

# Overdose and termination of pregnancy: an important association?

HELEN HOUSTON

LIONEL JACOBSON

## SUMMARY

*Are taking an overdose and undergoing termination of pregnancy linked? In one practice this study has identified a significant association between the two events. If this finding is supported more widely, could one event act as a risk marker for the second?*

## Introduction

IN a general practice of 10 000 patients and five partners, with United Kingdom average distribution of social class and average annual turnover of patients, one partner (HH) summarizes the notes of all new female patients. In doing so, this partner became alert to an apparent link between the taking of an overdose and the termination of pregnancy in younger women.

Deliberate self-harm (usually overdose) and termination of pregnancy are common events which are distressing for all concerned. Both events are associated with physical and psychological morbidity, and both are theoretically preventable. However, it is frequently difficult to identify 'at risk' patients.

It was decided to explore whether, in this practice, there was an association between these two events. If the two events were linked, could one act as a trigger for the prevention of the other?

## Method

All female patients aged 15–34 years inclusive, registered with the practice in October 1994 were identified. Their records were examined for the following details:

- Any overdose requiring hospital treatment (excluding accidental overdose), age at which overdose was taken, and presence or absence of major psychiatric illness
- Any termination of pregnancy excluding termination for congenital abnormality and/or maternal infection (for example, rubella), and age at termination.

The data were analysed using  $\chi^2$  statistics.

## Results

Out of a total of 1359 patients, 163 (12.0%) had a history of termination and 47 (3.5%) had a history of taking a deliberate overdose. Fifteen had a history of both events.

## Overdose

Forty-seven women had a history of overdose, with a total of 65 overdoses; six had a major psychiatric illness confirmed by a psychiatrist (Munchausen's syndrome, severe depression, schizophrenia, severe personality disorder, bulimia nervosa). Within

these six women were four of the eight who had taken multiple overdoses, including two who had taken four or more. Forty-six (71%) overdoses occurred in women aged 19 years or less.

## Terminations of pregnancy

One hundred and sixty-three women had undergone 194 terminations, 136 a single termination, 25 two terminations, and two had had three terminations. Ninety-nine terminations (51%) occurred in women aged 19 years or less.

## Termination and overdose

The association between the two events is significant ( $\chi^2 = 18.3$ ,  $P < 0.01$ ) and is shown in Table 1. They occur fairly closely in time (73% within 2 years), and there is a tendency for the overdose to occur first, although this is not significant.

## Discussion

The results suggest that there is an increased 'risk' of undergoing a termination of pregnancy if a young woman has taken a recorded and treated overdose, and vice versa, with the majority of such events occurring within two years of each other.

The results need to be interpreted with an allowance made for the methodology used; they do not represent incidence figures, nor do they represent the risk of either event occurring independently, as some of the younger women have not yet had time to experience either an overdose or a termination of pregnancy. It is accepted that the general practice records may not be complete as some events, such as termination of pregnancy undertaken privately, are not always notified to the general practitioner. However, in Cardiff, where the majority of these patients have lived, private termination of pregnancy is relatively uncommon and notification is reasonably good. Nonetheless, the results for each condition conform to previously reported data with a much higher proportion of overdoses and/or terminations occurring in women aged under 24 years. Furthermore, a greater number of either event took place in teenage women.

In a recent report suggesting a possible link between deliberate self-harm and termination, the authors suggest that this is related to confounding variables,<sup>1</sup> and the literature demonstrates that the psychosocial factors associated with overdose are similar to those associated with termination of pregnancy. Both are more common in those who are socio-economically deprived,<sup>2,3,4,5</sup> parasuicide is linked to intro-punitiveness,<sup>6</sup> and women who are less 'in control' are more likely to become pregnant.<sup>7,8,9</sup>

One possible explanation for an association suggests that overdose follows termination as a result of increased guilt, self-recrimination or other psychological sequelae. This theory is not supported by the data in this study because there were more terminations following overdoses than vice versa.

The figures suggest that there is a small but well-defined population of teenage and slightly older women who theoretically might benefit from an effective intervention to attempt to reduce the likelihood of further untoward events. There is an implicit assumption that each can be prevented, whereas there is much evidence pointing to the relative difficulty of achieving any reductions merely by using extra resources.<sup>4</sup> The Government's explicit targets<sup>10,11</sup> for reducing both parasuicide and termina-

Helen Houston, MD, MRCP, senior lecturer in general practice; Lionel Jacobson, MB, MRCP, research fellow in general practice, University of Wales College of Medicine, Cardiff.  
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**Table 1.** Distribution of those women with a history of termination of pregnancy, overdose, both and none.

	With termination of pregnancy	Without termination of pregnancy	Total
With overdose	15	32	47
Without overdose	148	1164	1312
Total	163	1196	1359

The association of the two events is significant ( $\chi^2 = 18.3$ ,  $P < 0.01$ ).

tions need to be addressed. Therefore, a possible method of identifying women at risk should be further explored.

### Conclusion

There is a need for further research in this area to investigate more fully, in a larger population, the nature and extent of the association reported, and, if confirmed, to explore the effectiveness of interventions in these young women.

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### Address for correspondence

Dr Helen Houston, University of Wales College of Medicine, Department of General Practice, Llanedeyrn Health Centre, Cardiff CF3 7PN.

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