalopram or interpersonal psychotherapy or both) given by practice-based care managers and treatment as usual by a primary care physician (given training on depression and informed when the patient was depressed or had suicidal ideation).[27] The primary outcomes were reductions in suicidal ideation and depressive symptoms. Family practices were randomized to the experimental intervention or to treatment as usual, and patients were followed at 4-month intervals for 1 year. In patients with major depression, suicidal ideation remitted in both the treatment and the control groups, but significantly more quickly in the treatment group. The odds ratio reported in favour of treatment was 2.8 (within 95%CIs of 1.2 and 6.2), suggesting that people in whom suicidal ideation remitted were 3 times as likely to have been on treatment as those in whom it did not. Hopkins would consider this an association of small magnitude.[35]

Unutzer and investigators from project IMPACT (Improving Mood: Promoting Access to Collaborative Treatment for Late-Life Depression) undertook a similar trial[28] at 7 centres in the United States. Primary care patients over 60 years old with major depression or dysthymia were randomized to receive either collaborative care, including a depression care manager, or usual care by their family doctors. The primary outcome was report of suicidal ideation according to a single item from a symptom checklist. Collaborative care consisted of closely supported antidepressant medication management or problem-solving treatment. After 1 year of treatment, the odds ratio for intervention compared with usual care, was 0.54 (95%CI, 0.37 to 0.78). This can be taken to mean that individuals with suicidal ideation were about one-half as likely to have received the experimental treatment as those without suicidal ideation. This association, of small magnitude, persisted 6 months after treatment ended; after 1 year it was somewhat smaller, but still present.

A series of cohort studies by Oyama and others, each set in a different rural Japanese village, compared elderly populations subjected to a depression program with those in neighbouring municipalities.[30–34] The program consisted of depression screening, psychoeducation, and unspecified treatment for villagers 65 years old or older. The authors report that the intervention resulted in a three- to fourfold drop in the suicide rate, compared with the historical rate: this was a significant difference and was not seen in the control villages. In general, the effect was more pronounced in women.

> ***Key Point:*** Conscientious, systematic treatment of depression in the elderly reduces suicidal ideation, among other symptoms of depression, and may reduce the rate of suicide.

Discussion

Suicidal thinking, suicidal attempts, and suicide represent instances of lives—expectations, illness, suffering—that have become hard to endure, and physicians should be prepared to recognize patients in such circumstances or at particular risk of them. This is an essential obligation of physicians, not just to prevent the tragedy of suicide but to improve the quality of life of those who contemplate it.

This systematic review of the literature reveals convincing evidence that particular groups of elderly people are at elevated risk of suicide and that the treatment of depression in particular can ameliorate this risk.

Between them, 2 independent, large-scale cohort studies show that depression, the experience of poor physical health, and loneliness put older people at risk of suicide. The association between these states and suicide is real, if small to moderate in size. Numerous case–control studies confirm these associations. Not surprisingly, the case–control studies demonstrate a larger magnitude of association. The evidence produced by case–control studies is considered of lesser quality than that which comes from cohort studies, but the consistency of the findings of the studies found during this search of the literature is noteworthy and important. The case–control studies are of 2 distinct types—population-based data linkage studies on the one hand and controlled psychological autopsies on the other—and both come to the same general conclusions, though the findings are more dramatic for the latter group, in which data about predictive factors were collected retrospectively.

The major risk factors for suicide in the elderly are obvious, if looked for, and it behooves doctors to look for them in their patients. A study by Uncapher and colleagues showed that family doctors are less likely to see the value of identifying or treating suicidal thinking among elderly patients than they are among younger patients.[36] This ageist, pessimistic, and

nihilistic attitude is unwarranted. Milton and colleagues in England showed that family doctors of patients who had visited them in the weeks before committing suicide had often been unaware of the suicidal state of the patients, not just because the patients had not volunteered the information but because the doctors had not asked and had not made themselves aware of the social circumstances of the patients.[37]

As this systematic review shows, the risk factors for suicide in the elderly are not beyond the field of view of any empathic physician. The spectre of suicide presents to every physician an opportunity to find out what makes each patient's life worth living and the reasons why some patients may feel that life has lost its value. Some of these reasons may be invalid—for example, distorted perceptions of prognosis or self-worth that result from miscommunication or depression. Some of the reasons may be valid (for example, pain, loss, immobility, or barriers to mobility) and susceptible to environmental modification, practical or emotional support, problem solving, or other forms of psychotherapy. Recent reviews by Heisel[38] and Heisel with colleagues[39] and from the Canadian Coalition for Seniors' Mental Health,[40] the American Psychiatric Association,[29] and the US Preventive Services Task Force[41] are worth consulting for detailed discussions of suicide assessment, but the assessment of suicidal risk in the elderly requires basic attention to the circumstances, expectations, quality of life, and illness history of every patient:

- With whom does a patient live? What is his or her social network like? How well does he or she get on with family? Do practical barriers prevent socialization?
- Can the patient manage the activities of everyday life? Basic self-care? Housework, shopping, banking, getting out and about? Does he or she have enough help? If not, why not?
- What is the state of the patient's physical health? Does he or she have a serious physical disease—in particular, one serious enough to have required hospitalization recently? Is the patient's perception of the physical illness and the prognosis accurate, and have the nature of the illness and the prognosis and the possibility of management and treatment been clearly explained to dispel the patient's doubts and fears, common in sick people?
- What is the state of the patient's mental health? Have there been previous psychiatric hospitalizations or suicide attempts?
- How much does the patient drink?
- Is prescribed medication misused? In particular, how well is the person sleeping, and is he or she misusing hypnotic medicines?

Related to all the considerations above, and important also in its own right, is the question of whether or not the patient has symptoms of depression. Sadness, pessimism, guilt, loss of pleasure, or social withdrawal may not be volunteered, and must be specifically sought.

If any of the above risk factors are present, it is necessary to inquire about the worth to the patient of his or her life: Is life worth living? What is there to live for? Is the patient oriented toward, anticipating, or planning for events or occasions in the future? What is the patient's attitude toward death? These are not unnatural questions to ask of older patients, especially if one has discovered that they are worried about their health, are lonely, or are not taking pleasure from life. Does the patient wish for death, or even pray for it? Does he or she have thoughts about ending it all? Does he or she have specific plans and, if so, the means to carry out such plans?

Questions about suicide are not always easy to ask, but they are not offensive if asked in the context of an inquiry about a person's circumstances and his or her current experience, fears, and worries. Doctors should not worry about the possibility of suggesting suicide to their patients: it is a far greater problem that doctors are not picking up their patients' distress, even their desperation.

The dearth of RCTs of interventions to reduce the risk of suicide in elderly people is striking and reflects the methodologic challenges inherent in studying interventions to reduce the incidence of an infrequent eventuality. The prospect of useful intervention is perhaps not as barren as the sparse findings of this restrictive systematic review might at first suggest. Suicidal thinking and suicide are features of depression, and there is clearly evidence for the effectiveness of the treatment of depression in the elderly (see, for example, the recent practice guideline published under the auspices of the Royal College of Psychiatrists[42]). Public health interventions to reduce accessibility to or the availability of certain means of suicide may reduce the risk of suicide in older people. Epidemiologic studies by Gunnell and colleagues[43] and by Ludwig and colleagues[44] suggest that, respectively, the detoxification of domestic gas and handgun control legislation may reduce the incidence of suicide in elderly men. Psychosocial support may result in a lower incidence of suicide: De Leo and colleagues in Italy showed a lower rate of suicide as an incidental benefit to elderly homebound subscribers to a telehealth service that provided regular telephonic checkups and needs assessments.[45] If possible, these promising measures should be subject to evaluation by means of RCTs.

The studies by Bruce[27] and Unutzer[28] assessing the effectiveness of a multimodal approach to depression in the elderly should provide much encouragement to practising physicians. Depression is worth treating in the elderly, not just in order to reduce suicidal ideation, which is one of the symptoms of depression, and the risk of suicide (quite small during any

single episode of depression) but also to relieve suffering and to improve functioning and the quality of life. The earlier work of Unützer and others[46,47] shows that treating depression involves more than the prescription of medicines. It is necessary to engage with patients and to see them frequently and regularly, at the very least to monitor adherence to the prescribed regimen and the response to treatment but also to offer support and to attempt to help patients address the sources of distress in their lives.

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