Do socio-economic risk factors predict the incidence and maintenance of psychiatric disorder in primary care?

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SYNOPSIS In a prospective cohort study of consecutive primary care attenders in south London, the estimated prevalence of non-psychotic psychiatric disorder was 45·6%, using the Revised Clinical Interview Schedule (CIS-R). The estimated 12-month incidence rate was 15·7%. Extremely high stability was found in CIS-R scores over 12 months ($r = 0.65$) and 68·8% of cases at baseline were also cases 12 months later. A clear difference emerged in the types of risk factor which were associated with the incidence and maintenance of disorder in the study population: while socio-economic variables, especially low household income and not having a partner were associated with a worse outcome among prevalent cases at baseline, such variables were only weakly associated with the incidence of psychiatric disorder after adjusting for potential confounders. The latter, notably family psychiatric history and the severity of psychiatric symptoms at baseline were independently associated with the incidence of psychiatric disorder after adjusting for other risk factors, including measures of previous psychiatric disorder.

INTRODUCTION

Up to 40% of primary care attenders suffer from the most common psychiatric disorders, anxiety and depression (Williams *et al.* 1986; Von Korff *et al.* 1987; Barrett *et al.* 1988; Ormel *et al.* 1991; Goldberg & Huxley, 1992). Responsibility for treating individuals with these disorders falls mainly on primary care physicians (Goldberg & Huxley, 1992). In addition to identifying and treating prevalent cases of psychiatric disorder, primary care physicians are likely to be concerned with two practical questions: (i) which of today's attenders are at risk of developing a psychiatric disorder in the near future?; and, (ii) which of those patients who are currently psychiatrically ill are the least likely to recover?

Although to our knowledge only one study has estimated the incidence rate of psychiatric disorder among primary care attenders following consultation (Kessler *et al.* 1985), there have been several studies of outcome (Mann *et al.*

1981; Kessler *et al.* 1985; Goldberg *et al.* 1990; Ormel *et al.* 1991, 1993). With one or two exceptions (Ormel *et al.* 1993; Romans *et al.* 1993*a*), the outcome for non-psychotic psychiatric disorder is worse among those consulting primary care physicians than among community samples, in keeping with evidence that the severity of psychiatric symptoms is significantly correlated with the likelihood of consulting a primary care physician (Williams *et al.* 1986; Pini *et al.* 1995).

Risk factors for the incidence and maintenance of psychiatric disorder

A consistent association has been reported between the prevalence of the common mental disorders and low socio-economic status (Robins *et al.* 1991; Rodgers, 1991; Meltzer *et al.* 1995) and there is evidence that these disorders are causally associated with unemployment (Warr, 1987), poverty (Bruce *et al.* 1991) and threatening life events (Brown & Harris, 1978; Brown *et al.* 1986). A recent genetic study estimated that recent life events accounted for 15% of the variance in liability to major depression, compared with genetic factors (11%), past history of

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major depression (9%), neuroticism (6%), 'recent difficulties' (including financial hardship) (4%) and lack of parental warmth (4%) (Kendler et al. 1993).

Associations have been reported between a worse outcome for the common mental disorders and financial difficulties (Romans et al. 1993a), poor education (Sargeant et al. 1990), housing problems (Brown & Harris, 1978; Huxley et al. 1979; Mann et al. 1981; Goldberg et al. 1990) and inter-personal difficulties (Brown & Moran, 1994). There is disagreement, however, about whether the severity of psychiatric disorder affects outcome. While some community (Sargeant et al. 1990), primary care (Mann et al. 1981) and out-patient studies (Huxley et al. 1979) found that the severity of index disorder was associated with a worse outcome, and some found an association with better outcome (Parker et al. 1986; Ormel et al. 1991, 1993), others have found no association (Hirschfield et al. 1986; Keller et al. 1986; Brown & Moran, 1994).

The aims of the present study were: (i) to estimate the twelve-month incidence and maintenance rates for psychiatric disorder; and, (ii) to test the hypotheses that socio-economic and clinical risk factors are independently associated with these outcomes, by means of a cohort study of consecutive primary care attenders.

METHOD

Subjects and assessments

Consecutive attenders aged 16–65 years were recruited at randomly selected surgeries in a health centre in Rotherhithe (south London). Subjects were eligible if they were waiting to consult about themselves, but not if they were accompanying someone (e.g. children).

Subjects completed: (i) the 12-item General Health Questionnaire (GHQ-12) (Goldberg & Williams, 1988); and, (ii) a checklist concerning the presence and severity of nine common somatic symptoms in the week preceding consultation, with each symptom rated on a four-point scale (range 0–27). All those who completed this assessment were invited for interview (T1), and all those who completed the T1 interview were approached for a further interview (T2) 12 months later. The assessments completed were as follows.

(i) The computer-administered CIS-R (Lewis et al. 1992; Lewis, 1994), with a case threshold of 11/12. The CIS-R score (range 0 to 57) can also be analysed as a continuous variable. Incidence of disorder was defined as the proportion of non-cases at T1 who were cases at T2, and maintenance as the proportion of cases at T1 who were also cases at T2. The CIS-R also provided information on the duration of psychiatric symptoms.

(ii) A computer-administered social assessment, enquiring about ethnicity, past/current psychiatric history, family psychiatric history, marital status, children, education, employment, personal finances, housing, and 13 recent life events based on the List of Threatening Experiences (Brugha et al. 1985). Estimated gross annual household income was adjusted for household size and composition (Hills, 1995) and 'low income' was defined as an adjusted household income below the lowest quartile for the sample. 'Severe financial difficulties' was frequent difficulty in affording food or clothing for the household in the preceding 6 months. 'Structural housing problems' were defined as one or more of damp, rot in woodwork, or infestation. 'Occupational status' was classified as: (1) non-manual occupation, requiring qualifications and with managerial responsibilities; (2) other non-manual occupations and manual occupations with managerial responsibilities; (3) other manual occupations; and (4) all those not currently in work. 'Family psychiatric history' was ascertained by asking 'Has anyone to whom you are related by blood (e.g. parents, children, brothers, sisters or grandparents) ever suffered from mental illness, or ever been under the care of a psychiatrist?'. 'Past psychiatric history' was ascertained in two ways: by previous medical consultation for psychological or emotional problems in primary care or with a psychiatrist, and by previous use of anti-depressant medication.

Statistical analyses

Univariate analyses were conducted using χ^2 or Fisher's exact tests for categorical variables, and t tests or Mann–Whitney U tests for continuous variables. Estimates of incidence and remission rates were adjusted to take account of the incomplete follow-up. The denominator was calculated as $(N + \frac{1}{2}L)$, where N is the number of

subjects who completed the T2 interview, and L is the number of subjects lost to follow-up (Clayton & Hills, 1993). To avoid recall bias only data on risk factors collected at T1 were included in multivariate analyses. Odds ratios and 95% confidence intervals were calculated using logistic regression. Likelihood ratio tests were used to compare linear with categorical models and to test for interactions. Analyses were performed using Stata (Stata Corporation, 1995).

RESULTS

In all, 426 consecutive primary care attenders were approached, of whom 404 (94·8%) completed the preliminary questionnaire, and 307 (72·1%) completed the first interview (T1) of whom 261 were re-interviewed 12 months later (T2), a follow-up rate of 85·0%. No statistically significant differences were found between those who did ($N = 307$) and those who did not participate at T1 ($N = 97$) on age, sex, GHQ score or somatic symptom score at index consultation. Of those who completed both interviews, 168 (64·4%, 58·6–70·2) were women.

Subjects lost to follow-up ($N = 46$) did not differ to a statistically significant degree from those who completed the T2 interview on age or sex. Men (not women) lost to follow-up ($N = 13$) were younger ($t = -2·08$, df = 104, $P = 0·04$) and had lower CIS-R scores at T1 ($t = -1·60$, df = 104, $P = 0·11$) than men who completed both interviews ($N = 93$). Characteristics of study participants ($N = 261$) at T1 are shown in Table 1.

Prevalence of psychiatric disorder

Among subjects interviewed at T1 ($N = 307$), 140 (45·6%, 40·0–51·2) were cases of psychiatric disorder. A strong positive correlation was found between scores on the anxiety and depression subscales of the CIS-R ($r = 0·41$, $P < 0·001$). Women had significantly higher CIS-R scores than men (mean difference = 3·08, 0·29–5·88, $P = 0·03$), and a higher prevalence of psychiatric disorder (49·8% of women *v.* 37·7% of men, $\chi^2 = 3·57$, df = 1, $P = 0·06$).

Incidence of psychiatric disorder

Twenty-four new episodes of psychiatric disorder were identified at T2, resulting in an estimated annual incidence rate for psychiatric

Table 1. *Sociodemographic characteristics of the study sample at baseline* (T1)

	Men % (N)	Women % (N)	Significance
Marital status			
Single (never married)	12·9 (12)	16·1 (27)	
Married	49·5 (75)	44·6 (75)	
Sep/divorce/widow	37·6 (35)	39·3 (66)	$\chi^2 = 0·74$; df = 2; $P = 0·70$
Employment			
Employed	53·8 (50)	54·2 (91)	
Not working*	25·8 (24)	33·3 (56)	
Unemployed	20·4 (19)	12·5 (21)	$\chi^2 = 3·56$; df = 2; $P = 0·17$
Ethnicity			
White	91·4 (85)	88·7 (149)	$P = 0·63$
Children			
Any children at home	30·1 (28)	38·7 (65)	$P = 0·21$
Children aged < 5 at home	10·8 (10)	22·6 (38)	$P = 0·03$
Education			
No qualifications	46·3 (43)	39·3 (66)	
'O' level, GCSE, CSE	20·4 (19)	28·0 (47)	
'A' level or above†	33·3 (31)	32·7 (55)	$\chi^2 = 2·05$; df = 2; $P = 0·36$
Housing			
Owner occupier	25·8 (24)	26·2 (44)	
Local Authority housing	50·5 (47)	42·9 (72)	
HA/private rented/other‡	23·7 (22)	30·9 (52)	$\chi^2 = 1·90$; df = 2; $P = 0·39$
Mean age	40·6 years	33·7 years	$P < 0·001$

* Retired, students, disabled, housewives and full-time carers.
† Includes vocational qualifications.
‡ HA = housing association.

disorder of 15·7% (10·5–23·4). Among incident cases at T2, 37·5% (17·7–57·3) reported consulting a doctor (primary care physician or psychiatrist) about an emotional problem prior to T1 and 12·5% (0–26·0) reported having seen a psychiatrist. A statistically significant interaction ($\chi^2 = 4.44$, df = 1, $P = 0.04$) was found between age and sex in the incidence of psychiatric disorder. Among non-cases under 50 at T1, men were more likely to become cases at T2 than women, while the direction of this association was reversed for those 50 years of age and older (Table 2).

Statistically significant univariate associations were found between the onset of psychiatric disorder and lack of educational qualifications, low household income and severe financial difficulties at T1 (Table 3), though these associations failed to reach statistical significance after adjusting for the other variables in Table 3. No statistically significant associations with the incidence of disorder were found for sex, marital status, having a partner, children, employment, occupational status, debt, structural housing problems or physical handicap at T1, or with life events in the 3, 6 or 12 months preceding T2.

A positive correlation was found between CIS-R scores at T1 and T2 ($r = 0.65$, $P = 0.001$) for the whole sample. Among non-cases at T1 there was a linear association between CIS-R score at T1 and the onset of psychiatric disorder (χ^2 for departure from linear trend = 5·61, df = 10, $P = 0.85$). Significant univariate associations were also found between the onset of disorder and family psychiatric history, duration of psychiatric symptoms for longer than three months, past medical consultation for psychological problems prior to T1, (lifetime) history of anti-depressant use, and the severity of somatic symptoms at the index consultation. The associations with CIS-R score at T1 and family psychiatric history remained statistically significant after adjusting for potential confounders (Table 3). No statistically significant interactions were found between CIS-R score at T1 and age, sex, or any of the risk factors in Table 3 in the incidence of disorder.

Maintenance of psychiatric disorder

Among psychiatric cases at T1 ($N = 140$), 82 were also cases at T2, resulting in an estimated annual maintenance rate of 68·8% (57·6–77·1).

Maintenance of disorder was significantly associated with structural housing problems, not having a partner, not working (but not seeking employment) and low income at T1 (Table 4). There was a statistically significant trend in the association between low income and maintenance of disorder (Mantel–Haenzel χ^2 for linear trend = 5·43, df = 1, $P = 0.02$), which did not depart significantly from linearity ($\chi^2 = 1.30$, df = 2, $P = 0.52$). Not having a partner and low income were independently associated with the maintenance of disorder after adjusting for confounders, including measures of previous psychiatric disorder, previous medical consultation for a psychological problem and lifetime history of anti-depressant use (Table 4). Those who remained cases at T2 were significantly more likely to report life events in the three ($\chi^2 = 5.28$, df = 1, $P = 0.02$) and 6 months ($\chi^2 = 7.87$, df = 1, $P = 0.005$), but not the entire 12 months ($\chi^2 = 3.19$, df = 1, $P = 0.07$) preceding T2 than cases who had recovered at T2. No statistically significant differences were found between these groups in ethnicity, marital status, children, education, occupational status, financial difficulties or life events prior to T1.

Maintenance of psychiatric disorder was associated with higher CIS-R score at T1, family psychiatric history, duration of psychiatric symptoms at T1 and severity of somatic symptoms at index consultation (Table 4). Past consultation for psychological problems increased the likelihood of maintenance, but not after adjusting for confounding. Of the clinical variables, only the severity of somatic symptoms at index consultation was independently associated with the maintenance of psychiatric (Table 4).

Psychiatric treatment

Among cases, 15·7% (9·7–21·7) at T1 and 11·3% (5·3–18·3) at T2 were using anti-depressants. None of the incident cases at T2 had seen a psychiatrist in the preceding 12 months, though 5 (20·8%) had consulted a primary care physician for a psychological problem. Among cases at both interviews, 13 (15·9%) had seen a psychiatrist, and a further 25 (30·5%) had consulted a primary care physician during the 12-months prior to T2. A statistically significant independent association was found between low income at T1 and anti-depressant use at T2 after adjusting for CIS-R scores at T1

Table 2. *Odds ratios (95% CI) for incidence of psychiatric disorder by age and sex, compared with women under the age of 50*

	Age < 50 at T1	Age ⩾ 50 at T1
Men	2·84 (0·60–13·50)	4·80 (1·13–20·32)
Women	1·00	12·80 (3·31–49·40)
Women *v.* Men	0·35 (0·07–1·67)	2·67 (0·41–6·46)

Likelihood ratio test χ^2 for interaction between age and sex = 4·44, df = 1, P = 0·04.

and T2 (adjusted OR = 3·38, 1·14–10·01, P = 0·03). No statistically significant association was found between low income at T1 and seeing a psychiatrist in the following 12 months.

DISCUSSION

The most serious limitation of this study was the small sample size, since there were fewer than 150 subjects in each arm of the study after stratifying by case status at T1, and only 24

Table 3. *Unadjusted odds ratios (95% CI) for incidence of psychiatric disorder by individual socio-economic and clinical risk factors assessed at T1, and adjusted for those variables in the table which were also associated with the incidence of psychiatric disorder plus age, sex and the interaction term for age by sex*

	Unadjusted OR (95% CI)	P	Adjusted OR (95% CI)	P
Social risk factors				
Very low income	3·77 (1·34–10·63)	0·01	3·18 (0·67–15·10)	0·15
Severe financial difficulties	5·50 (1·27–23·81)	0·02	2·93 (0·28–30·72)	0·37
No educational qualifications	2·75 (1·09–7·14)	0·03	2·97 (0·70–12·61)	0·14
Employed	1·00			
Not working (*v.* employed)	1·31 (0·50–3·41)	0·59	—	
Unemployed (*v.* employed)	0·34 (0·04–2·77)	0·31	—	
Structural housing problem(s)	1·47 (0·52–4·17)	0·46	—	
No partner at T1	1·13 (0·41–3·14)	0·82	—	
Clinical risk factors				
CIS-R score at T1	1·20 (1·05–1·37)	0·008	1·34 (1·05–1·72)	0·02
Duration of symptoms at T1 > 3/12	3·03 (1·23–7·48)	0·02	1·08 (0·25–4·69)	0·92
Past psychological consultation	3·00 (1·14–7·85)	0·03	1·40 (0·20–9·56)	0·73
Past anti-depressant use	4·74 (1·31–17·09)	0·02	2·54 (0·17–37·32)	0·50
Family psychiatric history	5·91 (2·30–15·15)	0·002	8·29 (2·08–33·04)	0·003
Somatic symptom score at T1	1·22 (1·08–1·38)	0·002	1·11 (0·93–1·32)	0·25

Table 4. *Unadjusted odds ratios (95% CI) for maintenance of psychiatric disorder by individual socio-economic and clinical risk factors assessed at T1, and adjusted for those variables in the table which were also associated with the incidence of psychiatric disorder plus age and sex*

	Unadjusted OR (95% CI)	P	Adjusted OR (95% CI)	P
Social risk factors				
Very low income	2·61 (1·06–6·43)	0·04	4·17 (1·10–15·79)	0·04
Severe financial difficulties	2·17 (0·75–6·31)	0·15	—	
No educational qualifications	1·93 (0·85–4·38)	0·12	—	
Employed	1·00		1·00	
Not working (*v.* employed)	3·09 (1·21–7·91)	0·02	1·46 (0·36–5·97)	0·60
Unemployed (*v.* employed)	0·88 (0·34–2·28)	0·78	0·66 (0·16–2·70)	0·57
Structural housing problem(s)	3·81 (1·44–10·09)	0·007	1·08 (0·26–4·51)	0·92
No partner at T1	3·19 (1·20–8·48)	0·02	5·44 (1·26–23·45)	0·02
Clinical risk factors				
CIS-R score at T1	1·13 (1·06–1·19)	< 0·001	1·07 (0·99–1·16)	0·09
Duration of symptoms at T1 > 3/12	3·73 (1·55–8·97)	0·003	1·78 (0·45–6·96)	0·41
Past psychological consultation	2·21 (1·03–4·75)	0·04	1·05 (0·29–3·78)	0·94
Past anti-depressant use	2·16 (0·91–5·13)	0·08	0·81 (0·19–3·52)	0·78
Family psychiatric history	3·07 (1·30–7·24)	0·01	2·15 (0·64–7·23)	0·21
Somatic symptom score at T1	1·30 (1·16–1·46)	< 0·001	1·28 (1·09–1·49)	0·002

'new' cases of psychiatric disorder. It is also important to note that many 'incident' cases were individuals with a past history of psychiatric disorder, since about one-third had previously consulted a doctor for an emotional problem.

Subjects were recruited when they sought medical care, and physical illness is a potential confounder. Although we controlled for the severity of somatic symptoms at index consultation, residual confounding by other indices of physical ill health is still a possibility. However, since comparisons were with other primary care attenders, associations between physical illnesses and any of the risk factors in question would have led to under-estimates of the true associations with rates of psychiatric disorder. Confounding by psychiatric treatment during the follow-up year was also unlikely. Although low income at T1 was independently associated with anti-depressant use at T2 after adjusting for the severity of psychiatric disorder at both T1 and T2, the effect would have been to under-estimate the association between low income and T1 and the incidence and maintenance of disorder.

Although some investigators have conceptualized anxiety and depression as clinically and aetiologically distinct entities (e.g. Brown *et al.* 1993), the majority of cases among consecutive primary care attenders are likely to have symptoms of both anxiety and depression (Goldberg & Huxley, 1992). We, therefore, chose to treat psychiatric disorder in primary care as a continuum distributed along a single dimension. This approach is consistent with previous studies (e.g. Mann *et al.* 1981, Romans *et al.* 1993 *a*, *b*) and is in keeping with the high correlation identified between the symptoms of anxiety and depression in this study and elsewhere (Goldberg & Huxley, 1992).

Prevalence, incidence and maintenance of psychiatric disorder

The prevalence of psychiatric disorder was 45·6%, higher than in comparable primary care studies (Barrett *et al.* 1988; Kessler *et al.* 1985; Parker *et al.* 1986; Von Korff *et al.* 1987; Ormel *et al.* 1991). Although it might be argued that our case threshold was too low, a recent community survey found a prevalence rate of 16% using the CIS-R (Meltzer *et al.* 1995). The

consistency of the estimated annual incidence of psychiatric disorder (15·7%) with that found elsewhere (Kessler *et al.* 1985) also argues against the view that the high prevalence was artefactual. Though limited to a single practice which has a principal with specialist mental health experience, it is implausible that selective registration at this practice by individuals with chronic mental health problems could explain the high prevalence of maintenance of disorder, particularly since this expertise ought to have led to high standards of care for patients with psychiatric disorder. It is more likely that the high prevalence and maintenance of psychiatric disorder observed reflects the inner-city setting of the study practice. While this setting will have affected rates of psychiatric disorder, it is unlikely to have affected estimates of the associations between these rates and the risk factors of interest.

The correlation between CIS-R scores at T1 and T2 ($r = 0.65$) meant that the maintenance rate of psychiatric disorder was high irrespective of the choice of case threshold. The finding that two-thirds of cases at T1 were also cases at T2 more closely resembles the outcome for cases seen by psychiatrists (Piccinelli & Wilkinson, 1994) than in primary care and community settings (Mann *et al.* 1981; Tennant *et al.* 1981; Kessler *et al.* 1985; Surtees *et al.* 1986; Sargeant *et al.* 1990; Ormel *et al.* 1993; Brown & Moran, 1994). The tendency for subjects with chronic psychiatric disorders to be over-represented among consecutive attenders was minimized by continuing the recruitment phase of the study for 12 months, since subjects could only enter the study once.

It is difficult to distinguish between the socio-economic antecedents and consequences of psychiatric illness. The advantage of a cohort study is that the explanatory variables included in multivariate analyses were ascertained 12 months before psychiatric outcome was assessed. Furthermore, all of the associations reported were adjusted for CIS-R score and the duration of any psychiatric symptoms at T1, plus two measures of past psychiatric disorder, thereby minimising the possibility of confounding by current or past psychiatric disorder. It is possible, however, that socio-economic adversity (e.g. low income) caused this psychiatric disorder; by adjusting for the variables described above we

may have under-estimated associations between rates of psychiatric disorder and socio-economic risk factors.

Gender and psychiatric disorder

Despite a gender difference in the prevalence of psychiatric disorder consistent with previous findings (Weissman & Klerman, 1985), we did not find a statistically significant excess of women among incident cases. Indeed, among subjects under the age of 50, men were nearly three times more likely than women to be incident cases, though this pattern was reversed among those 50 and over. Despite selective loss to follow-up of psychologically healthy young men, the small numbers involved could not have altered our findings appreciably. One possible explanation for our findings is that young women with small children (who may be at very high risk of psychiatric disorder) would not have been recruited to the study if they consulted the GP about themselves during their children's appointments.

Risk factors for the incidence and maintenance of psychiatric disorder

Clinical, but not socio-economic, variables were independently associated with the incidence of psychiatric disorder. Though based on a self-report measure, the association with family psychiatric history remained highly significant after adjusting for all other social and clinical risk factors, including past psychiatric history, and the duration and severity of psychiatric disorder at T1. It is unlikely, therefore, that this association can be explained by a tendency among those with the most chronic or severe disorder to selectively recall a positive family history of psychiatric disorder. Any random misclassification of this variable would have led to an underestimate of the true effect size. While this finding may reflect the importance of genetic (Kendler *et al.* 1993) and/or early environmental (Brown & Harris, 1993) risk factors in the aetiology of the common mental disorders, we cannot exclude the possibility of confounding by family size, though this is unlikely to account for the size of the observed association. Confounding by the age of family members was unlikely since the association was adjusted for subject's age. There was an independent linear association between CIS-R score at T1 and the

incidence of psychiatric disorder, but no evidence that CIS-R score at T1 acted as a vulnerability factor (i.e. modified the effects of other risk factors).

We identified a statistically significant independent association between low income and the maintenance of disorder after adjusting for other social and clinical risk factors, including two measures of previous psychiatric disorder. Thus, low income appears to be a genuine risk factor for maintenance, and not simply the consequence of past illness. Although we found a statistically significant univariate association between housing problems and the maintenance of disorder, in keeping with previous findings (Brown & Harris, 1978; Huxley *et al.* 1979; Mann *et al.* 1981; Goldberg *et al.* 1990), this association was confounded by low income and CIS-R score at T1. Maintenance of psychiatric disorder was also independently associated with not having a partner at T1, which may reflect poor social support or difficulties in interpersonal relationships (Mann *et al.* 1981; Goldberg *et al.* 1990; Brown & Moran, 1994). The association between the maintenance of disorder and the CIS-R score at T1 just failed to reach statistically significance after adjusting for confounders. Previous findings concerning this association have been inconsistent, though on the whole studies of prevalent cases have also found a positive association between greater initial severity of psychiatric disorder and worse outcome (Huxley *et al.* 1979; Mann *et al.* 1981; Sargeant *et al.* 1990).

Conclusion

The high prevalence of psychiatric disorder in the study sample appears to reflect a poor prognosis among prevalent cases, rather than an unduly high incidence. Perhaps the most striking finding of all was the marked contrast between the types of risk factor associated with the incidence and maintenance of psychiatric disorder. Though based on a relatively small sample, the present findings suggest that clinical risk factors have their greatest effect on the onset of disorder, while socio-economic risk factors contribute to the prevalence of disorder in primary care by prolonging existing episodes.

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