



Participation in screening for cardiovascular risk by people with schizophrenia or similar mental illnesses: cross sectional study in general practice

D P J Osborn, M B King and I Nazareth

BMJ 2003;326:1122-1123
doi:10.1136/bmj.326.7399.1122

Updated information and services can be found at:
<http://bmj.com/cgi/content/full/326/7399/1122>

These include:

References

This article cites 4 articles, 1 of which can be accessed free at:
<http://bmj.com/cgi/content/full/326/7399/1122#BIBL>

5 online articles that cite this article can be accessed at:
<http://bmj.com/cgi/content/full/326/7399/1122#otherarticles>

Rapid responses

2 rapid responses have been posted to this article, which you can access for free at:
<http://bmj.com/cgi/content/full/326/7399/1122#responses>

You can respond to this article at:
<http://bmj.com/cgi/eletter-submit/326/7399/1122>

Email alerting service

Receive free email alerts when new articles cite this article - sign up in the box at the top left of the article

Notes

To order reprints follow the "Request Permissions" link in the navigation box

To subscribe to *BMJ* go to:
<http://resources.bmj.com/bmj/subscribers>

1994 and 1996-7; they concluded that the method does not over-report the number of suicides. We estimated population using census data (from 1994), which are updated regularly.

The mean suicide rate for the 6 year period was 95.2/100 000 (range 83.7-106.3/100 000) and did not change significantly over time (96.7, 106.3, 83.7, 103.6, 89.8, and 90.9 in each 100 000 population for each year 1994-9). Suicides accounted for between 8% (89/1057) and 12% (112/940) of total deaths. Suicides in women were 0.84 times as likely as suicides among men; this ratio did not change significantly over time.

Older men were more likely to commit suicide than younger men (table). Most women who committed suicide were aged 15-24 or older than 65. We found more suicides among women (102/278) than among men (58/331) in the 15-24 years age group (χ^2 for linear trend=15.5; $P < 0.001$).

Poisoning (275/609; 45%) and hanging (248/609; 41%) were the commonest methods overall. A greater proportion of women chose drowning or burning ($\chi^2=52.2$; $df=1$; $P < 0.0001$) than men, who more often chose poisoning or hanging. People younger than 44 years tended to use poison; older people tended to choose hanging ($\chi^2=44.1$; $df=18$; $P < 0.001$). From 1994 until 1999, the proportion of suicide by poisoning, hanging, and drowning did not change significantly. The number of suicides by burning increased from 4 in 1994 to 11 in 1999 (χ^2 for linear trend=7.25; $P=0.007$). No sutī—a widow committing suicide by burning in her husband's funeral pyre—was recorded.

Comment

Verbal autopsies can give a good idea of the cause of death from suicide in the developing world, where coroners' verdicts are not available. A community health programme in the Kaniyambadi region of India found that recent studies in India have under-reported suicide rates by two to three times.² The independently verified method used verbal autopsies and found the rate in 1994-9 was 95.2/100 000 population—nine times the national average. The high rates are not likely to be peculiar to Kaniyambadi; they reflect more accurate data collection. Sentinel centres that accurately monitor suicide are needed in the developing world.

We thank the staff of the Department of Community Health for the census, data collection, computerisation, and verbal autopsies.

Contributors: AJ, SA, JPM, and KG designed and monitored the project and contributed to writing the paper. JP, SM, and VJA monitored the programme, reviewed verbal autopsies, and helped write the paper. KSJ analysed the data and wrote the paper. AJ is guarantor.

Funding: No additional funding.

Competing interests: None declared.

1 World Health Organization. *World health report 2001: mental health: new understanding, new hope*. Geneva: WHO, 2001. www.who.int/whr2001/2001/main/en/pdf/whr2001.en.pdf (accessed 3 Apr 2003).

2 Gururaj G, Isaac MK. *Epidemiology of suicides in Bangalore*. Bangalore: National Institute of Mental Health and Neuro Sciences, 2001. (Publication No 43.)

3 Joseph A, Joseph KS, Kamaraj K. Use of computers in primary health care. *Int J Health Sci* 1991;2:93-101.

(Accepted 5 March 2003)

Participation in screening for cardiovascular risk by people with schizophrenia or similar mental illnesses: cross sectional study in general practice

D P J Osborn, M B King, I Nazareth

Department of Psychiatry and Behavioural Sciences, University College London, London NW3 2PF
D P J Osborn
MRC research fellow
M B King
professor

Department of Primary Care and Population Sciences, University College London
I Nazareth
professor

Correspondence to:
D P J Osborn
dosborn@rfc.ucl.ac.uk

BMJ 2003;326:1122-3

People with severe mental illnesses are at increased risk for physical illness, including cardiovascular disease.^{1 2} Guidance from the National Institute for Clinical Excellence recommends monitoring of cardiovascular risk factors in such patients and research into relevant interventions.³ Possible causes of this morbidity include diet, smoking, and drug treatment. Health professionals may be less inclined to manage physical health,² and patients may be uninterested or poorly motivated. Little evidence exists about the acceptability of disease prevention in people with serious mental illness. We hypothesised that such people would be less willing to participate in assessment of cardiovascular risk.

Participants, methods, and results

We invited patients from seven inner London general practices to a cardiovascular risk assessment at their practice. One group comprised all patients with a diagnosis of schizophrenia or other chronic psychosis (excluding primary mood disorders) on their computer

record.⁴ We used a computer to randomly choose a comparison group twice the size without these diagnoses. General practitioners wrote offering an appointment (including a blood test) with a researcher and explaining the 10 year cardiovascular risk score (calculated from age, sex, smoking status, diabetic status, blood pressure, and cholesterol concentrations). Participants would receive all results and interpretations. We did not invite people under 30, over 75, or with pre-existing ischaemic heart disease, as risk scores do not apply.

We sent letters to 224 people with psychosis and 424 people without psychosis. After a week we telephoned up to three times, once outside working hours. If we did not make contact we sent a final invitation. We excluded from the analysis people who had moved away, those we could not reach, and those with no contact with the practice for three years, in accordance with previous findings.⁵ This left 182 potential participants with psychosis and 313 without psychosis. Limited, anonymous data on non-participants allowed examination of

participation rates (table). Last systolic blood pressure was higher in participants—mean difference 9.0 mm Hg (95% confidence interval 5.1 to 13.0).

We used logistic regression to examine the association between psychosis (dependent variable) and participation—crude odds ratio 0.76 (0.53 to 1.10). Adjustment for age, sex, practice, and systolic blood pressure made negligible difference to the association between psychosis and participation—adjusted odds ratio 0.74 (0.49 to 1.08). The psychosis group consulted their general practitioner more often—mean difference 1.8 (0.8 to 2.9) per year. Increased consultation rate also predicted screening uptake in the total sample (table). Adding consultation rate to the model changed the odds ratio for participation in screening in the psychosis group to 0.65 (0.43 to 0.98). No interaction terms (involving psychosis and age, sex, consultation rate, or smoking) significantly enhanced the logistic model.

Data were available on drug treatment in people with psychosis. Participation was not significantly associated with being on depot drugs, atypical antipsychotic agents, or higher doses (examined as percentage of maximum daily dose and chlorpromazine equivalents).

Comment

Many people with psychosis accepted the offer of a cardiovascular risk assessment, providing a valuable opportunity for health education and promotion. Interest in risk assessment was greater than we had assumed. Participation rates were similar to those in other community research involving blood tests. Our negative finding regarding drug types and doses (proxies for severity of illness) indicates that the psychosis group were comparable to people attending psychiatric outpatients. Psychosis was associated with lower uptake of screening uptake only when we included general practice consultation rates in the analysis. This may not be important in practice. Absolute differences in uptake of screening were small. Any reluctance to accept health screening in the psychosis group was offset by increased opportunities provided by more frequent attendance. The smaller subgroup with psychosis who rarely consult a general practitioner will obviously be more difficult to screen, warranting assertive efforts regarding their physical health, perhaps in cooperation with other more involved agencies.

We are grateful to all the participants, their general practitioners, and practice staff.

Contributors: All authors developed the hypotheses, designed the methods, and contributed to writing the paper. MBK and IN supervised the study. DPJO carried out the study; collected, entered, and analysed the data; and wrote the initial draft. DPJO is the guarantor of the study.

Funding: DPJO was funded by an MRC research fellowship in health services research. Additional funding from the North Central Thames Primary Care Research Network.

Competing interests: None declared.

Ethical approval: Local research ethics committees of the Royal Free Hospital and Camden and Islington Community NHS Trust. All participants provided informed consent. Limited anonymous data obtained on non-participants.

- Phelan M, Stradins L, Morrison S. Physical health of people with severe mental illness. *BMJ* 2001;322:443-4.
- Osborn DPJ. The poor physical health of people with mental illness. *West J Med* 2001;175:329-32.

Factors affecting participation in screening among all eligible patients and those with psychosis

	No (%) participating	Crude odds ratio for participating (95% CI)	P value
All eligible patients (n=495)			
Diagnosis of psychosis on practice computer:			
Yes	75/182 (41.2)	0.76 (0.53 to 1.10)	0.15
No	150/313 (47.9)	1.0	NA
Sex:			
Male	107/242 (44.2)	1.0	NA
Female	118/253 (46.6)	1.10 (0.77 to 1.57)	0.59
Age (years):			
30-39	86/177 (48.6)	1.0	NA
40-49	43/109 (39.4)	0.69 (0.42 to 1.12)	0.13
50-59	47/104 (45.2)	0.87 (0.54 to 1.42)	0.58
60-75	49/105 (46.7)	0.93 (0.57 to 1.50)	0.76
General practice consultations*:			
0-1	49/143 (34.3)	1.0	NA
2-3	49/100 (49.0)	1.84 (1.09 to 3.11)	0.02
4-7	67/134 (50.0)	1.92 (1.18 to 3.11)	0.01
≥8+	60/108 (55.6)	2.39 (1.44 to 4.01)	<0.01
No data	0/10	NA	NA
Smoker†:			
Yes	98/208 (47.1)	0.69 (0.48 to 1.01)	0.06
No	127/226 (56.2)	1.0	NA
No data	0/61	NA	NA
Diabetes diagnosed:			
Yes	11/32 (34.4)	1.0	NA
No	214/449 (47.7)	1.73 (0.82 to 3.69)	0.15
No data	0/14	NA	NA
People with psychosis only (n=182)			
Depot antipsychotic:			
Yes	21/39 (53.8)	1.40 (0.68 to 2.90)	0.36
No	54/119 (45.4)	1.0	NA
No data on drugs	0/24	NA	NA

NA—not applicable.

*In previous year (quarters).

†Self report (at interview or on practice computer).

- National Institute for Clinical Excellence. *Schizophrenia: core interventions in the treatment and management of schizophrenia in primary and secondary care*. London: NICE, 2002. www.nice.org.uk/Docref.asp?id=42460 (accessed 4 Feb 2003).
- Nazareth I, King M, Haines A, Rangel L, Myers S. Accuracy of diagnosis of psychosis on general practice computer system. *BMJ* 1993;307:32-4.
- Yardley L, Owen N, Nazareth I, Luxon L. Prevalence and presentations of dizziness in a general practice community sample of working age people. *Br J Gen Pract* 1998;48:1131-5. (Accepted 11 February 2003)

Corrections and clarifications

Downsizing of acute inpatient beds associated with private finance initiative: Scotland's case study

A few errors crept into this paper by Matthew G Dunnigan and Allyson M Pollock (26 April, pp 905-8). In the ninth paragraph of the discussion section in the abridged version, the highlighted deficit required annual current savings of £25.6m [not £2.65m] over the four year period. In the results section (in both the abridged and the full version) under the small subheading "New care settings" the final sentence should start: "Acute inpatient care in the private sector in Lothian [not Scotland] is rare..." In the following paragraph (small subheading "Staffed bed rates") the staffed bed rates for intensive therapy specialties should read 27% (4.6 v 6.3 per 100 000); this was wrong in the abridged version only. Finally, in table 1 of the abridged version, the footnote should refer to "Intensive therapy" [not "Staffed bed rates"].

Minerva

We've been there before and we're there again—affiliations to the Minerva picture. In the past, names have sometimes "dropped off" completely; this time, all the names managed to hang on, but the second author's name should have read Andrew D Morris [not Harris] (19 April, p 890).