Youth Depression and Suicide: Selective Serotonin Reuptake Inhibitors Treat the Former and Prevent the Latter

David A Brent, MD[1]

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Dr David Healy raises 3 main points that require rebuttal:

- antidepressants are associated with an increased risk of suicide in pediatric populations;
- antidepressants are not effective; and
- antidepressants offer no protection against suicide as per pharmacoepidemiologic studies.

Efficacy of Antidepressants

A recent meta-analysis shows that antidepressants are more likely than placebo to result in clinical improvement in depressed children and adolescents, with a number needed to treat (NNT) of 10.[1] As Dr Healy notes, the placebo rate is high in these studies, and greater efficacy is found in studies that used fluoxetine, had fewer sites, and empanelled participants of greater severity.[2] Exemplar of these characteristics is the Treatment of Adolescent Depression Study, which showed a risk difference of 27% between fluoxetine and placebo (NNT = 4), a moderate-to-large effect.

Risk of Suicidality and Completed Suicide in Pediatric Populations

Meta-analyses show that there is a higher rate of suicidal events in pediatric patients treated with antidepressants, compared with those treated with placeboes; such events include increases in suicidal ideation, suicidal threats, and attempts, but not in deaths by suicide in 4300 participants.[1] The most parsimonious explanation is that antidepressants in pediatric populations are not associated with completed suicide. While it is possible, as suggested by Dr Healy, that suicides occurred that were not reported, one cannot base clinical guidelines and policy on this possibility in the absence of concrete evidence.

A Protective Effect of Antidepressants Against Suicide?

Pharmacoepidemiologic studies show an association between increased use of selective serotonin reuptake inhibitors and a decline in the suicide rate. The simplest explanation for these findings is that greater detection and treatment of depression with antidepressants protects against completed suicide. This should be true even if, as suggested by Dr Healy, the suicidogenic effect of antidepressants only occurs in those 20% who are initiating antidepressants. Moreover, the highest risk period for a suicide attempt is in the month prior to initiation of an antidepressant, not afterwards, which contradicts Dr Healy's supposition.[3] While pharmacoepidemiologic studies are correlative and not experimental, quasi-experimental studies in Sweden and Hungary showed a decrease in deaths by suicide in regions where general practitioners underwent extensive training in detection and pharmacological treatment of depression, compared with control regions where general practitioners did not receive extra training.[4,5]

A Favourable Risk–Benefit Ratio for Pediatric Antidepressants

The NNT for antidepressant treatment of pediatric depression is 10, whereas the number needed to harm regarding suicidal events is 121, which means that 12 times more people will benefit from antidepressants than will experience a suicidal event. The use of fluoxetine, and use of antidepressants in moderate-to-severe depression, increases the benefit-to-risk ratio even further.[1] While the use of antidepressants is associated with an increase in suicidal events, it is not associated with completed suicide, and pharmacoepidemiologic studies suggest that the treatment of depression may be protective against suicide, given that depression is the single biggest psychiatric risk factor for deaths by suicide in this age group.[6]

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[1]Academic Chief, Child and Adolescent Psychiatry, Western Psychiatric Institute and Clinic, University of Pittsburgh Medical Center; Endowed Chair in Suicide Studies, University of Pittsburgh, Pittsburgh, Pennsylvania; Professor of Psychiatry, Pediatrics and Epidemiology, University of Pittsburgh School of Medicine, Pittsburgh, Pennsylvania.
Address of correspondence: Dr D Brent, University of Pittsburgh School of Medicine, 3811 O'Hara Street, Room 315 Bellefield Towers, Pittsburgh, PA 15213; brentda@upmc.edu