Where Do Youth Learn about Suicides on the Internet, and What Influence Does this Have on Suicidal Ideation?

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ABSTRACT

Background: Young people are susceptible to suicidal behavior as a result of learning about the suicidal behavior of others. This study was designed to determine whether Internet sites, such as online news and social networking websites, expose young people to suicide stories that might increase suicide ideation. **Method**: We reinterviewed 719 young people ages 14 to 24 who had participated in a prior nationally representative survey. Respondents reported knowledge of persons they knew who had committed or attempted suicide as well as personal experiences of hopelessness and suicidal ideation on both occasions. On the second occasion one year later, they also reported use of various Internet platforms and how often they had been exposed to suicide stories on those sites, as well as from personal sources. Changes in ideation as a function of exposure to different sources of suicide stories were analyzed holding constant prior hopelessness and ideation. **Results**: While traditional sources of information about suicide were most often cited (79% were from friends and family or newspapers), online sources were also quite common (59%). Social networking sites were frequently cited as sources, but these reports were not linked to increases in ideation. However, online discussion forums were both cited as sources and associated with increases in ideation. **Conclusions**: The Internet and especially social networking sites are important sources of suicide stories. However, discussion forums appear to be particularly associated with increases in suicidal ideation. Greater efforts should be undertaken to promote Internet sites directed to young people that enhance effective coping with hopelessness and suicidal ideation.

Suicide is the third leading cause of death among young people ages 15 to 24 years in the U.S. (Maternal and Child Health Bureau, 2004) and ranks high as a source of mortality in young people around the world (Wasserman, Cheng, & Jiang, 2005). Media portrayals of suicide, in the news as well as entertainment media, have been associated with increases in suicide, particularly amongst the young (Hawton, 2002; Gould, Jamieson, & Romer, 2003; Gould, 1990; Pirkis, 2001; Stack, 2003). This phenomenon, known as suicidal 'contagion,' appears to be a short-term effect of exposure to stories in the media about persons committing or attempting suicide (Westerlund, Schaller, and Schmidtke, 2009). There is also evidence of suicide "clusters," again especially among the young, whereby the suicide of one or more friends or acquaintances leads to suicidal behavior among those who knew the victims (Davidson, Rosenberg, Mercy, Franklin, & Simmons, 1989; Joiner, 1999; Johansson, Lindqvist, and Eriksson, 2006). Indeed, one of the robust predictors of suicide attempts in youth is learning about a friend or family member who either attempted or completed suicide, a finding observed in both the U.S. (Cutler, Glaeser, & Norberg, 2001; Liu, 2006) and other countries (Evans, Hawton, & Rodham, 2004; Fleming, Merry, Robinson, Denny, & Watson, 2007).

Most of the evidence for suicide contagion derives from reports in traditional media, especially newspapers (Stack, 2003), while clustering can occur as a result of either mass media or word of mouth within communities (Joiner, 1999; Gould, 1990). However, there has been little investigation of how newer media environments found on the Internet might affect suicidal behavior. These online spaces offer additional opportunities for transmission of suicide portrayals and knowledge of suicide among friends and other community members. In 2009, approximately 93% of young Americans aged 12-29 were online (Madden, 2010; Jones, 2009). The Internet as both a source of information and a mode of communication,

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offers a previously non-existent opportunity to publish material, discuss, confess and seek contact on a subject that has long been strongly taboo (Westerlund & Wasserman, 2009).

One potentially influential online source of information about suicidal behavior of others is the widespread use of social networking sites. The most popular of these sites, Facebook, has reached five hundred million worldwide (Zuckerberg, 2010). These sites are used by at least 70% of young people on a regular basis and their use is growing (Lenhart, 2010). Many young people use these sites to remain connected to friends they see regularly offline, as well as to friends or acquaintances that they see much less frequently. However, regular use of these sites may also permit greater communication about sensitive topics, such as suicidal behavior of friends and acquaintances. It is possible, therefore, that regular use of social networking sites by young people provides new opportunities to learn about the suicidal behavior of peers within wider social networks than might occur through face-to-face communication or word of mouth. One aim of the current study was to examine whether social networking sites have become one of the sources by which youth hear about suicides of people that they know personally.

Another potential online source of suicide stories is the widespread availability of sites devoted to discussions about specific topics. These sites include discussion forums and boards as well as self-help venues where users can post questions and obtain help and reactions from others with similar interests. For example, the increasingly popular online social news website, Reddit, has a specific section dedicated to discussions about suicide (www.reddit.com/r/suicidewatch). In a recent highly publicized case, a 24-year old user of the site announced his intention to commit suicide and was later discovered to have completed the act (Ries, 2010). A review of the comments he received revealed that many of the discussants were sympathetic and offered advice to the troubled young person. However, there were others who encouraged the person to complete the act. Psychiatrists have also

noted similar occasions with young people under their care (Becker & Schmidt, 2004; Becker, Mayer, Nagenborg, El-Faddagh, & Schmidt, 2004). In other cases, persons entering these forums have acted on information received about how to complete the act. In these "cybersuicides" (Alao, Yolles, & Armenta, 1999; Becker & Schmidt, 2004; Janson et al., 2001; Prior, 2004; Thompson, 1999), individuals have committed suicide or carried out serious suicide attempts after obtaining information about suicide methods online.

Concerns have also been raised about the existence of suicide-promoting sites on the Internet (Becker, 2004; Beatson, 2000). There are more than 100,000 websites that deal with methods of committing suicide (Dobson, 1999). A recently conducted content analysis of the top 10 sites retrieved when searching about "suicide" and "suicide methods" found that the three most frequently occurring sites were pro-suicide (Biddle, 2008). Many websites dealing with methods of committing suicide contain detailed descriptions of such methods (Gallagher, Smith, & Mellen, 2003), and also suicide notes, death certificates, and pictures of people who have committed suicide (Westerlund & Wasserman, 2009).

Despite the existence of potentially harmful Internet sites, the media can also play an important role in informing readers and viewers on likely causes of suicide, warning signs, and improvements in treatment. Social networking sites can be a source of social support by widening opportunities to maintain contact with others who might not be available otherwise. Indeed, there is evidence that use of Facebook provides social support for young users experiencing mental health problems (Ellison, Steinfield, & Lampe, 2007; Sheldon, 2008)). In addition, suicide-prevention websites can offer the chance to anonymously discuss and share thoughts as well as provide information and support. In Biddle and colleagues' (2008) content analyses of suicide sites, there were an equal number of sites aimed at preventing suicide, but that these were less popular than those promoting suicide.

In this study, we examined exposure to a number of sources of stories about suicide in a national sample of American adolescents and young adults. The sources of suicide stories included interpersonal communications, traditional media outlets, and online sites. We were first interested in determining the characteristics of youth who were exposed to suicide stories in each of the various forums. We were then interested to see the extent to which youth who knew someone who had either attempted or committed suicide had heard about suicide from each of the various sources. This analysis was intended to explore how knowledge of suicidal behavior among friends and acquaintances might be spread. Finally, we also investigated the relationships between exposure to these sources of suicide reports and suicide ideation. Suicide ideation is considered a step in the process of attempting suicide (Bridge, Goldstein, and Brent, 2006; Hatcher-Kay & King, 2003), and is more likely among those who are vulnerable to suicide, such as persons experiencing bouts of depression or hopelessness (Foley, Goldston, Costello, & Angold, 2006; Lewinsohn, Rohde, & Seeley, 1994). Using a cohort design with two successive waves of interviews, we were able to test whether the various potential sources of suicide reports were related to changes in ideation whilst controlling for the influence of previous levels of hopelessness.

METHOD

Participants and Procedure

The National Annenberg Survey of Youth (NASY) is an annual telephone survey conducted by the Annenberg Public Policy Center at the University of Pennsylvania, approved by the Institutional Review Board of that institution. The NASY uses random digit dialing telephone procedures to obtain a nationally representative sample (for a description of the development of NASY, see Romer, 2003) of adolescents and young adults. The current study uses data from a cohort of respondents who were interviewed for the NASY in 2008

and reinterviewed in 2009 ($n = 719$). The follow-up rate amongst respondents interviewed in 2008 (1243) was 58%. Youth in this cohort were initially recruited in either 2008 (n=453) or 2007 (n=266). Those recruited in 2007 therefore completed three surveys, but in this study we use data only from the last two waves.

Analyses showed that participants who remained in the panel did not differ from those who did not complete a follow-up interview in reports of suicidal ideation (see our measure of this below). The respondents who continued in the panel were slightly less likely to report recent bouts of hopelessness than those who were in the original sample in 2007 (29% vs. 37%) and in 2008 (23% vs. 31%). We found that the respondents who remained in the panel were slightly younger than those who did not, but no other differences in demographics were observed. Nevertheless, we control for these differences in all our models.

Although all recruitment and interviewing was done by telephone, approximately half of the reinterviewing in each year was done using online survey methodology for respondents who preferred to complete the follow-up online. We found no differences in response patterns depending on mode of reinterview. Respondents were aged 14-22 years at initial interview. For respondents under 18 years of age, parents or guardians were asked for permission to interview their child, and interviews were given in Spanish when required (2%). Youth were compensated $10 for their first interview and $25 to complete follow-up interviews. The overall response rates for the original NASY interviews were approximately 50%, comparable to other national telephone surveys of adults conducted by the Centers for Disease Control and Prevention (CDC, 2003).

The final panel sample, which was 51% female and ranged in age from 14 to 24, was primarily composed of youth between the ages of 14 to 18 (56%) and 19 to 21 (30%). The sample tended to over-represent youth who were non-Hispanic white (70% vs. 61%

nationally). Thirteen percent of the sample was Hispanic, 10% black, and 7% of another race-ethnicity. Approximately half lived in suburban areas, 28% in urban and 20% in rural. In order to estimate descriptive statistics for a nationally representative sample, we used weights to match the latest US Census marginals for racial-ethnic identity, region of the country, and educational level. However, the differences between weighted and unweighted outcomes were minimal.

Measures

Sources of suicide reports. In the follow-up survey only, respondents were queried about whether they had heard or seen a story about someone who committed suicide in the past few months: (a) from a friend or relative; (b) in a newspaper; (c) on an Internet news site like CNN or Yahoo News; (d) on a video website like YouTube; (e) on an online forum, discussion board, or self-help website; (f) on a social networking site like MySpace or Facebook; or (g) online somewhere else. It was specified that they did not mean stories about suicide bombers in other countries. Responses options were recorded on a three-point scale indicating 'never', 'once', or 'more than once'.

Knowing persons who either committed or attempted suicide. At each wave of the survey, respondents were asked if they have ever known someone personally who (a) committed suicide or (b) attempted suicide.

Hopelessness and suicide ideation. In both the baseline and follow-up survey, all respondents were asked how often in the last 12 months, if ever, they: (a) felt so sad or hopeless for two weeks or more in a row that they stopped doing their usual activities (hopelessness); and (b) ever seriously considered committing suicide (suicide ideation). Responses to these items were 'never', 'once', 'twice', or 'three or more times'. Both items were adapted from surveys used by the CDC to track risk behaviors in youth (CDC, 2010).

Demographic and media use covariates. Demographic variables included gender, age, race-ethnicity, location of residence (urban/rural/suburban), and median income of the residence zipcode. In the follow-up survey, respondents reported how often (1 = *never* to 4 = *most days*) they: (a) read an actual copy of a newspaper (b) go online to seek local, national, or international news, (c) watch local news on television, (d) use social networking sites like Facebook or MySpace, (e) visit streaming video sites such as YouTube, or (f) update an online journal or blog. In addition, they were asked how many hours in total per typical weekday they watched television or used the Internet.

Statistical Analysis

First, linear regression analysis was used to identify individual characteristics that independently predicted exposure to suicide stories from any of the sources. Several characteristics were included as predictor variables, including demographics, media use at follow-up, and baseline hopelessness and suicide ideation. Next, in order to explore the ways in which youth learn and hear about suicides amongst people they know, we used logistic regression analysis to investigate the relationships between learning about suicide from particular sources and change (from the prior year) in knowing someone personally who had either died by suicide or attempted suicide.

Finally, we used logistic regression to study the predictors of change in suicide ideation at follow-up. Both univariate and multivariate associations were explored. In the multivariate analysis, suicide ideation at follow-up was the dependent variable, with suicide story sources as predictors, and baseline depression and suicide ideation as covariates. This allowed us to determine if exposure to the suicide sources was associated with changes in suicide ideation between the baseline and follow-up surveys. In this analysis, we also

controlled for whether or not the respondent knew someone who had attempted or committed suicide. All analyses were done with SPSS v18.

RESULTS

Sources of Suicide Stories

The most frequently cited source of suicide stories was in newspapers (64%); followed by friends or relatives (55%) and Internet news sites (44%; see Table 1). While traditional sources of information about suicide (newspapers or friends and family) were quite common (79%), about 59% of respondents reported learning of a suicide from an online source.

There were some notable differences in sources according to demographic and individual characteristics (also shown in Table 1). Males were more likely than females to have learned of suicides from online video websites and were less likely to have heard about suicides from interpersonal sources. Younger respondents were more likely to have encountered suicide stories on social networking sites and video websites. Suicide ideation at baseline was unrelated to subsequent exposure to suicide stories from any source. However, prior hopelessness was related to exposure to suicide stories on video and social networking websites. There was also a marginally significant tendency to hear more stories from friends and family. Each source was also related to the amount of use of the source in general (e.g., frequency of newspaper use was related to exposure to newspaper stories). However, use of Internet news and information sites was particularly related to several of the sources, including newspapers, video sites, family members, and other unspecified online sources. While we did not have a direct measure of use of online discussion forums, respondents who tended to engage in blogging were also more likely to have learned of suicides from discussion forums.

Knowledge of Suicide Attempts and Completions

Twenty-seven percent of the sample reported that they knew someone who had committed suicide, and 51% reported that they knew someone who had attempted suicide. As seen in Table 2, hearing about suicides from friends and family was strongly related to knowing persons who either committed or attempted suicide. However, exposure to suicide stories on social networking sites was also strongly associated, especially for suicide attempts. Both of these relations were significant when previous knowledge of others who attempted or committed suicide was held constant.

Suicide Ideation

At follow-up, eleven percent of respondents indicated that they had seriously considered committing suicide in the last 12 months. The rate of suicidal ideation at baseline was about the same (12%). Both of these rates are comparable to the rate of 14% reported by the CDC (2010). Table 3 shows the univariate associations between suicide ideation in the 2009 survey and exposure to various sources of suicide stories and prior mental health conditions. Suicide ideation at follow-up was higher in those who reported ideation and hopelessness at baseline. Consistent with other research, we also observed a relation between knowing someone who had attempted suicide and increases in suicide risk. The relation for knowing someone who had committed suicide was less strong.

In the multivariate analyses, we first examined change in suicide ideation using the various sources of suicide stories as predictors. The only source of suicide stories that was associated with ideation was online forums. Information obtained from family and friends approached significance. We then added knowledge of persons who either committed or attempted suicide as predictors. Knowing someone who attempted suicide was marginally

related, $p = .068$. Online forums remained significantly associated, while family and friends declined in importance.

To further explore the characteristics of youth who participated in online forums, we examined engagement in blogging as a proxy for this behavior. This analysis revealed that youth who had experienced hopelessness during 2009 were also likely to blog ($p = .04$). In addition, heavier use of social networking sites ($p < .001$) and the Internet in general ($p = .01$) were positively related to engaging in blogging.

DISCUSSION

This study is the first to our knowledge to examine the potential influence of various online platforms on young people's exposure to stories about persons committing suicide. While friends and family or newspapers remained strong sources of suicide stories, we found considerable exposure to such stories online. In addition, while online news sites now also provide exposure to stories about suicide (44%), there was also exposure to suicide stories on other Internet platforms, in particular social networking sites (25%), online discussion forums (15%), and video websites (15%). Of particular note, while family and friends were important sources of information about individuals personally known to respondents who either attempted or committed suicide, social networking sites appeared to provide additional exposure to stories about such persons. This finding suggests that social networking sites have now become an important communication medium for obtaining information about suicidal behavior of social contacts that might have previously been kept within the bounds of personal communication networks. Whether this is the result of the expanded social networking that such sites afford or of the greater opportunities to disclose sensitive information is a subject for future research.

Despite the apparent importance of social networking sites for transmitting information about suicidal behavior among persons known to respondents, exposure to such information on these sites did not appear to be related to changes in suicidal ideation. Thus, social networking sites may provide both greater exposure to such information but also greater social support to those who obtain this information, a result consistent with other research on the beneficial effects of Facebook (Ellison et al., 2007; Sheldon, 2008). As a result, the overall effects of gaining this information may not be as detrimental as it could otherwise be. The same pattern of results was observed for learning about suicidal behavior from friends and family. Hence, there is some reason to believe that social networking sites behave much the same as friends and family in transmitting information about suicidal behavior but also providing support to reduce the risks of suicidal behavior in those who receive the information.

Despite the potential for some positive effects of online social networking, participation in online forums was more strongly related to increases in ideation. These sites permit anonymous discussions with others about a wide range of topics and could easily include discussions about mental health problems. Indeed, examples of such conversations indicate that they can possibly encourage troubled persons to attempt suicide (Becker & Schmidt, 2004; Becker et al., 2004). There are also occasional news reports of persons using online venues to ask others for their reactions to their impending suicide attempts (Ries, 2010) and in some cases, committing the act while online (e.g., Sarno, 2008). Hence, our findings confirm the potential of these sites to facilitate suicidal behavior in young people.

Unfortunately, we do not have much fine-grained information to identify the types of young people who visit online forums. Our analysis of predictors of exposure to suicide stories indicates that males and youth living in urban areas were more likely to be exposed to suicide stores on these sites (see Table 1). Heavier users of social networking sites and the

Internet in general were the characteristics most associated with use of sites with similar purposes to forums (blogging). In addition, experience of hopelessness was related to blogging. Hence, it is likely that experiences of mental health problems encourage those youth who are already heavy users of the Internet to find discussions and other information related to those problems on discussion forums. While we cannot attribute rises in suicidal ideation to use of these sites, we can say that their use is associated with rises in such ideation. This stands in contrast to use of social networking sites, which despite their ability to transmit information about suicidal behavior, do not appear to be associated with increases in ideation.

Although we found considerable exposure to suicide stories on traditional news sources, such as newspapers, there was little evidence that such exposures were related to increases in suicidal ideation. However, contagion from these sources only lasts for a short period of days (Stack, 2003) and may only affect those who are already vulnerable to suicide (Gould, et al., 2003). Hence, it is likely that exposure to such stories would primarily affect those who are already experiencing suicide ideation. Since we only assessed ideation and not actual attempts, it is unlikely that the influence of such stories would register as new sources of ideation. On the other hand, participation in online forums might well be a catalyst for new emergence of suicidal ideation.

With regard to potential strategies to reduce the harm of online forums as platforms to facilitate suicidal behavior, there are few simple interventions. Prohibition of sites that encourage suicide is neither practicable nor reasonable (Becker et al., 2004). Since the World Wide Web is not governed by a global body, each country independently determines its regulations regarding responsibility for website content. In Australia, since 2006, it has been illegal to use the Internet to promote the idea or provide practical details concerning suicide (Biddle, et al., 2008). Germany also appears to hold site operators responsible for the content

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of their sites (Becker et al., 2004). While this may be an effective strategy to reduce the

presence of some online sources of information about suicide, it is difficult to see how any

one or more countries can ban such sites on the Internet. Legislation in the U.S. has not held

website operators liable for the content posted on their sites, unless it violates copyright

(Coble, 1998). Nevertheless, site owners should know and follow recommendations for

preventing suicide contagion in media coverage and discussion of suicide (Gould et al.,

2003).

Sites that promote effective coping and support to those experiencing ideation or

hopelessness could be better promoted on forums. The CDC, which currently has no site

directed to adolescents experiencing hopelessness or suicidal ideation, could sponsor such a

site and encourage its use by social networking sites and online forums. Mental health

providers, teachers, and parents could endeavor to discuss Internet use and content with youth

(Becker & Schmidt, 2004). For youth who might be at risk of suicide and are heavy users of

the Internet, mental health providers may be especially cognizant of the potential for such

users to expose themselves to unhelpful discussions or content.

Limitations

While we are the first to examine the relation between exposure to suicide content on

Internet sites and change in suicide ideation in young people, we also recognize some

limitations in our study. We primarily focused on exposure to stories of specific suicides

since that is what has been found to encourage suicidal behavior. However, there is also

considerable evidence that exposure to information about suicide methods on the Internet and

in other media can influence how suicidal individuals attempt or complete the act (Gallagher,

et al., 2003), and the Internet has a good deal of this content available (Biddle et al., 2008).

Hence, it would be important to identify this source of influence in more explicit detail. We

also limited our questioning about suicide stories to instances of completed suicides. While

the distinction may not have mattered to our respondents, more sensitive measurement of exposure to suicidal behavior is warranted.

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Table 1. Exposure to suicide stories in various sources and predictors of exposure from multivariate linear regression analyses

	Friends or relatives	Newspaper story	Internet news site (e.g., CNN)	Social networking website (e.g., Facebook)	Online forum, discussion board, self-help website	Video website (e.g., YouTube)	Online somewhere else
Percentage once	33	31	27	12	8	7	14
Percentage > once	22	33	17	12	7	8	12
Predictors							
Demographics							
Age	-.067	-.048	-.011	-.096*	-.049	-.135*	-.050
Male Gender	-.116**	-.034	-.043	-.009	0.074	0.088*	-.015
Race (Ref=White)							
Hispanic	-.007	-.029	-.076	-.026	0.029	-.018	-.024
Black	-.041	0.028	0.042	-.071	-.059	-.040	-.014
Other	-.053	0.099*	0.091*	0.005	0.027	0.021	0.018
Locality							
(Ref=Suburban)							
Urban	-.036	-.006	-.002	0.019	0.078	0.038	0.025
Rural	0.049	-.029	-.026	-.033	-.028	-.011	-.030
Zip-Code Income	0.038	0.053	0.023	-.023	-.006	-.013	-.006
Frequency of Media Use							
TV Hours	-.023	0.083*	0.049	0.004	-.013	-.020	0.002

Local TV News	-.005	0.118**	0.111**	0.128**	0.056	0.100*	0.123**
Internet Hours	-.024	-.077	0.038	-.019	0.006	-.031	0.082
Internet News	0.100*	0.134**	0.276**	0.018	0.073	0.087*	0.115**
Newspapers	-.022	0.189**	0.027	0.050	0.043	0.016	0.030
Social networks	0.010	-.027	-.052	0.134**	0.023	-.007	-.009
Blogging	-.061	0.019	-.010	0.071	0.083*	0.045	0.033
Video Sites	0.063	0.031	0.099*	0.139**	0.064	0.172**	0.098*
Mental Health (2008)							
Ideation	0.004	-.048	0.009	0.016	0.017	-.016	-.020
Hopelessness	0.071	0.043	-.012	0.092*	0.059	0.096*	0.037

Note. Predictors are standardized coefficients from multivariate linear regressions; *p < .05; **p < .01.

Table 2. Results of logistic regression analyses predicting knowing someone personally who either attempted or committed suicide (N=711).

Predictors		Knew someone who attempted suicide in 2009		Knew someone who committed suicide in 2009	
		OR	95% CI	OR	95% CI
Suicide Sources	Friends or Relatives	1.80**	1.27, 2.56	2.01**	1.32, 3.05
	Newspaper Story	.85	.59, 1.24	.97	.63, 1.51
	Internet News Story	.90	.61, 1.33	.80	.51, 1.26
	Social Networking Site	2.43**	1.52, 3.87	1.88**	1.15, 3.06
	Online Forum	.84	.47, 1.48	1.56	.85, 2.88
	Video Site	.75	.43, 1.31	1.07	.58, 1.99
	Online Other	1.46	.94, 2.25	.96	.58, 1.59
Mental Health (2008)	Ideation	1.08	.60, 1.94	.79	.42, 1.49
	Hopelessness	1.28	.86, 1.89	1.34	.86, 1.08
Previous knowledge (2008)	Suicide Attempt	5.88**	4.16, 8.31	--	--
	Suicide	--	--	10.27**	6.82, 15.46

$*p < .05; **p < .01.$

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Table 3. Results from logistic regression analyses predicting suicide ideation at Time 2 (2009)

| | Bivariate Relations | | Multivariate Analysis (N=711) | | | |
| | | | Stage 1 | | Stage 2 | |
	OR	95% CI	OR	95% CI	OR	95% CI
Baseline Mental Health						
Hopelessness 2008	4.24**	2.57, 6.98	2.72**	1.56, 4.74	2.60**	1.48, 4.56
Suicide ideation 2008	8.44**	4.87, 14.62	5.51**	3.01, 10.07	5.21**	2.83, 9.63
Suicide Sources						
Friends or relatives	1.22	.90, 1.64	1.63	.92, 2.90	1.48	.82, 2.67
Newspaper story	.84	.63, 1.13	.62	.34, 1.10	.61	.34, 1.10
Online news	.93	.70, 1.24	.81	.43, 1.54	.83	.44, 1.58
Social networking site	1.23	.89, 1.70	.88	.45, 1.72	.79	.40, 1.57
Online forum	1.50*	1.06, 2.12	2.61*	1.21, 5.60	2.58*	1.19, 5.57
Video website	1.03	.68, 1.56	.72	.31, 1.69	.76	.32, 1.80
Other online source	1.21	.89, 1.64	1.25	.62, 2.51	1.12	.55, 2.29
Knowing people who:						
Committed	1.72*	1.04, 2.84			1.07	.58, 1.97
Attempted	2.54**	1.51, 4.28			1.80	.96, 3.37

Note. Univariate and multivariate analyses were logistic regression analyses. Interactions were included between significant media variables and suicide ideation/hopelessness 2008 but none were significant.

*p < .05; **p < .01.

Key Points

Considerable evidence indicates that exposure to stories of others' suicides can influence vulnerable young people to attempt the same act. This study examines how the widespread use of the Internet among young people influences this process. It finds that exposure to such stories on the Internet is large, with social networking providing a new mechanism to learn about the suicidal behavior of social contacts. However, online forums are more likely to increase the risk of suicide ideation than social networking. Efforts to place help sites on the Internet that speak directly to suicidal youth should be increased.