

The spectrum of suicidal ideation in Great Britain: comparisons across a 16–74 years age range

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ABSTRACT

Background. Previous studies have examined suicidal ideation in older populations and emphasized the strong association with the presence of psychiatric disorder. However, associations with the presence of psychiatric disorder across the age range are unclear. Representative epidemiological estimates are needed.

Method. In a national survey of psychiatric morbidity in Great Britain, 8580 randomly selected adults were interviewed. Three questions were asked to assess suicidal ideation, and psychiatric disorder was identified using the revised Clinical Interview Schedule (CIS-R).

Results. Suicidal ideation was up to three times commoner in younger adults than in those aged 55–74 years but the odds of depression in those with suicidal thoughts was significantly greater in the older age group ($p < 0.01$). Tiredness with life ($p < 0.01$) and thoughts of death ($p < 0.01$) were also more strongly associated with depression in the older age group. Other major associations of suicidal ideation for all ages were: smaller social support group, being divorced or separated, poor self-rated general health, and limitations in activities of daily living (ADL). Being single was an important factor for younger age groups, and widowhood for older people. Life events were also important in younger people, but not in those aged 55–74 years.

Conclusions. Suicidal thoughts and death wishes are comparatively more unusual in older people; however, they are more likely to be associated with clinical depression. In terms of suicide prevention this study emphasizes the importance of improving rates of recognition and treatment of depression in older people.

INTRODUCTION

A number of studies have examined the spectrum of suicidal ideation in older populations. In a population study of 85-year-olds in Gothenburg (Sweden), Skoog *et al.* (1996) compared 225 healthy participants with 120 people identified with mental disorders. They found that 9% of the mentally healthy had

occasional thoughts that life was not worth living and some wished for death, but none had seriously considered suicide. However, in the group with mental disorder, 66% had thoughts that life was not worth living or wished for death, 9% had thoughts of suicide and 1.7% had seriously considered ending their life. Similarly, in a population-based study of 969 people aged 75 years and older from Stockholm, 2.5% had frequent suicidal thoughts in the 2 weeks prior to the survey, of whom 50% were depressed (Forsell *et al.* 1997). Barnow *et al.* (2004) also emphasized the strong association

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between the wish to die and mental disorder (especially major depression) in a population-based study of older people (aged 70 or over) in Berlin.

Other factors that may be associated with suicidal thoughts in older people include the presence of poor physical health and disability, financial and relationship problems, poor social support, and alcohol misuse (Alexopoulos *et al.* 1999; Conwell *et al.* 2002; Yip *et al.* 2003). However, when controlling for the presence of depression, physical health has been found to be less influential (Conwell *et al.* 2002). In addition, in a recent patient series of depressed elderly people who had self-harmed, Dennis *et al.* (2005) found no excess of severe life events or difficulties compared to a depressed comparison group, although the self-harm group were more likely to have a poorly integrated social network.

This article examines the association between mental disorder and the spectrum of suicidal ideation for people aged 16–74 years from data collected in the Office for National Statistics (ONS) survey of psychiatric morbidity carried out in 2000. The ONS survey afforded an opportunity to compare suicidal ideation across a broad age range using identical methodology across a whole population (Meltzer *et al.* 2002*a*). In addition, how social and general health factors correlate with suicidal ideation in the ‘young elderly’ (aged 65–74) is explored in detail and compared to younger age groups.

METHOD

Study sample

The methods used in the second National Survey of Psychiatric Morbidity of adults living in private households in Great Britain have been described in greater detail elsewhere (Singleton *et al.* 2001). To summarize, small area postcode units (postcode sectors) were randomly selected from a sampling frame stratified for region and social class composition to generate a nationally representative sample. Households were randomly selected from within each unit and, in each household containing at least one person aged between 16 and 74 years, one person was randomly selected and invited to participate. A total of 12 792 adults were approached, with 8580 participants.

Definition of suicidal ideation

Three specific questions designed to explore the spectrum of suicidal ideation, past and current, were included in the survey:

- Have you ever thought that life was not worth living?
- Have you ever wished that you were dead?
- Have you ever thought of taking your life, even if you would not really do it?

These questions address a spectrum of suicidality from ‘tiredness of life’, to ‘death wishes’, through to suicidal thoughts. The subject was asked whether they had experienced these ideas in the previous week, the last year, or at any other time.

Measures

Psychiatric morbidity and depression

The revised Clinical Interview Schedule (CIS-R; Lewis *et al.* 1992) was administered to all participants. This is a widely used, fully structured assessment of psychiatric morbidity (Jordanova *et al.* 2004). A standard algorithm was applied to identify patients suffering from an ICD-10 depressive episode. Common mental disorder (CMD) was defined from the CIS-R using standard criteria: scores for selected items from each section of the CIS-R are totalled to give an overall score (with a maximum of 57 points) and CMD is defined as present on the basis of a score of 12 or above.

Social class

The Registrar General’s classification was used, with a married or cohabiting women classified according to her partner’s occupation unless he had never worked. Coding was based on current occupation or most recent occupation for the unemployed or economically inactive.

Stressful life events

All adults interviewed in the survey were shown cards listing a range of 12 stressful life events and asked if they had experienced any in the preceding 6 months. These life events were from the List of Threatening Experiences questionnaire, and have previously been shown to carry considerable moderate or marked long-term threat (Brugha *et al.* 1985).

IQ

The National Adult Reading Test (NART; Nelson & Willison, 1991) is a widely used and brief measure of intelligence of English speakers. The NART score can be converted to an estimated verbal IQ score. High IQ was categorized as an IQ of 110–129, medium as 90–109, and low as 70–89.

Perceived social support

Perceived social support was assessed using a seven-item questionnaire that had previously been used in the 1992 Health Survey for England (Breeze *et al.* 1994) and ONS (Office of Population Census and Surveys; OPCS) surveys of psychiatric morbidity among adults in private households and in institutions catering for people with mental disorder (Meltzer *et al.* 2002*b*). The maximum score of 21 indicates no lack of perceived support, scores 18–20 a moderate lack, and scores of 17 and below suggest a severe lack of social support.

Size of primary support group

The size of respondents' primary support group (i.e. the number of friends and relatives they felt close to) was calculated from responses to questions adapted from those used in other ONS (OPCS) surveys of psychiatric morbidity (Meltzer *et al.* 2002*b*). Previous research has suggested that adults with a primary support group of three or fewer are at greatest risk of psychiatric morbidity (Brugha *et al.* 1987, 1993).

Physical health

Respondents were asked if they had any long-standing illness, disability or infirmity. In addition, the standard recall version of the short form Health Survey SF-12 was used, asking respondents to reflect on their functioning over the previous 4 weeks (Ware *et al.* 1998). The first question (SF-1) specifically asks about health in general, allowing the respondent to categorize this as either excellent, very good, good, fair, or poor.

Limitations in activities of daily living (ADL)

Respondent were asked a set of questions to establish whether they had any difficulties in seven domains of ADL, namely: personal care; use of transport; medical care; household activities; practical activities; paperwork; and managing money (Meltzer *et al.* 2002*b*).

Working status

The unemployed category included those who were unable to work due to temporary ill-health, sickness or injury. The economically inactive category included the retired, housewives, and those permanently unable to work because of illness or disability.

Hazardous alcohol use

The instrument used to assess alcohol problems was the Alcohol Use Disorders Identification Test (AUDIT). This measure was developed from a six-country World Health Organization (WHO) collaborative project and has been shown to be a good indicator of hazardous alcohol use (Saunders *et al.* 1993). An AUDIT score of 8 or above indicates likely hazardous alcohol use.

Statistical analysis

Data were analysed using STATA software (Stata Corporation, College Station, TX, USA). All analyses (including prevalence data) were carried out using standard weighting procedures to allow for the stratified, clustered sampling and non-response. With regard to non-response, weights were applied using post-stratification based on age, sex and region to weight the data up to represent the structure of the national population, to take account of differential non-response among regions and age groups.

Associations between suicidal ideation for the year prior to interview and mental disorders (depressive episode and CMD) were quantified by odds ratios (ORs) derived from logistic regression with confidence intervals (CIs). Results for CMD are calculated after removal of suicidal ideation from the total CIS-R score. Effect modification was tested by entering an interaction term between suicidal ideation and age group for the presence of CMD or depression to examine its independent significance.

Furthermore, associations between suicidal ideation in the year before the survey and social and general health factors were explored in detail for different age groups and for women and men separately. The factors examined were:

- Size of primary support group
- Perceived social support
- Marital status
- Social class

Table 1. *Unadjusted sociodemographic correlates of suicidal ideation in the year before interview*

Characteristic	n	Tiredness of life		Death wishes		Suicidal thoughts	
		OR	95% CI	OR	95% CI	OR	95% CI
Gender							
Male	3852	1.00	—	1.00	—	1.00	—
Female	4728	1.28*	1.05–1.57	1.51***	1.20–1.89	1.14	0.88–1.47
Age							
16–34	2477	1.53**	1.17–2.00	1.63**	1.20–2.21	3.64***	2.56–5.19
35–54	3393	1.28*	1.02–1.60	1.54**	1.17–2.02	2.71***	1.86–3.94
55–74	2710	1.00	—	1.00	—	1.00	—

OR, Odds ratio; CI, confidence interval.
 * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table 2. *Unadjusted suicidal ideation (year preceding interview) correlates for the presence of ICD-10 depression, stratified by age group*

Suicidal ideation	16–34 years		35–54 years		55–74 years		All ages		Age interaction	
	OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI
Tiredness of life	7.79***	4.35–13.95	13.98***	9.21–21.23	20.83***	11.42–38.00	12.43***	9.24–16.71	1.59**	1.12–2.26
Death wishes	7.42***	3.91–14.05	18.67***	11.96–29.13	25.36***	13.65–47.13	14.98***	10.88–20.63	1.83**	1.26–2.67
Suicidal thoughts	7.26***	3.82–13.82	13.18***	8.45–20.56	24.68***	11.04–55.16	11.34***	8.16–15.75	1.95**	1.26–3.04

OR, Odds ratio; CI, confidence interval.
 * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

- Self-rated general health
- Self-reported long-standing illness
- Limitation in ADL
- Stressful life events
- Intellectual functioning
- Alcohol dependence

ORs were again calculated by logistic regression controlling for the influences of gender or age group and working status. Effect modification was assessed by entering an interaction term between age group (or gender) and the above factors for the presence of suicidal ideation. For older people, characteristics that were independently associated with suicidal ideation were entered into a final model adjusting each for all of the others, with and without depressive episode as an independent variable.

RESULTS

Thoughts that life was not worth living ('tiredness of life') were reported by 6% of the population in the year preceding the survey. Younger people (aged 16–34; 7%), were more likely than middle-aged (35–54; 6%) and older people

(aged 55–74; 4.8%) to experience tiredness of life in the year before interview (Table 1). Only 1.3% of people aged 55–74 experienced 'tiredness of life' in the week before interview; there were no statistically significant differences across age groups. 'Death wishes' were present in 3.3% of people aged 55–74, 5% aged 35–54 years, and 5.3% aged 16–34 years in the year before interview, but there were no differences for death wishes in the week before interview for all groups, with 1% experiencing these thoughts. Of note, suicidal thoughts were up to three or more times more common in younger people (5.3%) and the middle-aged (4%) compared to older people (1.5%) in the year preceding the survey (Table 1). Again there was no difference in the prevalence of suicidal thoughts across age groups in the week before the survey, with 0.2% of older people experiencing these thoughts. The ORs for suicidal ideation in the year before interview by age group and gender are shown in Table 1.

Mental disorder

Tables 2 and 3 display the unadjusted ORs for suicidal ideation for the year preceding

Table 3. *Unadjusted suicidal ideation (year preceding interview) correlates for the presence of CMD, stratified by age group*

Suicidal ideation	16–34 years		35–54 years		55–74 years		All ages		Age interaction	
	OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI
Tiredness of life	8.39***	5.98–11.77	10.65***	7.79–14.57	18.03***	12.26–26.52	10.73***	8.71–13.21	1.45**	1.12–1.89
Death wishes	12.07***	7.88–18.49	13.82***	9.57–19.95	16.28***	10.32–25.67	13.66***	10.65–17.51	1.18	0.86–1.63
Suicidal thoughts	11.92***	7.75–18.33	11.16***	7.58–16.41	21.93***	11.08–43.44	12.67***	9.68–16.60	1.30	0.88–1.92

OR, Odds ratio; CI, confidence interval; CMD, common mental disorder (CIS-R > 11).

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

interview and the presence of depression or CMD by age group. The presence of CMD (CIS-R > 11) and depression were strongly associated with tiredness of life, death wishes and suicidal thoughts. The strength of association between suicidal ideation and depression was significantly stronger in the 55–74 years age group compared to younger people; the same is also true for tiredness of life and CMD. As recurrent suicidal thoughts are one of the additional features in the ICD-10 diagnostic criteria for depressive episode, the algorithm for identifying depressive episode from the CIS-R interview data was rerun removing this item. The number of depressed patients in the population sample remained unchanged following this procedure.

Older people

Table 4 shows the correlates of suicidal ideation for respondents aged 55–74 for the year preceding interview after adjustment for gender and employment status. Particularly strong relationships are apparent for: smaller primary support group, lower perceived social support, poor self-rated general health, limitations in ADL, and low verbal IQ. These variables, as well as marital status, social class and the presence of self-reported long-standing illness, were entered into a model adjusting each for all of the others, with and without depressive episode as an independent variable. Results for tiredness of life (as it was the most prevalent of suicidal ideations) are included in Table 5; the strongest relationship for thoughts of life not worth living in this age group were poor perceived social support, widowhood, fair/poor self-rated general health, and limitations in activity of daily living. Widowhood, fair/poor self-rated

general health and limitations in two or more domains of ADL were the main associations for death wishes after adjusting for the presence of depression; smaller primary support group, widowhood and low verbal IQ were the main associations for suicidal thoughts (data not shown), although CIs were wider because of the smaller numbers.

Age differences for social and health factors

In general, the social and general health correlates for suicidal ideation for respondents aged 16–34 and 35–54 years were similar to those for the older age group (after adjustment for gender and employment status). However, there were a number of important differences. Being single was associated with tiredness of life for persons aged 16–34 (OR 2.19, 95% CI 1.48–3.26, $p < 0.001$) and 35–54 (OR 2.29, 95% CI 1.51–3.45, $p < 0.001$). In the 35–54 years age group, being single was also associated with tiredness of life (OR 2.29, 95% CI 1.51–3.45, $p < 0.001$), death wishes (OR 2.25, 95% CI 1.39–3.64, $p < 0.001$) and suicidal thoughts (OR 2.34, 95% CI 1.39–3.93, $p < 0.001$). As expected, widowhood was not an association for suicidal ideation in people aged 16–34. The association between widowhood and tiredness of life (OR 3.19, 95% CI 1.36–7.50, $p < 0.05$), death wishes (OR 3.32, 95% CI 1.43–7.73, $p < 0.01$) and suicidal thoughts (OR 3.17, 95% CI 1.11–9.02, $p < 0.05$) in those aged 35–54 was broadly similar to that in the older age group. Social class was not an association for the younger age groups, although it had been in older people; this was a significant difference for tiredness of life (age interaction $p < 0.05$). One important age difference related to the role of life events; for the 16–34 years age group two or more stressful

Table 4. Social and general health correlates of suicidal ideation for respondents aged 55–74 for the year preceding interview adjusted for gender and employment status

Characteristic	n	Tiredness of life		Death wishes		Suicidal thoughts	
		OR	95% CI	OR	95% CI	OR	95% CI
Primary support group							
9+	1861	1.00	—	1.00	—	1.00	—
<9	849	2.66***	1.82–3.88	2.39***	1.53–3.71	3.18***	1.67–6.06
Perceived social support							
21	1906	1.00	—	1.00	—	1.00	—
18–20	560	1.86**	1.22–2.85	1.61	0.93–2.81	1.99	0.97–4.10
≤17	203	3.49***	2.06–5.92	3.42***	1.74–6.70	3.12*	1.15–8.42
Marital status							
Married/cohabiting	1666	1.00	—	1.00	—	1.00	—
Single	188	0.66	0.22–1.98	0.61	0.19–1.99	—	—
Widowed	500	2.70***	1.73–4.21	2.75***	1.64–4.63	4.10***	1.91–8.78
Divorced/separated	356	2.63***	1.56–4.44	3.09***	1.73–5.53	3.66**	1.49–9.00
Social class							
I/II/III-NM	1424	1.00	—	1.00	—	1.00	—
III-M/IV/V	1217	1.91**	1.30–2.80	2.51***	1.62–3.90	1.64	0.89–3.03
Self-rated general health							
Excellent–good	1860	1.00	—	1.00	—	1.00	—
Fair/poor	849	4.31***	2.98–6.22	4.85***	3.06–7.69	4.55***	2.38–8.69
Presence of self-reported long-standing illness							
No	953	1.00	—	1.00	—	1.00	—
Yes	1754	2.85***	1.77–4.59	2.38**	1.37–4.15	3.42**	1.53–7.64
Areas of limitation in ADL							
None	1718	1.00	—	1.00	—	1.00	—
1	440	2.36**	1.26–4.41	3.63***	1.92–6.84	2.27	0.92–5.61
2+	521	6.81***	4.42–10.49	7.24***	4.23–12.39	4.81***	2.09–11.08
Number of stressful life events in past 6 months							
None	2125	1.00	—	1.00	—	1.00	—
1	503	1.41	0.91–2.19	1.90*	1.15–3.14	1.41	0.67–2.99
2+	82	1.27	0.44–3.71	1.71	0.71–4.09	0.92	0.22–3.78
Verbal IQ on NART							
High	925	1.00	—	1.00	—	1.00	—
Medium	1121	1.45	0.91–2.31	1.82*	1.02–3.24	2.08	0.91–4.76
Low	511	2.74***	1.68–4.47	3.44***	1.81–6.53	4.37**	1.79–10.63
Alcohol dependence							
No hazardous use	2305	1.00	—	1.00	—	1.00	—
Hazardous use	384	0.80	0.44–1.46	0.83	0.43–1.63	0.74	0.26–2.11

OR, Odds ratio; CI, confidence interval; ADL, activities of daily living; NART, National Adult Reading Test.
 * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

life events in the 6 months preceding the survey were strongly associated with tiredness of life (OR 6.64, 95% CI 4.05–10.86, $p < 0.001$), death wishes (OR 5.75, 95% CI 3.19–10.36, $p < 0.001$) and suicidal thoughts (OR 6.37, 95% CI 3.59–11.29, $p < 0.001$). Similar, but less strong, associations were found for the 35–54 year age group with two or more stressful life events: tiredness of life (OR 2.63, 95% CI 1.58–4.38, $p < 0.001$), death wishes (OR 3.43, 95% CI 2.01–5.85, $p < 0.001$) and suicidal thoughts (OR 1.89, 95% CI 1.08–3.32, $p < 0.05$). Life events

were generally not important for older people (Table 4). When considering a binary variable for the presence or absence of life events in the 6 months preceding the survey, age differences were significant for tiredness of life (age interaction $p < 0.01$) and suicidal thoughts (age interaction $p < 0.05$). The other age difference relates to IQ, where the strength of association with younger age groups was small compared to older people, with the only associations between low IQ for death wishes in the 16–34 years age group (OR 1.94, 95% CI 1.09–3.45, $p < 0.05$)

Table 5. Odds ratios of life not worth living for the year preceding interview for respondents aged 55–74 adjusting predictive characteristics for each other

Characteristic	Adjusted for gender, employment status and other characteristics in table		Adjusted for gender, employment status, depression and other characteristics in table	
	OR	95% CI	OR	95% CI
Primary support group				
9+	1.00	—	1.00	—
<9	2.33***	1.55–3.51	2.21***	1.46–3.35
Perceived social support				
21	1.00	—	1.00	—
18–20	1.66*	1.06–2.59	1.77*	1.13–2.77
≤17	2.53**	1.30–4.95	2.68**	1.31–5.48
Social class				
I/II/III-NM	1.00	—	1.00	—
III-M/IV/V	1.01	0.64–1.59	0.95	0.59–1.55
Marital status				
Married/cohabiting	1.00	—	1.00	—
Single	0.34	0.08–1.36	0.35	0.08–1.48
Widowed	2.15**	1.30–3.53	2.13**	1.25–3.61
Divorced/separated	1.62	0.89–2.92	1.27	0.69–2.35
Self-rated general health				
Excellent/good	1.00	—	1.00	—
Fair/poor	2.00**	1.22–3.27	1.76*	1.05–2.98
Presence of self-reported long-standing illness				
No	1.00	—	1.00	—
Yes	1.14	0.64–2.03	1.14	0.64–2.04
Areas of limitation in ADL				
None	1.00	—	1.00	—
1	1.82	0.94–3.53	1.65	0.81–3.35
2+	4.12***	2.49–6.81	3.78***	2.22–6.44
Verbal IQ on NART				
High	1.00	—	1.00	—
Medium	1.00	0.62–1.63	0.99	0.59–1.65
Low	1.46	0.83–2.57	1.32	0.72–2.41

OR, odds ratio; CI, confidence interval; ADL, activities of daily living; NART, National Adult Reading Test.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

and the 35–54 years age group (OR 2.01, 95% CI 1.2–3.37, $p < 0.01$).

Gender differences

ORs were calculated by logistic regression for association between suicidal ideation in the year prior to interview and gender controlling for the influences of age and working status. Again, the most important associations were depression and CMD for both males and females; the only differences between the sexes were a stronger association between CMD and tiredness of life (gender interaction $p < 0.05$) and death wishes (gender interaction $p < 0.05$) for males. For most social and general health factors results were similar for males and females; smaller primary

support group, being divorced or separated, poor self-rated health, the presence of long-standing illness, limitation in ADL, and stressful life events were all important associations. There were, however, some notable exceptions. First, the association between poor perceived social support and suicidal ideation was generally stronger for women than men; this was significant for death wishes (gender interaction $p < 0.01$). Second, being a single female was associated with tiredness of life (OR 2.32, 95% CI 1.62–3.31, $p < 0.001$), death wishes (OR 1.92, 95% CI 1.28–2.87, $p < 0.01$) and suicidal thoughts (OR 2.46, 95% CI 1.58–3.81, $p < 0.001$) but for single men there was only a weak association with tiredness of life (OR 1.55,

95% CI 1.01–2.39, $p < 0.05$). In addition, hazardous alcohol use was associated with tiredness of life (OR 1.58, 95% CI 1.13–2.21, $p < 0.01$) and suicidal thoughts (OR 1.71, 95% CI 1.18–2.48, $p < 0.01$) in women but not in men.

DISCUSSION

Prevalence of suicidal ideation

In this study 5% of respondents aged 55–74 years had experienced ‘tiredness’ of life, 3% death wishes and 1.5% suicidal thoughts in the year before the survey. This is a lower prevalence than responses to similar questions in the Gothenburg study (Skoog *et al.* 1996). Direct comparison, however, is difficult as our population is younger; in the Gothenburg study all persons surveyed were aged 85 years.

One important finding of this study was that older people in general were not more likely to experience tiredness of life, death wishes or suicidal thoughts than the younger age groups; indeed, the converse was true.

Factors associated with suicidal ideation

The close association between suicidal ideation and mental disorder was emphasized in this study; this was a finding common to all age groups but particularly strong in older people. Indeed, common mental disorder and depression in particular were the most prominent associations for suicidal ideation. The important association between suicidal ideation and depression in older people concurs with the findings of the smaller Gothenburg and Berlin studies (Skoog *et al.* 1996; Barnow *et al.* 2004), as well as an Australian study of primary health-care attenders (Pfaff & Almeida, 2005) and a larger community study of people aged 60 and above in Hong Kong (Yip *et al.* 2003). However, unlike these studies, we report a large national study with comparison across age groups. Other recent major European population-based studies have failed to include people over the age of 65 years and examine important differences in associations across the age span (Hintikka *et al.* 2001; Salander Renberg, 2001; Casey *et al.* 2006). Our findings show that the association between suicidal ideation and depression is significantly stronger in older people (55–74 years) than in younger people. This strengthening association between

depression and suicidal ideation with increasing age is also reflected in completed suicide; a review of psychological autopsy studies by Conwell and Brent (1995) revealed that depressive illness is more common in suicides in people older than 60 years than in younger people.

The other main associations seem to have a strong social bias, namely smaller primary support group, poorer perceived social support, poor self-rated health, and disability (as measured by limitations in ADL). Widowhood was particularly important in older people, whereas being single was an association in the younger age groups. The lack of association between suicidal ideation and being single in older people was particularly intriguing; one hypothesis is that single older people have learnt to cope more effectively with living alone and may have been more likely to have chosen this lifestyle compared to their younger counterparts. Yip *et al.* (2003) have previously shown lack of social support in older people to be important, and Pfaff & Almeida (2005) found poor perceived health to be a risk factor associated with suicidal ideation in older general practice patients. Alexopoulos *et al.* (1999) found that in depressed elderly patients poor social support predicted suicidal ideation, and impairment of ADL was associated with previous suicide attempts. We found a particularly strong association with limitation in ADL in all age groups, and this finding warrants a more detailed examination. The lack of association with life events in older people was again a surprising finding, in particular because of the strength of association in younger people. The type of life event is likely, however, to be different across the age spectrum; younger people who self-harm experience an excess of events related to relationships and crime (Farmer & Creed, 1989) whereas older people who self-harm primarily experience health-related events (Dennis *et al.* in press). The presence of disability and long-standing illness may be more important than events related to these problems. The finding of verbal IQ as an important risk factor (particularly in older people) is also of interest; this could be explained by cognitive ability in the aetiology of mental disorder, or an individual’s ability to problem solve when faced with a crisis or when suffering from mental illness.

Advantages and limitations of the study

The main strengths of this survey are the sampling techniques, that is representative of all persons aged 16–74 in private households in Great Britain, its large sample size, diagnoses of mental disorder based on validated epidemiological methods, and control of important confounding factors such as sociodemographic variables.

The response rate of 67% could potentially bias the findings. This may be an issue in relation to the prevalence of suicidal ideation, although it is unlikely to influence the social and health correlates. In addition, weighting was performed so that the response sample remained nationally representative with regard to age, gender and region.

The data presented here are limited by their cross-sectional nature, thereby not allowing aetiological inferences to be concluded. Gunnell *et al.* (2004) and Gunnell & Harbord (2003) have presented data on the development and amelioration of suicidal thoughts using the ONS Psychiatric Morbidity survey as a baseline with a subgroup re-interviewed at 18 months. Gunnell *et al.* (2004), however, did not explore the relationship between suicidal ideation, age and depression in detail. Our findings concerning the importance of social factors in older people are similar to those of Gunnell *et al.* (2004), but in addition we have explored the role of physical health factors and disability in our model as naturally this becomes more relevant in later life. Despite the range of social and health factors that we were able to examine, there are clearly other psychosocial factors that may be influential that were not included in the survey.

One other limiting factor is that this study involves a younger elderly age group compared to studies specifically designed to study suicidal ideation in later life. The oldest participants were only 74 years of age. In addition, the questions concerning suicidal ideation were asked about for the periods 1 week, 1 year, and within the respondents' lifetime; this is the time-scale originally used by Paykel *et al.* (1974). It was decided that the 1-year period would be the best choice for the main regression analysis, although this does not correspond to the time-scale for symptoms elicited by the CIS-R.

Clinical and preventative implications

The main message for clinical practice and suicide prevention must be informed by the much stronger association between suicidal ideation and depression in later life. In the context of clinical consultation, the presence of tiredness of life or death wishes should alert primary care and general hospital clinicians to the possibility of underlying depression, and should not be perceived as a normal response to adversity. Conversely, older people with depressive symptoms should be asked about thoughts of hopelessness and the presence of suicidal ideation. The National Institute of Clinical Excellence (NICE, 2004) guidelines for the management of depression in primary and secondary care highlight the importance of screening at-risk populations, and this should clearly include the physically ill elderly in general hospitals. The Geriatric Depression Scale (GDS; Sheikh & Yesavage, 1986) has been used in the general hospital setting in 15-item and shorter versions (Jackson & Baldwin, 1993; Shah *et al.* 1997). Probable depression on the GDS or a positive response to the GDS question 'Do you feel your situation is hopeless?' should prompt the health professional to ask more specific questions concerning tiredness of life, death wishes and suicidal thoughts; Dennis *et al.* (2005) found that depressed older people who had self-harmed were more likely to respond 'yes' to this question than a depressed control group. The value of wider screening for depression has been questioned, unless it involves high-risk groups and there is a clear plan on how to manage identified cases (Gilbody *et al.* 2006). This strong association between suicidal ideation and depression in later life strengthens the argument for depression screening in older patients in primary care, but this screening needs to be linked with appropriate treatment protocols and long-term care planning (Hunkeler *et al.* 2006).

Other independent associations in this study have highlighted the role of social isolation, with poorly perceived support and restricted networks. The physical and social consequences of disability with impairment of ADL have also been shown to be important. They are a number of key issues here: first, identification of isolated and disabled older people whose risk may well also be magnified by concurrent psychiatric

morbidity; second, engagement with services of vulnerable persons once identified; and third, appropriate care planning and ongoing contact with such individuals. These challenges are not solely the domain of the statutory services, but are for society as a whole and the voluntary sector in particular. In reality, population-based strategies to reduce the prevalence of psychiatric morbidity and therefore those with suicidal ideation, as well as policies that improve social support to the elderly, may have the best chance of reducing suicide rates (Lewis *et al.* 1997; Thomas *et al.* 2002). However, whether suicidal ideation is an appropriate proxy for studying suicidal behaviour still requires further evaluation (Links *et al.* 2005); longitudinal follow-up of older people with suicidal ideation is required, with particular reference to subsequent self-harm and completed suicide.

DECLARATION OF INTEREST

None.

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