Depression in Irish migrants living in London: case–control study

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Background There is evidence that Irish migrants in Britain have higher rates of depression and suicide than other minority ethnic groups.

Aims To examine the association between poorly planned migration and depression in Irish-born people living in London.

Method A sample of 360 Irish-born people was recruited from 11 general practices into a case–control study. Participants were interviewed using standardised measures, including the Beck Depression Inventory (BDI). We calculated the odds ratio for any association between depression and eight questions on preparation for migration.

Results Poorly planned migration was associated with subsequent depression in Irish-born people living in London (OR=1.20, 95% CI 1.06–1.35). The odds of depression were increased by a factor of 20% for each additional negative answer to eight questions on preparation for migration. Positive post-migration influences such as adequate social support protected some against depression.

Conclusions Depression in Irish-born people living in London is associated with poorly planned migration. However, this effect can be modified by experiences following migration.

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Human migration in the 21st century remains one of the most contentious and enduring social and political concerns worldwide. For individual migrants, the difficulties associated with upheaval, loss and settlement are likely to increase their susceptibility to developing mental health problems. Some migrant groups may be more vulnerable to mental illness, contingent on a range of pre- and post-migration factors (Murphy, 1977). The Irish represent one of the largest minority ethnic groups in the UK, with particular concentrations in London (Howes, 2004). Irish-born migrants have the highest rates of mortality and morbidity of any ethnic group in the UK (Balarajan, 1995). Irish-born people living in England have high rates of mental distress, well above those for any other migrant group, with the exception of psychosis rates found in the African–Caribbean population (Leavey et al, 1997; Nazroo, 1997; Bracken et al, 1998; Sproston & Nazroo, 2002; Weich et al, 2004). Age-standardised rates for hospitalisation for depression in Irish-born men are almost three times higher than the levels for White British-born men, whereas for women the rate is almost two and a half times higher (Cochrane & Bal, 1989; Bracken et al, 1998). Irish-born people living in the UK also experience high rates of self-harm (Burke, 1976; Merril & Owens, 1988) and suicide (Raleigh & Balarajan, 1992; Neeleman et al, 1997). Causes such as social selection (Williams, 1992), lower social class (Harrison & Carr-Hill, 1992), culture, identity and racism (Kelleher & Hillier, 1996; Leavey, 1999), material deprivation and alcohol misuse (Harrison & Carr-Hill, 1992) have all been implicated. However, circumstances leading up to migration and migration itself may also be contributory factors (Bhugra & Jones, 2001). Geographical proximity and a shared language have always meant that migration from Ireland to England is relatively simple and inexpensive, and that it can often be regarded as temporary. This may contribute to conflicts with regard to identity and settlement. There is some evidence for such an effect on psychosis in other European settings, such as migration between Scandinavian countries (Mortensen et al, 1997).

Working hypotheses

The primary hypothesis was that Irish-born people living in London who are depressed are more likely than Irish-born controls to have undertaken an unplanned migration. Secondary hypotheses were that pre-migration factors (i.e. family history of depression, personal history of depression, childhood trauma) and post-migration factors (i.e. level of social support, unemployment, discrimination, acculturation, alcohol misuse, marital status and level of education) will modify this relationship.

METHOD

Study setting and design

This was a community-based, case–control study. Data were collected between May 2002 and July 2003. The study was approved by the relevant local research ethics committees. Participants aged 18 years or over were recruited through 11 general practices in north London. We identified potential participants using the distinctive first name/last name method (Abbotts et al, 1999), whereby all people with first and/or last names that were distinctively Irish were selected as potential participants. We posted these individuals a screening questionnaire on the following: Ireland as place of birth; the depression section of the Hospital Anxiety and Depression Scale (HADS; Zigmond & Snaith, 1983), to measure current depression; and three questions adapted from the Composite International Diagnostic Interview (CIDI; Robins et al, 1988; World Health Organization, 1997), to measure a past history of depression, including the previous 12 months.

We asked all respondents who scored 11 or above on the depression section of the HADS, or who reported an episode of depression in the preceding 12 months, to participate in a face-to-face assessment in which we used the Beck Depression Inventory (BDI; Beck & Steer, 1984), a measure of severity for depression, to confirm the presence of depressive symptoms. A score of 14 or more on the BDI was taken as a

threshold for defining caseness. However, individuals who reported receiving treatment for depression from their general practitioner or a counsellor in the preceding 12 months were also included in the case group, even if they scored below 14 on the BDI. These inclusion criteria were intended to embrace a broad range of people with depressive symptoms, rather than merely those with depressive disorders according to diagnostic criteria. We also invited Irish people who had no significant depressive symptoms, matched by age (5-year bands), gender and general practice, to participate.

Collection of data

After we had collected standard demographic information we assessed acculturation (levels of cultural integration), using 10 questions adapted from a previous survey (Curran, 2003) about attitudes to settlement in England or return to Ireland. To assess discrimination we asked 10 questions adapted from a previous survey of Irish migrants (Hickman & Walter, 1997).

To assess preparation for migration, we asked eight questions that tapped the central components of this factor. These questions were derived from our review of the relevant literature, discussions with experts in the field and our own knowledge of migration. We asked whether respondents had: (1) discussed their migration with family members in Ireland; (2) obtained family agreement with their decision; (3) pre-arranged employment in England; (4) considered their length of stay; (5) a network of friends or family available upon arrival; (6) pre-arranged accommodation; (7) prepared to any extent for their migration; and (8) a principal reason for leaving Ireland (the questions are published as a data supplement to the online version of this paper).

We obtained data on potential influences on any association between migration and depression using standardised instruments. We used the Childhood Trauma Questionnaire (CTQ; Bernstein & Fink, 1998) to enquire about abuse and neglect in childhood; the Alcohol Use Disorders Identification Test (AUDIT; Saunders *et al*, 1993); the 12-item Short-Form Health Survey (SF–12; Jenkinson *et al*, 1993) and the EuroQol (Brooks, 1996) to assess health-related quality of life; the Medical Outcomes Study (MOS) Social Support Survey (Sherbourne & Stewart, 1991);

and the Royal Free Interview for Religious and Spiritual Beliefs (King *et al*, 1995) to assess change in religious belief/behaviour.

Statistical power

We estimated that for each exposure for which the expected frequency in the group without depression was 20% or more, it was possible with 186 participants in each group to detect with 80% power and a 5% level of significance an odds ratio of at least 2.0 for that exposure in the group with depression. That is, when the factor was present (exposed) we could determine whether the respondent was at least twice as likely to belong to the case group as when the factor was not present (unexposed). Our initial target therefore consisted of 186 patients in each group.

Data analysis

We used logistic regression and conditional logistic regression analyses to compare cases and controls. We evaluated the results by likelihood ratio tests and presented them as odds ratios with 95% confidence intervals. We have represented the unmatched analysis adjusting for the matching variables of age and gender, as this provides greater power and flexibility (Hennekens & Buring, 1987). Our primary analysis concerned the association between preparation for migration and depression. In secondary analyses we explored the role of both pre- and post-migration influences on depression separately. We used a backward stepwise method of elimination with the level of significance set at less than 0.10 for variable retention. Further exploratory analysis was performed for each gender separately. We analysed the data using Stata Version 7 for Windows.

RESULTS

Response rates, recruitment strategy and profile of study population

The response rate to the postal questionnaire was 46.8% (Fig. 1). We completed 442 interviews. Respondents who had migrated at age 14 or under were excluded from the analysis because they may not have been able to answer many of the migration preparation questions (see online data supplement). Thus, 180 patients with depression and 180 without were included

in the analysis (Fig. 1). In two practices, which had both begun ethnic coding of newly registered patients, we assessed the ethnically distinctive first name/last name process of identification. The method was found to be overinclusive, as some people had Irish names but had not been born in Ireland. Of those contacted because of their Irish names, 20% responded to say that they had not been born in Ireland. However, the validation study found that only a small proportion of Irish patients, from two practices, had been missed because of their non-Irish names (7% in one practice and 9% in the other).

Table 1 shows social and demographic characteristics of the interview participants. There were differences between participants with and without depression with regard to unemployment, educational attainment (not shown) and socio-economic status. Over 17% of the depression group were unemployed, compared with less than 3% of the control group. Only 26% of the depression group owned their home, compared with 57% of the control group. The participants with depession were more likely than those without to describe experiences of discrimination (OR=2.26, 95% CI 1.45–3.53), to report a low level of acculturation (OR=1.73, 95% CI 1.11–2.69) and to misuse alcohol (OR=2.32, 95% CI 1.45–3.76) (Table 2). In total, 34.6% of those with depression were not currently receiving treatment. It was found that 45% of the depression group had experienced depression in Ireland, compared with 15% of the controls (Table 2).

Preparation for migration

Preparation for migration was calculated as the sum of negative answers to the eight questions about migration (see online data supplement). The resulting total score had moderate internal consistency (Cronbach's $\alpha=0.58$). On a scale of negative answers ranging from 0 to 8, the mean score for the depression group was 3.4 (s.d.=1.83), compared with 2.9 (s.d.=1.6) for the control group.

Main findings

In our primary analysis, the odds ratio (adjusted for age and gender) for depression associated with unplanned migration was 1.20 (95% CI 1.06–1.36). This means that the risk of depression increased by 20% with each additional negative answer to
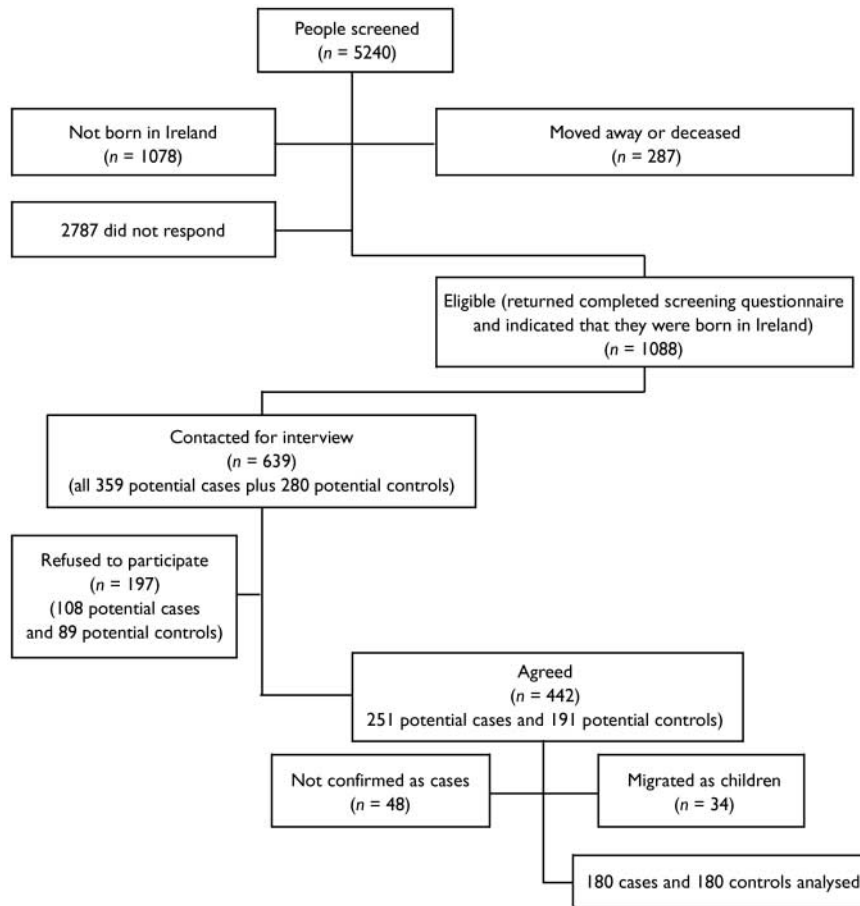
Fig. 1 Flow chart of recruitment and analysis.

the eight questions on preparation for migration. The unadjusted result was almost identical (OR=1.20, 95% CI 1.06–1.35).

Influence of pre-migration factors

When we adjusted for pre-migration factors, the odds ratio failed to reach significance (OR=1.09, 95% CI 0.94–1.26). However, a history of depression in Ireland and childhood emotional abuse were potential pre-migration predictors of current depression (Table 3).

Influence of post-migration factors

When we adjusted for post-migration factors, the odds ratio again failed to reach significance (OR=1.06, 95% CI 0.91–1.23). The post-migration factors that were associated with depression were low level of social support, unemployment, alcohol misuse and low level of educational attainment (Table 3).

Gender differences

We observed consistent and substantial differences between men and women. Table 1 shows that the men with depression had

Table 1 Social and demographic characteristics of participants by case/control status (with or without depression) and gender

Variable	Category	Participants with depression			Participants without depression			P^2
		Men	Women	Total	Men	Women	Total	
Age, years: mean (s.d.) (n=360)		54.4 (11.5)	57.7 (13.7)	55.9 (12.7)	55.7 (13.1)	56.8 (14.6)	56.3 (13.8)	0.81
Marital status: n (%) (n=360)	Never married	46 (47.9)	16 (19)	62 (34.4)	23 (24.7)	20 (23)	43 (23.9)	0.028
	Ever married	50 (52.1)	68 (81)	118 (65.6)	70 (75.3)	67 (77)	137 (76.1)	
Children: n (%) (n=358)	No	52 (54.7)	16 (19)	68 (38)	34 (37)	27 (31)	61 (34.1)	0.441
	Yes	43 (45.3)	68 (81)	111 (62)	58 (63)	60 (69)	118 (65.9)	
Religion: n (%) (n=359)	Catholic	86 (89.6)	78 (94)	164 (91.6)	85 (91.4)	78 (89.7)	163 (90.6)	0.898
	Protestant	1 (1)	1 (1.2)	2 (1.1)	–	2 (2.3)	2 (1.1)	
	None	6 (6.3)	4 (4.8)	10 (5.6)	6 (6.5)	7 (8)	13 (7.2)	
	Other	3 (3.1)	–	3 (1.7)	2 (2.2)	–	2 (1.1)	
Occupation: n (%) (n=359)	Employed	24 (25)	20 (24.1)	44 (24.6)	56 (60.2)	47 (54)	103 (57.2)	<0.001
	Unemployed	24 (25)	7 (8.4)	31 (17.3)	3 (3.2)	2 (2.3)	5 (2.8)	
	Retired	27 (28.1)	36 (43.4)	63 (35.2)	28 (30.1)	32 (36.8)	60 (33.3)	
	Sickness/disability benefit	17 (17.7)	5 (6)	22 (12.3)	5 (5)	–	4 (2.2)	
	Other[1]	4 (4.1)	15 (18.1)	19 (10.6)	2 (2.2)	6 (6.9)	8 (4.4)	
Accommodation: n (%) (n=359)	Home owner	17 (17.7)	30 (35.7)	47 (26.1)	53 (57.6)	50 (57.5)	103 (57.5)	<0.001
	Council/housing association	58 (60.4)	48 (57.1)	106 (58.9)	29 (31.5)	27 (31)	56 (31.3)	
	Private rented	13 (13.5)	6 (7.1)	19 (10.6)	8 (8.7)	10 (11.5)	18 (10.1)	
	Hostel/other	8 (8.4)	–	8 (4.4)	2 (2.2)	–	2 (1.1)	

1. Includes students and housewives/househusbands.
2. Comparison of all cases v. all controls.

Table 2 Health and social measures by case/control status (with or without depression) and gender

Variable		Participants with depression			Participants without depression		
		Total	Men	Women	Total	Men	Women
Preparation for migration:[1] mean (s.d.) (n=360)		3.4 (1.8)	3.9 (1.9)	2.9 (1.6)	2.9 (1.6)	3 (1.7)	2.7 (1.5)
HADS: mean (s.d.) (n=346)		9.9 (4.9)	10.8 (4.9)	8.9 (4.8)	2.5 (2.3)	2.8 (2.6)	2.2 (1.9)
BDI: mean (s.d.) (n=354)		20.0 (10.1)	21.5 (10.5)	18.3 (9.4)	4.1 (3.4)	4.3 (3.4)	4.0 (3.3)
CIDI depression in Ireland: %		98 (54.7)	45 (47.4)	53 (63.1)	152 (85.4)	82 (88.2)	70 (82.4)
and whether treated (n=357)	Yes/not treated (%)	67 (37.4)	41 (43.2)	26 (31)	16 (9)	6 (6.5)	10 (11.8)
	Yes/treated (%)	14 (7.8)	9 (9.5)	5 (6)	10 (5.6)	5 (5.4)	5 (5.9)
CIDI depression in Britain and	No/NA (%)	19 (10.7)	7 (7.4)	12 (14.5)	132 (73.7)	72 (77.4)	60 (69.8)
whether treated (n=357)	Yes/not treated (%)	53 (29.8)	36 (38)	17 (20.5)	28 (15.6)	14 (15.1)	14 (16.3)
	Yes/treated (%)	106 (59.6)	52 (54.7)	54 (65.1)	19 (10.6)	7 (7.5)	12 (14)
CIDI depression in past year and	No/NA (%)	15 (8.4)	6 (6.3)	9 (10.7)	180 (100)	93 (100)	87 (100)
whether treated (n=359)	Yes/not treated (%)	62 (34.6)	33 (34.7)	29 (34.5)	—	—	—
	Yes/treated (%)	102 (57)	56 (58.9)	46 (54.8)	—	—	—
SF–12 mental score (n=345)	Mean (s.d.)	31.4 (11.9)	30.3 (11.3)	32.7 (12.6)	53.6 (7.2)	53.4 (7.7)	53.8 (6.6)
SF–12 physical score (n=345)	Mean (s.d.)	39.8 (13.5)	39.3 (13.9)	40.4 (13.1)	50 (9.8)	49.6 (10.5)	50.5 (9.1)
EuroQol score (n=357)	Median (interquartile range)	50 (40–70)	50 (30–70)	50 (50–70)	80 (70–90)	80 (70–90)	80 (70–90)
Social Support Index (n=349)	Median (interquartile range)	3.4 (2.5–4.3)	2.9 (2–3.8)	3.9 (3–4.4)	4.4 (3.7–4.9)	4.3 (3.4–4.8)	4.4 (4–5)
AUDIT score (n=351)	Median (interquartile range)	5 (2–12)	9.5 (4–20)	2 (1–7)	5 (2–7)	6 (4–10)	3 (1–5)
Current smoker (n=360)	Number (%)	78 (43.3)	47 (49)	31 (36.9)	49 (27.2)	28 (30.1)	21 (24.1)
Discrimination Index (n=360)	Rarely/never (%)	78 (43.3)	35 (36.5)	43 (51.2)	114 (63.3)	46 (49.5)	68 (78.2)
	Sometimes/often/very often (%)	102 (56.7)	61 (63.5)	41 (48.8)	66 (36.7)	47 (50.5)	19 (21.8)
Acculturation Index (n=354)	Low acculturation (%)	98 (55.6)	51 (54.3)	47 (57.3)	75 (42.1)	40 (43.5)	35 (40.7)
	Medium to high acculturation (%)	78 (44.3)	43 (45.7)	35 (42.7)	103 (57.9)	52 (56.5)	51 (59.3)

AUDIT, Alcohol Use Disorders Identification Test; BDI, Beck Depression Inventory; CIDI, Composite International Diagnostic Interview; HADS, Hospital Anxiety and Depression Scale; SF–12, 12-item Short-Form Health Survey.
1. Negative answers to eight questions on preparation for migration.

higher levels of unemployment and lower levels of home ownership, and were less likely to be married or to have children than the women with depression. Table 2 shows that they also had significantly higher mean scores than the women in their group on both the HADS (10.8 (s.d.=4.9) v. 8.9 (s.d.=4.8)) and the BDI (21.5 (s.d.=10.5) v. 18.3 (s.d.=9.4)) (Table 2), but were no more likely than the women to be receiving treatment.

Table 3 shows how these differences affect our main findings. For men, the odds ratio for depression associated with un-planned migration (adjusted for age) was 1.30 (95% CI 1.10–1.53), while that for women was 1.07 (95% CI 0.87–1.30). This finding for men also differed with age, the effect being more pronounced for younger men (below a median age of 56 years) (OR=1.33, 95% CI 1.08–1.64) than for older men (OR=1.27, 95% CI 0.97–1.66). The odds ratio for younger women was 1.27 (95% CI 0.94–1.70), and for older women it was 0.89 (95% CI 0.67–1.18).

The influence of other factors before and after migration

A history of depression in Ireland was a significant predictor for men, and childhood emotional abuse was a significant predictor for women. In total, 40% of respondents with depression reported experiencing some level of emotional abuse and almost 50% reported some degree of neglect during their childhood in Ireland (Table 4). After adjustment for pre-migration risk factors, the odds ratio for depression associated with poorly planned migration remained significant for men (OR=1.27, 95% CI 1.04–1.54) but not for women (Table 3). When adjusted for post-migration risk factors, the odds ratios for depression associated with poorly planned migration failed to reach significance for men or women (Table 3).

DISCUSSION

Main findings

Poorly planned migration appears to be a significant predictor of depression in Irish migrants to London. However, when experiences prior to migration, such as childhood trauma and depression, are taken into account our hypothesis continues to hold only in Irish male migrants. Positive influences following migration to London, such as adequate social support and employment, can be protective against depression, particularly in men. As reported previously (Commander et al, 1999), Irish men with depression were found to be at risk of social or medical problems related to alcohol. It remains unclear whether Irish people with depression are more vulnerable to discrimination and anti-Irish racism than those without depression, or whether experiences of discrimination can exacerbate health problems such as depression (Conigrave et al, 1995; Walsh & McGrath, 2000).

Strengths and limitations of the study

Validation of our method of identification of Irish-born participants showed that only a small proportion of Irish people had been

Table 3 Association[1] between preparation for migration and depression for the full sample, men and women, adjusting for pre- and post-migration factors separately

Variable	Full sample: OR (95% CI)[1]	Men: OR (95% CI)	Women: OR (95% CI)
Preparation for migration	1.20 (1.06–1.36)	1.30 (1.10–1.53)	1.07 (0.87–1.30)
Adjustment for pre-migration risk factors[2]			
Preparation for migration	1.08 (0.94–1.26)	1.27 (1.04–1.54)	0.85 (0.67–1.08)
History of depression in Ireland	3.10 (1.78–5.42)	7.50 (3.13–18.0)	1.39 (0.62–3.13)
Family history of depression	1.58, (0.97–2.58)	1.50 (0.73–3.04)	1.43 (0.69–2.97)
Childhood emotional abuse	1.84 (1.02–3.31)	0.86 (0.37–2.0)	5.42 (2.00–14.68)
Adjustment for post-migration risk factors[2]			
Preparation for migration	1.06 (0.91–1.23)	1.11 (0.90–1.37)	0.99 (0.78–1.26)
Social support	3.29 (1.96–5.55)	5.03 (2.30–10.99)	2.37 (1.15–4.89)
Unemployment	3.24 (1.67–6.29)	3.84 (1.64–9.00)	2.43 (0.83–7.14)
Education	2.28 (1.27–4.09)	2.08 (0.90–4.81)	2.27 (0.97–5.31)
Discrimination	1.70 (0.99–2.92)	1.32 (0.59–2.92)	2.32 (1.08–5.01)
Acculturation	1.59 (0.94–2.73)	1.14 (0.51–2.53)	1.99 (0.95–4.22)
Alcohol misuse	1.99 (1.09–3.61)	2.08 (0.96–4.50)	1.79 (0.66–4.89)

1. Full sample results adjusted for age and gender; results for men and women adjusted for age.
2. Variables retained in the full sample analyses after stepwise backward elimination ($P < 0.10$). Eliminated variables pre-migration were childhood emotional neglect, childhood physical neglect, childhood physical abuse and childhood sexual abuse. Eliminated variable post-migration was marital status.

missed by the distinctive first name/last name method. This approach has the advantage of recruiting a wider and more representative population than convenience or snowball sampling. The age profile of our respondents is similar to that recorded in the UK 2001 census (Howes, 2004), and thus reflects the Irish population in London. Our response rate of 46.8% after two mailings may be partly explained by the fact that many people with Irish names were not Irish-born. However, it is also possible that people with severe depression did not respond to the postal questionnaire. Our eight questions on migration planning were not validated, but this is a new hypothesis for which no validated instrument is available. The questions were derived from the literature on migration and our own extensive knowledge of this area of research. Although case–control studies may be vulnerable to differential recall, the participants were unaware of the main hypothesis of this study, so systematic differences in recall between participants in each group will have been reduced to a minimum. However, the possibility remains that people with depression may give more negative accounts of their lives, including perceptions of discrimination. Thus we cannot be certain whether the experiences of Irish people with depression living in London were the cause or the effect of their depression.

Differences between the genders

The migration of Irish people to mainland Britain and the USA has commonly been linked to economic factors, especially the search for employment. However, recent research shows that complex personal factors often influence the desire to leave one's country (Ryan, 2004). Mainland Britain's proximity to Ireland and the

Table 4 Associations with depression (cases) stratified by age and gender

Variable	Total depressed cases ($n=203$)	Younger depressed men ($n=58$)	Older depressed men ($n=51$)	Younger depressed women ($n=46$)	Older depressed women ($n=48$)
Age: mean (s.d.)	55.4 (12.9)	46 (7.7)	64 (5.8)	44 (10)	68 (6.2)
Mean year of arrival	1967	1976	1958	1978	1955
BDI: mean (s.d.)	19.9 (9.9)	22 (10.2)	20 (10.8)	19.1 (9.4)	18 (8.7)
HADS: mean (s.d.)	9.9 (4.9)	11.1 (4.2)	10.3 (5.4)	9 (5.0)	8.7 (4.6)
EuroQol score: median (interquartile range)	50 (40–70)	50 (40–70)	50 (30–60)	57.5 (50–70)	50 (40–70)
AUDIT score: median (interquartile range)	5 (2–12)	12 (6–24.5)	6 (2–11)	7 (5–11)	4 (3–7)
Low social support: n (%)	128 (67)	46 (84)	34 (74)	28 (64)	20 (43)
Discrimination: n[1] (%)	118 (58)	41 (71)	31 (61)	24 (52)	22 (46)
Low acculturation: n (%)	110 (56)	35 (61)	23 (47)	28 (61)	24 (52)
Unemployment: n[2] (%)	82 (41)	34 (60)	18 (35)	22 (48)	8 (17)
Depressed in Ireland: n (%)	89 (44)	36 (62)	20 (39)	21 (46)	12 (25)
CTQ emotional abuse: n (%)	78 (40)	32 (55)	10 (21)	24 (53)	12 (26)
CTQ physical abuse: n (%)	56 (28)	24 (43)	8 (17)	15 (33)	9 (19)
CTQ sexual abuse: n (%)	46 (23)	20 (35)	7 (14)	13 (30)	6 (13)
CTQ emotional neglect: n (%)	92 (47)	35 (63)	19 (39)	22 (50)	16 (35)
CTQ physical neglect: n (%)	78 (39)	29 (51)	19 (38)	14 (31)	16 (33)

AUDIT, Alcohol Use Disorders Identification Test; BDI, Beck Depression Inventory; CTQ, Childhood Trauma Questionnaire; HADS, Hospital Anxiety and Depression Scale.
1. Had experienced discrimination sometimes/often/very often.
2. Had been unemployed for 6 months or more since coming to Britain.

sharing of a common language make it a convenient destination for Irish people who lack either the funds or the commitment for more distant migration to the USA or Australia (Leavey *et al*, 2004). However, its convenience as a destination also facilitates escape and short-term, unstable settlement. Our finding that poorly planned migration is associated with depression in Irish men rather than women may be explained by protective factors in women for which we have not fully accounted. Previous research among young Irish people found that men tended to be optimistic about migration, whereas women were more likely to find the prospect of migration distressing (Carlsen & Nilsen, 1995). Men's sense of adventure and risk-taking may be part of a continuum of which poor planning is one aspect, whereas for Irish women poorly planned migration may be more closely associated with escape, but not as part of a general pattern of behaviour. This is suggested by the higher rates of marriage, parenthood and home ownership among the women in the depression group than the men. Historically, male Irish employment in the UK has been linked to the construction industry and has been associated with an unsettled, peripatetic existence. Irish women have been much more likely to find settled accommodation, often tied to service occupations (Ryan, 2003; Greenslade *et al*, 1991; Leavey *et al*, 2004). Participation in extended social support networks may help Irish women migrants to maintain a positive sense of identity and self-esteem, which has been linked to coping strategies and health awareness (Walsh & McGrath, 2000).

The effect of age

The association between poorly planned migration and current depression was stronger for younger than for older participants, although the results were only significant in men. Men and women who had migrated from the 1960s onwards tended to have a less well-planned migration than their older counterparts. These younger participants also reported higher levels of discrimination and lower levels of acculturation than the older respondents (Table 4). Older respondents may remember their migration in a more positive light (Ryan, 2003). Older migrants may be the survivors who have successfully adapted to life in mainland Britain. Migrants who

arrived there in the 1970s and 1980s may also have been adversely affected by heightened anti-Irish sentiment associated with IRA bombing campaigns in mainland Britain (Hickman & Walter, 1997).

Implications

Among Irish migrants living in the UK, depression is associated with poorly planned migration. Although such lack of planning might be an example of general disorganisation linked with depression, an association remained between poorly planned migration and current depression for men, after adjustment for a history of depression in Ireland. This effect can be modified by subsequent experiences in the host society, which suggests that there may be opportunities for the prevention of depression among recently arrived migrants. Immigration strategies for most migrant groups have involved a degree of

planning and preparation and consequently migration is rarely spontaneous or haphazard (Jordan & Duvall, 2003). Barriers of cost, distance and immigration restrictions have meant that migration is usually undertaken by the more advantaged (and thus healthier) members of society (Nazroo, 2001). However, owing to geographical proximity and ease of work force movement between Ireland and mainland Britain, Irish migrants have been an exception to this rule (Marmot *et al*, 1984).

Our findings may have implications for migrants and their destination countries wherever barriers are minimal. For example in the context of European Union enlargement, removal of legal restrictions and easier access to low-cost travel may facilitate impulsive, unplanned migration. A link between poorly planned migration and subsequent severe mental illness is consistent with evidence from other parts of Europe (Mortensen *et al*, 1997).

CLINICAL IMPLICATIONS

■ The proportion of Irish migrants with depression who are not receiving any treatment for their illness is a cause for concern.

■ The study indicates an association between depression and poorly planned migration for the Irish migrant population in London.

■ This effect can be modified by subsequent experiences in British society, which suggests that there may be opportunities for prevention of depression among recently arrived migrants.

LIMITATIONS

■ A small proportion of Irish people may have been missed by the distinctive first name/last name method of recruitment.

■ The overall response rate of 46.8% to our postal questionnaire was relatively low. It is possible that people with severe depression did not respond to this questionnaire.

■ Our questions on planning for migration were not validated.

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