Published in final edited form as:

Suicide Life Threat Behav. 2010 October ; 40(5): 524–534. doi:10.1521/suli.2010.40.5.524.

Suicide Coverage in U.S. Newspapers Following the Publication of the Media Guidelines

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Abstract

In 2001 several U.S. government agencies and health organizations, including the Center for Disease Control and Prevention, the American Foundation for Suicide Prevention, the American Association of Suicidology and the Annenberg Public Policy Center, published consensus recommendations for the media reporting of suicide. This study evaluated whether these guidelines were followed in U.S. newspapers articles on suicide published in 2002 and 2003. We examined articles featuring individual cases of suicidal behavior ($N = 157$) published in a nationally representative sample of 968 local and national newspapers. Our main finding is that U.S. newspaper suicide coverage did not consistently reflect the influence of the media guidelines in the two years following their publication. On the positive side, a minority (19%) of stories included inappropriate imagery. On the negative side, suicide stories often detailed suicide method (56% of stories) and location (58%) but rarely provided information about warning signs and risk factors (1% of stories), the role of depression (4%), the role of alcohol (2%), and prevention resources (6%). Our findings, together with previous evidence, suggest the need for sustained dialogue and collaboration with the media about the responsible reporting of suicide.

In 2001 several government agencies and private health organizations, including the Center for Disease Control and Prevention (CDC), the National Institute of Mental Health (NIMH), the Office of the Surgeon General, the Substance Abuse and Mental Health Services Administration (SAMSA), the American Foundation for Suicide Prevention (AFSP), the American Association of Suicidology (AAS) and the Annenberg Public Policy Center (APPC) published consensus recommendations for the reporting of suicide in the media (CDC et al., 2001). This document entitled *Reporting on suicide: Recommendations for the media* builds upon an earlier version of media guidelines developed from a national workshop and published by the CDC in 1994. The 2001 document outlines suicide reporting practices intended to minimize the potential for imitation suicide. For example, the guidelines recommend against prominent placement of the story and detailed descriptions of the suicide method. They also encourage including information about suicide prevention resources. Some of these recommendations are empirically based. Specifically, they are grounded on the growing evidence of a relationship between certain kinds of news media coverage and imitation suicidal behavior. Others are theoretically derived. Yet other recommendations reflect the concerns of those left behind after a suicide (Pirkis, Blood,

Beautrais, Burgess, & Skehan, 2006). Overall, the media guidelines are an attempt by the public health community to encourage news producers to report suicide in a responsible manner so that to reduce the likelihood of imitation suicide. Soon after the publication of the media guidelines, the APPC spread awareness of the media guidelines throughout the journalism community via presentations and publications (Jamieson, 2002; Jamieson, Jamieson, & Romer, 2003).

To date, relatively few studies have examined the content of news media to determine whether journalists adhere to media guidelines. Suicide prevention researchers in Austria may have been the first to develop and evaluate media guidelines for news coverage of suicide. In 1987, a press campaign with Viennese journalists was conducted to explain the risks associated with prominent news coverage of suicide. Journalists were given specific recommendations about how to responsibly report suicide (e.g., keeping suicide stories off of the front page) based on the empirical findings at that time (e.g. Phillips & Carstensen, 1986). Following the media educational campaign, suicide reporting in Viennese newspapers improved, with significantly reduced use of the word “suicide” in the headlines (Etzersdorfer & Sonneck, 1998; Niederkrotenthaler & Sonneck, 2007).

Researchers in Switzerland were also pioneers in monitoring journalist compliance with media guidelines (Michel, Frey, Wyss, & Valach, 2000). Michel and colleagues surveyed suicide stories in Swiss print media twice, the first survey occurring before the publication of the Swiss media guidelines and a second survey occurring three years after. They found that while there were more suicide stories at time two, suicide reporting at time two was more in compliance with the guidelines, with headlines, pictures and texts being generally less sensational.

A year after publishing their own media guidelines, researchers in Australia surveyed a large national sample of newspapers, radio, and TV broadcasts in order to measure adherence (Blood, Putnis, Pirkis, Payne, & Francis, 2001; Pirkis et al., 2002). Compliance was good except for insufficient provision of prevention information and referral sources (Pirkis et al., 2002).

Evaluations of the influence of media guidelines have also involved monitoring suicide rates. Austrian researchers recorded a drop in suicide rates following their implementation of their media guidelines, especially subway suicides (Niederkrotenthaler & Sonneck, 2007). In Switzerland, Michel and colleagues (2000) found that despite an increase in the number of suicide stories following implementation of the media guidelines, suicide rates remained stable. They speculated that “it is not the *number* of articles that matters [in imitation suicide], but the *quality of reporting*” (p. 77, italics in original). Finally, in Australia, Pirkis and colleagues (2006) found some imitation suicide effects related to the type and quantity of news coverage. They however did not find an association between imitation suicide and overall adherence to media guidelines.

In the U.S. there has also been interest in media guidelines. One study evaluated U.S. newspapers' coverage of suicide based on the 1994 CDC guidelines (Jamieson, Jamieson, & Romer, 2003). This study reviewed three years (1990, 1995 and 1999) of suicide stories in *The New York Times* to establish its reporting practices and guide the development of the 2001 media guidelines. The main finding was that *The New York Times*' reporting practices were problematic. For example, the word “suicide” was frequently featured in the headlines (approximately 50% of stories), and there was little coverage of mental disorders that may be precursors of suicidal behavior. *The New York Times* study represents a landmark in media guidelines evaluation because it was the first one in the U.S. to examine suicide news content with respect to reporting guidelines. Its limitation is that it is based on one

newspaper. Another limitation is that it covered years before the establishment of the most recent media guidelines.

Our study replicated and extended on Jamieson and colleagues' research (2003). Similar to Jamieson and colleagues' study, we evaluated suicide-reporting practices in U.S. newspapers. However, in our study we expanded the scope of the sample by using a nationally representative sample of U.S. local daily newspapers, as well as one national newspaper. Another difference is that our study assessed reporting practices after the publication of the most recent media guidelines. To our knowledge this is the first study to examine at the national level newspapers' reporting practices following the publication of 2001 suicide media guidelines.

This study's main question was: Did newspapers across the U.S. adhere to the 2001 media guidelines in the two years immediately following their publication? We also examined evidence regarding differences in suicide reporting between 2002 and 2003 with regard to media guidelines adherence, to assess the stability of these patterns, and to suggest possible trends that might be assessed in future research.

Method

Newspaper Sample

The suicide stories used in this study came from daily regional newspapers as well as a national newspaper, *USA Today*. To construct the national sample of newspapers, designated marketing areas (DMA) (Nielsen Media Research, 2005) were used to group media outlets into 6 strata, each representing 1/6th of all U.S. households (see Long, Slater, Boiarsky, Stapel, & Keefe, 2005). Fifty-six sample dates were then chosen from the years 2002 and 2003, so that the sample was balanced with respect to day of the week and season of the year. For each sample date, one DMA[®] was randomly selected for each of the 6 strata. Based on circulation, three daily regional newspapers were chosen from each randomly selected DMA[®] per sample date, one major newspaper from the largest city in the DMA and two smaller newspapers from the outlying areas, randomly selected from those above and below median circulation in the DMA. Finally, an issue of *USA Today* was chosen from each sample date. This resulted in a final sample of 968 daily newspaper issues to review.

Suicide Stories Selection

Coders selected stories with coverage of life-threatening behaviors and violent deaths, including homicide-suicides and suicides. Due to the extensive amount of time involved in selecting suicide stories from a much larger number of stories, inter-coder reliability for story selection was assessed using Cohen's kappa at four points in time (using a random selection of newspapers): once at the beginning, and later after 25%, 50%, and 75% of the sample had been coded. Story selection kappas ranged from .70 to .88. Suicide stories were identified under the "violent death" code. A violent death story was defined as a story that contained mention of a violent death (including suicide and/or homicide-suicide) in the headline or lead (the first two paragraphs). Violent-death kappas ranged from .80 to .95. Out of the violent death stories pool, we selected those that included suicide and/or homicide-suicide. Stories about historical suicides (e.g., Marilyn Monroe's suicide) were not included unless the purpose of the story was to reinvestigate the case. Obituaries and assisted suicides were also excluded.

Once the suicide stories were selected, they were categorized into two groups according to whether or not they contained information about identifiable suicidal individuals (ISI). Only the stories with an ISI were retained for further analysis. This is because, according to social cognitive theory, as reflected in the media guidelines, stories without identifiable individuals

are less likely to elicit modeling behavior (Bandura, 2001; Blood & Pirkis, 2001). In order for a story to be classified as having an ISI, there had to be a minimum amount of information about the suicidal individual. Specifically, the sex, occupation, or approximate age of the suicidal person had to have been included in the story in order for it to be considered an ISI story. If the same suicidal individual appeared in different stories, they were counted as separate ISI stories, because the goal of this study was to track quality of suicide coverage. We identified a total of 167 newspaper suicide stories. Ten stories (6%) had no ISIs. Our final sample consisted of the 157 stories with mention of at least one ISI.

2001 U.S. Media Guidelines Key Recommendations

A coding scheme was created to assess adherence to the 2001 U.S. media guidelines (CDC et al., 2001). Twelve yes/no items were derived from the media guidelines, from here on labeled *Key Recommendations (KR)*. Below is a description of how the key recommendations were operationalized in this study. Key recommendations are presented in clusters according to general themes. The rationale and empirical support for key recommendations are included when available. Key recommendations are numbered in parentheses after their description (e.g., KR-1).

Suicide prominence—The media guidelines warn against prominent coverage of suicide. This recommendation is based on research suggesting that the probability of imitation suicide increases with the prominence of the suicide coverage (CDC et al., 2001). In early research, a suicide story was typically considered prominent if it was featured on the front page and/or had explicit mention of suicide in the headline (Phillips et al., 1992). However, imitation suicide effects have been detected when using considerably less strict prominence criteria. Specifically, Romer, Jamieson, and Jamieson (2006) found evidence for imitation suicide even when the criterion for prominence was any story with the word “suicide” in the first 9 pages of a newspaper. In the current study we only selected stories that mentioned suicide in the headline, subhead, or first two paragraphs. We measured explicit mention of suicide in the headline (KR-1) and whether or not the story appeared on the front page (KR-2).

Consequences to immediate community—The media guidelines warn about news coverage detailing the reactions of family and friends. This warning can be linked to social learning theory (Bandura, 2001; Blood & Pirkis, 2001). Featuring how suicidal behavior impact friends and family may inadvertently reinforce suicidal behavior in vulnerable individuals who may be desperately seeking ways to engage and influence significant others (CDC et al., 2001). Therefore, we measured how often the news coverage included information about how the suicide affected the immediate community (e.g., family, friends, and acquaintances) of the individual who engaged in suicidal behavior (KR-3).

Detailed description of suicide method and location—The media guidelines recommend that journalists avoid detailed information about suicide method and location. The rationale for this recommendation is that details about method and location provide specific models and concrete tools on how to kill oneself. This warning is consistent with social learning theory and is supported by research, both with fiction (Hawton et al., 1999) and nonfiction media (e.g., Etzersdorfer, Voracek, & Sonneck, 2004; Liu et al., 2006). We measured how often news stories contained detailed information about the method and location of the suicidal behavior (KR-4 and KR-5, respectively). A detailed method description involving a firearm, for example, might include information about a specific type of firearm and where on the body it was fired. A detailed description of the location would include information about the location where the suicidal behavior took place, such that a reader could reproduce the suicide scenario.

Inappropriate images—The media guidelines warn against including images that might facilitate suicide imitation. Again this warning is based on social cognitive theory (Bandura, 2001; Blood & Pirkis, 2001). A picture in a suicide story may facilitate identification with the suicidal person and reinforce modeling of method and location. We measured the number of stories including images considered inappropriate by the media guidelines (KR-6). These included: images of the deceased suicidal person, images of the suicidal person's belongings, images of the suicidal person's grieving family and/or friends, images of the funeral or other ceremony honoring the deceased suicidal person, and images of the site of suicidal behavior.

Mental disorders—The media guidelines recommend informing readers about the association between suicidal behavior and mental disorders. This recommendation assumes that by explicitly linking suicidal behavior to mental disorders, readers will be more likely to recognize the likely psychological precursors of suicidal behavior, and also possibly view suicidal behavior as preventable. This recommendation is also meant to reduce the likelihood that suicide may be perceived as a romantic or heroic act. Consistent with this recommendation, we measured the number of stories suggesting the suicidal individual had or may have experienced a mental disorder (KR-7). Alcoholism, bipolar disorder, depression, and schizophrenia are examples of the mental disorders coded under this variable.

Intervention/prevention information—The media guidelines recommend that reporters include news stories about people who coped with their suicidal ideation by effectively accessing suicide prevention resources. In addition, the guidelines suggest that reporters describe actions that individuals can take to prevent suicidal behavior by others. The rationale for these guidelines is also based on social learning theory (Bandura, 2001; Blood & Pirkis, 2001). Inspired by this recommendation, we measured the number of stories that included information about suicide risk factors and warning signs (KR-8), as well as the number of stories that included information about where a person could go to access help regarding suicide (e.g., suicide prevention hotlines; KR-9). We also measured the number of stories that included examples of interventions that contributed to the prevention of suicidal behavior (e.g., a police officer successfully talking a person away from the edge of a bridge; KR-10).

Celebrity suicide—The media guidelines recommend monitoring the quantity of coverage of celebrity suicidal behavior. This is based on evidence of imitation suicide following news coverage of a celebrity suicide (e.g., Cheng, Hawton, Lee, & Chen, 2007; Tousignant, Mishara, Caillaud, Fortin, & St-Laurent, 2004; Yip et al., 2006). Social learning theory suggests that imitation suicide is more likely to occur when the suicide is modeled by a similar other, or by someone seen as better. Celebrities can be powerful models even when they engage in destructive behavior. In a recent meta-analysis Stack (2005) found that studies of celebrity suicides were five times more likely to find an imitation effect. We recorded the number of stories with a celebrity suicide (KR-11). Celebrities were defined as persons described as well known outside their circle of friends and family.

Inappropriate language—The media guidelines articulate the possible negative influence of common suicidal-behavior terms and expressions. “Commit suicide”, for example, suggests criminality and may contribute to stigma against suicidal individuals and the bereaved by suicide (Sommer-Rotenberg, 1998). “Failed suicide attempt” connotes that killing oneself is a success, while “suicidal gesture” dangerously underestimates the gravity of, and suffering in nonfatal suicidal behavior (Canetto, 1997; Canetto & Lester, 1995). We recorded the number of stories including at least one mention of three inappropriate

language examples in the media guidelines (KR-12). These examples were: 1) any form of the phrase “commit suicide”, 2) description of suicidal behavior in terms of success or failure (e.g., “failed attempt”), 3) suicidal behavior referred to as “doing it for attention” or “suicidal gesture”.

Suicide Coverage Variable Coding Reliability

The entire sample of suicide stories was reviewed by two coders (the first author and a trained research assistant). Inter-coder agreement for suicide story variables was assessed using Krippendorff's alpha (Hayes, 2005; Krippendorff, 2004), and ranged from .67 to 1.0.

Results

Percentages of suicide stories in 2002 and 2003 U.S. newspapers adhering to key 2001 media recommendations can be found in Table 1. A review of our results on media-guidelines adherence is provided in the following sections.

Story prominence

A minority of stories (6%) was on the front page of the newspaper (KR-2); another 4% of stories appeared on the first page of a section. Almost half of the stories ($n = 68$) contained some mention of suicide in the headline (KR-1).

Consequences to immediate community

A minority of stories (17 %) showed the impact of suicidal behavior on the suicidal person's immediate community (e.g. family and friends; KR-3). The majority of these stories (24 out of 26) portrayed only the negative impact of suicide; two stories had positive consequences mentioned.

Inappropriate images

Only 21% ($n = 39$) of stories had images. Of these, 29 out of 39 had inappropriate images (KR-6). Twelve stories had images of the suicidal person, two stories had images of the grieving friends and family, seven stories had images of the site of suicidal behavior, and eight stories had two or more types of inappropriate images.

Mental disorders

Twelve percent ($n = 19$) of stories mentioned that the ISI at some point had, or might have had, a mental disorder (KR-7). Four percent ($n = 7$) specifically mentioned depression. Alcohol was mentioned as a contributing factor in just three stories (studies indicate that 33-69% of completed suicides have positive blood alcohol concentrations, see Hufford [2001]).

Detailed description of suicide method and location

Most stories (77%) included information about the suicide method. In addition, 56% of these stories included specific method details (KR-4) (e.g., the type of firearm and where on the body it was fired). More than half of the stories ($n = 91$) contained detailed information about the location where the suicidal behavior took place (KR-5).

Inappropriate language

Thirty seven percent ($n = 58$) of stories had examples of inappropriate language (KR-12). All but two of the stories with inappropriate language ($n = 56$) involved some form of the expression “commit suicide”. The two other stories with inappropriate language included

descriptions of suicidal behavior as being “a gesture”, “doing it for attention”, and “failed” or “successful”.

Intervention/prevention and helpful information

The majority of suicide stories (69%) did not provide examples of suicide prevention or intervention (KR-10). Of the stories that included examples of suicide intervention/prevention (31%), police action was the most frequently mentioned (14%), followed by mental health response (11%), medical response (10%), political/infrastructure response (6%), and medication (4%). Only 1% of stories had information about suicide risk factors and warning signs (KR-8). A little over six percent of stories had some information about resources (KR-9), but only 3% of stories actually listed a phone number, address, or web page for the reader to immediately access help.

Celebrity suicide

Twenty percent ($n = 31$) of stories included individuals described as celebrities (KR-11).

Key recommendations: Adherence over time—Overall the number of stories with ISIs dropped from 2002 to 2003 from 86 to 71. To determine if there was a change in news reporting between 2002 and 2003, we ran a Chi-square test of association between each key recommendation and year of story publication. Bonferroni adjustment was used to account for the increased possibility of a type I error and alpha was set at $p < .004$.

Only one key recommendation, language (KR-12), had a significantly different distribution between 2002 and 2003. In 2002, 51% of stories used inappropriate language, whereas in 2003 20% of stories included inappropriate language, $\chi^2(1, n = 157) = 16.51, p < .001$ ($\Phi = .32$). There was a near significant trend in mentions of mental disorder as likely precursors of suicidal behavior, KR-7, $\chi^2(1, n = 157) = 7.56, p = .006$ ($\Phi = -.22$). In 2002, 19 % of stories mentioned that the ISI at some point had, or might have had a mental disorder. In 2003, only 4% of stories mentioned mental disorders.

Discussion

The results of this study suggest that U.S. newspaper coverage of suicide cases during 2002 and 2003 did not consistently adhere to the most recent media guidelines (CDC et al., 2001). There was good adherence to the media guidelines in some domains. Specifically, fewer than 10% of individual suicide stories were on the front page, fewer than 20% of stories were about celebrity suicides, fewer than 20% of stories included inappropriate imagery, and fewer than 20% of stories included information about the impact of suicide. At the same time there was almost no adherence to the media guidelines in other domains. Specifically, fewer than 5% of stories had information about suicide risk factors or warning signs, and fewer than 10% of stories included information about prevention resources. Furthermore, fewer than 20% of the stories mentioned the common association of suicidal behavior and mental disorders such as depression and alcohol abuse. For most key recommendations, news coverage did not change from 2002 to 2003. Exceptions include changes in the use of inappropriate language, and the mention of mental disorders as possible precursors of suicidal behavior. In 2003, significantly fewer stories used inappropriate terms like “commit suicide” than in 2002. There was also a trend suggesting fewer mentions of mental disorders in 2003 suicide stories, compared to 2002.

This study found that most (94%) U.S. newspaper coverage of suicide was about identifiable suicidal individuals (ISIs). A social learning explanation of imitation suicide (Bandura, 2001; Blood & Pirkis, 2001) suggests that the risk of suicide imitation increases with the

degree to which vulnerable audiences can identify with a suicide model. Therefore, from a social learning perspective, the many stories in our sample that included information about sex, occupation, and age of the suicidal person may have provided vulnerable readers with models for imitation suicidal behavior.

At the same time we are aware that news coverage of ISIs, if responsibly done, could have positive consequences in terms of suicide prevention (Hawton & Williams, 2002). For example, a suicide prevention story might feature suicidal individuals who successfully access resources, engage in help seeking behaviors, or express relief at having survived a suicidal act (Phillips & Lesyna, 1995). One study documented a decrease in suicide rates following prominent suicide coverage in the local TV news (Romer et al., 2006). However, it is unclear what elements of the news content were responsible for the effect. In any case, in our newspaper sample, few stories likely had the potential to contribute to suicide prevention. Although a substantial minority of stories provided some modeling of suicide intervention and prevention efforts, there were few stories that gave specific information about available resources, such that a vulnerable reader could learn how to access help from article. There were also few stories that had information about how a person could recognize warning signs and risk factors.

More than half of the stories described the suicide method and location in detail. Suicide method imitation is well documented in research, both with fiction and nonfiction media (e.g. Etzersdorfer et al., 2004; Hawton et al., 1999; Liu et al., 2006). Our findings suggest that newspaper suicide reports for 2002 and 2003 permitted vulnerable individuals to easily reproduce the media-reported suicide scenarios.

Our findings are consistent with those of a study of suicide reporting in *The New York Times* in the 1990s (Jamieson et al., 2003). For example, the proportion of suicide stories mentioning depression was low in both Jamieson and colleagues' study (8%) and our study (4%). Furthermore, in Jamieson and colleagues' study, 54% of stories mentioned suicide in the headline while this was the case in 43% of stories in our study. Taken together, the findings from our study and those from Jamieson and colleagues' (2003) study suggest that U.S. media suicide coverage in U.S. newspapers has not changed much over time, despite the APPC's efforts to publicize the media guidelines (Jamieson et al., 2003). By contrast, a change in suicide reporting across time was observed in Switzerland after the publication of media guidelines (Michel et al., 2000). One reason may be that the U.S. media guidelines were not so actively and directly disseminated to the press as the Swiss guidelines were (Michel et al., 2000).

Limitations

There are historical contextual factors that should be considered when interpreting the results of this study. The terrorist attacks of 9/11/2001, and the subsequent invasion of Afghanistan and Iraq were three major political/news events that occurred immediately prior and during our news sample period. Wasserman, Stack and Reeves (1993) found that war reduced the amount of suicide coverage in the front pages of *The New York Times*. However, this does not eliminate the possibility of strong suicide news media effects. In times of conflict and uncertainty, people may be even more dependent on the news for information about the world (Ball-Rokeach & DeFleur, 1976), and thus become more exposed to suicide models through the news despite there actually being a smaller number of stories.

Our study was designed to provide an assessment of the quality of suicide reporting in 2002-2003 U.S. newspapers, relative to key recommendations in the 2001 media guidelines, and building upon a previous study of suicide reporting in *The New York Times*. Our study's design did not include comparison of news coverage before and after the publication of the

media guidelines. Therefore our findings alone can not be used to say that the 2001 media guidelines had no influence on newspaper reporting.

Conclusions and Future Directions

Newspaper suicide stories from 2002 and 2003 did not show consistent adherence to the 2001 media guidelines promoted by the CDC and other public health agencies. Of particular concern is the absence of helpful suicide prevention information and resources, and the large number of stories that gave detailed information about suicide method and location. A positive trend was that very few suicide stories were on the front page. A comparison of our findings with those of Jamieson and colleagues (2003) for suicide reporting in *The New York Times* during the 1990s suggests that the 2001 U.S. media guidelines may not have influenced much change in reporting of suicide.

There are many reasons for the limited adherence of newspaper reporters to media guidelines. Despite the many efforts to disseminate the U.S. 2001 media guidelines, journalists may still be unaware of the danger of certain types of suicide news coverage. Jamieson and colleagues (2003) in fact found that U.S. journalists were generally unaware that imitation suicide was a potential consequence of certain suicide reporting. Active (e.g., via education) and targeted (e.g., to reporters) dissemination is likely required for media guidelines to measurably impact reporting, as was the case in Switzerland (Michel et al., 2000). The effort to educate journalists about suicide coverage needs to go beyond publication of media recommendations. It may be productive to work with institutions of higher education where new journalists are trained. A starting point would be to survey journalism departments about the inclusion of suicide reporting in their curriculum and program requirements. It is important to be aware that media guidelines may be disregarded if they are odd with marketing journalistic priorities (McManus, 1992; Jamieson et al., 2003). Following the example by Jamieson and colleagues (2003) research is needed to track awareness of, and response to the media guidelines in the journalism community. It is especially important to understand and actively impact suicide reporting with regard to providing information about warning signs, risk factors, and referral options. These are the ways in which U.S. suicide reporting appears to be most problematic.

In conclusion, changing the suicide news coverage in the U.S. is a worthwhile and realistic aspiration. Reporters in several countries have been successful in integrating media guidelines, with reductions in imitation suicide being documented in some cases (Crane et al., 2005; Pirkis et al., 2006). There is also evidence that at least in one U.S. celebrity suicide case (Kurt Cobain's), U.S. journalists were responsive to media reporting recommendations, with imitation suicide being limited (Jobes, Berman, O'Carroll, Eastgard, & Knickmeyer, 1996). Therefore, we recommend sustained dialogue and pro-active collaboration with the U.S. media about the responsible reporting of suicide,

Acknowledgments

This article is based on the Masters thesis of the first author. We thank the researchers and research assistants who helped with data collection, especially: Marilee Long, Linda Stapel, Andy Read, Amy Robinson-Russ, Cindy Merrill, Lindsay Lysengen, Stephanie Sheely, and Zach Zorich. This research was supported by grant AA10377 from the National Institute on Alcohol Abuse and Alcoholism to the third author.

References

- Ball-Rokeach SJ, DeFleur ML. A dependency model of mass-media effects. *Communication Research* 1976;3(1):3–21.
- Bandura A. Social cognitive theory of mass communication. *Media Psychology* 2001;3(3):265–299.

- Blood R, Pirkis J. Suicide and the media: Part III. Theoretical issues. *Crisis* 2001;22(4):163–169. [PubMed: 11848660]
- Blood RW, Putnis P, Pirkis J, Payne T, Francis C. Monitoring media coverage of suicide: Theory and methodology. *Australian Journalism Review* 2001;23(1):57–80.
- Canetto, SS.; Lester, D. Women and suicidal behavior: Issues and dilemmas. In: Canetto, SS.; Lester, D., editors. *Women and suicidal behavior*. New York: Springer; 1995. p. 3-8.
- Canetto, SS. Gender and suicidal behavior: Theories and evidence. In: Maris, RW.; Silverman, MM.; Canetto, SS., editors. *Review of suicidology*. New York: Guilford; 1997. p. 138-167.
- Centers for Disease Control and Prevention (CDC). Suicide contagion and the reporting of suicide: Recommendations from a national workshop. *MMWR* 1994;43(RR-6):9–18.
- Centers for Disease Control and Prevention, National Institute of Mental Health, Office of the Surgeon General, Substance Abuse and Mental Health Services Administration, American Foundation for Suicide Prevention, American Association of Suicidology. et al. Reporting on suicide: Recommendations for the media. 2001. Retrieved 10/31, 2004, from <http://www.afsp.org/education/recommendations/5/1.htm>
- Cheng ATA, Hawton K, Lee CTC, Chen THH. The influence of media reporting of the suicide of a celebrity on suicide rates: A population-based study. *International Journal of Epidemiology* 2007;36:1229–1234. [PubMed: 17905808]
- Crane C, Hawton K, Simkin S, Coulter P. Suicide and the media. *Crisis* 2005;26(1):42–47. [PubMed: 15762086]
- Etzersdorfer E, Sonneck G. Preventing suicide by influencing mass-media reporting. The Viennese experience 1980-1996. *Archives of Suicide Research* 1998;4:67–74.
- Etzersdorfer E, Voracek M, Sonneck G. A dose-response relationship between imitational suicides and newspaper distribution. *Archives of Suicide Research* 2004;8:137–145. [PubMed: 16006399]
- Gould, M. Suicide and the media. In: Hendin, H.; Mann, J., editors. *The clinical science of suicide prevention Annals of the New York Academy of Sciences*. Vol. 932. New York, NY: New York Academy of Sciences; 2001. p. 200-224.
- Hawton K, Simkin S, Deeks JJ, O'Connor S, Keen A, Altman DG, et al. Effects of a drug overdose in a television drama on presentations to hospital for self poisoning: Time series and questionnaire study. *British Medical Journal* 1999;318:972–977. [PubMed: 10195966]
- Hawton K, Williams K. Influences of the media on suicide. *British Medical Journal* 2002;325:1374–1375. [PubMed: 12480830]
- Hayes, AF. An SPSS procedure for computing Krippendorff's alpha [Computer software]. 2005. Available from <http://www.comm.ohio-state.edu/ahayes/macros.htm>
- Hufford MR. Alcohol and suicidal behavior. *Clinical Psychology Review* 2001;21:797–811. [PubMed: 11434231]
- Jamieson KH. Can suicide coverage lead to copycats? *American Editor* 2002;74(2):22–23.
- Jamieson P, Jamieson KH, Romer D. The responsible reporting of suicide in print journalism. *American Behavioral Scientist* 2003;46:1643–1660.
- Jobes DA, Berman AL, O'Carroll PW, Eastgard S. The Kurt Cobain suicide crisis: Perspectives from research, public health and the news media. *Suicide and Life-Threatening Behavior* 1996;26(3): 260–271. [PubMed: 8897665]
- Krippendorff, K. *Content analysis: An introduction to its methodology*. Thousand Oaks, CA: Sage; 2004.
- Liu KY, Beautrais A, Caine E, Chan K, Chao A, Conwell Y, et al. Charcoal burning suicides in Hong Kong and urban Taiwan: An illustration of the impact of a novel suicide method on overall regional rates. *Journal of Epidemiology and Community Health* 2007;61(3):248–253. [PubMed: 17325404]
- Long M, Slater MD, Boiarsky G, Stapel L, Keefe T. Obtaining nationally representative samples of local news media outlets. *Mass Communication and Society* 2005;8(4):299–322.
- McManus J. Serving the public and serving the market: A conflict of interest? *Journal of Mass Media Ethics* 1992;7(4):196–208.

- Michel K, Frey C, Wyss K, Valach L. An exercise in improving suicide reporting in print media. *Crisis* 2000;21(2):71–79. [PubMed: 11019482]
- Niederkrötenhaler T, Sonneck G. Assessing the impact of media guidelines for reporting on suicides in Austria: Interrupted time series analysis. *Australian and New Zealand Journal of Psychiatry* 2007;41(5):419–428. [PubMed: 17464734]
- Nielsen Media Research. Nielsen Media Research Local Universe Estimates. 2005. Retrieved 12/2, 2006, from <http://www.nielsenmedia.com/DMA.html>
- Phillips DP, Carstensen LL. Clustering of teenage suicides after television news stories about suicide. *New England Journal of Medicine* 1986;315(11):685–689. [PubMed: 3748072]
- Phillips, DP.; Lesyna, K. Suicide and the media research and policy implications. In: Diekstra, RF.; Gulbinat, W.; Kienhorst, I.; De Leo, D., editors. *Prevention strategies on suicide*. Vol. II. New York, NY: Brill; 1995. p. 231-266.
- Phillips, DP.; Lesyna, K.; Paight, DJ. Suicide and the media. In: Maris, RW.; Berman, AL.; Maltzberger, JT.; Yufit, RI., editors. *Assessment and prediction of suicide*. New York: Guilford; 1992. p. 499-519.
- Pirkis J, Blood RW, Beautrais A, Burgess P, Skehan J. Media guidelines on the reporting of suicide. *Crisis* 2006;27(2):82–87. [PubMed: 16913330]
- Pirkis JE, Burgess PM, Francis C, Blood RW, Jolley DJ. The relationship between media reporting of suicide and actual suicide in Australia. *Social Science and Medicine* 2006;62(11):2874–2886. [PubMed: 16387400]
- Pirkis J, Francis C, Blood RW, Burgess P, Morley B, Stewart A, et al. Reporting of suicide in the Australian media. *Australian and New Zealand Journal of Psychiatry* 2002;36(2):190–197. [PubMed: 11982539]
- Romer D, Jamieson PE, Jamieson KH. Are news reports of suicide contagious? A stringent test in six U.S. cities. *Journal of Communication* 2006;56(2):253–270.
- Stack S. Media impacts on suicide: A quantitative review of 293 findings. *Social Science Quarterly* 2000;81(4):957–971.
- Stack S. Suicide in the media: A quantitative review of studies based on nonfictional stories. *Suicide and Life-Threatening Behavior* 2005;35:121–133. [PubMed: 15843330]
- Sommer-Rotenberg D. Suicide and language. *Canadian Medical Association Journal* 1998;159(3):239–240. [PubMed: 9724978]
- Tousignant M, Mishara BL, Caillaud A, Fortin V, St-Laurent D. The impact of media coverage of the suicide of a well-known Quebec reporter: The case of Gaetan Girouard. *Social Science and Medicine* 2005;60:1919–1926. [PubMed: 15743643]
- Wasserman IM, Stack S, Reeves JL. Suicide and the media: *The New York Times's* presentation of front-page suicide stories between 1910 and 1920. *Journal of Communication* 1993;44:64–83.
- Yip PSF, Fu KW, Yang KCT, Ip BYT, Chan CLW, Chen EYH, et al. The effects of a celebrity suicide on suicide rates in Hong Kong. *Journal of Affective Disorders* 2006;93(1-3):245–252. [PubMed: 16697047]

Table 1
Percentage of Suicide Stories in 2002 and 2003 Newspapers Adhering to Key 2001 Media Recommendations

Key Recommendation Questions	Yes	No
KR-1. Is there any mention of suicide in the headline?	43%	57%
KR-2. Does the story appear on the front page?	6%	94%
KR-3. Does the story show the impact of suicidal behavior?	17%	83%
KR-4. Is the suicide method described in detail?	56%	44%
KR-5. Is the story descriptive about the location of the suicidal behavior?	58%	42%
KR-6. Does the story include inappropriate images?	19%	81%
KR-7. Was the suicidal person described as having a mental disorder?	12%	88%
KR-8. Does the story inform the reader about suicide warning signs/risk factors?	1%	99%
KR-9. Does the story include any information about prevention resources?	6%	94%
KR-10. Does the story include examples of suicide prevention/intervention?	31%	69%
KR-11. Was the suicidal person described as a celebrity?	20%	80%
KR-12. Does the story have examples of inappropriate language?	37%	63%

Notes. Adherence percentages are highlighted in bold. Key recommendation ratings were calculated only for stories that contained identifiable suicidal individuals (n = 157)