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How to Adjust Media Recommendations on Reporting Suicidal Behavior to New Media Developments

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This study examines the inclusion of preventive factors and new media developments in media recommendations on suicide reporting. Of the 193 member states of the United Nations screened for media recommendations, information was available for 74 countries. Similarities and differences in their contents were analyzed by cluster analysis. Results indicate that of these 74 countries, 38% have national suicide pre-vention programs, 38% have media recommendations, and 25% have press codes including suicide reporting. Less than 25% of the media recommendations advise against mentioning online forums, suicide notes, pacts, clusters, hotspots, details of the person, and positive consequences. No more than 15% refer to self-help groups, fictional and online reporting. We conclude that media recommendations need to be revised by adding these preventive factors and by including sections on new media reporting.

Keywords imitation, media recommendations, suicide, suicide attempt, suicide prevention, Werther effect

INTRODUCTION

Suicidal behavior, mostly defined as suicides and suicide attempts, constitutes a significant public health problem, involving far-reaching social, emotional, and economic consequences (World Health Organization, 2008). According to systematic reviews (Bohanna & Wang, 2012; Pirkis & Blood, 2001; Schmidtke & Schaller, 2000; Sisask & Va¨rnik, 2012; Stack, 2005), media portrayal of ‘‘real’’ suicidal behavior carries the risk of suicide contagion (imitation, copycat suicide, and the Werther effect; Gould, 1990; Phillips, 1974). Behavioral contagion has been defined as a situation in which the same behavior spreads quickly and sponta-neously through a group (Gould, 1990), whereas ‘‘a group of suicides or suicide attempts, or both, that occur closer together in time and space than would normally be expected in a given community’’ has been referred to as spate of suicide (Goldney, 1986) or suicide cluster (Centers for Disease

Control and Prevention, 1998). In a review of studies on suicide contagion the criteria of consistency, strength, temporality, specificity, and coherence are satisfied and, thus, the contagion hypothesis appears valid (Pirkis & Blood, 2001). The suicide contagion effect varies as a function of time, usually reaching a peak within the first 3 days after media coverage and leveling off after approximately 2 weeks (Wasserman, 1984). In the 1970s, a first systematic study on imitation found a significant increase of suicides following front page reports on suicide in the press (Phillips, 1974). Replication studies prolonged the observation period, calculated suicide rates instead of raw figures, and extended the findings to television reports (Bollen & Phillips, 1982; Wasserman, 1984). An average of 35 excess suicides for 1 week (Wasserman, 1984) and 58 excess suicides for 1 month (Phillips, 1974) per suicide report was found. Imitation effects have also been demonstrated for fictional portrayals of suicidal behavior in films and on tele-vision, but they are not as strong as for non-fictional reports (Stack, 2000). Factors positively or negatively influencing imitation include media blackouts on reporting suicide (Motto, 1970), medium of coverage (Stack, 2000), distribution of media, size of audience (Etzersdorfer, Voracek, & Sonneck, 2001), sensational reporting (Ashton & Donnan, 1981), repeated coverage (Etzersdorfer, Voracek, & Sonneck, 2001), similarities with the suicidal person, explicit descriptions of the suicide method (Ashton & Donnan, 1981; Niederkrotenthaler, Till, Kapusta et al., 2009; Pirkis & Blood, 2001; Stack, 2005), glorification of suicide (Pirkis & Blood, 2001; Stack, 2005), and popular celebrity status (Goldney, 1986). Increases in suicide rates after media reporting vary from 12% (Bollen & Phillips, 1982) to 81% (Ladwig, Kunrath, Lukaschek et al., 2012), depending on these factors. General articles on suicidality which report on rates or risk factors rather than a specific case can also lead to an increase in suicide rates if they refer to several suicidal acts, or spread myths about suicide (r ¼ 0.124, n ¼ 490, P ¼ 0.006; Niederkrotenthaler, Voracek, Herberth et al., 2010). However, the effect is smaller than for articles on specific cases.

Preventive effects can be achieved through the inclusion of articles highlighting the link between mental health and suicide, debunking myths about sui-cide, and encouraging individuals at risk to seek help (Mann, Apter, Bertolote et al., 2005). Reporting on individuals who adop-ted functional coping strategies to master their crisis also seems to have a protective effect (Niederkrotenthaler, Voracek, Herberth et al., 2010). Systematic reviews on evidence-based effective suicide pre-vention measures suggest that responsible reporting might decrease suicide rates (Mann, Apter, Bertolote et al., 2005; Bohanna & Wang, 2012). The introduction of media recommendations for reporting subway suicides led to an improvement in the quality of reporting and to a reduction in the quantity of reporting and in subway suicidal acts of 84% (Etzersdorfer & Sonneck, 1998). Even a largely persistent trend change in national suicide rates was observed (reduction of 35% within 18 years) as a function of media collaboration after repeated nationwide distribution of the recommendations (Niederkrotenthaler & Sonneck, 2007).

Media recommendations have been introduced in many countries to promote considerate reporting of suicidal behavior and to balance the public's ''right to know'' against the risk of causing harm (Pirkis & Blood, 2001). They have mostly been prepared by suicide prevention organizations and give detailed advice on the portrayal of suicidal behavior. Press codes of ethics, by contrast, have been prepared by media councils and include general aspects of ethical reporting, among which suicide reporting may be mentioned. To our knowledge, it has not been systematically analyzed which countries have media

recommendations,whichorganizationshave prepared them, and which preventive factors and medium of coverage are included. Also, it has not been examined which press codes of ethics include a paragraph on portraying suicide in the media, and which criteria of reporting they refer to.

AIMS OF THE STUDY

The present study has been conducted within the Optimizing Suicide Prevention Programs and their Implementation in Europe (OSPI-Europe) project, a multicenter research project that aims at assessing the impact of various prevention variables (Hegerl, Wittenburg, Arensman et al., 2009), including responsible media coverage. OSPI-Europe seeks to establish a best practice and evidence-based approach to reduce suicidality by community-based multilevel interventions. It is hypothesized that media recommendations and press codes of ethics vary considerably in the included preventive factors and that there is a need for optimization, given the cur-rent state of knowledge about responsible media reporting. It is, therefore, examined whether they refer to all relevant risk factors for suicide contagion, whether they have recently been updated by adding new research results, and whether they cope with new media developments, or exclusively with traditional media, such as print media, radio, and television broadcasts. More recently published and more extensive recommendations are assumed to include more relevant factors for the prevention of suicide contagion.

Materials and Methods

The 193[1] member states of the United Nations (UN) were the basis for selecting the sample of countries according to the availability of information on national suicide prevention programs, media recommendations, and press codes. Data were included for countries with websites of governmental and non-governmental organizations (NGOs) responsible for suicide prevention and=or with a national representative of the International Association of Suicide Prevention (IASP). Only suicide prevention programs coordinated at a national level were included, whereas regional activities, due to the difficulties in data assessment, were not considered. In 74 countries across the world (38%), online information on the existence of national suicide prevention programs and=or a national IASP representative was available.

National prevention programs, media recommendations, and press codes were assessed with different methods. Firstly, an internet research was conducted with various search engines. Search terms were ''[name of country]'' and ''suicide prevention,'' ''media recommendations,'' ''media guidelines,'' or ''press code'' in English, French, Italian, and Spanish. Media recommendations were also assembled using the list of links that the IASP task force for suicide and the media and the World Health Organization (WHO) provide on their websites. Suicide prevention websites in English, French, Italian, and Spanish language were screened for links to media recommendations. The press codes were collected using lists of links from the websites of the following international organizations: the United Nations Educational, Scientific and Cultural Organization (UNESCO), EthicNet, and Donald W. Reynolds Journalism Institute. Most documents were available online, and in some cases print material was included in the analysis. Secondly, to obtain additional reliable information on national suicide prevention programs and to minimize the risk of missing recommendations in the national languages, all national IASP

[1]Sometimes 194 UN member states are listed. How-ever, one country's membership is unclear.

representatives were contacted by email. They were asked to indicate if their country has a national suicide prevention program and media recommendations, and which organization has prepared them. Of 40 contacted email addresses, 27 representatives replied (return rate: 68%). If media recommendations were only available in the national language, the suicidologists were asked to perform the coding (e.g., in Slovenia). Native speakers of the University of Wu¨rzburg helped with contacting the national IASP representatives and with translating media recommendations.

The basic research took place between March 23 and May 31, 2010, and a final update was made in September 2012.

Based on a previous press coding sheet (Fekete, Schmidtke, Takahashi et al., 2001) and the literature on relevant factors for imitation, a consensus of nine experts[2] defined 31 potentially preventive factors for the assessment of media recommen-dations (Table 1).

The order of these variables was adapted from the media recommendations of Ireland and Germany, two countries with media recommendations included in the OSPI-Europe project. The variables were arranged in order to the following categories (Table 1): reporting style and placement variables (1–4), details on the suicidal act and person (5–12), language (13–14), motivation, risk factors, and consequences of the suicidal act (15–22), possibilities of prevention and help (23–29), and medium of coverage (30–31). For assessing the press codes, four potentially preventive factors were defined: (1) no reporting unless of public interest, (2) considerate mentioning, (3) no detailed descriptions of the circumstances, and (4) referring to help in general. The order was chosen similar to the categories for the analysis of media recommendations and checked with two randomly selected press codes (Australia and Montenegro). Translations of media recommendations were treated as one set in the analysis. Only the most updated set of recommendations of each organization was included. The responsible organizations and publication years were taken from the media recommendations, from the website providing them, and=or communicated by the national IASP representatives. The type of responsible organization (governmental vs. non-governmental), the publication years and word count of actual recommendations were assessed as covariates which might have an effect on the classification of clus-ters. The recommendations that were con-cluded from the results of this study were critically discussed with all co-authors to reach a final consensus.

Analyses

The existence of national programs was assessed by four experts.[3] Three experts[4] rated the inclusion of variables in each media recommendation and press code. If a variable was clearly mentioned as recommendation in the text, it was coded as ''1''; if not, it was coded as ''0''. For each variable, the percentages of inclusion in the media recommendations or press codes were calculated. Hierarchical cluster analyses, which aim to find clusters of observations within a data set, using Ward's linkage method (Ward, 1963) and squared Eucli-dian distance, were computed with SPSS Statistics 21. Ward's linkage method attempts to minimize the sum of squares of any two (hypothetical) clusters that can be formed at each step. To test for signifi-cant differences between various variables in the clusters, v^2-values were calculated for each variable. For determining the word count, additional information, such

[2] AS, EE, SF, BJ, DL, TN, BP, DR, SS.

[3] JM, BP, AS, SS.

[4] JM, BP, AS.

TABLE 1. Factors Potentially Preventing Imitation for the Assessment of Media Recommendations

No.	Preventive factors
1	No sensationalism
2	No front page reporting=prominent placement
3	No photos
4	No repetition of reporting=repeated coverage
5	No detailed descriptions of suicide methods
6	No names=characteristics of the suicidal persons
7	No citing=printing of farewell letters=suicide notes
8	Not mentioning online suicide forums=websites
9	Not mentioning suicide pacts
10	Not mentioning the location
11	Not mentioning other suicides at the same place (hotspots)
12	Not mentioning suicide clusters
13	Not speaking of ''series=epidemic of suicides'' (contagion)
14	Considering the language, e.g., not using the terms ''committed suicide,'' or ''a successful=unsuccessful suicide''
15	Debunking myths about suicide
16	No simplistic explanation
17	Not reporting suicide as understandable solution
18	Not glorifying suicide (heroism, romanticism)
19	Not paying special attention to celebrity suicides
20	Not mentioning positive consequences of suicide
21	Reporting suicide within the context of mental illness
22	Listing warning signs for suicide
23	Not interviewing relatives=people bereaved by suicide
24	Referring to possibilities to prevent suicide
25	Describing individual coping strategies to master a crisis
26	Referring to help in general
27	Information on help agencies
28	Information on hotlines
29	Information on self-help groups
30	Including a section on fictional reporting of suicidal behavior
31	Including a section on reporting suicidal behavior in the new media

as suicide statistics and addresses of help agencies, was not considered.

RESULTS

National Suicide Prevention Programs

Among the 193 UN member states, 74 countries (38%) have online information on the existence or non-existence of national suicide prevention programs in English, French, Italian, or Spanish language and=or a national IASP representative. Twenty-eight of these 74 countries (38%) have national suicide prevention programs. Eight of 74 countries (11%) have a combination of all: national suicide prevention

programs, media recommendations in the national language, and a paragraph on rep-orting suicide in the press code.

Media Recommendations: Quantitative Analysis

Of the 74 countries, 28 (38%) provide media recommendations, of which 17 (61%) have national suicide prevention programs. The WHO recommendations are available in 12 languages. Nine countries (12%) have more than one set of recommendations which have been prepared by different organizations, resulting in 34 sets of recom-mendations (of 46 sets before selecting the most updated ones). In New Zealand one set of recommendations comes along with a short version which was also included and analyzed separately.[5] All recommenda-tions advise against describing suicide methods in detail (Table 2). Most of them (>75%) warn against simplistic explana-tions and glorification of suicide, and advise to refer to help in general, to report non-sensationally, and not to use photos. More than half of the recommendations advise to list warning signs, to link suicide to mental illness, and to refer to help agen-cies. The least mentioned factors (<25%) include not disclosing details of the suicidal person, not referring to online forums, sui-cide notes, suicide pacts, and suicide clusters, not mentioning hotspots, not reporting posi-tive consequences, and referring to self-help groups. Only a few recommendations include paragraphs on fictional reporting (12%) and reporting in new media (15%).

Media Recommendations: Qualitative Analysis

The cluster analyses resulted in three main clusters of media recommendations (Table 3). The recommendations in the three clusters are similar in the factors sui-cide methods, online availability, help in general, glorifying suicide, and myths about suicide. For the remaining 27 factors, sig-nificant differences in the frequency of inclusion and content of the recommen-dations were found between the three clus-ters. The recommendations in cluster 1 focus on the factors simplistic explanation, warning signs, glorifying suicide, help agen-cies, understandable solution, prevention, and mastery of crisis. However, they rarely refer to front page reporting, location, lan-guage, celebrity suicides, and to the factors that are mentioned by less than 25% of all recommendations (cf. media recommen-dations: quantitative analysis). No recom-mendation in cluster 1 includes the factors suicide contagion, hotspots, and suicide notes. The media recommendations in cluster 2 particularly advise against simplis-tic explanations, but cluster 2 shows the highest percentage of potentially preventive factors that are not included (38%). No recommendation in this cluster mentions the factors location, mastery of crisis, hot-spots, repeated coverage, suicide notes, online forums, suicide pacts, and suicide clusters. The factors positive consequences and self-help groups, and paragraphs on fictional reporting and reporting in new media are also not included. Cluster 3 shows the highest percentages of inclusion. All recommendations mention the factors help in general, photos, sensationalism, front page reporting, and mental illness. Compared to the other two clusters, they least advise against simplistic explanations. All 31 preventive factors are included in at least part of these recommendations.

Media Recommendations: Formal Criteria (Covariates)

As covariates that might have an effect on the resulting clusters, the type of

[5]In 2012, Australia and Austria published short ver-sions of the media recommendations in the national languages.

TABLE 2. Frequencies of Media Recommendations Including Each Potentially Preventive Factor

No.[-]	Preventive factors	Recommendations	%
5	Suicide methods	No detailed descriptions of suicide methods	100
16	Simplistic explanation	No simplistic explanation	88
26	Help in general	Referring to help in general	88
1	Sensationalism	No sensationalism	79
3	Photos	No photos	79
18	Glorifying suicide	Not glorifying suicide (heroism, romanticism)	79
27	Help agencies	Information on help agencies	74
22	Warning signs	Listing warning signs for suicide	71
2	Front page	No front page reporting=prominent placement	68
21	Mental illness	Reporting suicide within the context of mental illness	68
17	Understandable solution	Not reporting suicide as understandable solution	59
14	Language	Considering the language, e.g., not using the terms ''committed suicide,'' ''a successful=unsuccessful suicide''	53
23	Interviewing bereaved	Not interviewing relatives=people bereaved by suicide	53
28	Hotlines	Information on hotlines	47
24	Prevention in general	Referring to possibilities to prevent suicide	46
10	Location	Not mentioning the location	44
19	Celebrity suicide	Not paying special attention to celebrity suicides	44
25	Mastery of crisis	Describing individual coping strategies to master a crisis	44
15	Myths about suicide	Debunking myths about suicide	41
4	Repeated coverage	No repetition of reporting=repeated coverage	38
13	Series=epidemic	Not speaking of ''series=epidemic of suicides'' (contagion)	38
6	Names=characteristics	No names=characteristics of the suicidal persons	24
8	Online forums	Not mentioning online suicide forums=websites	24
11	Hotspots	Not mentioning other suicides at the same place (hotspots)	24
7	Suicide notes	No citing=printing of farewell letters=suicide notes	21
20	Positive consequences	Not mentioning positive consequences of suicide	15
31	New media	Including a section on reporting suicidal behavior in the new media	15
9	Suicide pacts	Not mentioning suicide pacts	12
12	Suicide cluster	Not mentioning suicide clusters	12
30	Fictional reporting	Including a section on fictional reporting of suicidal behavior	12
29	Self-help groups	Information on self-help groups	9

Note. [-]Numbers according to Table 1.

responsible organization, publication year and word count were assessed. One set of media recommendations has been prepared by the WHO, nine by govern-mental organizations, and 24 by NGOs. Their publication years vary from 1990 (Canada) to 2011 (Australia, New Zealand, USA). The average word count is 918, with a range from 76 (World Health Communication Associates, UK) to 3,189 words (Slovenia) and significant differences between the three clusters. The recommendations in cluster 1 consist of six governmental and seven non-governmental

TABLE 3. Frequencies of Media Recommendations and Press Codes of Ethics Including Each Potentially Preventive Factor per Cluster

Media recommendations

No.⁻	Preventive factors	Cluster 1	Cluster 2	Cluster 3	v^2	P-value
5	Suicide methods	100	100	100	–	–
16	Simplistic explanation	100	100	69	7.03	0.03
26	Help in general	85	75	100	3.67	0.16
3	Photos	77	50	100	10.35	0.006
1	Sensationalism	69	50	100	16.56	<0.001
2	Front page	38	63	100	28.72	<0.001
21	Mental illness	54	38	100	23.94	<0.001
22	Warning signs	85	13	93	61.04	<0.001
18	Glorifying suicide	92	63	77	5.75	0.06
27	Help agencies	92	25	85	40.33	<0.001
10	Location	23	0	92	120	<0.001
17	Understandable solution	62	13	85	51.03	<0.001
14	Language	23	50	85	36.21	<0.001
13	Series=epidemic	0	25	85	103.45	<0.001
24	Prevention in general	69	25	62	21.51	<0.001
23	Interviewing bereaved	54	38	62	5.92	0.05
28	Hotlines	54	13	62	23.64	<0.001
19	Celebrity suicide	38	25	62	16.39	<0.001
25	Mastery of crisis	62	0	54	58.46	<0.001
11	Hotspots	0	0	62	123.08	<0.001
4	Repeated coverage	54	0	46	50.89	<0.001
7	Suicide notes	0	0	54	107.7	<0.001
15	Myths about suicide	38	38	46	1.1	0.58
6	Names=characteristics	8	38	31	19.31	<0.001
8	Online forums	23	0	38	36.54	<0.001
31	New media	8	0	31	40.01	<0.001
20	Positive consequences	15	0	23	21.54	<0.001
9	Suicide pacts	8	0	23	26.93	<0.001
30	Fictional reporting	8	0	23	26.93	<0.001
12	Cluster	15	0	15	15.38	<0.001
29	Self-help groups	8	0	15	15.38	<0.001

Press codes of ethics

Preventive factors	Cluster 1	Cluster 2	V^2	P-value
Public interest	29	64	72.78	<0.001
Considerate mentioning	0	100	250	<0.001
Detailed description	86	64	81.20	<0.001
Help in general	0	18	45.45	<0.001

Note. ⁻Numbers according to Table 1. For each potentially preventive factor and cluster, percentages are indicated. v^2-values and P-values are presented for differences in each variable per cluster.

recommendations and were published between 1990 and 2011. Their average word count is 789 (range: 180–1,594), which is significantly higher than that of cluster 2 (P ¼ 0.03) and significantly lower than that of cluster 3 (P ¼ 0.05). Of the recommendations in cluster 2, seven have been prepared by NGOs and one by a governmental organization. They were published between 1992 and 2008, with an average word count of 441 (range: 76–934), which is significantly lower than that of cluster 3 (P ¼ 0.002). Cluster 3 includes the WHO recommendations, two governmental, and ten non-governmental recommendations. Published between 2001 and 2011, it consists of the newest recommendations with an average word count of 1,321 (range: 290–3,189).

Press Codes of Ethics: Quantitative Analysis

Press codes were found online for 71 of 74 countries. In 18 of 71 countries (25%) there is a specific paragraph on reporting suicide in the press codes that were published between 1992 (Denmark) and 2012 (Austria). However, many codes deal with the broader topic of reporting traumatic situations and considering the feelings of bereaved persons. Media recom-mendations are available in 12 (67%) of the 18 countries with a paragraph on reporting suicide in the press codes. Of the 18 press codes, 72% include the factor detailed description, 61% considerate mentioning, 50% public interest, and 11% help in general.

Press Codes of Ethics: Qualitative Analysis

Two main clusters of press codes resulted (Table 3). Compared to cluster 2, the press codes in cluster 1 more often advise against detailed descriptions, but do not include the factors considerate mentioning and help in general. Three of seven countries (43%) in this cluster have national suicide prevention programs, two (29%) have media recommendations, and two have translations of the WHO recommendations in the national language. All four potentially preventive factors are mentioned by at least part of the codes in cluster 2. Except for detailed description, there are higher percentages of inclusion in cluster 2 than in cluster 1. Six of 11 countries (55%) in cluster 2 have national programs, seven (64%) have media recommendations, and one country (9%) has a translation of the WHO recommendations in the national language.

DISCUSSION

Considerable uncertainty exists about whether all relevant factors for preventing imitation are included in the existing media recommendations and whether they consider new media developments. In a survey to systematically assess the contents of media recommendations and press codes of ethics, 74 of 193 UN member states were found with online information on the existence or non-existence of national suicide prevention programs and=or a national IASP representative. Only 38% of these 74 countries have national suicide prevention programs. Of the 28 countries with media recommendations, 61% have national suicide prevention programs. In countries without national programs (39%) the recommendations might have been prepared in the context of regional prevention programs. Of 18 countries with a paragraph on reporting suicide in the press codes of ethics, 67% also provide media recommendations. However, even in countries without media recommendations (33%) there seems to be some awareness of considerate reporting on suicide, as it is included in the press codes. It might be easier to add a paragraph on reporting suicide to the press

codes of countries which already have media recommendations. A combination of national suicide prevention programs, media recommendations in the national language, and a paragraph on reporting suicide in the press codes exists in only 11% of the 74 countries. The analysis of similarities and differences in recommendations and resources for media professionals resulted in three main clusters of media recommendations and two main clusters of press codes. Of 31 analyzed factors that are potentially relevant for the prevention of suicide contagion, not describing suicide methods in detail is the only factor included in all media recommendations. This is promising, as detailed descriptions can implant ideas for suicide methods in people's minds, while restraints in reporting methods and the restriction of access to lethal means have proven to be an effective suicide prevention measure (Mann, Apter, Bertolote et al., 2005). The elaborateness of recommendations is associated with up-to-dateness, but not with the type of responsible organization. More recently published and more extensive recommendations include a larger amount of preventive factors. This could especially be shown for one cluster which includes the newest recommendations, has the highest word count, and also the highest proportion of included variables. All 31 potentially preventive factors are included in at least part of the recommendations in this cluster. Consequently, this cluster can be referred to as best practice model. Nevertheless, some factors that influence imitation are only mentioned by a minority (<25%) of all 34 media recommendations. Even the WHO recommendations are not included in all media recommendations. Consequently, the declaration of the World Health Organization (WHO), that toning down reports in the media is one of the six basic steps for suicide prevention (Bertolote, 1993), needs to be better implemented. Most strikingly, only 15% of all media recommendations include a paragraph on reporting suicidal behavior on the internet. The following strategies for optimization were derived from the analysis of potentially preventive factors that are rarely included in the recommendations.

How to Optimize Media Recommendations

Up-to-dateness. Media recommendations should be updated on a regular basis. Of the 34 media recommendations, 26% have not been revised since 2002, and 59% have not been revised since 2007. Recommendations have to include the most recent epidemiological data and consider changes in the contact details of help services. The responsible organizations should keep track with research on suicide contagion and with new media developments, and integrate these findings in new editions of recommendations.

Format. All relevant factors can only be mentioned if media recommendations have a minimum word count. On the other hand, due to journalists' pressure of time, recommendations should not contain too much text. A solution could be to combine short handouts (''at-a-glance-cards'') that include a list of preventive factors and contact details of a help service with more extensive versions that provide additional and background information.

Included Preventive Factors. The following factors which potentially prevent imitation, but are included by less than 25% of the media recommendations in this sample, should be added to new editions of recommendations.

- Not mentioning the name and characteristics of the suicidal person;
- Not referring to online suicide forums;

- Not mentioning an accumulation of suicidal acts at certain locations (hotspots);
- Not citing or printing photographs of suicide notes;
- Not mentioning positive consequences of suicidal behavior;
- Not mentioning suicide pacts;
- Not mentioning suicides that are close in time or space (suicide clusters);
- Referring to self-help groups.

A paragraph on fictional portrayal of suicidal behavior should be added, as there is evidence that this can also increase the likelihood of imitation (Hawton, Simkin, Deeks et al., 1999; Schmidtke & Ha¨fner, 1988).

New Media

The media landscape and, thus, research on suicide contagion, has developed from print media over radio and television broadcasts to new media (Gunn Ill & Lester, 2012). The suicide contagion effect has been demonstrated for traditional media (Stack, 2000), including first approaches to examine public obsequies broadcasted on television (Hegerl, Koburger, Rummel-Kluge et al., 2013; Ladwig, Kunrath, Lukaschek et al., 2012). A recent study revealed that broadcasting the funeral celebration of a popular celebrity that died by suicide seems to boost imitation (Ladwig, Kunrath, Lukaschek et al., 2012). To our knowledge, there are no studies on suicide contagion following reports in new media, including chat rooms, social networks, video-sharing websites, blogs, and micro blogs. Only 15% of the recommendations in this sample include a paragraph on the portrayal of suicidal behavior on the internet. The communication channels of new media differ substantially from those of traditional media (McQuail, 2010). A lot of writers are lay persons instead of editors and journalists (Lievrouw & Livingstone, 2009), which makes information distribution much more complex and necessitates close monitoring. Thus, recommendations on reporting suicidal behavior in new media should not only address editors and journalists, but also website providers, webmasters, and the virtual community itself. Teenagers which have been shown to be particularly susceptible to imitation (Gould & Shaffer, 1986) are highly represented among the audience of new media. Media recommendations need to highlight the distinctive features of new media and give advice on how to responsibly report suicidal behavior in new media. They should also focus on using new media as a platform for suicide prevention (e.g., to increase public awareness of mental illness and suicidality).

Accessibility. Translations of the WHO recommendations are available in 12 of the analyzed 74 countries. Further translations would be a cost- and time-effective means of implementing media recommendations in all 193 UN member states and, thus, highly desirable. Media recommendations should be accessible in journalism schools and institutions, and workshops for media professionals on responsible reporting of suicidal behavior should be held on a regular basis. Editors' and journalists' awareness for the risk of imitation might be increased by lobbying and disseminating media recommendations with stakeholders.

How to Optimize Press Codes of Ethics

Only 25% of the press codes of ethics in this sample include a paragraph on reporting suicidal behavior. Since press codes are assumed to be known by all journalists, this appears to be an efficient way to increase awareness for the risk of suicide contagion. Hence, all press codes should contain a paragraph on reporting suicidality. In particular, the factor of referring to help when reporting on suicidal behavior should be added. Currently, it is only included in 11% of the paragraphs. The

implementation of the recommendations has to be supervised by media monitoring agencies in order to respond to cases of irresponsible reports.

Limitations

Limitations include that only countries with online information in English, French, Italian, or Spanish language and=or a national IASP representative were included in the sample, which led to the inclusion of only 38% of the 193 UN member states. Information that is exclusively available in print media might have been overlooked. Since the study has a multinational focus, regional suicide prevention activities which might have a high impact (Hegerl, Wittmann, Arensman et al., 2008) have not been assessed. Also, media recommendations and press codes in the national languages might have been missed. The impact of media recommendations on the factual reporting style and on rates of suicidal acts has not been evaluated.

Future Research

The questions of if and how the implementation of recommendations is monitored, what steps are taken in cases of inadequate reporting, and which factors promote or hinder a good collaboration of media professionals and suicidologists have to be addressed in future research. Suicide and suicide attempt rates need to be measured as outcome variables. A questionnaire survey is recommended to assess journalists' attitudes towards responsible reporting against the economic desire for high circulation and the background of basic journalistic principles, such as the obligation to inform, due diligence, investigative journalism, and attractive journalistic style (Pu¨rer, 1996). Such a survey could also be helpful to work out the right balance between comprehensiveness and acceptability of media recommendations.

CONCLUSION

New media developments are fast-paced, and there is still a considerable lack of knowledge about the distinctive features of new media with regard to suicide contagion. Research needs to address means of preventing imitation after reports on suicidal behavior in new media. These findings should be added to the media recommendations in order to keep their practical relevance for journalists. Also, new media should be proactively used as a platform for suicide prevention.

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