

ORIGINAL PAPER

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Thinking life is not worth living

A population survey of Great Britain

Accepted: 14 March 2002

Abstract *Background* “Saving lives: our healthier nation” includes a target to reduce the death rate from suicide. Thoughts of suicide and feeling life is not worth living might be the first step in a pathway that can end in completed suicide. This study aims to identify factors associated with feeling life is not worth living amongst the household population of Great Britain, and to assess the strength of these associations after taking account of an individual’s level of psychiatric morbidity. *Methods* The 1993 OPCS National Psychiatric Morbidity Surveys of Great Britain assessed psychiatric morbidity using the Revised Clinical Interview Schedule amongst a stratified, clustered probability sample of 9830 subjects representative of the British private household population aged 16–64. *Results* Of the sample 0.8% (95% CI 0.6%–1%) had thoughts of suicide in the week before interview and 3.1% (95% CI 2.7%–3.5%) reported

thoughts of life not worth living in the week before interview. Psychiatric morbidity was most strongly associated with such thoughts. Ethnicity, marital status and low social support were strongly associated with such thoughts after adjusting for age, sex and psychiatric morbidity. *Conclusions* Reducing psychiatric morbidity in the population as a whole might also decrease the frequency of suicidal thoughts. Policies which improve social support at a population level might also have a large impact on prevalence of suicidal thoughts.

Key words cross-sectional survey – general population – depressive thoughts – social support

Introduction

There are approximately 4500 deaths from suicide each year in England and Wales. Thoughts of suicide might be the first step in a pathway that culminates in completed suicide. For example, Appleby and colleagues (1999) reported that individuals with suicidal thoughts following discharge from psychiatric inpatient care were almost twice as likely to commit suicide as those without such thoughts (odds ratio 1.9, 95% CI 1.0–3.5).

There are methodological advantages in studying factors associated with suicidal ideation rather than completed suicide. Suicidal thoughts are more common in the population and can be asked of the subject directly. Case-control studies of factors associated with completed suicide are prone to biases arising from low response rates and reliance on indirect accounts, and are further complicated by the appropriate selection of controls (Hawton et al. 1998). Furthermore, all studies of suicide mortality suffer from the possible misclassification of suicide as undetermined death (Holding and Barraclough 1978).]

This study uses individuals’ responses to the question “In the past week have you felt that life isn’t worth living?” as an indicator of suicidal ideation. We aim to identify factors associated with thinking that life is not worth

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living in a sample of the household population of Great Britain and to assess the independence of these associations. In particular, we wish to assess the strength of associations between these factors and such thoughts after taking account of an individual's level of psychiatric morbidity.

Subjects and methods

■ Sampling procedure

The data used in this investigation arise from the private household sample of the Office of Population Censuses and Surveys (OPCS) National Psychiatric Morbidity Surveys of Great Britain carried out in 1993. The initial findings have been published in a set of reports and published papers which provide further details of the survey and questionnaire (Meltzer et al. 1995; Jenkins et al. 1997).

A stratified, clustered probability sample was drawn from the Small Area Postcode Address Files for Great Britain. Two hundred postal sectors were selected with probability proportional to size, and stratified by regional health authority and socio-economic group. Ninety addresses were randomly selected from each postal sector to yield a sample of 18 000 addresses. Interviewers visited 12 730 private households which contained at least one adult aged 16–64, selected one individual at random and successfully interviewed 10 108 (response rate 79%). After excluding proxy interviews and subjects who refused to answer parts of the questionnaire, data were available for 9830 subjects who make up the study sample in these analyses.

■ Definition of variables

Psychiatric morbidity

Assessed by the Revised Clinical Interview Schedule (CIS-R), a score of 12 or greater represented clinically significant psychiatric morbidity (Lewis et al. 1992).

Suicidal thoughts

Only subjects who scored at least one point on the depression section of the CIS-R were asked about depressive ideas in the week before interview. Only those who felt guilty, not as good as others or hopeless in the last 7 days were asked "In the past week have you felt that life isn't worth living?". Only those who answered positively were then asked "In the past week, have you thought of killing yourself?". Subjects reporting suicidal thoughts were advised to talk to their doctor.

Ethnicity

Black-Caribbean (n = 116), Black-African (n = 34) and Black-Other (n = 18) were grouped as West Indian/African; Indian (n = 148), Pakistani (n = 57), Bangladeshi (n = 8) and Chinese (n = 20) were grouped as Asian/Oriental.

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 students, retired people, housewives and those permanently unable to work because of illness or disability.

Social class

Subjects were classified according to the Registrar General's classification with a married or cohabiting woman 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

These related to 6 months before interview and included serious injury or illness, death of relative or close friend, marriage separation, serious problems with a close friend, job redundancy, major financial crisis and problems with the police.

■ Statistical analyses

All analyses used the commands developed specifically for complex survey data available in Stata Version 6.0 (StataCorp, College Station, TX, USA). These estimation commands allowed for the probability sampling weights (age-sex distribution of the sample and household size) and clustering (postal sector). Odds ratios (ORs) and 95% confidence intervals (95% CIs) were calculated using logistic regression. Analyses were adjusted for sex, age in 5-year age-bands [16–19, 20–24, 25–29, 30–34, 35–39, 40–44, 45–49, 50–54, 55–59, 60–64] and psychiatric morbidity (CIS-R score as a quadratic function). Characteristics that were independently associated with thoughts of life not worth living after these adjustments were entered into a final model. Analyses were also stratified separately by sex, age in 10-year age-bands [16–24, 25–34, 35–44, 45–54, 55–64] and size of primary support group (reported number of close friends or relatives < 3, 4–8, 9+) and tests for interactions carried out.

Results

Three hundred and forty-six individuals (weighted prevalence 3.1%, 95% CI 2.7%–3.5%) reported thinking that life was not worth living in the 7 days before the interview. Of these, 96 individuals (weighted prevalence 0.8%, 95% CI 0.6%–1%) reported having thoughts of killing themselves in the 7 days before interview. These 96 subjects were very similar in their distribution of socio-demographic and socio-economic characteristics to the 250 subjects who thought life was not worth living but had not thought of killing themselves. The two groups differed slightly in their age distribution with a larger proportion of the 96 who had thoughts of killing themselves in the 16–24 age-band (19.8% and 13.2%, respectively). All 346 individuals who thought life was not worth living are included in all the analyses to provide more precise estimates of risk.

■ Odds ratios for thoughts of life not worth living

Level of psychiatric morbidity as indicated by the CIS-R score was extremely strongly associated with thoughts of life not worth living in the week before interview (Table 1). Female subjects were almost twice as likely as male subjects to have such thoughts; however, the risk of such thoughts was very similar across all age groups.

Odds ratios for thoughts of life not worth living adjusted for age and sex are presented in the first column of Table 2. The associations between risk factors and thinking life not worth living after taking account of psychiatric morbidity are also shown in Table 2. After these adjustments, thoughts of life not worth living were most strongly associated with ethnicity, marital status, working status, housing tenure, social support and drug dependence.

Table 1 Odds ratios for thoughts of life not worth living in 7 days before interview

Characteristic	n	OR (95% CI)
Sex		
Male	4522	1.00
Female	5308	1.84 (1.39–2.44)
Age		
16–24	1318	1.18 (0.76–1.83)
23–34	2557	0.98 (0.69–1.40)
35–44	2133	1.08 (0.74–1.59)
45–54	1929	1.12 (0.75–1.67)
55–64	1893	1.00
CIS-R score		
0–5	6135	1.00
6–11	1926	21.85 (6.15–77.6)
12–17	757	142.64 (42.0–483.9)
18+	784	718.46 (215.7–2392.9)

Table 2 Odds ratios for thoughts of life not worth living in 7 days before interview, adjusted for age, sex and psychiatric morbidity

Characteristic	n	Adjusted for age and sex OR (95% CI)	Adjusted for age sex and psychiatric morbidity OR (95% CI)
Ethnicity			
White	9272	1.00	1.00
West Indian/African	168	1.98 (1.08–3.64)	2.21 (1.06–4.60)
Asian/Oriental	233	2.88 (1.53–5.43)	3.94 (2.19–7.08)
Other	81	1.12 (0.36–3.50)	0.33 (0.03–3.98)
Locality			
Urban	6556	1.00	1.00
Semi-rural/rural	3273	0.68 (0.50–0.91)	0.99 (0.71–1.36)
Marital status			
Married	5418	1.00	1.00
Cohabiting	614	1.08 (0.60–1.92)	0.81 (0.34–1.93)
Single	2252	2.14 (1.56–2.92)	2.40 (1.61–3.57)
Widowed	356	2.15 (1.33–3.47)	1.87 (0.97–3.59)
Divorced	834	2.73 (1.88–3.96)	2.22 (1.31–3.76)
Separated	309	4.37 (2.78–6.89)	2.91 (1.70–4.99)
Working status			
Full-time	4855	1.00	1.00
Part-time	1634	1.27(0.80–2.00)	1.26(0.76–2.10)
Unemployed	840	4.30 (2.98–6.21)	2.55 (1.56–4.19)
Economically inactive	2501	3.09 (2.20–4.33)	1.36 (0.90–2.06)
Qualifications			
A level +	3253	1.00	1.00
GCSE/O level	2429	1.04 (0.73–1.49)	0.82 (0.54–1.25)
Other qualification	1073	1.02 (0.63–1.65)	0.60 (0.31–1.15)
None	3075	2.28 (1.59–3.26)	1.46 (0.94–2.26)
Housing tenure			
Owner/occupier	6862	1.00	1.00
Renter	2968	2.82 (2.21–3.59)	2.01 (1.48–2.73)
Social Class			
I	659	1.00	1.00
II	2663	1.28 (0.64–2.57)	0.99 (0.47–2.06)
III NM	1558	2.51 (1.24–5.08)	1.61 (0.75–3.45)
III M	2700	1.95 (0.99–3.82)	1.10 (0.47–2.06)
IV	1476	2.68 (1.34–5.37)	1.60 (0.75–3.45)
V	514	3.40 (1.58–7.31)	1.57 (0.64–3.85)
Armed forces	97	1.77 (0.45–6.91)	1.17 (0.22–6.20)
Never worked	157	7.00 (2.55–19.24)	3.75 (1.13–12.46)

A final model assessed which of these factors were most strongly associated with thoughts of life not worth living by adjusting each for all of the others (Table 3). The characteristics most strongly associated with thoughts of life not worth living were Asian/Oriental ethnicity, being single or being separated, and having a primary support group of less than nine people. Repeating this analysis amongst only the 96 individuals who actually reported having thoughts of killing themselves provided similar results (OR with respect to Asian/Oriental ethnicity 3.86, 95% CI 1.04–14.39; OR with respect to being separated 4.46, 95% CI 1.23–16.15; OR with respect to having primary support < 3 people 4.56, 95% CI 2.23–6.35). However, this analysis was based on a smaller number of cases and is likely to be less robust.

The analyses were also repeated separately for males and females and the wide 95% CIs did not support a sta-

Table 2 Continued

Characteristic	n	Adjusted for age and sex OR (95% CI)	Adjusted for age sex and psychiatric morbidity OR (95% CI)
Number of stressful life events in last 6 months			
0	4738	1.00	1.00
1	3061	1.94 (1.38–2.71)	1.24 (0.82–1.88)
2+	2031	4.07 (2.89–5.75)	1.53 (0.97–2.42)
Size of primary support group			
9+ people	5808	1.00	1.00
4–8 people	3266	2.92 (2.20–3.89)	2.27 (1.59–3.25)
< 3 people	756	7.39 (5.37–10.17)	3.40 (2.19–5.28)
General health			
Very good	3832	1.00	1.00
Good	3854	1.79 (1.22–2.63)	1.07 (0.72–1.58)
Fair	1698	6.23 (4.17–9.31)	2.02 (1.24–3.28)
Bad	355	15.68 (9.90–24.86)	1.99 (1.07–3.71)
Very bad	81	36.86 (20.10–67.57)	1.43 (0.41–4.90)
Spoken to GP in last 2 weeks			
No	8143	1.00	1.00
Yes	1686	1.81 (1.35–2.43)	0.70 (0.47–1.06)
Hospital inpatient with physical problem in last 12 months			
No	9587	1.00	1.00
Yes	243	9.18 (6.38–13.22)	1.66 (0.87–3.16)
Hospital inpatient with mental problem in last 12 months			
No	9804	1.00	1.00
Yes	26	14.23 (5.93–34.15)	1.57 (0.50–4.95)
Alcohol dependence			
No	9384	1.00	1.00
Yes	446	2.99 (1.92–4.66)	1.40 (0.73–2.69)
Drug dependence			
No	9635	1.00	1.00
Yes	195	4.55 (2.78–7.43)	2.25 (1.21–4.18)

Adjusted for sex, age in 5-year age-bands (16–19, 20–24, 25–29, 30–34, 35–39, 40–44, 45–49, 50–54, 55–59, 60–64) and psychiatric morbidity (CIS-R score as a quadratic function)

tistically significant difference in any sex-specific estimates of risk. The analyses were also stratified by 10-year age-band. Again, the wide 95% CIs did not support a statistically significant difference in any age-specific estimates of risk. Finally, the analyses were stratified by size of primary support group. The level of support did not significantly modify any of the estimates of risk associated with the characteristics in Table 3.

Discussion

■ Risk factors for thoughts of life not worth living

The most striking finding from this study is the extremely strong association between level of psychiatric morbidity (measured by CIS-R score) and thinking life was not worth living in the week before interview. Since the responses regarding depressive ideas contribute to the total CIS-R score, and since only patients with depressive ideas were asked about suicidal ideation, some association would be expected but such a strong association is of interest. Paykel et al. (1974) first reported that minor neurotic symptoms were significantly more com-

Table 3 Odds ratios for thoughts of life not worth living in 7 days before interview adjusting predictive characteristics for each other

Characteristic	Adjusted for age, sex, psychiatric morbidity and other characteristics in table OR (95% CI)
Ethnicity	
White	1.00
West Indian/African	1.52 (0.76–3.05)
Asian/Oriental	4.48 (2.39–8.41)
Other	0.27 (0.02–3.38)
Marital status	
Married	1.00
Cohabiting	0.76 (0.33–1.76)
Single	1.99 (1.30–3.05)
Widowed	1.51 (0.81–2.81)
Divorced	1.69 (0.96–2.96)
Separated	2.27 (1.27–4.07)
Working status	
Full-time	1.00
Part-time	1.18 (0.70–1.99)
Unemployed	1.68 (1.04–2.72)
Economically inactive	0.92 (0.60–1.43)
Housing tenure	
Owner/occupier	1.00
Renter	1.67 (1.20–2.32)
Size of primary support group	
9+ people	1.00
4–8 people	2.16 (1.51–3.10)
< 3 people	2.97 (1.90–4.64)
Drug dependence	
No	1.00
Yes	1.76 (0.94–3.33)

Adjusted for sex, age in 5 year age-bands (16–19, 20–24, 25–29, 30–34, 35–39, 40–44, 45–49, 50–54, 55–59, 60–64) and psychiatric morbidity (CIS-R score as a quadratic function)

mon in subjects who reported suicidal feelings within the last year than in those subjects who did not report such feelings. Similarly, the risk of suicidal ideation has been reported to be significantly increased in subjects who fulfil DSM criteria for a number of psychiatric disorders, in particular for major depressive episode (Cooper-Patrick et al. 1994; Olfson et al. 1996; Kessler et al. 1999).

After adjusting for an individual's level of psychiatric morbidity, subjects who were of Asian/Oriental ethnicity, single or separated, or reported having fewer than nine close friends or relatives were most likely to have had such thoughts. Previous studies based on adult general population or primary care patient samples have reported that suicidal thoughts were significantly more common in subjects who were divorced (Cooper-Patrick et al. 1994; Zimmerman et al. 1995; Hintikka et al. 1998; Kessler et al. 1999; Weissman et al. 1999). Fewer studies have investigated associations with social support; Paykel et al. (1974) found social isolation to be significantly more common amongst subjects with suicidal feelings than in those who had no such feelings. Vilhjalmsen et al. (1998) found suicidal thoughts to be more prevalent in subjects with low emotional and task support but suicidal thoughts were only significantly associated with level of material support.

Although greatly confounded by psychiatric morbidity and social support, our reported association between unemployment and thoughts of life not worth living is comparable to that reported by Hintikka et al. (1998) in a Finnish sample of 4819 adults aged 18–74 years (unadjusted OR for suicidal thoughts 2.4, 95% CI 1.5–3.7).

The relationship between ethnicity and suicidal ideation in England and Wales was also investigated using the relevant section of the CIS-R in The Fourth National Survey of Ethnic Minorities (Nazroo 1997). After standardising for age and sex the prevalence of thinking life not worth living was similar in the white, Indian/African Asian, and Pakistani groups, and was highest (3.8%) in the Caribbean and Irish/other white groups. Our results demonstrated risk of thinking life not worth living to be highest in the Asian/Oriental group. Although the Psychiatric Morbidity Survey consisted of a larger sample in total, 95% of the sample was white and, therefore, our results are based on relatively small numbers in the other ethnic groups.

■ Comparison of risk factors for thoughts of life not worth living and completed suicide

The characteristics demonstrated in this study to be most strongly associated with thoughts of life not worth living, namely psychiatric morbidity, Asian/Oriental ethnicity, being single or divorced and having poor social support, have also been reported to be predicting factors amongst individuals who deliberately harm or kill themselves (Congdon 1996; Raleigh 1996; Schmidtke et al. 1996; Bhugra et al. 1999; Mortensen et al. 2000). Af-

ter adjustments, the association between thoughts of life not worth living and unemployment was not as strong as that between unemployment and deaths from suicide reported in England and Wales by Lewis and Sloggett (1998, OR 2.6, 95% CI 2.0–3.4) and in previous reviews of the literature (Platt 1984). However, if the association between unemployment and suicide can be adjusted for age, sex and psychiatric illness, the strength of association is weakened (rate ratio 1.35, 95% CI 1.03–1.76; Mortensen et al. 2000). Lewis and Sloggett (1998) discussed their inability to adjust for psychiatric morbidity as a limitation of their longitudinal data which linked census variables to mortality data.

These three aspects of suicidal behaviour do not follow identical patterns across age groups and between the sexes. It seems that being female is more strongly associated with suicidal ideation and deliberate self-harm whereas males are more likely to complete suicide (Charlton et al. 1992). The suicide rate for males in most age groups has decreased between 1990 and 1997 in England and Wales (McClure 2000), with only a modest difference in the rate amongst 25- to 34-year olds causing this age group to have the highest rate of suicide in males. In this study, we did not find a significant association between age and thoughts of life not worth living, although the largest proportion of the 96 individuals who reported thoughts of killing themselves was in the 16–24 age group. There are some similarities, therefore, between the factors associated with thoughts of life not worth living and those factors associated with suicide. This is consistent with the idea that suicidal thoughts are a probable risk factor for suicide or on the causal pathway to suicide.

■ Advantages and limitations of the study

This study benefits from the large sample size, the very good response rate (79%), the use of a standardised interview and the fact that the sample is representative of all 16- to 64-year-olds from private households in Great Britain. Respondents were asked about suicidal thoughts in the week immediately before the interview which is probably a more valid measurement than prevalence during the previous year or even during a lifetime due to less accurate long-term recall. For example, Paykel et al. (1974) reported that the proportion thinking life was not worth living over 1 year was only 33% less than the lifetime figure. However, our 3.1% weekly prevalence is difficult to compare directly with previous studies such as Weissman et al.'s (1999) which reported lifetime prevalence of suicidal ideation ranging from 2.09% in Beirut to 18.51% in Christchurch, New Zealand.

The data are limited by the cross-sectional survey design which allows investigation of associations between characteristics and suicidal ideation, but does not allow inferences about causality to be drawn. For example, the observed association between thoughts of life not worth living and low levels of social support may be explained

by a withdrawal from social contacts amongst individuals who already have severe depressive ideas.

A further limitation of this study arises because the questions relating to suicidal ideation were only asked of a highly selected group of respondents, namely those who scored at least one point on the depression section of the CIS-R and also felt guilty, not as good as others or hopeless in the week before interview. In the ONS survey of psychiatric morbidity among prisoners in England and Wales (Singleton et al. 1998) all subjects completed the CIS-R but all subjects were also asked questions concerning deliberate self-harm with suicidal intent. These results suggest that of all the subjects who reported feeling that life was not worth living in the week before interview, approximately 9% might be missed due to the filtering of the questions in the household survey (Singleton, personal communication). Therefore, instead of a reported prevalence of 3.1%, the prevalence of thoughts of life not worth living in the household sample might be 3.4%.

It is likely, therefore, that the present results slightly underestimate the proportion of the population who experience thoughts of life not worth living. However, the rules concerning filtering were applied equally to all subjects and it is unlikely that any bias arose as a consequence; therefore, we can be confident about the reported associations. At present, these data are the best available for the household population of Great Britain concerning the prevalence of suicidal thoughts.

■ Strategies for prevention

Directing prevention at individuals at higher risk of suicidal ideation measured by socio-demographic characteristics is extremely unlikely to have a sizeable impact on reducing suicide mortality. Furthermore, only an extremely small proportion of those who report suicidal thoughts will continue in the suicidal pathway. Trying to distinguish between ideators who will progress and ideators who will never deliberately harm themselves is extremely difficult (Beck et al. 1985). For those ideators who do progress in the suicidal pathway, Kessler et al. (1999) have recently reported that about 90% of unplanned and 60% of planned first attempts occurred within 1 year of the onset of ideation.

Instead, this study aimed to identify factors associated with thoughts that life is not worth living in a sample of the household population of Great Britain. We suggest that if the proportion of the population who are exposed to these risk factors can be minimised, this might be associated with a reduction in prevalence of such thoughts and, in turn, a reduction in suicide mortality. Although there is a clinical necessity for preventing suicide in individuals at high risk, the Department of Health's targets are more likely to be attained by such population-based strategies (Anderson et al. 1993; Gunnell and Frankel 1994; Lewis et al. 1997). Reducing the prevalence of psychiatric morbidity of the population as

a whole may also reduce the proportion of the minority with suicidal thoughts (Anderson et al. 1993).

Poor social support was strongly associated with thoughts of life not worth living and 41 % of the sample reported having fewer than nine close friends or relatives. This corresponds to a population attributable fraction of about 32 %. Policies which improve social support at a population level might also be expected to have a large impact on prevalence of suicidal thoughts. This is consistent with a wide range of evidence including Whitley et al.'s (1999) recent report that mortality from suicide was more strongly related to indices of social fragmentation rather than deprivation at a constituency level in Great Britain. Improving the cohesiveness of communities and reducing the proportion of the population who feel they have little social support might not only lower suicide mortality rates but might also minimise a range of harmful behaviours by reducing the prevalence of suicidal ideation in the British population.

■ **Acknowledgements** We thank Ms Nicola Singleton for providing data from the ONS survey of psychiatric morbidity among prisoners in England and Wales.

References

- Anderson J, Huppert F, Rose G (1993) Normality, deviance and minor psychiatric morbidity in the community. A population-based approach to General Health Questionnaire data in the Health and Lifestyle Survey. *Psychol Med* 23: 475–485
- Appleby L, Dennehy JA, Thomas CS, Faragher EB, Lewis G (1999) Aftercare and clinical characteristics of people with mental illness who commit suicide: a case-control study. *Lancet* 353: 1397–1400
- Beck AT, Steer RA, Kovacs M, Garrison B (1985) Hopelessness and eventual suicide: a 10-year prospective study of patients hospitalized with suicidal ideation. *Am J Psychiatry* 142: 559–563
- Bhugra D, Desai M, Baldwin DS (1999) Attempted suicide in west London, I Rates across ethnic communities. *Psychol Med* 29: 1125–1130
- Charlton J, Kelly S, Dunnell K, Evans B, Jenkins R, Wallis R (1992) Trends in suicide deaths in England and Wales. *Population Trends* 69: 10–16
- Congdon P (1996) Suicide and parasuicide in London: a small-area study. *Urban Studies* 33: 137–158
- Cooper-Patrick L, Crum RM, Ford DE (1994) Identifying suicidal ideation in general medical patients. *JAMA* 272: 1757–1762
- Gunnell D, Frankel S (1994) Prevention of suicide: aspirations and evidence. *BMJ* 308: 1227–1233
- Hawton K, Appleby L, Platt S, Foster T, Cooper J, Malmberg A, Simkin S (1998) The psychological autopsy approach to studying suicide: a review of methodological issues. *J Affect Disord* 50: 269–276
- Hintikka J, Kontula O, Saarinen P, Tanskanen A, Koskela K, Viinamaki H (1998) Debt and suicidal behaviour in the Finnish general population. *Acta Psychiatr Scand* 98: 493–496
- Holding TA, Barraclough BM (1978) Undetermined deaths-suicide or accident? *Br J Psychiatry* 133: 542–549
- Jenkins R, Bebbington P, Brugha T, Farrell M, Gill B, Lewis G, Meltzer H, Petticrew M (1997) The National Psychiatric Morbidity surveys of Great Britain – strategy and methods. *Psychol Med* 27: 765–774
- Kessler RC, Borges G, Walters EE (1999) Prevalence of and risk factors for lifetime suicide attempts in the National Comorbidity Survey. *Arch Gen Psychiatry* 56: 617–626
- Lewis G, Pelosi AJ, Araya R, Dunn G (1992) Measuring psychiatric disorder in the community: a standardized assessment for use by lay interviewers. *Psychol Med* 22: 465–486
- Lewis G, Hawton K, Jones P (1997) Strategies for preventing suicide. *Br J Psychiatry* 171: 351–354
- Lewis G, Sloggett A (1998) Suicide, deprivation, and unemployment: record linkage study. *BMJ* 317: 1283–1286
- McClure GMG (2000) Changes in suicide in England and Wales, 1960–1997. *Br J Psychiatry* 176: 64–67
- Meltzer H, Gill B, Petticrew M, Hinds K (1995) OPCS Surveys of Psychiatric Morbidity in Great Britain Report 1. The prevalence of psychiatric comorbidity among adults living in private households. HMSO, London
- Mortensen PB, Agerbo E, Erikson T, Qin P, Westergaard-Nielsen N (2000) Psychiatric illness and risk factors for suicide in Denmark. *Lancet* 355: 9–12
- Nazroo JY (1997) Ethnicity and mental health. Findings from a National Community Survey. Policy Studies Institute, London
- Olfson M, Weissman MM, Leon AC, Sheehan DV, Farber L (1996) Suicidal ideation in primary care. *Jnl Gen Internal Med* 11: 447–453
- Paykel ES, Myers JK, Lindenthal JJ, Tanner J (1974) Suicidal feelings in the general population: a prevalence study. *Br J Psychiatry* 124: 460–469
- Platt S (1984) Unemployment and suicidal behaviour: a review of the literature. *Soc Sci Med* 19: 93–115
- Raleigh VS (1996) Suicide patterns and trends in people of Indian subcontinent and Caribbean origin in England and Wales. *Ethn Health* 1: 55–63
- Schmidtko A, Bille-Brahe U, DeLeo D, Kerkhof A, Bjerke T, Crepet P, Haring C, Hawton K, Lonqvist L, Michel K, Pommereau X, Querejeta I, Phillippe I, Salander-Renberg E, Temesvary B, Wasserman D, Fricke S, Weinacker B, Sampaio-Faria JG (1996) Attempted suicide in Europe: rates, trends and sociodemographic characteristics of suicide attempters during the period 1989–1992. Results of the WHO/EURO Multicentre Study on Parasuicide. *Acta Psychiatr Scand* 93: 327–338
- Singleton N, Meltzer H, Gatward R, Coid J, Deasy D (1998) Psychiatric morbidity among prisoners in England and Wales. The Stationery Office, London
- Vilhjalmsson R, Kristjansdottir G, Sveinbjarnardottir E (1998) Factors associated with suicide ideation in adults. *Soc Psychiatry Psychiatr Epidemiol* 33: 97–103
- Weissman MM, Bland RC, Canino GJ, Greenwald S, Hwu HG, Joyce PR, Karam EG, Lee CK, Lellouch J, Lepine JP, Newman SC, Rubio-Stipec M, Wells JE, Wickramaratne PJ, Wittchen HU, Yeh EK (1999) Prevalence of suicide ideation and suicide attempts in nine countries. *Psychol Med* 29: 9–17
- Whitley E, Gunnell D, Dorling D, Davey Smith G (1999) Ecological study of social fragmentation, poverty, and suicide. *BMJ* 319: 1034–1037
- Zimmerman M, Lish JD, Lush DT, Farber NJ, Plescia G, Kuzma MA (1995) Suicidal ideation among urban medical outpatients. *Jnl Gen Internal Med* 10: 573–576