



### Meta-Analysis: Risk of Bias Assessment

- Risk of bias assessment with adapted Robins-I tool
- Tool originally designed for non-randomized cohort designs
- Six domains: bias in **classification of interventions**; bias as a result of **confounding** issues; bias because of preparatory phases; bias because of missing data; bias in measurement of the outcome; and bias in **selection of reported results**

### Meta-Analysis: Risk of Bias Assessment

- Risk from confounding:
  - number of pre-intervention times not sufficient to allow characterisation of the series;
  - analysis techniques do not account for time trends and time patterns;
  - possible confounders not controlled for
- Suggested solution: **Poisson regression with controls for underlying time trends and covariates**

► Crisis, 2024 May 21, doi:10.1027/0227-5910/a000961. Online ahead of print.

#### Evaluating Population-Level Interventions and Exposures for Suicide Prevention

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**Abstract**

Evaluations of interventions targeting the population level are an essential component of the policy development cycle. Pre-post designs are widespread in suicide prevention research but have several significant limitations. To inform future evaluations, our aim is to explore the three most frequently used approaches for assessing the association between population-level interventions or exposures and suicide - the pre-post design, the difference-in-difference design, and Poisson regression approaches. The pre-post design and the difference-in-difference design will only produce unbiased estimates of an association if there are no underlying time trends in the data and there is no additional confounding from other sources. Poisson regression approaches with covariates for time can control for underlying time trends as well as the effects of other confounding factors. Our recommendation is that the default position should be to model the effects of population-level interventions or exposures using regression methods that account for time effects. The other designs should be seen as fall-back positions when insufficient data are available to use methods that control for time effects.

Spittal MJ, Gunnell D, Sinyor M, Clapperton A, Roberts L, Pirkis J, Niederkrotenthaler T. Evaluating Population-Level Interventions and Exposures for Suicide Prevention. *Crisis*. 2024 May 21; doi: 10.1027/0227-5910/a000961. Epub ahead of print. PMID: 38770800.

### Meta-Analysis: Risk of Bias Assessment

- Selective reporting was also potentially relevant for some studies:
  - Outcome measurement and analyses not clearly defined / consistent in the methods and results sections
  - Selective reporting from multiple analysis methods, multiple follow-up times, or multiple subgroups
- **Pre-registration recommended**

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#### Role of media reports in completed and prevented suicide: Werther v. Papageno effects

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**Background**  
Media reporting of suicide has repeatedly been shown to trigger suicidal behaviour. Few studies have investigated the association between specific media content and suicide rates. Even less is known about the possible preventive effect of suicide-related media content.

**Aims**  
To test the hypothesis that certain media content is associated with an increase in suicide, suggesting a Werther effect, and that other content is associated with a decrease in suicide, conceptualised as a Papageno effect. Further, to identify studies of media articles with similar reporting profiles and to test for associations between these content and suicide.

**Method**  
Content analysis and event case analysis (ECA) of 897 suicide-related print media reports published in Austria between 1 January and 31 June 2002. Statistical models to identify associations between media text content and short-term changes in suicide rates.

**Results**  
Separate reporting of the same suicide and the reporting of suicide myths were positively associated with suicide rates. Coverage of individual suicidal ideation risk accompanied by suicide risk factors was negatively associated with suicide rates. The ECA revealed that clusters of media reports, when the country of origin was limited to individuals who adopted coping strategies other than suicidal behaviour in adverse circumstances were negatively associated with suicide, whereas the report content class and the sociodemographic facts class were positively associated with suicide.

**Conclusions**  
The impact of suicide reporting may not be restricted to harmful effects; rather, coverage of positive coping in adverse circumstances, as contained in media items about suicidal ideation, may have protective effects.

**Declaration of interest**  
None.

Evidence suggests that there is an increase in suicides following media reports of suicide, which is frequently referred to as a Werther effect, although the effect size is smaller than for other psychosocial risk factors for suicide.<sup>1,2</sup> The risk is thought to depend not only on reader characteristics,<sup>3,4</sup> but also on media content.<sup>5,6</sup> In order to prevent side media coverage, the World Health Organization (WHO) and national

however, he refrains from suicide because of three boys who share his interests in alternative coping strategies.<sup>7,8</sup>

**Method**  
Sample of media reports

### Epidemiology class (8%)

#### Vier Fensterstürze, zwei Tote und drei Verletzte

Jährlich bis zu 60.000 Suizidversuche in Österreich

Wien - Mit einer Zahl für den Monat vorläufigen Anstieg um 10 Prozent. Die Statistik Austria hat die Zahlen für den Monat vorläufigen Anstieg um 10 Prozent. Die Statistik Austria hat die Zahlen für den Monat vorläufigen Anstieg um 10 Prozent.

### Professional expert opinion class (12%)

**Wirksames Antidepressivum in der Gelben Box**

Depressionen sind oft in der Gelben Box zu finden. Ein Antidepressivum ist ein Medikament, das die Stimmung verbessert und die Symptome der Depression lindert. Es ist wichtig, dass man es regelmäßig einnimmt und sich Unterstützung sucht.

**Der Spiegelman**

Der Spiegelman ist ein Roman von Saul Bellow, der die Geschichte eines jüdischen Einwanderers in den USA erzählt. Der Protagonist, Samuel Goldensohn, ist ein erfolgreicher Geschäftsmann, der sich mit den Herausforderungen des amerikanischen Lebens auseinandersetzt.

### „Suicide case“ class (72%)

#### David Foster Wallace 1962-2008

Der US-Autor, Jongleur der Wirklichkeitspartikel, schied tragisch aus dem Leben

*Dominik Kernhuber*

David Foster Wallace (1962-2008) war ein amerikanischer Schriftsteller, der für seine satirischen Romane und Essays bekannt ist. Sein bekanntestes Werk ist 'Infinite Jest', ein Roman über die menschliche Psyche und die Suche nach Glück. Wallace starb im Alter von 36 Jahren an einer Überdosis Heroin.

**No association with suicides**

### Papageno class (9%)

**Um Haarsbreite am Selbstmord vorbei**

Ein Haarsbreite am Selbstmord vorbei. Ein Bericht über einen Mann, der sich in der letzten Minute von einem Sprung von einem Balkon abhalten ließ. Die Geschichte zeigt die Macht der Hoffnung und die Unterstützung durch Freunde und Familie.

LATENT CLASS RESULTS	Epidemiology class (12%)	Expert class (8%)	Mastery of crisis class (9%)	Suicide case class (72%)
<b>Protective characteristics</b>				
Prevention programme	---	+++	---	---
Mastery of crisis	---	---	+++	---
Suicide research & statistics	+++	---	---	---
<b>Expert opinion</b>	---	+++	---	---
Myths debunked	---	+++	---	---
Contact information support	---	+++	---	---
<b>Harmful characteristics</b>				
Suicide epidemic	+++	---	---	---
Several suicidal acts	+++	---	---	---
Societal problems increase & cause suicide	---	+++	---	---
Dichotomous thinking (sensationalism)	+++	+++	---	---
Suicide myths (not debunked)	+++	---	---	---

### Papageno Effect

- Portrayal of how to cope with suicidal thoughts
- Lived experience
- Narrative of hope & recovery ("mastery")

**Um Haarsbreite am Selbstmord vorbei**

Ein Bericht über einen Mann, der sich in der letzten Minute von einem Sprung von einem Balkon abhalten ließ. Die Geschichte zeigt die Macht der Hoffnung und die Unterstützung durch Freunde und Familie.

### Articles

#### Effects of media stories of hope and recovery on suicidal ideation and help-seeking attitudes and intentions: systematic review and meta-analysis

Thomas Niederkrottenhauer, Daniela E. Torgler-Kocher, Mark Singer, Marko Bruner, Jan Pfab, Ulrik S. Kjaer, Maria Vassak, Felicia Ansel, Marlene Thaler, Julia Eder, Felix Kling, Malin Lohndorf, Simon Dal, Marlene Ujfalvi

**Summary**

Background: There is strong evidence that media stories about suicide by celebrities, particularly those that highlight the suicide method (the Werther effect), have led to an increase in suicidal ideation and help-seeking attitudes. However, it is less clear how media stories about hope and recovery (the Papageno effect) influence suicidal ideation and help-seeking attitudes. We aim to summarize findings from randomized controlled trials about the effects of stories of hope and recovery on individuals with some degree of vulnerability to suicide.

**Methods**

We conducted this systematic review and individual participant data meta-analysis, we searched PubMed (including MEDLINE), Scopus, Embase, PsycInfo, Web of Science, and Google Scholar published from inception to August 4, 2021, without language restrictions. We included trials that reported suicidal ideation (the primary outcome) or help-seeking attitudes or intentions as secondary or tertiary outcomes of hope and recovery. Studies were included if they did not feature a clearly positive story of hope and recovery, or had a control group exposed to non-suicidal stimulus material. We contacted the lead or senior authors of all eligible studies to obtain participant-level data for this study. The primary analysis was restricted to individuals with some vulnerability to suicide. Risk of bias was assessed using the Cochrane risk-of-bias tool for randomized trials. The study is registered with PROSPERO, number CRD4202221291.

**Findings**

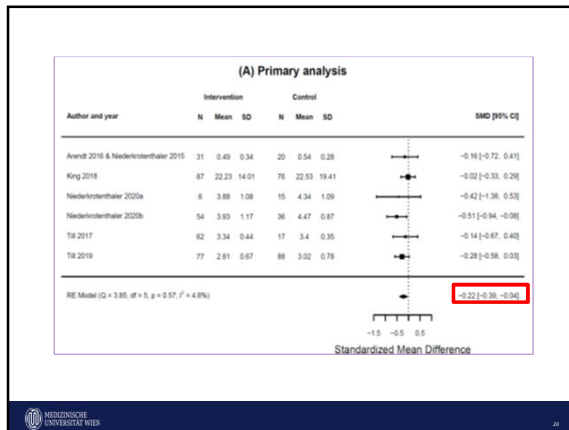
Our search yielded 747 records. 1820 records were screened by title and abstract, and 25 full-text records assessed for eligibility. There were eight eligible studies with 2100 participants for which individual participant data were sought. The suicidal ideation, or studies met the inclusion criteria for the primary analysis. Follow-up responses were available for 1607 (76%) of 2100 participants who were randomized with high vulnerability (141 (7%) allocated to the intervention group and 219 (14%) to the control group). The pooled standardized mean difference (SMD) indicated a small reduction in suicidal ideation at  $z = 22$  (95% CI = 19 to 26,  $p < .001$ ) in studies in the intervention group. For help-seeking attitudes and intentions, four studies met the inclusion criteria and follow-up data were available for 162 (77%) of 2100 participants (207 (13%) allocated to the intervention group and 151 (9%) to the control group). The pooled SMD showed no evidence of a difference between the groups (SMD = 14, 95% CI = 15 to 13,  $p = .16$ ); four studies. Low levels of cross-study heterogeneity effect were observed for both outcomes (I<sup>2</sup> = 0% [suicidal ideation] and  $I^2 = 30%$  [help-seeking attitudes and intentions]). We found no evidence of publication bias.

### Defining Papageno stories

Inclusion and exclusion criteria related to story content (Niederkrötenhaler et al., 2022):

- Media interventions included satisfied all the following criteria:
- focus on suicidal ideation in the absence of near-fatal or fatal suicidal behaviours;
  - feature a personal narrative of hope and recovery;
  - primary interest in stories featuring hope and recovery from the perspective of an individual experiencing a suicidal crisis or ideation, but stories from other perspectives (eg, stories emphasizing recovery but featuring peers or professionals) were also included.

Studies were excluded if they did not feature a clearly positive story of hope and recovery.



### Considerations about the definition of „Papagenoish“ content

Since first description of the Papageno effect, many more stories of hope and recovery have been created and published in a wide variety of media

The definition of Papageno narratives needs some refinement and update to reflect the broad range of current narratives about “hope and recovery / mastery of crisis” (“Papagenoish narratives”)

- What are the main ingredients (content characteristics) of different current “Papagenoish” stories?
- Do these narratives have a differential impact? E.g., Papageno narratives with and without method descriptions
- Are there any differences across media types?



## Effects of Papageno stories among psychiatric inpatients

European Psychiatry  
www.cambridge.org/epa

Effects of media stories featuring coping with suicidal crises on psychiatric patients: Randomized controlled trial

#### Viewpoint

**Cite this article:** Niederkrötenhaler T, Baumgartner J, Kautzky A, Fellinger M, Jahn R, Wippel A, Topitz A, Wancata J, Til B (2021). Effects of media stories featuring coping with suicidal crises on psychiatric inpatients: Randomized controlled trial. *European Psychiatry*, 64(1), e70. <https://doi.org/10.1192/j.eurpsy.2021.2244>

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**TYPE OF PAPER:** media, Papageno effect, randomized controlled trial, suicide

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**Abstract.** Accumulating evidence suggests beneficial effects of media stories featuring individuals mastering their suicidal crises, but effects have not been assessed for psychiatric inpatients. We randomized n = 172 adult psychiatric patients (n = 172, 97.1% inpatients) to read an educational article featuring a person mastering a suicidal crisis (n = 92) or an unrelated article (n = 80) in a single-blind randomized controlled trial. Questionnaire data were collected before (T1) and after exposure (T2) as well as 1 week later (study end-point, T3). The primary outcome was suicidal ideation as assessed with the Reasons for Living Inventory; secondary outcomes were help-seeking intentions, stigmatization, and stigmatization. Differences between patients with affective versus other diagnoses were explored based on interaction tests. **Results.** We found that patients with affective disorders (n = 90) experienced a small-sized reduction of suicidal ideation at 1 week follow-up (mean difference to control group [MD] at T3 = -0.17 [95% CI: -0.33, -0.01], d = -0.15), whereas patients with nonaffective diagnoses (n = 73) experienced a small-sized increase (T3 MD = 0.24 [95% CI 0.06, 0.42], d = 0.19). Intervention group participants further experienced a nonsustained increase of help-seeking intentions (T3 MD = 0.53 [95% CI 0.1, 0.95], d = 0.19) and a nonsustained deterioration of mood (T3 MD = -0.14 [95% CI -0.27, -0.02], d = -0.17). **Conclusions.** This study suggests that patients with affective disorders appear to benefit from media materials featuring mastery of suicidal crises. More research is needed to better understand which patient groups are at possible risk of unintended effects.

- Randomized controlled trial of n = 172 adult psychiatric patients (97.1% inpatients) to read an educative article featuring a person mastering a suicidal crisis (n = 92) or an unrelated article (n = 80)
- Questionnaire data were collected before (T1) and after the reading (T2) as well as 1 week later (study end-point, T3).
- Primary outcome: suicidal ideation; secondary outcomes: help-seeking intentions, stigmatization (normalizing attitudes to suicide).
- Differences between patients with affective (F30-39) versus other diagnoses were explored with interaction tests

Niederkrötenhaler T, Baumgartner J, Kautzky A, Fellinger M, Jahn R, Wippel A, Koch M, König-Castillo D, Höflich A, Slamanig R, Topitz A, Wancata J, Til B (2021). Effects of media stories featuring coping with suicidal crises on psychiatric patients: Randomized controlled trial. *European Psychiatry*, 64(1), e70, 1–5 <https://doi.org/10.1192/j.eurpsy.2021.2244>

### Die Bewältigung einer suizidalen Krise

Martina ist eine jener anonymen Anruferinnen, die bei der Telefonseelsorge Hilfe fanden. Im Interview spricht sie über die Bewältigung von suizidalen Krisen.

#### VON THOMAS KATT

**Begrenz (M) Martina ist 40 Jahre alt und von Beruf Bankangestellte. Und sie ist eine jener anonymen Anruferinnen, die – kurz vor dem Selbstmord – bei der Telefonseelsorge Hilfe suchten. Wir verabredeten uns in einem Kaffeehaus in der Nähe ihres Büros. Martina blickt über dem Belieband von der Zeitungskäfige auf. Weiße Blau, schwarze Haare.**

Thomas: Kennst du Halo Martina. Du hast vor einigen Jahren eine schwere suizidale Krise durchlebt. Was ist es an dieser Krise gekommen?

TK: Es war also eine seiner Leibesbeschäftigung für Dich, was es denn natürlich nicht immer leicht fällt. Was genau ist passiert?

M: Ich hatte einen Selbstmordgedanken mit dem Mann meiner besten Freundin. Meiner Freundin kam dazwischen und rief mich an, um mir zu sagen, dass sie von mir nicht mehr mit mir zu tun haben wollte. Sie dachte mir sogar, mich umzubringen. Ich nahm den Anruf wie unter Narkose entgegen. Vollig entsetzt.

TK: Wie ist es zu diesem Zeitpunkt gekommen?

M: Ich habe diese eine Nacht noch genau in Erinnerung. Das Ehepartner meiner Freundin und ihrem Mann war lange schon zerstritten. Ich hatte ihm zugesehen, wie er in dieser Nacht immer noch mehr als das.

TK: Und als Deine Freundin das herausfand, rief sie Dich an. Bist es bei diesem Anruf?

M: Nein. Am Tag nach dem Anruf kam sie sogar zu meinem Arbeitsplatz in die Bank. Bis heute hat sie mich nicht besucht und mit dem Tode bedroht – und das sogar vor den Augen meiner Kollegen, meiner Kunden und unserer Chefs. Ich hatte wirklich Angst, sie könnte ihre Drohungen wahr machen.

TK: Wie bist Du mit dieser Situation umgegangen?

M: Mir der zerschundenen Freundschaft, den Schuldgefühlen und der Angst kam ich einfach nicht klar. Ich sprach mit niemandem darüber. Es hat über Wochen in mir gegärt. Bis zu einem Tag, an dem ich mir in einem Feldkirch-Gewächshaus einen Schläger besorgte. Absolut, zu Hause, griff ich dann zum Telefonhörer. Die Telefonnummer 142 hatte ich irgendwo gelesen. Es meldete sich eine Mitarbeiterin der Telefonseelsorge. Die Dame „Claudia“ hat mich dann klar gemacht, was Sache ist. Eine Stunde lang hat sie mit mir telefoniert, bis sie schließlich abgehört wurde.

**Coping with a suicidal crisis**  
Martina is an anonymous caller who got help from the telephone crisis line. She talks about how to master a suicidal crisis



- Patients with affective disorders (n = 99) experienced a small-sized **reduction** of suicidal ideation at 1-week follow up, and a reduction in normalizing attitudes to suicide
- Patients with nonaffective diagnoses (n = 73) experienced a small-sized **increase** in suicidal ideation not sustained at 1-week follow-up
- Intervention group participants further experienced a short-term increase of help-seeking intentions
- Patients with **affective disorders appear to benefit** from media materials featuring mastery of a suicidal crises
- More research is needed to better understand which **patient groups are at possible risk of unintended effects**

Niederkrotenthaler T, Baumgartner J, Kautzky A, Fellingner M, Jahn R, Wippl A, Koch M, König-Castillo D, Höflich A, Slamang R, Topitz A, Wancata J, Till B (2021). Effects of media stories featuring coping with suicidal crises on psychiatric patients: Randomized controlled trial. *European Psychiatry*, 64(1), e70, 1–5 <https://doi.org/10.1192/j.eurpsy.2021.2244>

- Increase in help-seeking intentions might help bridge gaps in treatment after discharge

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### Limitations

- Covid-19 lockdown in March 2020 interrupted recruitment and resulted in smaller sample size than planned
- Sample size was too small to investigate differences between specific diagnoses
- Unclear if any affective diagnosis was the primary diagnosis


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**National Recommendations for Depicting Suicide**

Guidance to help content creators craft stories about survival, hope, and healing—aimed at saving lives and restoring hope

National Action Alliance for Suicide Prevention, 2018



**Preventing suicide: a resource for media professionals**

Update 2023

www.who.int  
www.reportingonsuicide.org


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### Suicide reporting guidelines revised, 2023:

Reporting on suicide cases:  
Prevention of Werther effect

Proactive reporting on suicide prevention:  
Papageno effect


### Risk mitigation

Focus on life of deceased  
Less repetition

### Proactive prevention reporting

Focus on hope & recovery,  
„mastery of crisis“  
Collaborations with lived experience, arts, industry

Specific media recommendations to ensure safety


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