# Correspondence

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## Analysis of data on outcome of depression

The analysis of the data reported by Tuma (2000) is seriously flawed. In this report there are no primary outcome data for 26 (48%) of the elderly cohort and 8 (14%) of the younger adults. The eight elderly people developing dementia at the 4.5 years outcome point are included in the analysis of the outcome of depression but their depression outcome is not reported. Dementia is not the primary outcome in this study and, therefore, either subjects with dementia are excluded (as the author has done with natural deaths) or the depression outcome is reported. Presumably, they all survived or they would have been included as deaths.

This produces a serious bias and unfounded conclusions. For instance, if the eight subjects with dementia are excluded (as they must be if their depression outcome is not reported) then the elderly cohort at 4.5 years consists of 28 and not 36 subjects. Then, referring to Table 1, natural deaths removed, the outcome is lasting recovery 46% (not 36%), relapse and recovery 39% (not 30%), residual symptoms 7% (not 5.5%) and chronic 7% (not 5.5%). Of the elderly, 85% are recovered compared to 78% of younger adults.

If the eight dementia subjects were included and all had a lasting recovery from depression, or relapse with recovery, then the recovery rate is 88%. The conclusions reported for good outcome would be correct only if all eight subjects with dementia were included in the residual symptoms or chronic categories.

Of course, if all natural deaths had recovered from depression at the time of death, this would also paint a different picture. We all die but the issue here is whether we die happy or depressed.

It is critical that data are reported accurately. Misrepresentation of this sort could be extremely damaging.

**Tuma, T. A. (2000)** Outcome of hospital-treated depression at 4.5 years. An elderly and a younger adult cohort compared. *British Journal of Psychiatry*, **176**, 224–228.

**D. Anderson** Sir Douglas Crawford Unit, Mossley Hill Hospital, Park Avenue, Liverpool LI8 8BU

**Author's reply:** Dr Anderson is right in claiming that if patients with dementia are excluded from the calculations, the prognosis for the depression among the elderly will improve: but can dementia be regarded as a successful outcome from index depression which is incident in old age? This question may also be applied to those elderly subjects who had died at follow-up. As such, dementia and death were given special outcome categories in this study.

As to the depression status of the elderly subjects before death, they were: four died during their index illness; six achieved full recovery; two recovered, relapsed and recovered; five had chronic illness and one had dementia.

The depression status of the elderly subjects prior to developing dementia were: one recovered completely; six recovered, relapsed and recovered; and in one the depressive illness became chronic and dementia subsequently developed.

None of the younger adults recovered prior to their death but: three recovered, relapsed and recovered again; one developed chronic depressive illness; one developed post-stroke dementia; and three were classified as dead during the index illness (one by suicide).

Given this new information the reader may work out the figures accordingly.

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## Breast-feeding and schizophrenia

We read with interest the article by Leask *et al* (2000). They conclude against any protective association of breast-feeding with development of adult psychosis.

The authors have used two UK national cohorts. In the 1958 cohort, data were last collected when the members were 33 years old, therefore missing out a significant number of possible cases, which could have given more power and would have thus reduced the possibility of type 2 error in this study with so few cases. In only 29 of 40 cases of 'narrow schizophrenia' were data on breast-feeding available, which means a loss of 27.5%. These are the very cases who could have missed breast-feeding totally. We are also very curious as to why the narrow definition was used when the point of interest is relevant to the whole spectrum of schizophrenic disorder (especially after using "adult psychosis" in the title of their paper). Although the selection bias is largely taken care of by the nested design of the study, there is scope for recall bias, as breast-feeding interviews took place as long as 7 years after birth in one and after two years in the other cohort.

The original study (McCreadie *et al*, 1997), which the current study claims to refute, has a very strong logical appeal as it fits in nicely with the neurodevelopmental theory of schizophrenia implying diet, and therefore environment, and gene interaction. Again, this study also had a small sample of patients with data available only in 31% of cases (45/146). Of these cases, 77% were born between 1920 and 1960. However, the mothers were asked about the duration of breast-feeding with an expected precision of 1–2 weeks in 1989 only, again inviting recall bias. The other finding, which is difficult to explain away, is the fact that the siblings of these cases had a statistically similar pattern of breast-feeding, yet they did not develop schizophrenia.

In effect none of the studies can convincingly suggest any positive or negative association between breast-feeding and schizophrenia. This is doubly unfortunate as the clinical question asked has huge conceptual face validity and public health implications along with a very sensitive link with the neurodevelopmental understanding of schizophrenia.

**Leask, S. J., Done, D. J., Crow, T. J., *et al* (2000)** No association between breast-feeding and adult psychosis in two national birth cohorts. *British Journal of Psychiatry*, **177**, 218–221.



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