Stata/IC software and a 2-tailed significance level of $P < .05$ were utilized to conduct the statistical analysis. A chi-squared test was performed to compare male-to-female IRR for each period and to identify statistically significant trends within demographic subgroups.

More Lethal Means

The findings show that hanging or suffocation had significantly increased as cause of death among young women.
"A particularly important finding relates to changes in method of suicide, with hanging and suffocation showing a greater increase as the cause of death among females relative to males," said Ruch.

"Consistent with previous reports of increasing rates of suicide by hanging or suffocation in female youth, the ratio of male-to-female suicide rates by hanging or suffocation declined significantly for both age groups," she continued.

"It’s troubling that a growing proportion of females are choosing this more violent and lethal method, since it's well documented that females have higher rates of attempted suicide," said Ruch.

Suicide among female youth showed the greatest percentage increase following a downward trend through 2007 compared with males, with 12.7% vs 7.1% for individuals aged 10 to 14 years and 7.9% vs 3.5% for those aged 15 to 19 years.

The sex gap significantly decreased in male-to-female IRR for children aged 10 to 14 years (IRR, 3.14; [95% CI, 2.74 – 3.61] to IRR, 1.80 [95% CI, 1.53 – 2.12]) and for those aged 15 to 19 years (IRR, 4.15 [95% CI, 3.79 – 4.54] to IRR, 3.31 [95% CI, 2.96 – 3.69]).

By race, significant declining trends were also found in the male-to-female IRR in non-Hispanic white youth aged 10 to 14 years (IRR, 3.27 [95% CI, 2.68 – 4.00] to IRR, 2.04 [95% CI, 1.45 – 2.89]) and non-Hispanic youth of other races aged 15 to 19 years (IRR, 4.02 [95% CI, 3.29 – 4.92] to IRR, 2.35 [95% CI, 2.00 – 2.76]).
Ruch believes this significant reduction in the traditionally wide difference between male and female suicide rates highlights a need for more targeted interventions in which suicide risk by sex is considered.

"The narrowing gap in suicide rates between male and female youth underscores the urgency to identify suicide prevention strategies that address the unique developmental needs of female youth. Future research examining sex-specific risk and protective factors associated with youth suicide and how these determinants can inform interventions is warranted," she said.

Social Media a Factor?

In an accompanying commentary, Joan Luby, MD, and Sarah Kertz, PhD, note that the study shows "an unprecedented escalation" in suicide rates in young girls.

They add that although the study does not shed any light on the reason for the leveling of suicide rates between boys and girls, social media is a "key target of interest.

"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," they write.

Luby and Kertz also note that "social media use is more strongly associated with depression in girls compared with boys and cyberbullying is more closely associated with emotional problems in girls compared with boys."

Commenting on the findings for Medscape Medical News, Mary T. Rourke, PhD, director of school psychology concentration at Widener University, Chester, Pennsylvania, and co-director of the Widener Child Therapy Clinic,
who was not involved in the study, noted that girls attempt suicide by less lethal means compared to boys.

This, she said, "may color the way we respond to suicidal statements in girls. I think we're going to have to think about that a lot differently in light of these findings, especially regarding our younger girls."

As for the potential influence of social media on the increasing rates of suicide in girls, Rourke said she believes the "jury is out."

"Certainly social media is important, but it's only one aspect of a culture that can be overwhelming. In fact, social media can even be helpful when dealing with a suicide crisis. Clinically, I've had a number of clients who have expressed something on social media and a friend has seen it and shown an adult or a parent has reviewed the child's messages.

"However, younger kids are impulsive, less likely to talk, less likely to show depression and anxiety in a way adults can understand. This may be a way social media plays a role. Because of social media, the means and models of suicide are much more accessible to younger kids. Pair that with higher levels of impulsivity and difficulty communicating their feelings and it may explain the increasing risk at younger ages. Maybe the sex differences which we've seen in prior generations aren't as relevant considering these newer factors," she added.

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