

Effects of Awareness Material on Suicide-Related Knowledge and the Intention to Provide Adequate Help to Suicidal Individuals

Florian Arendt¹, Sebastian Scherr¹, Thomas Niederkrotenthaler², Sabrina Krallmann¹, and Benedikt Till²

¹Department of Communication Science and Media Research, University of Munich (LMU), Germany

²Department of Social and Preventive Medicine, Center for Public Health, Medical University of Vienna, Austria

Abstract. *Background:* Little is known about the impact of educative media reports on the intention to provide help to suicidal individuals and on suicide-related knowledge. *Aims:* To test whether material debunking widely shared myths influences knowledge and the intention to provide adequate help to others, and if such information reduces reading enjoyment. *Method:* A randomized controlled trial was utilized. Participants allocated to the intervention group were exposed to awareness material explicitly addressing suicide myths. *Results:* Analyses show that exposure to printed awareness material increased knowledge, which in turn positively influenced intentions to provide help. The inclusion of information regarding suicide myths did not reduce reading enjoyment. *Limitations:* The awareness material used in this study only addressed two suicide myths that were considered to be especially important. *Conclusion:* Information debunking suicide myths in suicide-related media reports is therefore both feasible and potentially helpful.

Despite suicide being preventable, worldwide, over 800,000 people die from suicide each year (World Health Organization [WHO], 2014). Of special interest to the present study, suicide can have devastating and far-reaching effects on families, friends, and communities (WHO, 2014). From a public health standpoint, the mass media are considered a key factor for suicide prevention (Mann et al., 2005; Niederkrotenthaler, Reidenberg, Till, & Gould, 2014; WHO, 2008). Importantly, the role of the media in suicide prevention can be considered a double-edged sword (Arendt, Till, & Niederkrotenthaler, 2016; Scherr, 2016): On the one hand, suicide reporting can be a risk factor for imitative suicides. Particularly sensationalist news reporting on suicide is associated with subsequent increases in suicides in the population, also known as the Werther effect (Philipps, 1974; Stack, 2005). On the other hand, responsible reporting emphasizing alternatives to suicide and providing examples of individuals who successfully overcame their suicidal crises can increase awareness and educate the public about suicidality; this may potentially decrease suicidal behavior among audiences, which is known as the Papageno effect (Niederkrotenthaler et al., 2010).

The media may not only have direct effects on suicidal individuals themselves, but also indirect effects on people in their social environment. Importantly, these people have the ability to provide help (Sonneck, Kapusta, Toman, & Voracek, 2012). Unfortunately, widely shared suicide myths might hinder helping.

People often feel unconfident when others overtly express suicidal thoughts and they do not know how to react adequately (Aldrich, 2015; Hunt & Eisenberg, 2010). Uncertainty may exist around whether it is beneficial to talk about suicidal thoughts or if talking about suicide may encourage others to act out their suicidality. Some may feel there is no need to address this topic because they think people who talk about suicide will not actually do it. These uncertainties are reflected in widely shared suicide myths, that is, beliefs that “individuals who talk about suicide will not actually do it” and “talking about suicide encourages suicidal behavior” (Sonneck et al., 2012, pp. 256–257).

In the present paper, we tested the effects of printed suicide-awareness material on suicide-related knowledge and on the behavioral intention to provide adequate help to others. We assumed that media reporting can positive-

ly contribute to suicide prevention by debunking widely shared suicide myths. We assumed that awareness-intervention material that explicitly addresses suicide myths may increase suicide-related knowledge that, in turn, will have an effect on the behavioral intention to provide adequate help to others.

Suicide Myths

Suicide myths can be defined as widely shared misconceptions about suicide that are based on false facts (Domino, 1990; Katz-Sheiban & Eshet, 2008). These myths include common misconceptions such as “talking about suicide encourages suicide” (Niederkrötenhaler et al., 2010; Schurtz, Cerel, & Rodgers, 2010; Sonneck et al., 2012) or “a person who threatens suicide will not carry out the threat” (Domino, 1990). Other examples of suicide myths are “suicide happens without warning” (Neuringer, 1988), “suicidal people clearly want to die” (Domino, 1990), and “once suicidal, suicidal forever” (Domino, 1990; Niederkrötenhaler et al., 2010).

The dissemination of suicide myths is considered a tremendous public health problem: Suicide myths result in distorted knowledge on suicide, which can contribute to a stigmatization of suicidal individuals (Joiner, 2010; Niederkrötenhaler et al., 2014). In addition, suicide myths can inhibit help-seeking behavior among suicidal individuals as well as adequate reactions from families, friends, and colleagues in terms of providing help (Schurtz et al., 2010). Furthermore, one recent study showed that newspaper reports that disseminate suicide myths increase the risk of imitational suicides in the population, which was not the case for suicide reports debunking these myths (Niederkrötenhaler et al., 2010). Thus, educating the public about suicide is considered an essential component of suicide prevention (Niederkrötenhaler et al., 2014). Accordingly, debunking suicide myths is recommended in media guidelines on how to report about suicide (WHO, 2008). Responsible media reports may serve as an effective tool in debunking suicide myths by educating the public on suicide and providing accurate facts and expert knowledge. Although there is already research testing the effects of awareness materials (see Dumesnil & Verger, 2009, for a review), the effectiveness of educating nonsuicidal individuals about suicide myths via newspaper reports has never been tested in previous studies.

Myths Targeted in the Present Study

The present study focused on two widely shared, suicide myths:

1. “Those who talk about suicide will not actually do it”
Individuals who communicate suicidal thoughts to others should be taken seriously. In fact, suicide experts emphasize that a great majority of those who die by suicide have given some clue or warning (Goodwin, 2003; Kuo, Gallo, & Tien, 2001; Mandrusiak et al., 2006; Rudd et al., 2006; Schurtz et al., 2010; Sonneck et al., 2012). This myth is assumed to cause others to misunderstand or misinterpret the situation. They may not see a need for action even if the suicidal crisis is severe (Sonneck et al., 2012).
2. “Talking about suicide encourages suicidal behavior”
Talking with a suicidal individual is one important way to contribute to suicide prevention as this can result in relief and may be an indispensable action toward treatment. Unfortunately, many people believe that they trigger suicide plans when they talk about suicidal thoughts with the suicidal individual (Domino, 1990). Conversely, bringing up the subject of suicide and talking about it openly is a very helpful method “others” can employ (Gould et al., 2005; Sonneck et al., 2012).

Hypotheses of the Present Study

We assumed that media reporting can effectively debunk widely shared suicide myths. Thus, explicitly mentioning the facts noted in the previous section in news coverage may elicit beneficial effects on readers’ knowledge and behavior. In fact, we predicted that exposure to awareness-intervention material explicitly addressing suicide myths will increase suicide-related knowledge (Hypothesis 1). This, in turn, increases the intention to provide adequate help to others (Hypothesis 2). The latter implicates a mediator model in which awareness-material exposure increases behavioral intentions through its influence on suicide-related knowledge.

Method

This was a Web-based randomized controlled trial. Participants were randomly allocated to one of three groups. Participants allocated to the intervention group were exposed to awareness material explicitly addressing suicide myths. After reading, we administered a questionnaire assessing suicide-related knowledge and the intention to provide help to suicidal individuals. In addition, we used two control groups: Whereas participants allocated to the first control group did not read an article at all, participants allocated to the second control group read a newspaper article about a protagonist who had coped with his suicidal

crisis by contacting a crisis-intervention center. This was the same article as was used in the intervention group, but it did not explicitly address suicide myths.

Participants

Participants were enrolled through social networking sites using convenience sampling techniques. A total of 273 individuals participated and the majority were female (74%). The participants ranged in age from 18 to 69 years ($M = 26.93$, $SD = 10.08$). About half of the sample had a high school diploma (52%) and approximately one third had a university degree (37%). Almost all participants were German citizens (97%).

Experimental Manipulation

Participants allocated to the suicide-unrelated control group ($n = 99$) did not read awareness-intervention material or any other media content. They simply filled out the questionnaire. Participants allocated to the suicide-related control group ($n = 87$) read a newspaper article featuring a protagonist who had coped with his suicidal crisis by contacting a crisis-intervention center. We used this additional suicide-related control group because simply reading a suicide report might influence the outcomes of the present study. Using an experimental design with two control groups, we have a confident baseline with which we can compare the intervention group. The stimulus material presented to the suicide-related control group was adapted from a previous study (Arendt et al., 2016). The article described a protagonist who experienced a severe suicidal crisis. He prepared for his suicide, but only seconds prior to his planned suicide, he reconsidered his plans and decided to call the telephone emergency line. The article finished by emphasizing how the protagonist was glad about his decision to seek help and not to have died by suicide.

Participants allocated to the intervention group ($n = 87$) read the same article, but two paragraphs were added. The first short paragraph, located in the middle of the article, emphasized how the protagonist was not an isolated case. Conversely, it stated that academic research clearly showed that “most people who attempt suicide tell others about their plan.” By doing so, “they give others the chance to help them.” The second paragraph, located at the end of the article, noted that “many people shy away from talking to suicidal persons” due to the fear that they could potentially do something wrong. However, “experts advise” that “if someone has the impression that a person might be thinking about suicide, then one should address this clearly and talk about the suicidal thoughts of this person.” This

would be “helpful for most people,” because, when being overtly asked, “they have the ability to speak about their sorrows and fears with others.” The two paragraphs providing additional information thus explicitly emphasized that (a) most people told others about their suicide plans before they attempted suicide and that (b) others should directly address these suicidal thoughts (i.e., talk to them about their suicidal thoughts).

Measures

Suicide-Related Knowledge

Participants were presented with statements and were asked to indicate whether they believed that they were true or false. Ten statements targeted suicide-related knowledge with presumed helpful consequences (e.g., “People often tell others about their suicide plans before they attempt suicide,” “In most cases, suicide happens without warning signs,” “It is better to speak with individuals who talk about suicide about their suicidal thoughts,” and “When one talks to suicidal individuals about suicide, then one prompts them to do it”). We coded whether participants correctly (coded as 1) or incorrectly (coded as 0) rated each of the statements as true or false. The measure is expressed as the relative frequency of giving accurate answers ($M = 0.80$, $SD = 0.16$).

Intention to Provide Adequate Help to Suicidal Individuals

We used a vignette to measure behavioral intentions. Therefore, we presented a hypothetical situation for participants to evaluate. In a first step, participants were asked to imagine the following situation:

You meet a distant acquaintance who you know from the past. You talk a bit. You talk about the past and the weather. You make small talk. Suddenly, he starts to talk about his life. He tells you that he has serious problems. He is in a difficult financial situation and his mother died recently. He feels extremely lonely, helpless, and hopeless. He tells you that he thinks no one cares about him. Alcohol only helps for a short period of time; by the next day, everything else remains the same. Suddenly he uses the word *suicide* – he uses the word, but does not mention anything concrete.

Afterwards, we assessed how participants would react in this hypothetical situation. We presented a series of different statements describing a variety of behavioral options (e.g., “I quickly say goodbye and leave,” “I ask him whether he thinks about suicide,” “I encourage him to seek help at a telephone counseling service or with a psychologist,” “I ask him whether he wants to order another round, which

would enable me to spend additional time with him”). Participants were asked to estimate their likelihood of reacting in the way described for each of the behavioral options on a 7-point scale ranging from *very unlikely* (coded as 1) to *very likely* (coded as 7). Items describing unhelpful behavior were coded in reverse, with higher scores being indicative of more helpful intentions ($M = 5.26$, $SD = 0.84$, $\alpha = 0.81$).

Enjoyment

For the explorative analysis, we measured whether participants enjoyed reading the article. As only two groups read an article, this variable was only measured for the suicide-related control group and the intervention group. We used two items (“The text was interesting” and “I found the text to be exciting”) to assess enjoyment. Participants rated each item on a 7-point scale ranging from *I totally disagree* (coded as 1) to *I totally agree* (coded as 7). Participants somewhat enjoyed reading the article ($M = 4.79$, $SD = 1.24$, $\alpha = 0.72$).

Perceived Knowledge Gain

We also measured whether participants subjectively believed that they had learned something based on their reading. We used two items (“I have the feeling that I learned something through reading” and “The text has resulted in me having a better understanding of the issue”) to assess perceived knowledge gain. Participants rated each item on a 7-point scale ranging from *I totally disagree* (coded as 1) to *I totally agree* (coded as 7). Perceived knowledge gains were on a moderate level ($M = 3.68$, $SD = 1.43$, $\alpha = 0.77$).

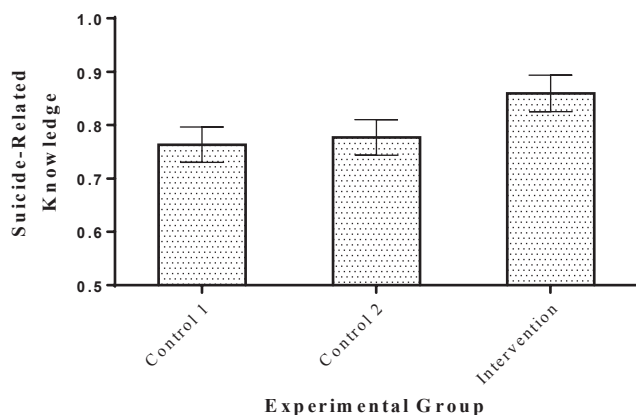


Figure 1. Effects of reading awareness-intervention material on suicide-related knowledge. Error bars indicate confidence intervals (95%). Control 1 = suicide-unrelated control group. Control 2 = suicide-related control group. Intervention = treatment group exposed to awareness material explicitly addressing suicide myths.

Data Analysis

To test Hypothesis 1, we used analysis of variance (ANOVA) and simple bivariate t tests, and for Hypothesis 2, we relied on mediation analysis (Hayes, 2013). In a first step, we dummy-coded the experimental group variable. Each dummy represents the effect of an article group (Dummy 1 = effect of suicide article without explicitly addressing suicide myths; Dummy 2 = effect of awareness-intervention material explicitly highlighting suicide myths; reference = suicide-unrelated control group). We specified the following mediator model: First, we predicted suicide-related knowledge by both dummies. Second, we predicted behavioral intentions simultaneously by both dummies and suicide-related knowledge. We present unstandardized coefficients from ordinary least squares regressions. Indirect effects were tested and 95% confidence intervals (CIs) based on 10,000 bootstrapped samples are provided.

Results

Hypothesis 1 predicted that awareness-intervention material explicitly addressing suicide myths increases suicide-related knowledge. To test this hypothesis, we used a one-way ANOVA. We found that the experimental manipulation elicited a significant impact on suicide-related knowledge, $F(2, 263) = 9.41$, $p < .001$, $\eta^2 = .07$. As shown in Figure 1, this main effect was largely driven by the intervention group. Accordingly, the intervention group ($M = 0.86$, $SD = 0.16$) showed a significantly higher level of suicide-related knowledge compared with the suicide-unspecific control group ($M = 0.76$, $SD = 0.17$), $t(182) = 3.99$, $p < .001$, $d = 0.61$, and the suicide-specific control group ($M = 0.78$, $SD = 0.15$), $t(166) = 3.44$, $p = .001$, $d = 0.52$. There were no differences between the two control groups, $t(178) = 0.57$, $p = .570$, $d = 0.12$. This supports Hypothesis 1: The reading of awareness material explicitly addressing suicide myths elicited a beneficial effect on suicide-related knowledge.

Hypothesis 2 predicted that reading awareness-intervention material debunking suicide myths also has effects on the behavioral intention to provide adequate help to suicidal individuals through its impact on suicide-related knowledge. We used mediation analysis to test this hypothesis (see Figure 2). The total effect of Dummy 2 (i.e., effect of the intervention group) on behavioral intentions was significant, $Coeff = 0.25$, $SE = 0.12$, $p = .04$, 95% CI = 0.01–0.50, indicating that reading awareness material explicitly addressing suicide myths elicited a beneficial effect on the behavioral intention to provide adequate help to suicidal individuals.

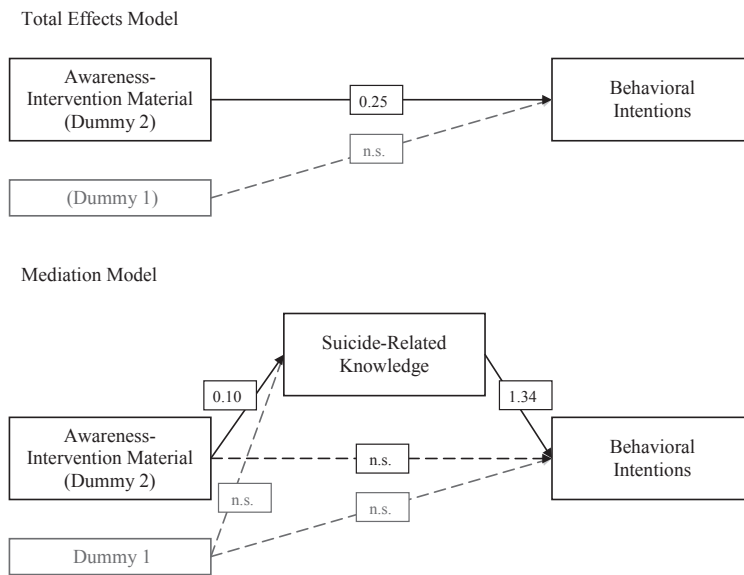


Figure 2. Mediation analysis: Effects of reading awareness material highlighting suicide myths on behavioral intentions through its effect on suicide-related knowledge. The figure only shows the significant unstandardized regression coefficients. See text for details on the statistical analysis.

We also found supporting evidence for a mediation process: Exposure to the awareness material explicitly addressing suicide myths significantly increased suicide-related knowledge, $Coeff = 0.10$, $SE = 0.02$, $p < .001$, 95% $CI = 0.05-0.14$, which in turn influenced behavioral intentions, $Coeff = 1.34$, $SE = 0.31$, $p < .01$, 95% $CI = 0.72-1.96$. As expected, there was a significant indirect effect of Dummy 2 on behavioral intentions through suicide-related knowledge, $Coeff = 0.13$, $Boot SE = 0.05$, 95% $CI = 0.05-0.25$. Yet, the direct effect of Dummy 2 on behavioral intentions was not significant, $Coeff = 0.13$, $SE = 0.12$, $p = .31$, 95% $CI = -0.12-0.37$, indicating that the effect of awareness-material exposure on behavioral intentions was substantially mediated by suicide-related knowledge.

Consistent with the analysis presented earlier, mediation analysis showed that Dummy 1 (i.e., effect of the control group's suicide article without explicitly addressing suicide myths) did not have an effect on suicide-related knowledge, $Coeff = 0.01$, $SE = 0.02$, $p = .57$, 95% $CI = -0.03-0.06$. Furthermore, Dummy 1 did not elicit a significant total effect on behavioral intentions, $Coeff = 0.16$, $SE = 0.13$, $p = .21$, 95% $CI = -0.09-0.40$, indicating that reading suicide-awareness material that does not explicitly debunk suicide myths did not influence behavioral intentions.

Additional Explorative Analysis

Moreover, we explored whether the inclusion of two myth-debunking paragraphs in a suicide-related article decreases reading enjoyment. Importantly, awareness ma-

terial explicitly addressing suicide myths ($M = 4.70$, $SD = 1.15$) did not lead to a significantly reduced level of enjoyment compared with the suicide-related control condition ($M = 4.89$, $SD = 1.33$), $t(163) = 1.00$, $p = .32$, $d = 0.15$.

We also tested whether including explicit awareness information influenced perceived knowledge gain. In fact, awareness material explicitly addressing suicide myths ($M = 3.96$, $SD = 1.40$) increased perceived knowledge gain compared with the suicide-related control condition ($M = 3.38$, $SD = 1.40$), $t(163) = 2.70$, $p = .008$, $d = 0.41$.

Discussion

This study experimentally tested whether reading a suicide report that explicitly addresses suicide myths and debunks them has beneficial effects on suicide-related knowledge and the intention to provide adequate help to others. We found that reading such suicide-awareness material increased suicide-related knowledge, and that these increased knowledge levels, in turn, exerted a positive effect on behavioral intentions to provide adequate help to suicidal individuals. Suicide-awareness material aiming to educate the public about suicide may have elicited a potentially preventive effect on the audience.

Numerous suicide researchers have pointed out the detrimental effects on suicidal individuals of disseminating suicide myths (e.g., Niederkrotenthaler et al., 2010, 2014; Schurtz et al., 2010). Thus, educating the public about suicide and debunking common misconceptions about suicide are key factors for suicide prevention. An important

implication of the present study is that journalists can actively contribute to the reduction of stigma attached to suicide and the increase of knowledge about adequate help for suicidal individuals by explicitly addressing suicide myths. Our study demonstrated that debunking suicide myths increased suicide-related knowledge among readers, which contributed to increased intentions to provide adequate help to individuals in suicidal crises. A suicide report about a person overcoming a crisis that did not explicitly address suicide myths did not elicit beneficial effects.

Importantly, including two awareness-information paragraphs did not decrease reading enjoyment. This is an important finding because journalists and media managers may refrain from including educational information because they expect a negative effect on their readers (which ultimately may reduce circulation and thus economic success). Journalists may believe that explicit awareness information will be uninteresting to their readers and that explicitly addressing suicide myths will be perceived as “finger-wagging” and thus may elicit negative effects (e.g., reactance, see Brehm & Brehm, 1981). Crucially, and countering this speculation, including explicit awareness information did not reduce reading enjoyment. Furthermore, readers experienced a greater gain in knowledge when the two paragraphs debunking suicide myths were included. Subjectively perceived knowledge-gain levels may be related to self-confidence, which in turn will help individuals dare to help suicidal individuals. Thus, increases in perceived knowledge gain can be deemed a positive outcome.

These findings support widely implemented media guidelines on suicide-prevention strategies (Bohanna & Wang, 2012; WHO, 2008). Many national and international guidelines emphasize that the media should contribute to debunking widely shared suicide myths. The present study shows that following this recommendation has a potentially protective effect, which may help to save lives.

For many years it was felt that not reporting on suicide was the only option to prevent imitative suicides (Hawton & Williams, 2002). The discovery of the Papageno effect demonstrated that reports about suicidal individuals adopting constructive coping strategies had the potential to decrease suicide rates (Niederkrötenhaler et al., 2010). The present study shows that explicitly debunking suicide myths in a newspaper article increases the intention to adequately help suicidal individuals via an increase in suicide-related knowledge. Importantly, the educative components of such news reports appear to be relevant components in media-related suicide-awareness strategies.

Limitations

The present study has its limitations. First, convenience sampling techniques were used. Women, highly educated people, and ethnic minorities were overrepresented in our sample, limiting the generalizability of the results. Furthermore, the study was conducted in Germany. It is important to note that the effects of culture and context can be profound across the entire help-seeking pathway, from problem identification to choice of treatment providers as previous research has shown (Cauce et al., 2002; see also Bruffaerts et al., 2011). There is evidence that such differences can emerge within societies as well: For example, in one study Asians and Asian Americans report seeking support from their close others less often compared with European Americans (Mojaverian, Hashimoto, & Kim, 2013). Comparable evidence has been revealed in the suicide context (Chan & Thambu, 2016). Future research should replicate our findings in different cultural contexts and test whether media effects are weaker or stronger in specific cultural contexts (e.g., in the East vs. the West). Second, the awareness material used in this study explicitly addressed two suicide myths that were considered to be especially important. Nevertheless, awareness material targeting other suicide myths may also have beneficial effects. Future research should address them. Third, we only measured behavioral intention instead of actual behavior. This is an important limitation as people may actually behave differently to their behavioral intentions. According to the theory of planned behavior (Fishbein & Ajzen, 2010), self-efficacy (Bandura, 1977) plays a crucial role when behavioral intentions become real behaviors (Snihotta, Scholz, & Schwarzer, 2005), thus those with lower levels of self-efficacy (e.g., those with severe depression) might not feel confident enough to actually intervene when confronted with a suicidal person. However, behavioral intention is an important predictor of actual behavior and is considered to be an immediate antecedent of it (Fishbein & Ajzen, 2010). As the measurement of actual helping behavior in the suicide context is very difficult, the measurement of intentions seemed to be a justifiable decision. Fourth, the term *myth* should be used with caution. For example, we identified the belief that “those who talk about suicide will not actually do it” as a myth. This decision was based on the finding that a great majority of those who die by suicide have made some announcement or given a clue or warning (Sonneck et al., 2012). However, it has been estimated that for each adult who died of suicide – over 800,000 people die due to suicide every year – there may have been more than 20 others attempting suicide, and many more who experienced suicidal ideation (WHO, 2014). Thus, although the vast majority of individuals who talk about suicide do not die by suicide, most of those who

die by suicide provide some sort of warning or clue about that intent. Therefore, this public myth can be considered as part myth and part reality. From an educational perspective, it is of high relevance to focus on the true positives, that is, to encourage others to pay serious attention to any suicide announcements, gestures, and communication, because this group will include the majority of those who subsequently die by suicide.

Conclusion

The media may not only have effects on suicidal individuals themselves, but also on people in their social environment. The present study shows that news reporting can positively contribute to suicide prevention by debunking common suicide myths with awareness information. Debunking the beliefs that “individuals who talk about suicide will not actually do it” and “talking about suicide may encourage suicidal behavior” elicited beneficial effects on suicide-related knowledge and the intention to provide adequate help to others.

Thus, it would appear to be beneficial for suicide-prevention experts to inform media professionals about the positive effects of the inclusion of awareness material in regular suicide-related news coverage. This may contribute to more responsible forms of suicide reporting, which ultimately may have preventive effects.

References

- Aldrich, R. S. (2015). Using the theory of planned behavior to predict college students' intention to intervene with a suicidal individual. *Crisis, 36*, 332–337.
- Arendt, F., Till, B., & Niederkrotenthaler, T. (2016). Effects of suicide awareness material on implicit suicide cognition: A laboratory experiment. *Health Communication, 31*, 718–726.
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review, 84*(2), 191–215.
- Bohanna, I., & Wang, X. (2012). Media guidelines for the responsible reporting of suicide. *Crisis, 33*, 190–198.
- Brehm, S. S., & Brehm, J. W. (1981). *Psychological reactance: A theory of freedom and control*. New York, NY: Academic Press.
- Bruffaerts, R., Demyttenaere, K., Hwang, I., Chiu, W., Sampson, N., Kessler, R., ... Nock, M. (2011). Treatment of suicidal people around the world. *The British Journal of Psychiatry, 199*, 64–70.
- Cauce, A., Domenech-Rodriguez, M., Paradise, M., Cochran, B., Shea, J., Srebnik, D., & Baydar, N. (2002). Cultural and contextual influences in mental health help seeking: A focus on ethnic minority youth. *Journal of Consulting and Clinical Psychology, 70*, 44–55.
- Chan, L., & Thambu, M. (2016). Cultural factors in suicide prevention. In R. C. O'Connor & J. Pirkis (Eds.), *The International Handbook of Suicide Prevention* (2nd ed., pp. 541–555). Hoboken, NJ: Wiley-Blackwell.
- Domino, G. (1990). Popular misconceptions about suicide: How popular are they? *Omega: Journal of Death and Dying, 21*, 167–175.
- Dumesnil, H., & Verger, P. (2009). Public awareness campaigns about depression and suicide: A review. *Psychiatric Services, 60*, 1203–2013.
- Fishbein, M., & Ajzen, I. (2010). *Predicting and changing behavior: The reasoned action approach*. New York, NY: Psychology Press (Taylor & Francis).
- Goodwin, F. K. (2003). Preventing inpatient suicide. *Journal of Clinical Psychiatry, 64*, 12–13.
- Gould, M. S., Marrocco, F. A., Kleinman, M., Thomas, J. G., Mostkoff, K., Cote, J., & Davies, M. (2005). Evaluating iatrogenic risk of youth suicide screening programs: A randomized controlled trial. *Journal of the American Medical Association, 293*, 1635–1643.
- Hawton, K., & Williams, K. (2002). Influences of the media on suicide: Researches, policy makers, and media personnel need to collaborate on guidelines. *British Medical Journal, 325*, 1374–1375.
- Hayes, A. (2013). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. New York, NY: The Guilford Press.
- Hunt, J., & Eisenberg, D. (2010). Mental health problems and help-seeking behavior among college students. *Journal of Adolescent Health, 46*(1), 3–10.
- Joiner, T. (2010). *Myths about suicide*. Cambridge, MA: Harvard University Press.
- Katz-Sheiban, B., & Eshet, Y. (2008). Facts and myths about suicide: A study of Jewish and Arab students in Israel. *Omega: Journal of Death and Dying, 57*, 279–298.
- Kuo, W. H., Gallo, J. J., & Tien, A. Y. (2001). Incidence of suicide ideation and attempts in adults: The 13-year follow-up of a community sample in Baltimore, Maryland. *Psychological Medicine, 31*(7), 1181–1191.
- Mandrusiak, M., Rudd, M. D., Joiner, T. E., Jr., Berman, A. L., Van Orden, K. A., & Witte, T. (2006). Warning signs for suicide on the Internet: A descriptive study. *Suicide and Life-Threatening Behavior, 36*(3), 263–271.
- Mann, J. J., Apter, A., Bertolote, J., Beautrais, A., Currier, D., Hass, A., ... Hendin, H. (2005). Suicide prevention strategies: A systematic review. *Journal of the American Medical Association, 294*, 2064–2074.
- Mojaverian, T., Hashimoto, T., & Kim, H. (2013). Cultural differences in professional help seeking: A comparison of Japan and the U.S. *Frontiers in Psychology, 3*, 1–8. doi:10.3389/fpsyg.2012.00615
- Neuringer, C. (1988). The meaning behind popular myths about suicide. *Omega: Journal of Death and Dying, 18*, 155–162.
- Niederkrotenthaler, T., Reidenberg, D., Till, B., & Gould, M. (2014). Increasing help-seeking and referrals for individuals at risk for suicide by decreasing stigma: The role of mass media. *American Journal of Preventive Medicine, 47*, 235–243.
- Niederkrotenthaler, T., Voracek, M., Herberth, A., Till, B., Strauss, M., Etzersdorfer, E., ... Sonneck, G. (2010). The role of media reports in completed and prevented suicide: Werther versus Papageno effects. *British Journal of Psychiatry, 197*, 234–243.
- Phillips, D. P. (1974). The influence of suggestion on suicide: Substantive and theoretical implications of the Werther effect. *American Sociological Review, 39*, 340–354.
- Rudd, M. D., Berman, A. L., Joiner, T. E., Jr., Nock, M. K., Silverman, M. M., Mandrusiak, M., ... Witte, T. (2006). Warning signs for suicide: Theory, research, and clinical applications. *Suicide and Life-Threatening Behavior, 36*(3), 255–262.
- Scherr, S. (2016). *Depression – Medien – Suizid: Zur empirischen Relevanz von Depressionen und Medien für die Suizidalität* [Depression – media – suicide: On the empirical relevance of

- depression and media for suicidality]. Wiesbaden, Germany: Springer VS.
- Schurtz, D. R., Cerel, J., & Rodgers, P. (2010). Myths and facts about suicide from individuals involved in suicide prevention. *Suicide and Life-Threatening Behavior*, 40(4), 346–352.
- Sniehotta, F. F., Scholz, U., & Schwarzer, R. (2005). Bridging the intention-behaviour gap: Planning, self-efficacy, and action control in the adoption and maintenance of physical exercise. *Psychology & Health*, 20(2), 143–160.
- Sonneck, G., Kapusta, N., Tomandl, G., & Voracek, M. (Eds.) (2012). *Krisenintervention und Suizidverhütung* [Crisis intervention and suicide prevention]. Vienna, Austria: Facultas.
- Stack, S. (2005). Suicide in the media: A quantitative review of studies based on nonfictional stories. *Suicide & Life-Threatening Behavior*, 35, 121–133.
- World Health Organization. (2008). *Preventing suicide: A resource for media professionals*. Geneva, Switzerland: Author.
- World Health Organization. (2014). *Preventing suicide: A global imperative*. Geneva, Switzerland: Author.
- Sebastian Scherr, PhD, is a postdoctoral researcher at the Department of Communication Science and Media Research, LMU Munich, Germany. His research interests include suicide prevention, health communication, media effects, political communication, and empirical methods.
- Sabrina Krallmann, BA, is a student in the Department of Communication Science and Media Research, LMU Munich, Germany.
- Thomas Niederkrotenthaler, MD PhD MMs, is Associate Professor and Head of the Suicide Research Unit/Department of Social and Preventive Medicine, Center for Public Health, Medical University of Vienna, Austria. He is the co-chair of the Media & Suicide Special Interest Group of IASP, and chair of the Wiener Werkstaette for Suicide Research.
- Benedikt Till, PD, DSc, is Head of the Suicide Research Unit, Department of Social and Preventive Medicine, Center for Public Health, Medical University of Vienna, Austria. He works in the field of media psychology and suicide research, and he is board member of the Wiener Werkstaette for Suicide Research.

Florian Arendt, PhD, is a postdoctoral researcher at the Department of Communication Science and Media Research, LMU Munich, Germany. His research focuses on health communication, media stereotyping, and media effects.

Florian Arendt

Department of Communication Science and Media Research
University of Munich (LMU)
Oettingenstraße 67
80538 Munich
Germany
florian.arendt@ifkw.lmu.de