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Factors associated with the Wish to Die in Elderly People

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Summary

This study aimed to determine the prevalence of the wish to die in elderly people and investigate the factors associated with it, in particular, whether factors other than depression contribute to the wish to die. Data were obtained from an Australian epidemiological survey of people aged 70 or more. Survey participants were asked whether, in the last two weeks, they had felt that they wanted to die and, if so, if they had had such thoughts repeatedly. Three classes of possible risk factors were investigated: sociodemographic factors (age, sex, marital status), mental health (depression, cognitive impairment), and physical health (poor self-rated health, disability, pain, sensory impairment, and living in a nursing home or hostel).

Only 21 of 923 elderly persons reported repeatedly having had a wish to die during the previous two weeks. Although the wish to die was associated with depression, there were several other factors also associated with it independently of depression: not being married, poor self-rated health, disability, pain, hearing impairment, visual impairment, living in a nursing home or hostel. A small minority expressed the wish to die but had a normal mood state.

It was concluded that the wish to die is associated with several factors in addition to depression and may be present in individuals with few depressive symptoms. There is a need to investigate whether factors associated with the wish to die are treatable and whether this can restore the desire to live.

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Introduction

According to a recent survey of Australian medical practitioners, 47% had at some time been asked by a patient to hasten death and 96% of these practitioners believed that such requests can sometimes be 'rational' [1]. However, in the context of the debate about euthanasia and assisted suicide, Conwell and Caine [2] have questioned the notion of a rational decision to end one's life. They have argued that most individuals who want to end their life are clinically depressed and that to make a 'rational' decision a person must not be unduly influenced by a mental disorder like depression. A similar view has been expressed by Lindesay [3] specifically concerning elderly patients: '...it is remarkable how often elderly suicides are explained away as rational choices, particularly if the individual is physically ill. All too often, this attitude is the result of ageism and therapeutic nihilism; it should be borne in mind that even in the terminally ill elderly, suicidal thoughts are associated with depression and respond to treatment...' (p. 359). These views raise the issue of the determinants of the wish to die. Is this invariably a symptom of depression or can other factors lead to a rational decision?

Despite the large amount of research on suicide and attempted suicide, remarkably little is known about the factors associated with the wish to die *per se*. In a community survey of the general adult population carried out in the USA in the late 1960s, it was found that 5% of people had wished they were dead at some time in the previous year, 1.5% had seriously considered taking their life and 0.6% had made a suicide attempt. Suicidal feelings were more common in women and were associated with psychiatric symptoms, social isolation, physical illness and undesirable life events [4]. Research with elderly samples has shown that the wish to die is a predictor of subsequent mortality, although the factors contributing to this are not known [5, 6].

The present paper used an epidemiological study to investigate factors associated with the wish to die in the elderly. Three classes of factors were investigated: sociodemographic factors (age, sex, marital status), mental health factors (depression, cognitive impairment), and physical health factors (poor self-rated health, disability, pain, sensory impairment, living in a nursing home or hostel). The choice of these factors was guided by issues surrounding the debate about a rational wish to die and by the literature on suicide and attempted suicide in the elderly [7].

Methods

A general description of the methodology of the survey has

been given in previous publications [8–10]. Here we present only the details of the methods which are of particular relevance for this paper.

Survey participants: A sample of persons 70 years and older was selected from the electoral rolls for the adjacent Australian cities of Canberra and Queanbeyan. The sample was drawn to give equal numbers of men and women. For each sex there were three age strata (70–74, 75–79 and 80+ years), with the size of each stratum chosen to be proportional to the number of individuals in that age group. Because individuals who are in residential care may have their names removed from the electoral roll, a separate sample was drawn from the nursing homes and hostels (sheltered accommodation) in the same community. The individuals in residential care were sampled approximately in accordance with their proportion in the total elderly population aged 70+.

The people sampled were sent a letter inviting participation in the survey and then approached at their place of residence by trained professional interviewers. At least some interview data were obtained from 945 community residents and 100 nursing-home or hostel residents. This represents a refusal rate of 31% for the community residents and 30% for the nursing home and hostel residents.

Identification of those who wished to die: A major component of the interview with the subject was the Canberra Interview for the Elderly (CIE) which is a standardized psychiatric interview for use by lay interviewers covering dementia, depression and related disorders [11]. The depression section of the CIE contains questions about thoughts of death and suicide. One question is: 'In the last two weeks, have you felt as if you wanted to die?' If the subject answers 'yes' or 'depends', they are asked: 'Have you had such thoughts repeatedly?' Those who had repeated thoughts of wanting to die were defined as the case group and all other subjects (including those with a transient wish to die) as the control group. Data on this question were available from 923 subjects, 868 living in the community and 55 in residential care.

Assessment of associated factors: Three general classes of factors were assessed: socio-demographic factors (age, sex, marital status), mental health (depression, cognitive impairment), physical health (poor self-rated health, disability, sensory impairment, pain, being in residential care).

Marital status was classified as married, widowed, divorced, separated or never married. However, for the present paper subjects were classified as either currently married or not. Depression was assessed in two ways. Firstly, subjects were diagnosed for depression according to DSM-III-R and ICD-10 criteria using the CIE. Subjects were called a case of depressive disorder if they satisfied either set of diagnostic criteria. A limitation of the CIE diagnoses for present purposes is that they include items concerning the wish to die and suicidal thoughts. The second method of assessment involved a count of 25 depressive symptoms from the CIE. This count excluded three questions concerning death.

Cognitive impairment was assessed using the Mini-Mental State Examination [12]. Subjects scoring 23 or below (out of 30) were classified as cognitively impaired. Self-rated health was assessed by the question 'Would you say your overall health nowadays is excellent, good, fair, or poor?' Persons giving the 'poor' rating were classified as having poor self-rated health. Previous research has shown that global health ratings such as this are a good predictor of mortality [13].

Disability was assessed using eight questions covering transport, walking, getting in or out of bed, getting in and out of a chair, dressing, bathing, care of feet and toileting. Subjects were classified as disabled if they needed someone to help them with any of these activities. Sensory impairment was assessed by having the interviewers rate the subjects at the end of the interview. A subject was classified as hearing impaired if the interviewer rated them as 'Somewhat impaired: had to repeat many questions' or 'Profoundly deaf: had to read questions'. A subject was classified as visually impaired if the interviewer rated them as 'Somewhat impaired: could not see photographs' or 'Interviewer had to read aloud or omit questions requiring sight'. Pain was assessed by asking subjects the question: 'In the past month, how often were you in pain because of your health problems?' Subjects were classified as in pain if they responded 'fairly frequently', 'very frequently' or 'constantly'.

Subjects living in nursing homes or hostels were classified as being in residential care. Because of the small number of subjects involved, it was not feasible to subdivide these subjects into nursing-home and hostel groups.

Statistical analysis: The association between the wish to die and other factors was assessed using odds ratios and 95% confidence intervals. The odds ratios were calculated for each predictor alone, as well as after controlling for the effects of depressive symptoms, using the logistic regression program in SPSS.

Ethical approval: Approval for the research was obtained from the Ethics in Human Experimentation Committee of The Australian National University.

Results

There were 21 of 923 individuals (2.3%) with data on the relevant question who had repeatedly felt they wanted to die over the previous two weeks. Table I shows the associations of the factors with the wish to die. For some of these factors, the sample sizes were slightly smaller than 21 and 902 because of missing data. Statistically reliable associations were found for all factors except being aged 80+ and being female. For several factors, odds ratios are quite large, viz. depressive disorder, visual impairment and living in residential care. The association with depressive disorder may be inflated because the diagnostic criteria include the wish to die. Accordingly, the association was checked using the count of depressive symptoms which excluded those connected with death. The mean number of depressive symptoms was 6.5 in the case group (SD = 4.3, 95% confidence interval (CI) = 4.6–8.5), compared with 2.1 in the controls (SD = 2.4, 95% CI = 2.0–2.3).

Many of the factors associated with the wish to die are themselves risk factors for depression (e.g. physical ill-health, disability) [14]. To see if the associations with the wish to die were independent of depression, a series of multiple logistic regressions was carried out in which each factor was entered simultaneously as a predictor together with the count of depressive symptoms. The resulting odds ratios, which are adjusted for depressive symptoms, are shown in Table II. Statistically reliable associations with the wish to die remained for: not married, poor self-rated health, disability, pain, hearing impairment, visual impairment and residential care.

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Table I. Factors associated with the wish to die

Factor	Cases (%)*	Controls (%)*	Odds ratio	95% CI
Aged 80+	43	28	2.0	0.8–4.8
Female	62	48	1.7	0.7–4.2
Not married	71	46	2.9	1.1–7.6
Depressive disorder	29	3	14.6	5.2–41.0
Cognitively impaired	24	9	3.3	1.2–9.3
Poor self-rated health	39	5	12.7	4.7–34.3
Disabled	75	34	5.9	2.1–16.4
In pain	57	20	5.2	2.2–12.5
Hearing impaired	38	10	5.6	2.3–13.9
Visually impaired	38	4	14.6	5.7–37.3
In residential care	48	5	17.3	7.0–42.9

*n = 18–21 for cases and 888–902 for controls. CI = confidence interval.

Because living in residential care is associated with physical ill-health, an analysis was also carried out on the effects of residential care controlling for both depressive symptoms and disability. In this analysis there was still a strong effect of residential care on the wish to die. Controlling for self-rated health instead of disability did not change this result.

An inspection of the data showed that of the 21 persons who wished to die, there was a small number with very few depressive symptoms (less than the mean number of symptoms in the control group). One person had none, two had only one symptom and two had two symptoms. These individuals all had physical health problems.

Discussion

The present study found that 2% of the elderly people interviewed had repeated feelings that they wanted to die during the previous two weeks. It was not surprising to find that depression was an important risk factor for wishing to die. Indeed, the present findings suggest that the latter occurs only exceptionally in persons without some depressive symptoms. However, only a minority qualified for a diagnosis of depressive disorder and some had no evidence of depressed mood. Importantly, depression was not the only factor associated with the wish to die, nor was it the strongest. Even with the influence of depression controlled, poor self-rated health, disability, hearing and visual impairment, pain, living in residential care, and not being married remained as important risk factors. The strongest association was with being in residential care.

Table II. Factors associated with the wish to die, controlling for depressive symptoms

Factors	Odds ratio	95% CI
Aged 80+	2.2	0.9–5.6
Female	1.3	0.5–3.4
Not married	3.2	1.2–8.8
Cognitively impaired	2.1	0.7–6.5
Poor self-rated health	4.1	1.3–13.2
Disabled	3.8	1.3–11.2
In pain	2.7	1.1–7.0
Hearing impaired	5.5	2.1–14.5
Visually impaired	9.4	3.4–26.0
In residential care	12.4	4.6–33.3

Authors such as Conwell and Caine [2] and Lindesay [3] have emphasized the possibility that the wish to die may disappear if depression is properly treated. The present findings suggest that attention also be directed to those other health-related risk factors that may be remediable. Of these, control of pain is the most obvious. Social support also appears to play an important role as shown by the association with not being married. Indeed, several prospective studies have shown that poor social support is a predictor of mortality [15].

The association with living in residential care was a surprising one. It is well known that depression is more common in nursing homes and other forms of sheltered accommodation, but we have recently shown using data from the same survey that the association is due to the greater physical ill-health of people in residential care [16]. When physical ill-health was statistically controlled, there was no association between living in residential care and depression. The present findings show that the wish to die is more common in residential care even when depression and physical ill-health are statistically controlled. We can only speculate on the reasons for the association. Perhaps placement in residential care is seen as a final step before death and the end of a productive role in society. The issue clearly merits further investigation.

Although the present data may be used to inform debate about euthanasia and assisted suicide, it must be acknowledged that they have at least three limitations in this regard. First, the response rate for the survey (69%) may have caused sample bias in which those wishing to die, or having any of the proposed risk factors, are under-represented. Second, the sample of persons who wished to die was small, limiting the power of the statistical analysis. Third, the question asked about wishing to die referred only to the previous two weeks. This wish may have been a transient state in some individuals, but more consistently held in others. The more relevant group may be those who express a consistent wish to die over a longer period. We had no way of identifying this group in our data.

Despite these deficiencies, the findings illustrate that in elderly persons the wish to die has a strikingly low prevalence. While it may be associated with depressed mood in some individuals, this is not invariably present. There can be other factors that are independently linked to the wish for life to end. There is a need to investigate whether these other factors are treatable and whether this can restore the desire to live.

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