## Correspondence

## SUICIDE IN PRISON: A COMMENTARY DEAR SIR,

I was pleased to read the article on prisoner suicides by Dr Topp (Journal, January 1979, 134, 24-27). My reasons for commenting on this article are as follows: first, to remark upon the congruency between Dr Topp's findings and results of a similar study undertaken at the Centre of Criminology, University of Toronto, by Richard Ericson and myself; and second, to suggest directions for future research on this subject.

Our study, sponsored by the Canadian Ministry of the Solicitor-General, was largely based on an official document analysis of 96 inmates who committed suicide between 1959 and 1975 in four maximumsecurity institutions-Saint Vincent de Paul Penitentiary, Kingston Penitentiary, Prince Albert Penitentiary, and the British Columbia Penitentiary - in Canada. A comparison sample of 1,383 nonsuicidal inmates and a critical literature review served as reference points of our analysis. The annual rate of suicide in these maximum-security institutions averaged 272 suicides per 100,000 inmates, a rate considerably higher than the corresponding suicide rate in the institutions studied by Dr Topp. Most suicides (88.5 per cent) involved ligature strangulation; and, while suicides occurred at all hours and most often during the early stage of incarceration, seasonal variations in incidence were slight. Unmarried inmates, those serving short sentences (between two and three years), and 'lifers' were over-represented in the suicidal sample. In keeping with Dr Topp's findings, the variable of previous psychiatric history, including past suicide attempts, was correlated with eventual suicide in our study. There was no significant difference in suicide rates of persons convicted of violent crimes and those convicted of property offences. We hope to publish our findings as a monograph under the auspices of the Toronto Centre of Criminology.

With respect to directions for future research on prisoner suicides, I suggest that clinical data on suicidal inmates could be usefully augmented by greater emphasis upon official responses to distressed inmates. Indeed, the available literature suggests that official responsiveness to suicidal ideation, threats and attempts may be critical in reducing the

incidence of inmate suicide. Our understanding of suicide in penal settings will be furthered by incorporating the valuable clinical perspectives of Dr Topp and others with greater detail on the effectiveness of prison clinical services.

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## PSYCHIATRIC EXAMPLES OF SIMPSON'S PARADOX

DEAR SIR,

Controversy over the application of certain statistical techniques in psychiatric research continues, see for example Maxwell (1975), Tennant and Bebbington (1978), Garside and Roth (1978). Although much of the confusion arises from misunderstanding of the limitations of complex statistical models coupled with the difficulties of visualizing multivariate relationships it is important to recognise that even simple statistical techniques, such as crosstabulations, can lead to results which appear to defy intuition.

A recent set of data which illustrates one such problem can be found in Table I of Early and Nicholas (*Journal*, February 1977, **130**, 117). The authors were investigating the change in the population structure of a mental hospital over time. From their figures the probability of a patient being male in 1970 is 343/739, and in 1975 it is 238/515. Since 343/739 > 238/515 one might justifiably conclude that the proportion of males had *declined* between 1970 and 1975.

Now consider the under 65 and the 65 and over age groups separately in an effort to discover whether this decrease is primarily due to one or the other or both groups. First, for the under 65's the 1970 proportion of males is 255/429 and the 1975 proportion is 156/258. Since 255/429 < 156/258 the proportion of individuals aged under 65 who are male has *increased* between 1970 and 1975. For the 65 and over age group the 1970 proportion is 88/310 and the 1975 proportion is 82/257. Again we find that the proportion of males has *increased* between 1970 and 1975.