

To the Editor

**Widowhood and mental illness**

SIR—While preparing for a seminar on the epidemiology of widowhood as a risk factor in disease, the landmark paper of Stein and Susser<sup>1</sup> was carefully examined. The paper, published 11 years ago in this Journal, provides the firmest evidence to support their three conclusions, namely that:

‘widowhood is associated with the inception of psychiatric care . . . (but) is not associated with chronic disablement arising from mental illness . . . (and finally that) among the widowed the inception of care for mental illness . . . follow(s) closely on the event of bereavement more often than expected by chance.’

A reanalysis of the data supporting the second of these conclusions has prompted this note.

The basis of this conclusion is Table 1, which is based on a register of all adult psychiatric cases in Salford, England, between 1959 and 1963, as well as the 1961 census. A case of chronic disability was defined as a case of at least one year’s duration. Since the number of observed cases of chronic disability among the widowed was less than expected based on the distribution of either the census or the incident cases, and since the incidence is higher among the bereaved, the author suggested that ‘while bereavement may precipitate entry into psychiatric care, once patients have entered care, widowhood does not lead to sustained disability’.

Table 1 Patients with chronic disability following mental illness: marital state and sex

	Men			Women		
	O*	C*	I*	O	C	I
Single	161	42	70	122	47	66
Married	68	199	159	108	180	153
Widowed	12	16	28	66	91	99
Divorced/separated	19	2	3	26	3	4
Total	260			322		

\* Distribution by marital state and sex observed (O) in patients with chronic disability following mental illness, compared with the distribution at the 1961 census (C), and at the inception of psychiatric care (I) (adjusted in each case to the age distribution of the population with chronic disability).

The expected numbers in the Table have been rounded off, but in each case  $\chi^2$  was calculated from an expected number taken to two decimal points, and then itself rounded off.

The defect in this argument is that the comparison among the three categories was made using the ratio widowed/(single + married + widowed + divorced + separated). Elsewhere in the paper they state:

‘At most ages the married represent the social and statistical norm in the adult population, and the widowed are selected from their ranks. Therefore, we refer for a norm always to the married, as the most suitable comparison group for the widowed who are our chief concern’.

If they had done that in the above Table, for example by considering the ratio of married to married and widowed combined, Table 2 would have resulted.

Table 2 Age-adjusted proportion (widowed (married + widowed)) of patients with chronic disability following mental illness

	No.	O	C	I	O vs. C one-tailed P value
Men	80	15.0%	7.4%	15.0%	P = 0.015
Women	174	37.9%	33.6%	39.3%	P = 0.129
All**	254	30.7%	25.3%	31.6%	P = 0.031

\* P values calculated by using the binomial distribution with the population proportion equal to the proportion found in the census data.

\*\* This line is adjusted to the sex distribution of the population with chronic disability.

This analysis suggests that bereavement does lead to chronic psychiatric disability just as it leads to inception of psychiatric care.

The remaining conclusions of the Stein and Susser paper are unaffected by this re-examination. Indeed, their study constitutes the most rigorous research addressed to the link between widowhood and mental illness.

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**Reference**

Stein Z, Susser M. Widowhood and mental illness. *Br J Prev Soc Med* 1969; 23: 106–10.

Stein and Susser reply:

Martin Weinstock has uncovered an error, and he has thereby amended a conclusion that surprised us. We were pleased to have our paper given such close attention, and are more pleased that he has set this point to rights.

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