



Invited Commentary | Psychiatry

Increasing Suicide Rates in Early Adolescent Girls in the United States and the Equalization of Sex Disparity in Suicide: The Need to Investigate the Role of Social Media

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In the context of increasing rates of suicide in US youth, a recent report by the Centers for Disease Control and Prevention¹ revealed that the largest percentage increases in the rates of suicide occurred in girls aged 10 to 14 years. In an unprecedented escalation, rates of suicide in this subgroup tripled between 1999 and 2014. Building on these findings, Ruch et al² sought to investigate whether the known sex disparity in suicide, with boys being more likely to commit suicide than girls, was also changing. Using the Wide-ranging Online Data for Epidemiological Research (WONDER) database and applying incidence rate ratios and binomial regressions, the authors found a significant decrease in the male to female suicide ratio, suggesting that the historical sex disparity is equalizing. The authors underscore the implications of these findings for clinical risk detection and public health policy.

This study was not designed, and does not aim, to investigate what the sources of increasing suicide rates in youth more generally are or, even further, why these rates are increasing so rapidly in girls aged 10 to 14 years. However, these findings and the resultant equalization in sex disparity identified raise pressing questions about the causes of these trends. Social rather than biological determinants seem far more likely to be operational in such a marked behavioral change targeting a vulnerable subgroup over a relatively short period. There has been speculation and some empirical data to suggest that the rise of social media use in youth is one factor that may be associated with increased suicidality.³ While this is an area in need of further well-controlled investigation, a marked increase in the use of social media for peer interaction, with more than 95% of youth now connected to the internet, represents a clear and powerful social change occurring over the same period. The fact that social media has become a primary forum for interpersonal engagement in adolescence, a developmental period when social contact is rapidly rising and becoming increasingly important to well-being, makes this an area of great potential influence and importance. Another key feature of social media is the amount of time adolescents spend engaged with it and the fact that it makes social contact available almost without limits. All of these features and secular trends strongly suggest that social media should be a key target of interest for the trends reported in suicidality in youth. However, it is less clear why increases in social media use might have a differential impact on girls compared with boys.

One reason for this sex disparity may be that compared with boys, girls' social media use may be more likely to result in interpersonal stress, a common factor associated with suicide attempts in youth.⁴ Compared with boys, girls use social media more frequently⁵ and are more likely to experience cyberbullying.⁶ Associations between social media use and mental health outcomes also differ by gender. Social media use is more strongly associated with depression in girls compared with boys,⁵ and cyberbullying is more closely associated with emotional problems in girls compared with boys.⁶ Other work⁷ shows that girls with depression elicit more negative responses from peers on social media compared with depressed boys. These findings suggest that increased social media use may have a more deleterious effect on girls, providing one potential explanation for why young girls may be increasingly vulnerable to suicidal thoughts and behaviors.

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These findings, taken together with the findings from the Centers for Disease Control and Prevention and Ruch et al,² suggest that the possible role of social media in the sharp increases in suicidality among early adolescent girls is an urgent public health issue that merits further investigation. Given the powerful influence and pervasive use of this modality among this target population, studies of its effects on social and emotional (as well as cognitive) development must now be done. Increasing rates of suicidality may be the “canary in the coal mine” signaling important health concerns arising from the increased and pervasive use of social media affecting child and adolescent development. Such a signal in general health would raise great alarm and calls to action, and it must not go unheeded in mental health.

ARTICLE INFORMATION

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