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**Mounting Evidence and Netflix’s Decision to Pull a Controversial Suicide Scene**

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[Original Investigation](https://jamanetwork.com/journals/jamapsychiatry/fullarticle/2734859)

[Association of Increased Youth Suicides With](https://jamanetwork.com/journals/jamapsychiatry/fullarticle/2734859) *[13 Reasons Why](https://jamanetwork.com/journals/jamapsychiatry/fullarticle/2734859)*

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With perhaps [millions](https://variety.com/2018/digital/news/13-reasons-why-season-2-ratings-premiere-nielsen-1202825235/) of viewers awaiting the season 3 premiere of Netflix’s [*13 Reasons Why*](https://www.netflix.com/title/80117470) series, the streaming service made a somewhat unusual decision. A graphic suicide scene that generated 2 years of debate and at least a half-dozen published studies on suicide trends was edited out of the first season’s final episode. A Netflix [statement](https://twitter.com/13ReasonsWhy/status/1150987786243018752) indicated that the decision was made “on the advice of medical experts.”

Karen Bucher/American Medical Association

Victor Hong, MD, medical director of Michigan Medicine’s Psychiatric Emergency Services (PES), is lead author of 1 of the studies the series spurred. “The decision to edit out the suicide scene is at least a step in the right direction,” he said shortly after Netflix made the announcement.

Released in March 2017, the series is based on the best-selling 2007 young adult novel of the same name in which a teenaged girl, Hannah Baker, dies by suicide. She leaves behind 13 cassette tapes that identify the people and circumstances she feels contributed to her death. In the book, Hannah dies by overdosing on pills. In the deleted Netflix scene, Hannah cuts her wrists in a bathtub filled with water.

“We understand that there’s creative license, but this kind of portrayal…really can have a profound negative impact on youth,” said Julie Cerel, PhD, past-president of the American Association of Suicidology who also is a professor and director of doctoral programs at the University of Kentucky College of Social Work.

Implausible Portrayal

Aside from the suicide scene, other experts said the contexts of Hannah’s suicide were inaccurate or implausible. “There was very little consideration of underlying mental health problems” the character might have had, said Jeffrey Bridge, PhD, director of the Center for Suicide Prevention and Research (CSPR) at Nationwide Children’s Hospital in Columbus, Ohio.

Before her death, Hannah is exposed to bullying, rumor-mongering, friends who turn on her, and rape. It’s not that these abuses don’t happen to teens; they do. But it’s depicted in the series, he added, as if “suicide is almost a natural consequence of the traumatic life experiences that she was dealing with.” It isn’t, experts said.

In a [blog](https://www.nationwidechildrens.org/family-resources-education/700childrens/2017/04/13-reasons-why-should-parents-be-concerned-about-this-netflix-series) post on the Nationwide Children’s website, John Ackerman, PhD, suicide prevention coordinator of the hospital’s CSPR, noted that suicide “is complex and not a typical response to the types of adversity described in *13RW*,” he wrote.

Ackerman also pointed out that suicide attempts almost always coincide with an intense emotional crisis. The time it took Hannah to record 13 tapes that chronicle the people and circumstances leading up to her death “would likely have defused the crisis,” he wrote. “If we want to have an honest dialogue about suicide, it should start with something that resembles reality rather than an extreme outlier.”

Trend Emerges

Not long after the series debuted, Hong and his colleagues at PES noticed a disturbing trend: the number of teens coming in with suicide-related concerns was spiking. “We’re talking maybe 30% to 50% more than we would have expected,” he said.

It wasn’t an isolated incident. Hong said the issue came up on a listserv of the American Association for Child and Adolescent Psychiatry—were children’s hospitals and emergency departments around the country seeing a similar trend? “Everyone chimed in and said, ‘yes,’” he recalled.

Hong and his colleagues took a closer look, as did a number of other investigators. Over many months, the evidence mounted. Their findings, published in peer-reviewed journals, suggested that higher-than-expected increases that spring in adolescent suicides, suicide attempts, and suicide-related hospital admissions were associated with the Netflix series.

A *JAMA Psychiatry* [study](https://jamanetwork.com/journals/jamapsychiatry/fullarticle/2734859?resultClick=1) analyzed US Centers for Disease Control and Prevention data tracking monthly suicides from 1999 through 2017 among 3 age groups: 10 to 19 years, 20 to 29 years, and 30 years or older. The analysis reported that during the first 3 months after the Netflix series was released, the number of suicides among those aged 10 to 19 years was 13.3% higher than expected—about 94 additional lives lost. No excess suicide deaths turned up in the 2 older age groups, which weren’t the series’ primary demographic.

An aim of the study also was to examine suicide contagion—an initial suicide triggers others—lead author Thomas Niederkrontenthaler, MD, PhD, said during a *JAMA* audio [interview](https://edhub.ama-assn.org/jn-learning/audio-player/17627888). He and his colleagues measured public interest in the series by gauging activity on Twitter and Instagram, 2 of the most [popular](https://www.pewinternet.org/2018/05/31/teens-social-media-technology-2018/) platforms among US teens. They retrieved 1.4 million Tweets and 26 322 Instagram posts that mentioned the series between April 1 and June 30 in 2017. Social media attention peaked in April and faded after June—a window of activity that coincided with increased suicides.

Despite the need for cautious interpretation, the study authors wrote that their findings “do appear to demonstrate an increase in suicides that is consistent with potential contagion by media.”

In a similar [study](https://jaacap.org/article/S0890-8567%2819%2930288-6/pdf), Bridge and his colleagues analyzed suicides from the same CDC data set as Niederkrontenthaler. But they limited the timeframe of their analysis from January 1, 2013, to December 31, 2017. They found that during April 2017, the month after the series was released, suicides were 29% higher than expected among adolescents aged 10 to 17 years. In actual numbers, they estimated that an additional 195 youths aged 10 to 17 years died by suicide from April 1 to December 31 in 2017. They found no significant increases in suicides among older populations up to age 64 years or in homicides among any age group after the series’ release.

A [study](https://www.jahonline.org/article/S1054-139X%2818%2930412-9/abstract) at The Children’s Hospital in Oklahoma City also showed a greater-than-expected increase in hospital admissions for attempted suicide that coincided with the release of *13 Reasons Why*. “Our model…predicted the number of admissions for May 2017 to be 12 admissions, but the actual number of admissions was 31,” said lead author Michael Townsend Cooper Jr, MD, an assistant professor of pediatrics at the University of Oklahoma College of Medicine.

Despite the associations they reported, the authors also noted their studies’ limitations. An important one is that the investigators didn’t know whether individual youths included in the data they analyzed had actually watched the series. Their methods also couldn’t account for whether other events may have influenced suicide trends during the time periods they studied. Cooper’s study noted that former New England Patriots tight end Aaron Hernandez [died](https://www.washingtonpost.com/news/early-lead/wp/2017/04/24/a-private-funeral-for-aaron-hernandez-will-take-place-monday-in-his-connecticut-hometown/?utm_term=.b79e02ac6186) by suicide on April 19, 2017.

Conflicting Findings

Although the studies show similar trends, a notable difference emerged. Niederkrontenthaler and his colleagues found a higher rate of excess suicides among girls than boys; Bridge’s group found the opposite. Suicide contagion resulting from news or entertainment media usually occurs among people who are the same sex as the person or character who has died. Both studies noted that suicide deaths are more prevalent among boys but that suicide attempts are more prevalent among girls. Neither study examined suicide attempts.

Netflix responded to the research results in an email. “Experts agree that there’s no single reason people take their own lives and that rates for teenagers have tragically been increasing for years. These two studies raise important issues but [sex differences in excess suicides] directly conflict with each other, even though they’re based on the same US government data,” a spokesperson wrote, adding that the streaming service has heard from young people and medical experts that the series “gave many viewers the courage to speak up and get help.”

A Netflix-funded [study](https://13reasonsresearch.soc.northwestern.edu/netflix_global-report_-final-print.pdf) used an online survey to ask 5400 adolescents, young adults, and parents of adolescents in the United States, United Kingdom, Australia, New Zealand, and Brazil about their views of the series. A majority of teens and young adults said the series accurately portrayed high school life and was beneficial for them and others their age to watch.

A majority of all the participants also said the series helped them better understand difficult topics like depression, suicide, bullying, and sexual assault. Between one-third and one-half of teens and young adults in the survey said the series prompted them to learn more about those same tough subjects. About two-thirds said the series’ intensity was appropriate for them and nearly three-quarters said the graphic portrayal of Hannah’s suicide was necessary to show the painful nature of suicide.

Vulnerable Teens at Greater Risk

Hong noted, however, that Netflix-supported survey participants were from the general public, rather than from a subset of vulnerable youths who may have had stronger reactions to a graphic suicide portrayal. In his [study](https://ps.psychiatryonline.org/doi/abs/10.1176/appi.ps.201800384?rfr_dat=cr_pub%3Dpubmed&url_ver=Z39.88-2003&rfr_id=ori%3Arid%3Acrossref.org&journalCode=ps), Hong and his colleagues examined how 87 pairs of adolescents with suicide-related concerns and a parent or guardian reacted to the series.

About half of 41 youths who answered the relevant survey question about suicide risk said that watching the show increased their own suicide risk to at least some degree. “The [youths] who had more of a negative emotional response were the ones that were more likely [to hold the] view that watching this show increased their suicide risk,” Hong explained.

A May 2017 online [survey](https://www.sciencedirect.com/science/article/pii/S0022395618306344?via%3Dihub) in Brazil had a similar finding. It included about 7000 adolescents who were recruited through Facebook and WhatsApp posts discussing *13 Reasons Why*. The survey assessed participants’ mood and thoughts about suicide, self-harm, or attempts at either one before and after they watched the series.

About one-third said their mood improved and about one-fourth said their mood worsened—they felt more sad and less motivated. However, worsened mood after the series was much more likely among the adolescents who said they had frequent or severe feelings of sadness or lack of motivation before they saw the series.

Their findings “highlight the importance of bearing in mind how vulnerable individuals might be differentially impacted by media content,” wrote the authors, all from the Federal University of Rio Grande do Sul in Porto Alegre.

Another important consideration is that all of the episodes were released on the same day. “What that allows for is binge watching,” Bridge said. “We don’t know the impact of that … especially for youth who may have underlying vulnerabilities and preexisting risk for suicidal behavior.”

It’s not only binge watching or watching the series again and again, “but specifically watching certain scenes recurrently because you can so easily rewind and fast-forward or pick the episode,” Hong said. At Michigan Medicine’s PES, he added, “many of the kids talked about just watching certain scenes over and over, including the suicide scene.”

“The literature is very strong in showing that with sensationalized portrayals, that can increase the risk of [suicide] contagion,” Bridge said. The phenomenon can result from fictional portrayals as well as from news reports of celebrity suicides.

Follow the Guidelines

As the second season of *13 Reasons* began last year, 25 expert organizations commended Netflix for warning viewers that the content might be unsuitable for those struggling with the same issues as the characters. But they also expressed [concerns](https://www.jedfoundation.org/statement-experts-upcoming-release-13-reasons-season-2/) about vulnerable youth and suicide contagion. Their statement included a link to the [13 Reasons Why Toolkit](https://www.13reasonswhytoolkit.org/), which offers extensive guidance and resources for youth, parents, educators, clinicians, and media.

“It is crucial that show producers collaborate with mental health experts to determine if their content could be potentially harmful to vulnerable viewers,” Hong noted.

Experts also urge media, be it Netflix, news outlets, magazines, filmmakers, or others, to follow [recommendations](http://reportingonsuicide.org/recommendations/) for presenting material about suicide. The American Association of Suicidology also has offered [best practices](https://www.suicidology.org/Resources/Recommendations-for-Reporting-on-Suicide) for media. “There needs to be some tempering of the way suicides like [Hannah’s] are portrayed,” Cerel said.

The point of the recent studies, Hong noted, isn’t to definitively say that the series is leading more adolescents to take their own lives or to think about doing so. “What we can say is that it deserves more attention, and if you are going to portray suicide in this way, why not adhere to the various guidelines that we have out there for media…why take a chance?”