

# Review: there is marked socioeconomic inequality in persistent depression

Lorant V, Deliege D, Eaton W *et al.* Socioeconomic inequalities in depression: a meta-analysis. *Am J Epidemiol* 2003, Feb, **157**: 98–112.

**QUESTION:** What is the size and nature of the relationship between socio-economic status and depression?

## Design

Systematic review with meta-analysis.

## Data sources

The authors searched Medline, PsychLit, Current Contents, the Social Science Citation Index, Sociological Abstracts, EconLit, and the reference lists of textbooks, reviews and identified studies. The authors contacted groups on the International Consortium in Psychiatric Research website for unpublished studies.

## Study selection

Population-based studies of the prevalence, incidence, and persistence of major depression in adults were eligible if they: (1) provided data related to income, education, occupation, social class, or wealth; (2) were published after 1979; (3) were published in English, French, German, or Spanish; and (4) focused on people aged over 16 years. Studies including a mix of depression and anxiety were included. Studies focused on substance abuse, schizophrenia, anxiety, or personality disorders were excluded, as were those devoted mainly to neighbourhood or regional levels of deprivation. Studies focused on primary care, hospitalised patients or groups at high risk were also excluded.

## Data extraction

The authors do not describe how data were extracted or how many reviewers performed the data extraction. They

used a random effects model to compare the odds ratio of depression for the lowest versus highest socioeconomic status (SES) group and meta-regression to assess dose-response relationships and confounding factors.

## Main results

The authors identified 51 prevalence studies, 5 incidence studies, and 4 persistence studies. One study was unpublished. Most studies were published around 1987 and were based on North American populations (mean age 42 years; 60% women). The mean prevalence of depressive disorders was 9%.

People with low SES were more likely to be depressed (pooled odds ratio 1.81,  $P < 0.001$ ). The relationship was weaker for new depressive episodes (odds ratio 1.24,  $P=0.004$ ) compared with persistent depression (odds ratio 2.06,  $P < 0.001$ ). There was significant heterogeneity in the relationship between socioeconomic inequality and depression. The relationship varied according to the measures of depression used, the definition and measurement of SES, and contextual factors such as timeframe and location.

## Conclusions

People of lower socioeconomic status are more likely to be depressed than people with higher SES. The relationship is most marked among persistent depression.

website extra

Additional information appears on the Evidence-Based Mental Health website [www.ebmentalhealth.com/supplemental](http://www.ebmentalhealth.com/supplemental)

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## COMMENTARY

For several decades, we have observed socioeconomic inequalities in major depression. The meta-analysis by Lorant *et al* integrates a diverse, and somewhat inconsistent, group of studies. In the aggregate, the odds of depression were nearly double among people of low socioeconomic status (SES) compared with high SES. This suggests an association of considerable magnitude between low SES and depression. Although social and economic policies could be considered as one avenue for preventing depression,<sup>1</sup> we must be careful not to draw causal inferences from correlational data. People may be depressed because of circumstances surrounding their economic status. Alternatively people could have low SES in part due to persistent depression, or SES may be a marker for other variables that have some association with persistent depression. Some complex combination of these possibilities is likely.

Lorant *et al* reported a larger effect of SES on the chronicity of depression than on initial depression onset, concluding that enhanced secondary prevention efforts are needed among low SES individuals with a history of depression. In light of the highly persistent nature of major depressive disorder, these findings equally argue for improved primary prevention strategies. Preventing or delaying the initial onset of depression may confer a greater degree of protection against depressive episodes over the life course than secondary prevention efforts initiated after depression is established.<sup>2</sup>

A limitation of the meta-analysis is the small number of studies available on differences in the effects of SES on initial depression onset and on subsequent depressive episodes. Of the 5 studies of depression onset, only 2 were true incidence studies (studies that investigated the occurrence of depression over time among individuals without any prior history of depression).<sup>3–4</sup> As the remaining 3 studies did not exclude people in remission, some cases analysed as incident cases were actually recurrent cases.<sup>5–7</sup>

Of the 4 studies of persistence, 3 focused on continuing depressive symptoms among depressed individuals.<sup>4–6–8</sup> The remaining study included both depressed and non-depressed participants. Therefore it did not distinguish risks for the initial onset of depression from those for episode recurrence.<sup>9</sup> The results of this meta-analysis are therefore less conclusive regarding the differential effects of SES on the processes of depression onset and persistence than they are regarding the overall association between SES and prevalent depression.

The association between SES and depression is likely to endure over the life course. Adults exposed to socioeconomic disadvantage as children have a higher risk of developing depression and a higher rate of recurrent episodes than adults from higher SES backgrounds.<sup>10–11</sup> In order to clarify the relation between SES and depression further, measurements of SES and depressive symptomatology are needed at multiple stages of the life course. Similarly, policy responses to socioeconomic inequalities in depression need to address the mental health consequences of low SES beginning early in childhood and continuing into adulthood.<sup>12</sup>

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The abstract in its entirety, including commentary references, is available as a webextra.