

**DEPARTMENT OF HEALTH AND HUMAN SERVICES  
Substance Abuse and Mental Health Services Administration  
(SAMHSA)**

**Suicide Prevention Branch's  
Research Highlights Podcast Series**

**September 13, 2013  
Host: Chelsea Booth, Ph.D.  
Presenters: Dr. Niederkrotenhaler and Dr. Benedikt Till**

**Transcribed by:  
Transcription, Etc., LLC  
Washington, D.C.  
202-529-1802**

## PROCEEDINGS

DR. CHELSEA BOOTH: Welcome to the Research Highlights Podcast Series, presented by the Substance Abuse and Mental Health Services Administration, Suicide Prevention Branch. My name is Chelsea Booth, Public Health Advisor at SAMHSA, and I'll be your host today.

Today's episode features two researchers from the Center of Public Health at the Medical University of Vienna in Austria. Thomas Niederkrotenthaler is a physician with a Ph.D. in mental health and a master's degree in mental health promotion. He works as an associate professor and leads the Suicide Research Unit at the Center for Public Health, Medical University of Vienna. Before that, he was an Epidemic Intelligence Service Officer at the Centers for Disease Control and Prevention Injury Center in Atlanta.

He served as a discussant for the National Institute for Mental Health Research Prioritization Taskforce in November 2012, and has so far published more than 34 manuscripts in the area of suicide prevention, with many of them in the area of media and suicide.

Benedikt Till is a research media psychologist with a doctoral degree in psychology, and worked as a guest researcher at the Suicide Research Unit of the Center for Public Health Medical University in Vienna. His current main area of research is in the field of online media, as it relates to suicide ideation and suicide prevention. He has published more than 14 manuscripts in the area of media effects research, with most of them

dedicated to the interplay of new media and film media with attitudes, suicide ideation, and emotional and cognitive parameters, as well as the effective media censorship.

Gentlemen, we are absolutely delighted to have you both here today.

DR. THOMAS NIEDERKROTENHALER: Hello. Thank you, Chelsea, for this introduction, particularly for pronouncing this long name perfectly. So this is Thomas Niederkrotenhaler from the Center for Public Health in Vienna.

First, let me say that I'm truly delighted to provide you with an update on current mass media research we are doing here at the Austria Suicide Research Unit. For this presentation, I am very pleased to be joined by my colleague and co-worker, Dr. Benedikt Till, who is our staff media psychologist. In the following 40 minutes or so, we will try to shed some light on the question that is of crucial importance to current suicide research and prevention. That is, what is the effect of mass media on suicidal behavior?

Most importantly, we will provide some insight into our research findings on copycat suicide, following media reports on suicide. This so-called "Werther effect," and we will then make a step towards expanding our research focus to suicide protective media effects, which we have recently termed "Papageno effect."

If you have questions, you can reach me and Benedikt by phone or email. We will provide you with our contact at the end of the presentation. The topic area of media and suicide is embedded into the public health approach to suicide prevention. On this

slide, you can see the socioecological model. This model describes how environmental and societal factors impact health, including suicidal ideation behavior.

Many current national suicide prevention plans, this includes the Austrian and other European prevention plans, as well as the WHO recommendations for suicide prevention, include the raising of public health awareness and the prevention of copycat behavior as important prevention areas. Media also plays an important role in suicide means restriction and means safety.

In the United States, we revise a strategy on suicide prevention. To work with the media plays a crucial role as well. This is reflected in several current inspirational goals. For example, Goal No. 12, which is to increase help seeking for suicidal thoughts and behaviors by reducing the stigma. Our Goal No. 2, reduce access to lethal means that people use to attempt suicide.

Most of you probably know this guy. And you're right; this is a painting, showing Werther. Werther is the protagonist of Goethe's novel, *The Sorrows of the Young Werther*, which was published in 1774. In the novel, Werther suffers from the loss of his love, Lotte, and commits suicide with a firearm. Following its publication, several suicides were reported among young males, who, like Werther, suffer from loss sickness. Some of them were even reported to have had Goethe's book near their suicide sites.

In the 1970s, U.S. sociologist, David Phillips coined the term "Werther effect" for any

copycat suicides following media's portrayal of suicide, based on his discovery of increases in suicide rates immediately after the publication of suicide reports on the title page of the *New York Times*. It indicates that these findings were replicated several times in the U.S. and in European countries, particularly in the 21st century, findings from Australian and Asian countries further increased the body of the literature and study of this science became more sophisticated, allowing for a greater depth of analysis.

DR. BENEDIKT TILL: Hello, everyone. This is Benedikt. In this presentation, we will discuss several of our recent research findings, which have shown some promising results and may serve as a basis for further studies in the topic area, including replication. Specifically, we will provide examples of research within the theoretical foundation of the Werther effect. We will also discuss inconsistency of results across studies on this effect.

In the third focus, we will present an evaluation of work done on the prevention of harmful media effects. Specifically, we will present an evaluation of media recommendations for suicide reporting. From there, we will move on to research and potentially protective effects of media reporting, the so-called, "Papageno effect."

Theories that are frequently used to explain copycat suicides following media reports have rarely been tested using empirical data, thus a research focus on the applicability of these theories to media effects is needed. Theories, such as Bandura's Social Learning Theory, a theory of differential identification, Crisis Theory, or Psychodynamic

Theory; for example, Taiminen Theory of projective identification require more research regarding the consistency with media impacts on suicidal ideation and behavior. In the following section, we will focus on two examples of our research which focus on the concept of differential identification and Crisis Theory, respectively.

DR. THOMAS NIEDERKROTHENHALER: The concept of differential identification is applied earlier by researchers such as Steven Stack, indicates that people identify most frequently with individuals who have a perceived superior social status to themselves. This is called vertical identification. The theory further suggests that individuals are also more likely to identify with persons who are similar in some way. For example, with individuals of the same gender or age, or who share other characteristics. This is the so-called horizontal identification.

Note that vertical and horizontal identification are not mutually exclusive. On the contrary, individuals may be most likely to identify with a celebrity of high social status, who is otherwise similar; for example, with regards to age and sex, to themselves. Accordingly, we conducted a study to test the assumption that the risk of increases in suicide rates after the publication of suicide cases would be higher after the reporting of suicides by celebrities, as compared to the risk associated with the reporting of ordinary people suicides.

Further, we hypothesized that any effect of social status of the reported suicide case would be most pronounced in the group of subsequent suicides of similar age and same sex, who used the same method as the reported suicide. For this study, we

collected articles from 13 Austrian newspapers containing the word "suicide" or a German synonym of suicide. The articles were published between '96 and 2006. It included only articles on individual suicides, which provided the name of the individual. The class that report from the same suicide together ended up with reports from 179 suicide cases in a 10-year period; used content analysis to extract information of the sex, age, and social status of the reported suicide cases from the articles.

Social status was assessed with two variables. First, celebrity status, reflecting high social status, and second, status of a criminal, which likely reflects a low perceived social status. Celebrity status was coded present, if the suicide was reported heavily and if the person was also showing up in the media before his or her suicide. The status as a criminal was coded positive if the person was linked to criminal behavior in the media reports, irrespective of if this behavior was real or only a newspaper hoax.

Using a pre/after design, we test the associations of the social status of the reported suicide cases with suicides that occurred in the four-week period following the reporting, as compared to the four-week period before the publication date. We used the Dichotomous outcome variable, increasing suicides versus no increase, and calculated odds ratios for an increase in total suicides, an increase in similar suicides, defined the suicides of same sex and age group who use the same suicide method as the reported suicide case; and we also tested associations of the social status of the reported suicides with subsequent increases in dissimilar suicides. Define the suicides by the opposite sex, of different age groups, who used a different suicide method as compared to the reported suicide.

The result of this analysis showed the report from celebrity suicides were indeed associated with increases in total suicides subsequent, as indicated here by the odds ratio of 5.5. The effects were even larger when we looked at the risks of increases of suicides that were similar to the reported suicides, as indicated by the 11 fold odds ratio for increases in these suicides. No association, however, was present for dissimilar suicides. Interestingly, also criminality of the reported suicides was associated with the subsequent suicides in the group of similar suicides; however, the association was in the opposite direction, which means there was a lower risk of increases in similar suicides when they reported suicide was portrayed as a criminal.

Taken together, this pattern of finding supports the hypothesis that some media reports lead to increases in suicides, and differential identification may play a role in these suicides. Based on this analysis, follow-up work and replications are needed. Further, studies using individual data to measure the impact of suicide stories on various types of audiences would contribute to analyze this issue further. Ecological studies like this one generally suffer from low specificity and issues such as the ecological fallacy need to be considered. However, when using individual data outcomes, such as completed suicides, obviously cannot be analyzed.

DR. BENEDIKT TILL: In the next study we would like to present, we investigated the potential relevance of Crisis Theory for the issue of media effects. In short, Crisis Theory says that people who are vulnerable and may already experience some degree of suicidal ideation are more vulnerable to harmful media input than individuals who are



entirely stable. We tested this hypothesis indirectly, using a laboratory experimental approach. We recruited participants from the general population with posters and flyers for a film screening of the film, "Night, Mother." "Night, Mother" is a U.S. drama film from 1987, where the protagonist is suicidal; and the film puts a strong focus on her suicidal ideation. The protagonist's mother wants to convince her daughter not to commit suicide, but the film concludes with the daughter's suicide.

We used two films as control films. One was "A Single Man." That is a U.S. production portraying the crisis of the protagonist and his subsequent death from a heart attack. And "Elizabethtown," a U.S. film portraying someone overcoming his crisis. This film has a happy ending. We included only individuals with low to moderate suicidality scores in a standardized questionnaire. Individuals with higher suicidal ideation were offered counseling and we provided them with contact material for help services.

We applied questionnaires immediately before and after the film screening. Beside suicidal ideation, we measured the mood and self-worth of the participant. In total, 100 participants were included in the study and they were randomly assigned to the film groups. The results generally supported the idea that the films with suicidal content impact people differently with regard to their level of suicidal ideation. Not surprisingly, all individuals showed a deterioration of their mood when watching the movie ending with the suicide of the protagonist. However, those who were more suicidal, relative to those with the lower suicidality scores, indicated an increase in suicidality during the film.

In contrast, those with the lowest suicidality scores experienced an increase in self-worth. That finding is consistent with theories from media and communication research, most importantly, with the Social Comparison Theory. While all individuals are likely to compare themselves with the protagonist during the film screening, psychologically stable individuals like those participants with the lowest suicidality scores in our sample, may be likely to conclude that their life is better than that of the individual shown in the film, resulting in an increase in self-worth. In contrast, less stable individuals may be less capable of arriving at a similar conclusion and they may respond with an increase of suicidal ideation.

While we cannot be sure that the findings are applicable to suicidal individuals, because we could only include clinical, non-suicidal individuals, the results provide a first, empirical step to show that the effect of suicidal content in films may differ with regard to the audience's suicidal ideation. Further studies are needed to identify audience characteristics that impact on media effects.

DR. THOMAS NIEDERKROTHENHALER: Generally, it has been noted in the literature that the findings from the Werther effect are relatively inconsistent, with several papers showing negative findings and there are notable variations in effect sizes. We therefore conducted a meta-analysis of studies investigated in the effect of celebrity suicides and suicide rates. This work was done in the International Association of Suicide Prevention, Media and Suicide Taskforce. Please let me use this opportunity to invite everybody listening to this podcast who is interested in media work or already working in this area to join us on the Media and Suicide Taskforce. Membership is open to

everyone who is a member of the International Association of Suicide Prevention. If you are interested, just let me know.

For the meta-analysis, we identified 102 studies on the Association of Media Reports with Suicides. After excluding all studies with other than ecological designs, outcomes other than completed suicides, those who did not focus on celebrity suicides, after removing any duplicates and one study that was published before World War II, we ended up with 10 studies.

This figure shows the effect sizes of each of the included studies, along with 95 percent confidence intervals. The combined effect size across these studies was estimated at an increase of 0.26 suicides per 100,000 population in the month after a reported celebrity suicide. As you can see here, indicated by the small red circles, some studies have larger effect sizes than others. This heterogeneity was mostly explained by the type of celebrity considered.

Studies analyzing the effect of entertainer suicides had higher effect sizes than studies on other celebrity suicides. This may be a new phenomenon, which has been called duality of the star. On the one hand, entertainers represent ordinary people on stage, who do what ordinary people like to do. But on the other hand, they are rich and have a high social status. This combination may increase identification and the risk of copycat suicide, following entertainer suicides. However, more studies will be necessary to investigate the association of various types of suicide reports with subsequent suicides. This includes further meta-analysis, based on other types of media stories.

Now we have presented several studies dealing with the impact of suicide stories, but we have not yet looked at the prevention of these suicides. As many of you may know, media recommendations for the reporting of suicide are the most common means of suicide prevention in that area. Here, you can see an extract of these recommendations. For example, the recommendation say that details on the suicide methods are methods in the headline, sensationalist wording, and the reporting of wrong myths, as well as monocausal explanation for suicide should be avoided.

Instead, stories from constructive coping in adverse circumstances, the listing of contacts to support services and any link to alternatives to suicidal behavior may decrease the risk of copycat suicide. Few of you may know that Austria was one of the very first countries in the world to develop and implement such media recommendations, all the way back in 1987. At that time, the suicides and suicide attempts on the Viennese subway system were exponentially increasing. On this slide, you'll see the numbers of suicides on the subway system in red, and suicide attempts in light blue, for each year since 1979.

The subway system suicides were heavily reported in the local media before 1987, and this was the trigger for the development of the first media guidelines for the reporting on suicides. As indicated by the vertical line, the implementation of the recommendations had an immediate and large impact on suicides and attempts on the Viennese subway system. The incidents decreased by nearly 80 percent within six months, and remained relatively stable in the time period, up until today. This is even more surprising, given

the large increase in subway stations in the time period between '87 and today. As indicated by the black line, the number of stations increased from 40 to over 100 during that time.

Because of the frequently found relationship of the availability of a particular suicide means, with actual suicide by that method, an increase of subway stations may have resulted in an increase in subway suicides; however, the reporting was very cautious in the time period that follows, and suicides as well as suicide attempts remained low. In fact, there were only very few reports at all about subway suicides after the implementation of the recommendations, they were all short and written in a non-sensationalist style.

We also analyzed the effect of media recommendations on the overall quality of suicide reporting across all suicide methods. On the horizontal axis of this figure, you can see the number of articles with the sensationalist headline by the Austrian press agency. On the vertical axis, they are the number of suicides occurring in a given year in Austria. The red dots, each mark one of the five years immediately before the implementation of the media recommendations. So this is the time spent from 1983 to '87. And the green dots, each stand for one of the five years immediately after the implementation; so this is the time period of 1988 to '92.

You can see that the number of suicides clearly decrease after implementation, from an average of about 2,100 per year before, to an average of about 1,850 per year afterwards, which corresponds to a decrease of about 11 percent. However, the

number of articles with sensationalist headlines decreased even more, from about 130 per year, to 70 in the period after the implementation. This corresponds to a decrease of nearly 50 percent.

We investigated the impact of the implementation of the recommendations on suicides in Austria further, using a time series regression analysis. On this figure, you can see the annual number of suicides in Austria since 1946. Zero marks the year of the implementation of the media recommendations. There was a clear increase of suicides during the period, up until 1997; however, after the implementation, there was a clear decrease as indicated in the figure. Controlling for the annual unemployment rates, we calculated the possible immediate impact of the recommendations is a reduction of about 81 suicides.

Further analysis revealed that this reduction was most pronounced in the eastern part of the country, where the collaboration with the media was stronger than in other parts of the country. There was no impact in Central Austria and in the western part of the country, but the media landscape is widely different from the east.

Altogether, these results supports the thesis that the media recommendation has helped increase the quantity of suicide reporting and that they may also have helped in preventing suicides. However, other factors are very likely to have had an effect on the decreasing suicide rates in Austria since the 1980s as well. In another study, we could, for example, show that the number of psychotherapists and the number of antidepressant sales, they are both strongly correlated with the decrease in suicide

rates.

More evaluation work regarding media recommendations is needed internationally. While some evaluation work is available from the United States as well, the U.S. media recommendations were revised recently in 2011 and 2012, and it will be interesting to learn about the impact and experiences with the implementation. If you are interested in the implementation process of the recommendations in Austria, please feel free to take a look at the manuscript displayed, which outlines some of our experiences from the implementation process. Or you can contact us if you have any questions.

So we have presented you some highlights of our research. And some of you may start to wonder well, what's the thing with the Papageno effect? They didn't mention that yet in the presentation, right?

So last, but not least let's talk about the Papageno effect, which is definitely another promising area that requires more research from different angles. As you can see, here is picture of Mozart's Papageno. Many of you probably know that Papageno is the protagonist in Mozart's most famous opera, *The Magic Flute*. You may, however, not know that Papageno becomes seriously suicidal in the opera, when he faced the loss of love, Papagena. He prepares everything for his suicide. He wants to hang himself, but at the last second before he's hanging himself, the three boy spirits appear on stage and say, "Oh, stop, Papageno. Be a man. You've only one life; live it while you can."

They go on to remind him to use his magic bells and gives the prophecy that Papagena

would return. So Papageno uses his bells and indeed, the boys were right; and Papagena is coming back. Psychologically speaking, these three young boys spirits remind Papageno about what he can do other than commit suicide. And this is exactly why we term any suicide protective effect of media reporting, "Papageno effect" because this is actually the best outcome media may be able to do to remind people in crisis of alternatives to suicide.

So for this study, we obtained 15 international media recommendations for reporting on suicide, and extracted all recommendation from how to report and how not to report from these guidelines. The search yielded 23 indicators of harmful reporting, as listed in the recommendations and nine indicators listed as protective. We then obtained 497 suicide reports that were published in a six-month period in Austrian print media, and we conducted a content analysis of these reports with regard to the reporting characteristics from the media recommendations. Then we performed a latent class analysis to identify underlying patterns in reporting. We identified four different classes of reporting. We will now show you the different classes identified in our sample.

The first class was a type of report normally described in individual suicides. Seventy percent of all articles belong to this class. On the left-hand side of this figure, you can see the various harmful and protective reporting characteristics. High values on the horizontal axis mean that the respective characteristics are frequent in the respective class of articles. Low values mean that the probability is low. You can see that this type of report normally does not show any of the characteristics listed in the media recommendation, neither harmful nor protective, just a simple report about a completed



suicide.

On the right picture, you can see an example from the articles in this class. As these articles are in German, I will just describe it briefly. It is saying in the headline, "David Foster Wallace, 1962-2008. The U.S. author quit life voluntarily." The article then continues to describe the life of the deceased, what he contributed to the arts and to society. The articles mention only twice and very briefly that it was a suicide. These sections are here marked with red stars.

The second and third class of articles are more sensationalist. These classes showed some reporting characteristics that are listed as harmful in media recommendations. But paradoxically, they also have characteristics that are listed as protected. For example, here you can see an article from the so-called epidemiological effects class, which contains 12 percent of all articles. These articles contain frequently, research findings and suicide statistics. But they also reported frequently, wrong public myths and used sensationalist wording. Some of these articles also incorporated expert opinions in suicide prevention.

The example on the right hand has a sensationalist headline. It's saying, "Four [sic] jumps out of windows; two deaths, and three injured; 60,000 suicide attempts every year in Austria." The article then continues to provide detailed information of several independent suicides that occurred over the weekend.

In the fourth class of articles, there were generally no harmful indicators of reporting,

but these articles focused on suicidal ideation in situations of coping with adverse circumstances. This article generally did not report on a suicide attempt or on a completed suicide, but focused on individuals who mastered their suicidal crisis. For that reason, we termed this class, "Mastery of Crisis class." On the right-hand side, the example says, "Very close away from suicide, Martin is one of the anonymous callers who got help from the crisis helpline." The story then focuses on his difficulties, his suicidal thoughts and how he arrived at calling the crisis line. The picture shows an employee working in the Crisis Intervention Center.

In order to build hypotheses on the possible effect of these different types of reports with regards to suicide, we tested associations of the publications of these types of reports with changes in suicide rates, subsequently. It turned out that the suicide case class was not associated with suicide rates. In contrast, the epidemiologic class and the expert opinion class were associated with increases in suicide rates.

Articles on mastery of crisis, however, were associated with decreases in suicides, which may indicate a protective Papageno effect. Note that all associations are very small and of course these associations can only help to build hypotheses on the effect. We went on to test associations of individual item characteristics with changes in suicide rates using multivariate models. Again, it turned out that articles on suicidal ideation were associated with subsequent decreases in suicides. In contrast, suicides that were repeatedly reported are reported wrong public myths about suicide, or on suicide by jumping, where all associated with increases in suicides.

DR. BENEDIKT TILL: This study provides several important results. First, statistical data and expert opinion, which are all recommended in media recommendations, were closely intertwined with harmful characteristics in the Austrian mass media discourse. The reason behind the finding made it that experts and statistics are used for more sensationalist cases, which get more attention from the public and the media. The findings show that it is important for us, as public health experts, to promote the media recommendations and collaborate with journalists whenever giving interviews on suicides in general or on a specific suicide that occurred because the interviews are sometimes put in a sensationalist context. In our experience, most journalists are cooperative when it comes to collaborating on this issue.

The second finding of this study is that the portrayal of positive coping and adverse circumstances differed completely from other reporting classes. It was non-sensationalist and empathic, with no harmful indicators. Even if the effect size was small, the Papageno effect would be a useful tool in suicide prevention. This usefulness of the Papageno effect is exemplified on this slide here, which shows some of the Austrian's media reaction to the publication of our manuscript.

You see headlines saying things like, "Getting help from others." "Papageno succeeded in mastering life crisis." "Not all suicide reports are dangerous." And, "Courage in Crisis." And other similar messages. There were several reports on individuals who experienced the crisis and found a way to deal with it, which really helped in bringing up psychosocial issues in the mass media in a non-sensationalist way.

Finally, what this study really does is it shows once again that not all media reports regarding suicidal ideation and behavior have the same effect. This part is not only important to keep in mind when we research class of media news reporting. It is also helpful when we are building public awareness campaigns to reduce suicide, using the media as a tool. While these campaigns have shown to have a low evidence base, they are part of many suicide prevention programs. Based on the results presented here and based on other studies, it seems important that any media campaign is evaluated with regard to the actual effect of the campaign content and different types of audiences.

DR. THOMAS NIEDERKROTENHALER: Now, with these thoughts, we are concluding the podcast. We hope that this research update from our university here in Vienna, encourages you in your research and practice in the topic area of media and suicide. If you are interested in collaboration or if you have questions regarding this presentation, we are looking forward to getting in touch. This is Thomas Niederkrotenthaler, along with Benedikt Till. Thank you. Bye.

DR. CHELSEA BOOTH: Well, thanks to you both for a wonderful presentation and for being willing to call in from Austria to Washington. I'm sure our audience is really going to appreciate your very thought-provoking work.

DR. BENEDIKT TILL: Thank you.

DR. CHELSEA BOOTH: And to our audience, I thank you for listening to this edition of the Suicide Prevention Branch's Research Highlights. Actually, Thomas, could you forward to the slide where my email is shown?

DR. THOMAS NIEDERKROTHENHALER: Sure.

DR. CHELSEA BOOTH: So if any of you listening or watching, have questions about today's presentation or suggestions for other topics you'd like to see highlighted in future editions, please feel free to email me at the email address on your screen.

So on behalf of the Substance Abuse and Mental Health Services Administration's Suicide Prevention Branch, I thank you all for listening and for your continued interest in suicide prevention. Goodbye.

(End of podcast)

\* \* \* \* \*