This is the published version:


Available from Deakin Research Online:

http://hdl.handle.net/10536/DRO/DU:30055878

Reproduced with the kind permission of the copyright owner.

Copyright: 2003, BMJ Group.
Association between antidepressant prescribing and suicide in Australia, 1991-2000: trend analysis

More than antidepressants are needed to avert suicide

15 May 2003

The conclusions presented in Hall et al.’s (2003) paper on the association between antidepressants prescribing and suicide are questionable. The authors claim that their findings support the contention that there is a clear association and, perhaps, causal relationship between antidepressant prescribing and suicide, especially in older males and females. Unfortunately, the authors fail to duly acknowledge that their data also indicate a lack of impact of antidepressants on suicide in younger individuals, which, indeed, might have been used to corroborate an opposite standpoint to that presented in the paper. For instance, tables 1 and 2 show that, despite an increase in antidepressant use, both male and female subjects aged 15 to 44 reported an increase in suicide rates. Additionally, the relative increase in antidepressant use in this age segment of the population was much higher (e.g., OR = 11.9 in 15-24 year old males) than that observed in the elderly (e.g., OR = 1.97 in 65-74 year old males). These results question the existence of an unequivocal association between antidepressant prescriptions and suicide rates. Of course, it could be argued that without antidepressants the rates of suicide in the younger segment of the population could have been even higher. However, the research design adopted in the present study cannot provide a reliable answer to these questions.

It should be also noted that if we calculate the correlation between absolute changes in antidepressant use and suicide rates in the age groups, controlling for the differences in initial levels (1986-1990) of antidepressant use and suicide rates, the strength of association between the two variables appears to be much lower and in the opposite direction than that reported by Hall et al. (eg., r = 0.04 for males and r = 0.33 for females; p<0.05). Furthermore, the fact that the authors found a higher correlation between age groups and changes in suicide rates than between estimated changes in antidepressant prescriptions and suicide rates implies that some age-related factors may be responsible for the observed association. We believe that these findings should have raised at least some concerns about the spuriousness of the observed antidepressant- suicide relationship.
It should be also noted that Hall et al.'s paper presents an overly biased overview of the current findings on the relationship between antidepressants and suicidal behaviour. Pharmacoepidemiological investigations, pooled analyses, and randomised control trials have yielded conflicting evidence in this respect and it is not clear whether antidepressants may prevent or even provoke suicidal behaviours (Baldwin, 2000).

Another problem associated with the conclusions reached in Hall et al.'s study regards the authors' claim that in the examined timeframe there was "no evidence of marked changes in method of suicide". This is incorrect. There was indeed a substantial decline in suicide by drugs overdosing. This phenomenon was observed in all age groups, but was more pronounced in older adults, reaching a 40% decrease in the over 75 and affecting proportionately more women than men, who are notoriously more prone to attempting suicide with prescribed medications (ABS, 2001). As suggested by another commentator of Hall et al.'s paper (D. Blisker), the possible impact of newer, safer antidepressants on suicide rates in elderly could be explained by a reduction in access to lethal means of suicide. Not to mention that suicide rates, especially in older women in Australia, have demonstrated a nearly constant decline since the pre-antidepressants era. This happened in most, if not all, Anglo-Saxon countries, suggesting the (powerful) influence of socio-cultural factors (De Leo, 2001).

Finally, it is important to acknowledge that suicide is not simply a function of depression but requires integrated efforts at all levels of the community, all round. In fact, a recent study (Bertolote et al., in press) showed that by treating with a 70% efficacy index ALL depressed people, the obtainable reduction in suicide rates would not be higher than 12%. Consequently, although depression is one of the factors associated with higher suicide risk, concentrating most efforts only in this direction would be dangerously reductionistic and unjustifiable (De Leo, 2002).

References:

Competing interests: None declared

Diego De Leo, Professor of Psychopathology
Ester Cerin
Australian Institute for Suicide Research and Prevention, Griffith University