

Increasing Help-Seeking and Referrals for Individuals at Risk for Suicide by Decreasing Stigma

The Role of Mass Media

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Increasing help-seeking and referrals for at-risk individuals by decreasing stigma has been defined as Aspirational Goal 10 in the National Action Alliance for Suicide Prevention's Research Prioritization Task Force's 2014 prioritized research agenda. This article reviews the research evidence on the impact of mass media awareness campaigns on reducing stigma and increasing help-seeking. The review will focus on both beneficial and iatrogenic effects of suicide preventive interventions using media campaigns to target the broad public. A further focus is on collaboration between public health professionals and news media in order to reduce the risk of copycat behavior and enhance help-seeking behavior. Examples of multilevel approaches that include both mass media interventions and individual-level approaches to reduce stigma and increase referrals are provided as well.

Multilevel suicide prevention programs that combine various approaches seem to provide the most promising results, but much more needs to be learned about the best possible composition of these programs. Major research and practice challenges include the identification of optimal ways to reach vulnerable populations who likely do not benefit from current awareness strategies. Caution is needed in all efforts that aim to reduce the stigma of suicidal ideation, mental illness, and mental health treatment in order to avoid iatrogenic effects. The article concludes with specific suggestions for research questions to help move this line of suicide research and practice forward.

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Introduction

The stigma of mental illness is a complex construct with affective, cognitive, and behavioral components that affects attitudes and behavior patterns at both the individual and population levels. Its reduction requires a multidirectional approach.¹ Measures such as federal antidiscrimination legislation have been shown to be an important cornerstone against stigmatization of mental illness, but multiple components of the stigma process are beyond the reach of legislation, and need to be coupled with preventive programs to positively impact

people's perceptions of mental illness or increase help-seeking across heterogeneous populations.^{1,2}

The reduction of stigmatization of mental illness is considered to be relevant to the prevention of a variety of adverse mental health outcomes, including suicide. From the perspective of a public health approach to suicide prevention, some suicide prevention advocates consider raising public awareness of the scope of the problem of mental illness and suicide as a first key step in reducing the public health problem.³

However, there is also the counter-argument that targeting the broader public to raise awareness of the scope of the problem may adversely affect vulnerable individuals.^{4–6} Adverse effects may be due to an increase in norms that describe suicidal behavior as common or frequent. This may increase the likelihood that individuals will believe that engaging in suicidal behavior is widespread and therefore acceptable.^{7,8}

Suicide prevention researchers and practitioners alike are frequently torn between these two lines of thinking, and there is currently mixed evidence regarding

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beneficial and harmful effects of broad-scale awareness programs.^{4,5,9} A 2006 survey by Research!America^{10,11} found that 89% of the U.S. population believed that mental health was as important as physical health, and 48% strongly agreed that “many suicides and suicide attempts can be prevented.” Further, input from the National Action Alliance for Suicide Prevention’s (Action Alliance) Research Prioritization Task Force (RPTF) stakeholder survey highlighted the reduction of stigma and increased help-seeking as a priority, because of a prevalent perception that suicidality continues to be stigmatized.¹¹ Persons bereaved by suicide describe isolation and misunderstanding of their loss as a result of this stigma.^{12,13}

This report focuses on various types of broad public health messaging/media-based approaches that aim at reducing the burden of suicide. These approaches include campaigns to reduce the stigma of mental illness and increase public awareness of suicide, media campaigns to increase help-seeking as well as efforts to prevent copycat suicides. The authors elaborate on how multilevel approaches are related to Aspirational Goal 10 and provide examples of research efforts that seem necessary to move the field of suicide prevention forward.

Influences on Help-Seeking

Individuals generally seek mental health services in a series of interactive stages that involve problem recognition, decision to seek help, and service selection. These stages can be influenced by a number of other factors, including attitudes and beliefs about suicide, health literacy, internal and external barriers, and perceived need for treatment.^{14,15} Studies on help-seeking often use heterogeneous definitions of help-seeking, and methodologic inconsistencies across studies have been noted in the literature.¹⁶

One of the few available conceptual frameworks that may help increase consistency across studies is the framework proposed by Rickwood and Thomas,¹⁶ which takes into account the specific part of the help-seeking process to be investigated, the source and type of assistance, and the type of mental health concern. Studies have inventoried reasons why individuals with suicidal ideation do not frequently seek help, some of which are outlined below.

Stigma—both self- and other-induced—is believed to reduce the likelihood that an individual will seek help to resolve a suicidal crisis.^{17,18} Men, who have the highest rate of suicide and lower rates of accessing care for many health problems, particularly mental health services, are assumed to have more stigma and resistance to help-seeking, as are people with less exposure to suicide, of

older age, with less education, or from culturally diverse backgrounds.¹⁸

According to Corrigan,¹⁹ stigma can be described “in terms of prejudice (agreement with stereotypic beliefs leading to hostile emotional responses, such as fear and anger) and discrimination (the behavioral consequence of prejudice, which leads to social distance and the loss of opportunity).” However, research on stigma of mental illness and suicidal ideation has been hampered by heterogeneous definitions of stigma. Furthermore, a shortage of validated scales to measure stigma has been noted in the literature.²⁰ A scale to directly measure the stigma of suicide in the community has recently been proposed by Batterham and colleagues²⁰ in Australia and was found to have robust psychometric properties that require international validation.

A lack of problem recognition has been found to be one of the most prevalent reasons among teenagers and adults for not seeking help for suicidal ideation or mental health issues.^{14,21–24} It is a more prevalent barrier to help-seeking among callers to the National Suicide Prevention Lifeline than financial or personal barriers (e.g., shame) or barriers related to perceptions about mental health services.²¹

Furthermore, maladaptive coping strategies, such as not considering external help, have been found most prevalent among high-risk youth,¹⁵ and help-seeking intentions seem to further decrease with increasing suicidal ideation (so-called help-negation).²⁴

News Media Approaches to Preventing Suicide

The media play an important role in the stigmatization of mental illness, suicidal ideation, and persons bereaved by suicide. The reduction of stigmatization by influencing public perceptions of suicide has been an important target in media-related suicide prevention efforts over the last two decades. Unfortunately, there are many discrepancies between typical media reports of suicide and actual suicide in the population, which may generate and help maintain stereotypes of suicide.

Suicide reports in news media are selective, frequently underreport the relationship between suicide and mental illness, and focus frequently on the reporting of homicide suicides.^{25–27} Repetitive reporting of suicide in the context of homicide may increase or contribute to maintaining the stigmatization of suicidal individuals and of those bereaved by suicide. Young people without past experiences of seeking professional help have been found to largely rely on inaccurate media stereotypes.²⁴ The discrepancies between the realities of suicide prevention and the reality portrayed in the mass media

therefore warrant attention in public education on suicide prevention.

Following the publication of Goethe's *The Sorrow of the Young Werther* in 1774,²⁸ several suicides by young men of similar age and with suicide motives like the protagonist in Goethe's novel were reported in the literature. There is strong evidence today that media portrayals of suicide can lead to additional suicides, the so-called Werther effect, but negative findings also continue to be reported.^{29–32}

The evidence of copycat behavior is strongest following media coverage of a celebrity suicide, and for other types of repetitive, high-quantity reporting.^{29,33,34} A recent meta-analysis²⁹ identified an average significant cumulative increase of 0.26 suicides per 100,000 people in the month following reporting on a celebrity suicide. The effect seemed to vary with the type of celebrity involved, with entertainers having the largest impact.²⁹ Effects have been shown to be most pronounced in subpopulations that resemble the portrayed suicide with regard to gender, age group, and selected suicide methods.^{34,35}

Although most research has focused on the impact of news media reporting, some studies also have detected potential copycat behavior following fictional media programs.³⁶ For example, a fictional German TV series featuring the suicide of a teenager—which was produced in the 1980s with an aim to increase awareness of suicide—was associated with a strong increase in suicides among teenagers and young adults of similar age who used the same suicide method. An increase was witnessed again when the series was repeated later on.³⁷

Most studies rely on aggregate data to analyze potential copycat behavior. These studies cannot account for whether those who died by suicide after the broadcast were actually exposed to the broadcast. Ecologic studies may also be subject to ecologic fallacy. There are only a limited number of individual-level studies available that support the negative influence of some sensationalist suicide reports on actual suicidal behavior.³¹

The consideration of potential copycat behavior and prevention thereof is essential in any public media discourse on suicide, including both media reporting on suicide and campaigns to increase awareness of the problem of suicide. Particularly with regard to news reporting, prevention efforts frequently involve the distribution of media recommendations for suicide reporting.

The U.S. recommendations were revised and released in 2012 by several national and international suicide prevention organizations in partnership with journalism and media representatives and are available at reportingonsuicide.org (see also nimh.nih.gov/health/top

reportingonsuicide.org (see also reportingonsuicide.org). Similar recommendations are available from the WHO.³⁸ There is some evidence that media recommendations have resulted in improved and less sensational media reporting about suicide^{39–42} and may have even contributed to a decline in suicides.⁴²

A suicide-protective effect of news articles featuring someone overcoming a suicidal crisis has been termed the Papageno effect—after the character in Mozart's opera *The Magic Flute*, who overcomes his suicidal crisis in the last minute because of three boys who remind him of alternative coping strategies.³² Reporting on individual mastery of crises is recommended in media guidelines for reporting suicide. In an Austrian sample, these news articles turned out to lack the sensationalist characteristics that were common in some articles on completed suicide and suicide statistics.³²

The problem of suicidal ideation and how to cope with it was raised in a responsible way in these articles, which may help reduce stigmatization of suicidal ideation and of individuals who suffer from suicidal thoughts. Moreover, publication of articles on coping with suicidal ideation was associated with a decrease in suicide rates in the area where they were widely distributed, suggesting that these articles may have a suicide-protective effect.

A potential explanation for a protective effect of these media reports may derive from the inherent social normative messages in media reports on mastery of crisis, which present help-seeking and constructive behaviors as the outcome of psychosocial crisis and may thereby manage to increase the psychological availability (sometimes referred to as “cognitive availability”⁴³) of alternatives to suicide. Portrayals of ways on how to actively cope with suicidal ideation, emphasizing other options than suicide, may help to broaden the perspective in some individuals, particularly those in the psychological state of cognitive and affective constriction that has frequently been used to describe the dangerous tunneling and narrowing of the range of opportunities in suicidal individuals.^{44,45}

Awareness Campaigns Using Mass Media as a Tool

Media awareness campaigns comprise a heterogeneous set of prevention efforts that pursue the goals of either decreasing the stigma of mental illness, raising awareness of the problem of suicide, increasing help-seeking, or, most frequently, a combination of several of these goals. Some of the campaigns focus primarily on mental illness (particularly depression), whereas others focus primarily on suicide. Accordingly, the campaign structures and

evaluation methods vary widely, but all of these efforts are based on the aspiration to ultimately help prevent suicide.

In general, broad awareness campaigns can be considered a type of social advertising,^{46,47} which differs from conventional advertising by focusing on information that reminds people of their vulnerability and mortality, thereby triggering fear. Social advertising typically activates psychological defense mechanisms in the audience more so than conventional advertising, which may reduce the effectiveness of these messages.⁴⁸ Broad awareness campaigns may require additional components to effectively enhance learning and motivation in the target group to adopt the advertised behavior.

Many of the currently used awareness programs in suicide prevention apply a broad-scale approach. Yet, awareness campaigns that aim at increasing awareness or knowledge of suicide using media rarely apply the findings from media research. Moreover, studies on the effectiveness of awareness campaigns are currently scarce and provide mixed results, at best. In a review of 15 public campaigns about depression or suicide awareness between 1987 and 2007, Dumesnil and Verger⁴⁹ found only a modest improvement in public knowledge of and attitudes toward depression or suicide. Most studies did not assess the durability of the attitude changes, and none of these programs demonstrated an impact on help-seeking.⁴⁹

For high-risk groups, such as individuals with major depression and suicidal ideation, no improvements in terms of attitudes toward treatment seeking and, more importantly, treatment-seeking behavior, were reported following an intensive community education program in Australia.⁵⁰ Furthermore, studies failed to demonstrate an effect on important primary outcome measures such as suicidal ideation or behavior.

A billboard study conducted by Klimes-Dougan et al and the Suicide Awareness Voices of Education (SAVE) in 2009⁵ indicated that when exposed to the public awareness message “Prevent suicide. Treat depression. See your doctor,” adolescents most vulnerable to suicide, but not those with low vulnerability, had an increase in maladaptive coping behaviors. The findings of this study were largely replicated in a young adult population⁶ and clearly suggest that caution is warranted when awareness campaigns are used to educate the public about suicidality.

Such campaigns may have unwanted backlash effects, or may not reach the most vulnerable populations. For example, in Austria, a 20-fold increase in utilization of a crisis hotline after the promotion of the crisis line telephone number on national television was reported,

along with a tripling of clients at the crisis center. However, the proportion of suicidal individuals among clients decreased considerably after the campaign.⁴⁵ A significant increase of calls to an emergency mental health service was also reported following a mass media campaign in Cuyahoga County, Ohio.⁵¹ This campaign adopted the message “Suicide is preventable. Its causes are treatable. For immediate help call (emergency number).”

Besides campaigns that primarily aim to increase knowledge of suicide risk or increase awareness of services, there are also examples of campaigns that focus directly on the stigma of mental illness with the aim of changing public attitudes to mental illness on a broader level.¹⁹ However, there is little evidence that supports that public service announcements addressing the stigma of mental illness are effective in reducing prejudicial attitudes and discriminatory behaviors.¹⁹

For example, factsheets from the Royal College of Psychiatrists’ Changing Minds campaign in the United Kingdom on stigmatizing attitudes of the general public toward schizophrenia or substance use disorders were largely ineffective in changing these attitudes in the study participants.⁵² Another campaign targeting youth and young adults in British Columbia, Canada,⁵³ featured a prominent male sports figure talking about mental health issues and used online social media to convey its message. It resulted in an increase of campaign and website awareness, and those who were exposed to the campaign were significantly more likely to talk about and seek information relating to mental health issues. However, attitudes toward mental health issues did not change.⁵³ It has been noted that more evaluation of these types of campaigns is warranted, particularly regarding tangible positive impacts that go beyond the assessment of penetration in the population.¹⁹

There are also campaigns and initiatives that aim at improving attitudes toward treatment and health services. Help-seeking attitudes are thought to be a key barrier to service use for mental health problems. A meta-analysis of studies on help-seeking attitudes revealed an increasingly negative attitude toward help-seeking between 1968 and 2008,⁵⁴ which has been hypothesized as an unintended side effect of marketing biological therapies and medicalizing mental health problems.⁵⁴

The evidence for the effectiveness of related campaigns that address attitudes toward mental health services is mixed.⁵⁴ For example, Jorm and colleagues⁵⁵ conducted an RCT to assess the effect of evidence-based consumer guides on effective treatment options for depression in a randomly selected community sample of individuals who screened positive for depression. The results showed

that attitudes to some treatment options improved. However, there were no increases in actual help-seeking.⁵⁵

Multilevel Approaches

Multilevel approaches using individual-level strategies, such as gatekeeper training, to complement a campaign using media as a tool to distribute information to a smaller, well-defined audience has been used frequently in recent years, and some evaluations show promising results.⁴ A Germany-based awareness campaign focusing on depression has involved physician training, information and awareness campaign for the broad public (e.g., movie spots, flyers); educational training for gatekeepers including teachers, priests, or geriatric care staff; as well as support of self-help-activities.^{56,57}

There was a significant reduction of completed and attempted suicide combined following the program. Furthermore, there was some improvement in public knowledge of depression, which did not, however, include an improvement of negative attitudes toward antidepressant medication.^{56,57} In Australia, a multimedia campaign promoting mental health literacy and help-seeking behavior increased awareness of suicide risk, depression, and other mental health issues and reduced the perceived barriers to seeking adequate help in youth.⁹

In the U.S., Boeke, Griffin, and Reidenberg⁵⁸ reported that, following a 6-month awareness campaign on suicide prevention in Minnesota, knowledge of how to help a depressed or suicidal person was good among individuals who participated in the evaluation. They identified a need to involve physicians and other healthcare providers in such campaigns. Physician and other gatekeeper trainings that might be used to complement media campaigns may occur in a variety of settings (e.g., schools, military installations, community settings). They have yielded partially positive findings regarding their effects on knowledge of suicide and attitudes toward suicide, intent to seek treatment, and referral behaviors.^{4,59}

However, outcomes documenting behavioral changes are limited, particularly for the highest-risk individuals. Gatekeepers with professional responsibilities related to referral seem more likely to increase referral behaviors⁶⁰ and intent to seek treatment,²² but it is not clear if their enhanced skills are sufficient to reach the individuals most in need of referral. Few programs have directly addressed the reduction of stigma as a goal.

A program in the U.S. Air Force that focused on decreasing the stigma of help-seeking included several components such as education of leadership and staff, guidelines for commanders on the use of mental health services, the establishment of trauma stress response

teams, and surveillance measures.⁶¹ An evaluation of this initiative indicated a statistically significant decline in suicide rates over time compared to baseline but did not include an evaluation of its impact on stigma associated with help-seeking.⁶¹

Future Research

Future research needs to focus on appropriate ways of providing information about suicidality in order to reduce stigma of suicidal ideation, mental illness, and stigmatization of those bereaved by suicide, to increase help-seeking behavior and referrals, and to ultimately reduce suicides. Awareness campaigns and multilevel intervention approaches, such as combinations of broad public health approaches using the mass media and individual-level approaches using gatekeeper training, need to be evaluated with regard to their overall effectiveness, and attempts should be made to identify which of the single components are most effective. Particular emphasis also needs to be placed on the evaluation of effects on individuals at risk for suicide.

Most researchers agree that audience characteristics, sender characteristics, and the actual media content influence media effects; therefore, a consideration of several factors that may determine media effects will help guide this research.

A paucity of research exists for individual audience characteristics, including risk status, which may impact media effects. A focus on these characteristics may shed light on the understanding of both protective and harmful media effects. For example, personal suicidal ideation may influence the reception and effects of media products. In a recent laboratory experiment, individuals with higher baseline suicidal ideation before watching a movie with suicidal content were more likely than audiences with lower suicidal ideation scores to get ideas about their own problem solving from the films.⁶²

From a sender perspective, qualitative research on journalist perspectives has identified commercial competition, willingness to address social problems, and reading interest as main drives for suicide reporting.⁶³ Research on journalists' attitudes about reporting on suicide and the published media recommendations may assist in the successful dissemination, implementation, and adherence to media recommendations.

The question of how and what to report in order to reduce the stigma surrounding mental illness, suicidal ideation, and suicide decedents without promoting suicidal behavior, while still providing information on risk and protective factors and coping strategies, including treatment resources, remains the foremost public

health challenge regarding the media's role in suicide prevention and stigma reduction.

More evaluation work is needed to determine the impact of media recommendations on the quality of reporting and suicide rates.⁴² Moreover, the specific recommendations require further scientific evaluation, as they are mainly based on expert opinions. Media recommendations also need some adaptation to meet the requirements of emergent media sources such as online news and social media.

More research needs to focus on the underlying mechanisms of media effects.⁶⁴ A recent review⁶⁵ has identified a clear lack of studies on the protective effects of media reporting whereas there are many on harmful effects. Because this research may open up new opportunities for awareness campaigns and reporting on suicidal ideation and suicide in news media, a stronger emphasis on protective effects seems necessary in future research endeavors.

For all types of media campaigns, including those that address public awareness of suicide risk, public awareness of services to prevent suicide, mental health issues on a broader level, or stigmatization of suicide and mental illness, more evaluation work is needed. The specific aims and objectives need to be defined well in advance, and predefined primary and secondary outcomes need to be evaluated.

In anti-stigma campaigns, the ultimate question is how to talk about suicide and reduce the stigmatization of suicidal ideation and mental illness without additional risk to vulnerable groups. Stigma associated with suicidal ideation and mental illness frequently hinders individual disclosure of mental health issues and adequate responses to suicidal communication and thereby hampers suicide prevention efforts. Stigma reduction efforts should therefore promote communication and disclosure of suicidal ideation. Guidelines on how to develop a stigma reduction initiative are available from the Substance Abuse and Mental Health Services Administration (SAMHSA) and may assist in the development of anti-stigma campaigns.⁶⁶

Caution is needed to avoid normalizing the suicidal acts in these campaigns, which may have adverse effects. Research findings from media and communication studies need to be considered when developing awareness campaigns to reduce the risk of harm. In the short term, experimental studies that shed light on several core research questions related to the impact of the intervention need to be conducted before awareness campaigns on the community level are implemented. Some of these questions are outlined below.

Priority should be given to RCTs and well-planned controlled research designs, which are currently scarce.⁴

Vignettes or other stimuli and cognitive interviewing could be used to identify potentially useful or iatrogenic content for stigma-reduction and help-seeking interventions. Quantitative and qualitative research as well as combinations of both will be necessary.

Some specific research questions may include the following: (1) What is the immediate impact of specific awareness/information messages (in news media or in awareness campaigns) in terms of actual help-seeking behavior? (2) What individual characteristics impact/mediate any immediate media effect? For example, do media effects vary with regard to age, gender, personality characteristics, and suicide risk status of the audience? (3) How are messages interpreted in relation to how they are intended, with a particular focus on those vulnerable to suicide? (4) What are the effects of media campaigns focusing primarily on suicide or suicide prevention as compared to campaigns that address mental health issues or their prevention in terms of outcomes relevant to suicide prevention? and (5) How do vulnerable individuals use media to obtain information related to suicide and suicide prevention?

Finally, owing to the documented shift in the media landscape from more traditional media types to online and other new forms of mass media, including social media,⁶⁷ differences between effects of awareness messages delivered online and via traditional media types require evaluation.

Social relationships based on trust and understanding are clearly established factors that facilitate help-seeking.^{24,45} It is therefore necessary to investigate how individuals can best establish these relationships in times of need. Conflict resolution training, which includes problem recognition training in various settings such as schools but also via online media, may help to increase problem-solving skills.

Men and boys in particular need to be encouraged to express emotions in ways that are perceived as strength rather than weakness,²⁴ and research should focus on groups known to show more resistance toward help-seeking. Whether findings from such studies can be used to shape future media campaigns is an empirical question. Individual-level or multilevel strategies may be best suited to facilitate the enhancement of social relationships and problem-solving skills that underlie help-seeking behavior.

Multilevel interventions using several intervention approaches that may complement each other tend to show more promising results than single-level interventions and are increasingly used and recommended.^{60,68} However, substantially more research is needed to determine the effectiveness of multilevel interventions. Promising multilevel programs that should be examined

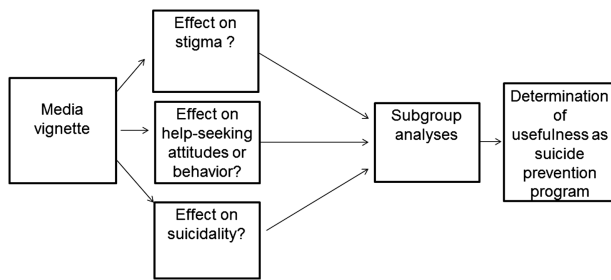


Figure 1. Proposed step-by-step research pathway for media research

further are educational programs that target the public and are combined with training of practitioners and primary care personnel in the diagnosis and treatment of depression and suicidality.^{59,69}

Novel analytic strategies are needed to compare the potential benefits of individual-level interventions targeting high-risk groups with those of more mass media/public health approaches. Research is also needed to identify the optimal balance or combination of individual-level and public health-level approaches in order to achieve their maximum impact.

Depending on the aims and target group of an education program using media, researchers can select appropriate candidate media vignettes. For anti-stigma campaigns, examples of outreach materials are available from SAMHSA.⁶⁶ If the aim of the initiative is to encourage individuals to intervene if someone close to them is suicidal, the theory of planned behavior (TPB) has recently been proposed to guide the content of persuasive messages. The TPB posits that a person's behavior can be predicted by attitudes toward the behavior, subjective norms related to the behavior, the intention to perform that behavior, and control beliefs that describe beliefs about being able to perform the action based on the presence of skills, absence of obstacles, and other factors.⁷⁰ Salient relevant beliefs associated with the specific outcome can be assessed using open-ended interviews or focus group techniques.⁷⁰

If the media campaign targets individuals at risk for suicide or if at-risk individuals are to be exposed to the campaign, the selected media vignette should be tested regarding their effect on self- or perceived stigma, help-seeking attitudes, and suicidality (Figure 1). The vignettes should be tested for different types of audiences within the target population (e.g., groups with different suicide risk status) to determine their appropriateness as a suicide prevention initiative. It is essential that evidence from different settings be combined to identify the most promising elements and complementary components for suicide prevention programs.

Conclusions

Suicide is a significant public health problem for which all aspects should be addressed seriously, including awareness efforts. In this article, the authors have provided evidence for mass media as a powerful tool to address the stigma surrounding suicidal ideation and mental illness, although more research is needed before any definitive conclusions can be made about how this tool can best be used to increase help-seeking and prevent suicide, particularly in vulnerable populations. Recent findings such as the responsible reporting patterns in news articles on individual mastery of crisis, which were associated with a possible suicide-protective Papageno effect, provide an important basis for further research in the topic area.

All suicide preventive interventions should carefully consider the recommendations for reporting suicide when using media as a tool. Because of the omnipresence of mass media in everyday life and their use by even the most vulnerable populations, research on how to provide the best suicide prevention possible via mass media constitutes a high priority and timely topic area for suicide research and prevention.

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