A recent systematic review and meta-analysis provides more information on ethnic inequalities in the incidence of diagnosis of severe mental illness (1)

People of ethnic minorities have been found to be at increased risk of receiving a diagnosis of schizophrenia. Halvorsrud et al., have conducted a systematic review and meta-analysis of ethnic differences in the diagnosed incidence of psychoses in England (2). They reviewed relevant studies up to the year 2009 and used an updated search between 2010 and 2018. Studies from both searches were combined in the meta-analyses, with the aim of improving the coverage of more specific ethnic groups compared to previous systematic reviews and meta-analysis.

The authors initially included all relevant systematic reviews or meta-analyses without any restriction on methods, thereafter checked for primary studies for meta-analyses, and included those with relevant quantitative data for pooling with no further restrictions on study design. The authors included incident cases of diagnosis of psychosis in adult populations only, and defined incidence as “the number of instances of illness commencing, or of persons falling ill (i.e. through first contact with mental health services or first hospital admissions for psychotic disorders), during a given period in a specified population”. A pragmatic classification of types of psychosis was adapted because of the changes in diagnostic categories over time, between studies. The review included a wide range and broad classification of non-affective psychoses and affective psychoses (based on clinical evaluation or diagnostic criteria such as DSM or ICD classifications). The authors had included studies which were completely or partially conducted in England in order to ensure a consistent geographical coverage and to explore variations in risk across areas within that geography.

Significantly higher risks of diagnosed schizophrenia were found among black African (relative risk, RR 5.72, 95% CI 3.87-8.46, n= 9); black Caribbean (RR 5.20, 95% CI 4.33-6.24, n=21); South Asian (RR 2.27, 95% CI 1.63-3.16, n=14); white other (RR 2.24, 95% CI 1.59-3.14, n= 9); and people of mixed ethnicity (RR 2.24, 95% CI 1.32-3.80, n=4) when compared with the majority population. Significantly higher risks for diagnosed affective psychoses were also revealed as follows: Black African (RR 4.07, 95% CI 2.27-7.28, n=5); black Caribbean (RR 2.91, 95% CI 1.78-4.74, n=16); South Asian (RR 1.71, 95% CI 1.07-2.72, n=8); white other (RR 1.55, 95% CI 1.32-1.83, n=5); mixed ethnicity (RR 6.16, 95% CI 3.99-9.52, n=4).

The authors conclude that the risk for a diagnosis of non-affective or affective psychoses is highest for black ethnic groups, however all ethnic minority groups, including those previously not assessed through meta-analyses, have a higher risk compared to the native majority population.

The above study appears to minimize bias which can be caused by broad categorisation of ethnic minority and/or migrant groups, as the authors have consistently defined ethnicity by varying groups.

This meta-analysis reported significantly higher risks of diagnosed psychotic disorders across many ethnic minority groups, thus refuting the hypothesis that psychosis is linked to a single biological or genetic factor. The findings also support theories of socio-environmental factors such as racial injustice and ethnic discrimination in the development of a paranoid attributional style and mental illness.
A systematic review and meta-analysis conducted by Brandt et al., is reported as the first and the most comprehensive review conducted to date to assesses the relative risk (RR) of the incidence of non-affective psychosis in refugees, compared with the RR in the native population and non-refugee migrants (3). The investigators had used PubMed, PsycINFO, and Embase databases to search for studies from January 1, 1977, to March 8, 2018, with no language restrictions.

Studies conducted in Denmark, Sweden, Norway, and Canada had been selected. Nine studies involving 540,000 refugees in Denmark, Sweden, Norway, and Canada had been included in the analyses. The RR for non-affective psychoses in refugees was 1.43 (95% CI, 1.00-2.05; I²=96.3%) compared with non-refugee migrants. Exclusion of studies that defined refugee status not individually but only by country of origin resulted in a RR of 2.24 (95% CI, 1.12-4.49; I²=96.8%) for refugees compared with non-refugee migrants, and a RR of 3.26 (95% CI, 1.87-5.70; I²=97.6%) for refugees compared with the native group. In general, the RR of non-affective psychosis was increased in refugees and non-refugee migrants, compared with the native population. The authors hypothesis that experiences as a refugee may represent an independent risk factor in non-affective psychosis in migrants, which points towards the need for developing prevention strategies and outreach programs for this vulnerable group.

This study from Sweden assessed whether the risk of occurrence of psychotic disorders and non-psychotic bipolar disorder (including mania) varied by migrant status, region of origin, or age-at-migration, hypothesizing that risk would only be elevated for psychotic disorders (4).

The relationship between migration and schizophrenia risk is well-established, and even extends to children of migrants. By contrast, elevated rates have not been consistently shown for bipolar disorder among migrants or their children. No study to date has examined age-at-migration in relation to bipolar disorders, with or without psychosis.

To clarify these issues, the authors used the national register data from Sweden, of people with a long history of migration, to investigate whether migrant status, region of origin, and age-at-migration acted specifically on the risk of developing psychotic disorders, including schizophrenia, affective psychoses, and whether this also extended to non-psychotic bipolar disorder and mania. The authors found shared patterns of risk across three categories of psychotic disorders with respect to various migration-related exposures, suggesting that migration may act specifically on psychotic rather than affective pathways to manifest as a disorder. This provides potentially important clues regarding aetiology of serious mental illnesses. Furthermore the authors suggest that efforts should be taken to identify the exact social, environmental, and biological determinants of this preventable, gross inequality experienced by migrant and minority populations.
Further, this research suggests that social support buffers the effects of stressful situations to a greater extent for females than males. These differences may arise due to the gendered roles and expectations surrounding immigration experiences for males and females.

Migration and psychosis: a meta-analysis of incidence studies (5)

Migrants face the difficult task of settling into the society of a new country. Studies so far have found migrants to be at increased risk of developing mood disorders, and meta-analytic evidence suggests that migrants and their children are at an even higher risk for schizophrenia or other non-affective psychotic disorders.

Two theories have been proposed to explain the low socio-economic status of individuals who develop a psychotic disorder: social causation (stress) and social selection (downward mobility of the genetically predisposed). Since there is little evidence of an association between parental socio economic status and risk of psychosis, the mechanism of social selection may be more important than that of social causation.

A previous meta-analysis reported that the risk of non-affective psychotic disorder did not differ significantly between first- and second-generation migrants, which suggests that ethnic minority status rather than migration is an important factor in the development of psychosis.

The authors of this study conducted a meta-analysis to explore relative risk of developing affective or non-affective psychosis, among migrants and their children, and to adjust these findings for socio-economic status. The review was limited to studies from Europe, Canada and Australia.

Although the findings indicated that migrants are at increased risk of developing affective psychotic disorder and non-affective psychotic disorder, the findings were heterogeneous. The relative risk (RR) of developing non-affective psychosis (NAPD) was lowest among migrants (and their children) moving to Canada and Israel, compared to the other countries included in the meta-analysis. Region of origin also had a significant impact on the RR, being highest among first and second-generation migrants from Central and South America (mostly the Caribbean), sub-Saharan countries and North Africa, and lowest among migrants from the Indian subcontinent and other parts of Asia.

The results also suggest that membership of a disadvantaged ethnic minority group, rather than a personal history of migration, is an important determinant of risk. There was no evidence that the high incidence of psychosis among migrants from developing countries to Europe reflects a similarly high incidence in the country of origin. For example, while studies from Africa are limited, data from the Caribbean, India and China have reported “normal” incidence or prevalence rates. This implies that poverty by itself is an unlikely cause of psychosis. However, as many migrants who move from a developing country to Europe find themselves in the lowest strata of European society, the effect of migration might be due, at least in part, to a (relative) social disadvantage or social defeat. There was insufficient evidence to conclude that there was a difference in risk between refugees and non-refugee migrants.

In conclusion, the results of this meta-analysis confirm earlier European findings of an increased incidence of non-affective psychotic disorder among migrants from developing countries, in particular those of African extraction, and further indicate that individuals with an African background are also at an increased risk of psychotic disorders in Canada and Israel.

Conflicts of interest
None declared

References