



# Youth Suicide Contagion: Implications for Suicide Prevention and Postvention on College and University Campuses

Madelyn S. Gould, Ph.D., M.P.H.  
Professor of Epidemiology in Psychiatry  
Columbia University/  
New York State Psychiatric Institute

21st Annual Seymour Perlin Lecture on Suicidology at  
George Washington University

December 18, 2014



# Outline of Presentation

- College Student Suicides: Scope of the Problem
- Suicide Contagion: Empirical Evidence
- Implications for Prevention and Postvention



# Scope of the Problem

- Suicide is 2<sup>nd</sup> leading cause of death among college students in U.S. (*CDC; SPRC*)
- Rates of completed suicide range between 6.5 and 7.5 per 100,000 ► approximately 1,100 completed suicides per year ► about half the rate of a matched cohort from the general population (*Drum et al., 2009; Silverman et al., 1997; Schwartz, 2011, 2013*)
- Approximately 1% of undergraduates attempted suicide and 6 - 9% seriously considered suicide in the past 12 months (*ACHA, 2006, Drum et al., 2009*)



# Scope of the Problem: Limitations

- College student suicide rates are not officially tracked on either a national or state level.
- No information available on numbers/rates of suicide clusters on college/university campuses



# SUICIDE CONTAGION/MODELING

## *-Definition-*

Process by which knowledge (direct or indirect) of one suicide facilitates the occurrence of a subsequent suicide.



# SUICIDE CONTAGION/MODELING

## *-Hypothesized Mechanisms\*-*

- Social learning theory
- Approach/Avoidance conflict: restraint reduction
- “Social multiplier” that amplifies the effects of other suicidogenic factors
- Emotional contagion: our ability to empathize with others can make us prone to mimicking or adopting others’ behavior, or to confusing others’ emotions with our own

\*not an exhaustive list



# EMOTIONAL CONTAGION

## *-Facebook News Feed Experiment-*

- For one week in January 2012, Facebook altered the number of positive and negative posts in the news feeds of 689,003 randomly selected users to see what effect the changes had on the tone of the posts the recipients then wrote.
- The people who saw more positive posts responded by writing more positive posts. Similarly, seeing more negative content prompted the viewers to be more negative in their own posts.
- Showed emotions can be spread on social media.



# SUICIDE CONTAGION/ MODELING

## *- Sources of evidence -*

- Impact of exposure to suicidal peer
- Impact of media
- Suicide clusters





# Impact of Exposure to Suicidal Peer

*Association between suicide attempts or deaths by suicide of a peer and personal suicidal behavior*

Citation	Period and population	Methodology/comparison group	Support of modeling
Bearman and Moody [67]	13,465 adolescents in grades 7–12 from National Longitudinal Survey of Adolescent Health, Denver, US, 1994–1995.	Cross-sectional data examined the contribution of having a friend who attempted suicide in the past year to suicidal ideation and attempt.	Yes
Bjarnason and Thorlindsson [68]	7018 adolescents from all schools in Iceland, 1992.	Cross-sectional data examined whether a completed and attempted suicide by a friend and being told about suicidal ideation were correlated with past suicide attempt.	Yes
Blum et al [69]	13,454 American Indian and Alaska Native students, grades 7–12, US, 1989.	Cross-sectional data examined the prevalence of exposure to suicidal peers among high-risk youths (defined as suicide attempted in past year plus current suicide thoughts or multiple attempts regardless of timing) and low-risk youths.	Yes
Borowsky et al [70]	13,110 students in grades 7–12, US, 1995 and 1996.	Longitudinal data examined whether having a friend attempt or complete suicide (assessed at Time 1) predicted suicide attempt in past 12 months (assessed at Time 2).	Yes
Borowsky et al [71]	11,666 American Indian and Alaska native 7–12 grade students, US, 1989.	Cross-sectional data examined whether having a friend who attempted suicide was associated with reporting ever attempting suicide.	Yes
Brent et al [72]	110 students who were exposed to a suicide cluster in their high school, US, Date not published.	Cross-sectional data compared students with and without suicidality on their relationships with suicide victims.	Mixed

Insel, B.J., & Gould, M.S. (2008). Impact of modeling on adolescent suicidal behavior. *Psychiatric Clinics of North America*, 31(2), 293-316.



# Impact of Exposure to Suicidal Peer

*Association between suicide attempts or deaths by suicide of a peer and personal suicidal behavior*

The majority of the studies examining exposure to suicidal behavior of adolescent peers have found a significant association with adolescent suicide attempt.

**OR's range from 2.8 - 11.0 (attempted suicide)**

*See Insel & Gould, 2008 for review.*



# IMPACT OF MEDIA

## Research finds a greater increase in suicide when:

- Frequency of stories increases  
(dose-response effect)
- Higher proportion of the population is exposed
- Headlines are dramatic
- Prominence of story increases (e.g. front page)

*Insel, B.J., & Gould, M.S. (2008). Impact of modeling on adolescent suicidal behavior. Psychiatric Clinics of North America, 31(2), 293-316; Pirkis J, Blood RW. (2001). Suicide and the media: Part I. Reportage in nonfictional media. Crisis, 22(4), 146-54.*



# IMPACT OF MEDIA

## Converse effects exist also:

↓ suicide following media guidelines or during newspaper strikes

↓ suicide following articles on suicidal individuals who adopted positive coping strategies rather than suicidal behavior in adverse circumstances: “Papageno effect”



# Content Analyses of Suicide Stories: “Papageno Effect”

Content analysis of 497 suicide-related print media reports published in Austria between January 1 and June 30 2005. Ecological study to identify associations between media item content and short-term changes in suicide rates.

- In multivariate analysis, **repetitive reporting**, reports about suicides by jumping, and reporting on **public myths about suicide** associated with **increases** in suicide rates.
- Media items describing **adoption of coping strategies** other than suicidal behavior in adverse circumstances were associated with a **decrease** in suicide rates.

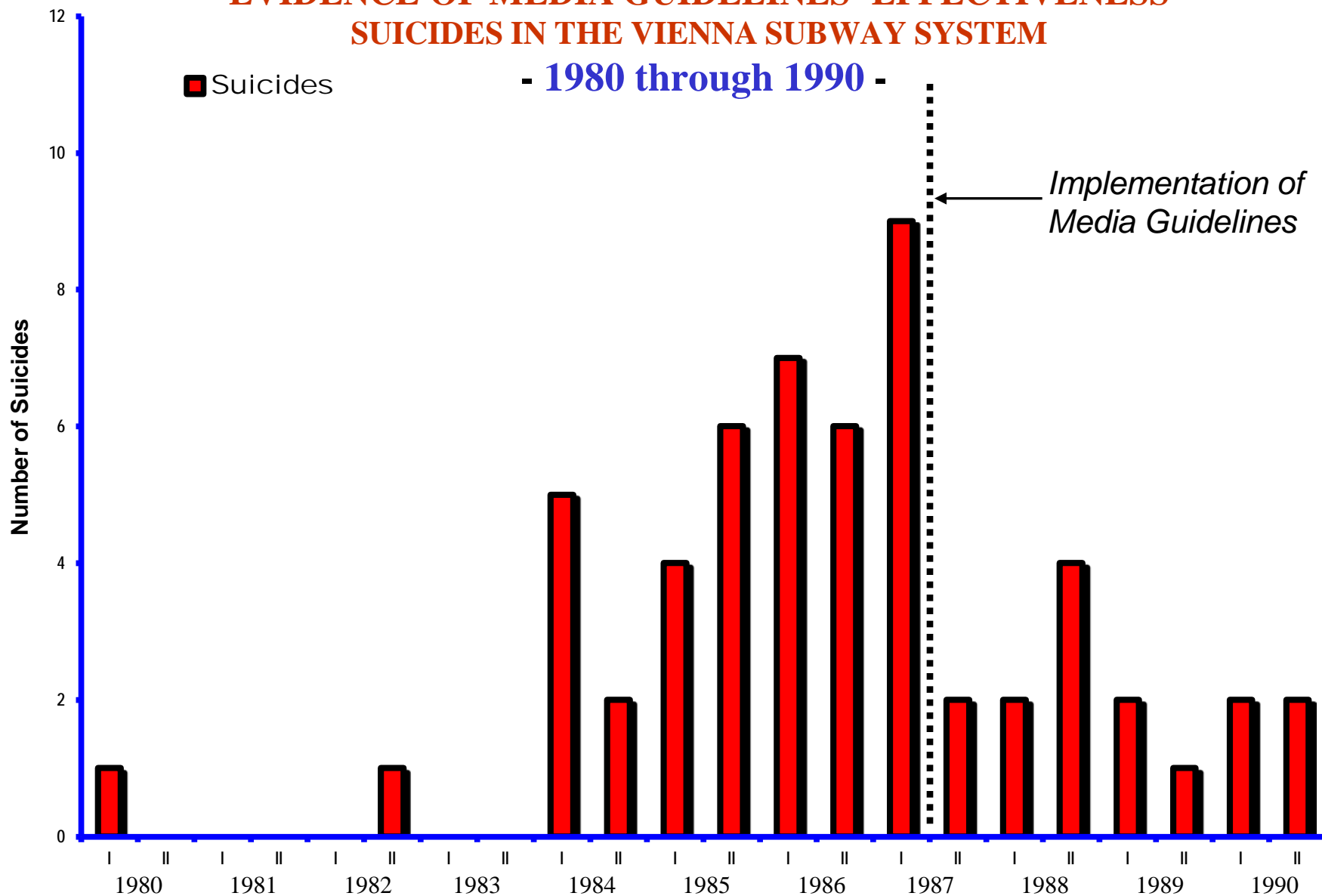
*Niederkrötenhaller et al., (2010) role of media reports in completed and prevented suicide: Werther v. Papageno effects. The British Journal of Psychiatry, 197: 234-243.*



# EVIDENCE OF MEDIA GUIDELINES' EFFECTIVENESS

## SUICIDES IN THE VIENNA SUBWAY SYSTEM

- 1980 through 1990 -



I indicates the first six months and II the second six months. The media guidelines of the Austrian Association for Suicide Prevention went into effect in June 1987



# Suicide Clusters

## SIXTH IN STRING OF FATAL FALLS

Joanne Michelle Leavy, 23, is the latest New York University student to die in a fatal fall in less than a year. Here's a look at the rash of deaths:

■ In late June, a graduate student, whose name has not been released, died in a fall from a midtown building.

■ **Diana Chien**, 19, died when she threw herself off the 26th-story roof of her boyfriend's off-campus apartment building on March 6, after a quarrel.

■ **Michelle Gluckman**, 19, of Brooklyn plunged from six stories into the rear courtyard of

a building near Washington Square Park on Oct. 18, 2003. Two students tried to stop Gluckman, a sophomore, but they could not pull her back inside the building.

■ Freshman **Stephen Bohler**, 18, leaped to his death from a 10th-floor balcony in the Elmer Bobst Library on Washington Square South on Oct. 10, 2003.

The death of the swim team

member from Dayton, Ohio, initially was believed to be a suicide. But the medical examiner ruled it an accident after an autopsy revealed hallucinogenic mushrooms and marijuana in Bohler's system.

■ **Jeff Skolnik**, 19, a student from Evanston, Ill., climbed over the same balcony and jumped to his death as other students watched in horror on Sept. 12, 2003.

Dave Goldiner



# SUICIDE CLUSTER

Excessive number of suicides occurring in close temporal and/or geographical proximity.



# Suicide Cluster Studies

1<sup>st</sup> Generation: Descriptive/Anecdotal reports  
(What?)

2<sup>nd</sup> Generation: Statistical Studies  
(Is it “really” a cluster?)

3<sup>rd</sup> Generation: Psychological Autopsy  
(Mechanism? Why?)



PUBLIC HEALTH BRIEF

TABLE 1—Results of Knox Procedure on 1978–1984 NCHS Mortality Detail File

Age (years)	N	Window = 7 Days				Window = 14 Days				Window = 30 Days			
		Close-Close Pairs		O/E	P	Close-Close Pairs		O/E	P	Close-Close Pairs		O/E	P
		Expected	Observed			Expected	Observed			Expected	Observed		
15–19	12135	1339.2	1420	1.060	.011	2756.7	2842	1.031	.047	6000.7	6177	1.029	.009
20–24	25511	6335.5	6523	1.030	.008	13126.1	13481	1.027	.001	28642.6	29602	1.033	.000
25–29	23275	7126.1	7155	1.004	.365	14775.8	14888	1.008	.174	32247.7	32681	1.013	.008
30–34	19534	4805.0	4834	1.006	.338	9991.0	10035	1.004	.328	21794.4	21978	1.008	.106
35–44	29092	9707.5	9822	1.012	.119	20086.4	20271	1.009	.094	43780.9	44066	1.007	.087
45–54	26002	6976.1	7103	1.018	.060	14530.8	14629	1.007	.205	31622.9	31633	1.000	.478
55–64	25624	6399.6	6623	1.035	.002	13277.2	13401	1.009	.136	28928.5	29260	1.011	.024
55–74	19621	3334.8	3395	1.018	.139	6877.7	6976	1.014	.111	15002.1	15247	1.016	.020
75+	14718	2373.0	2367	0.997	.550	4876.8	4888	1.002	.435	10567.0	10554	.998	.551

The effect size was two to four times greater among the adolescents than in other age groups.

Discussion

Suicide clusters appear to occur primarily among teenagers and young adults, although clusters do occur occasionally at other ages. This is consistent with the findings of Phillips and Carstensen<sup>10</sup>: the impact of suicide stories on

groups in prevention strategies will be necessary to reduce the suicide rate substantially.

ACKNOWLEDGMENTS

The work was supported by research contract 200-85-0834(P) from the Centers for Disease Control and a Faculty Scholars Award from the William T. Grant Foundation.

REFERENCES

- Gould MS, Davidson L: Suicide contagion among adolescents. *In: Suicidal Behavior*. Edman BA (ed): Advances in Adolescent Mental Health.

# Clusters occur primarily among teenagers and young adults

Gould MS, Wallenstein S, Kleinman MH, et al. Suicide clusters, an examination of age specific effects. *Am J Public Health* 1990;80(2):211–2.

# PSYCHOLOGICAL AUTOPSY OF CLUSTER SUICIDES IN ADOLESCENTS

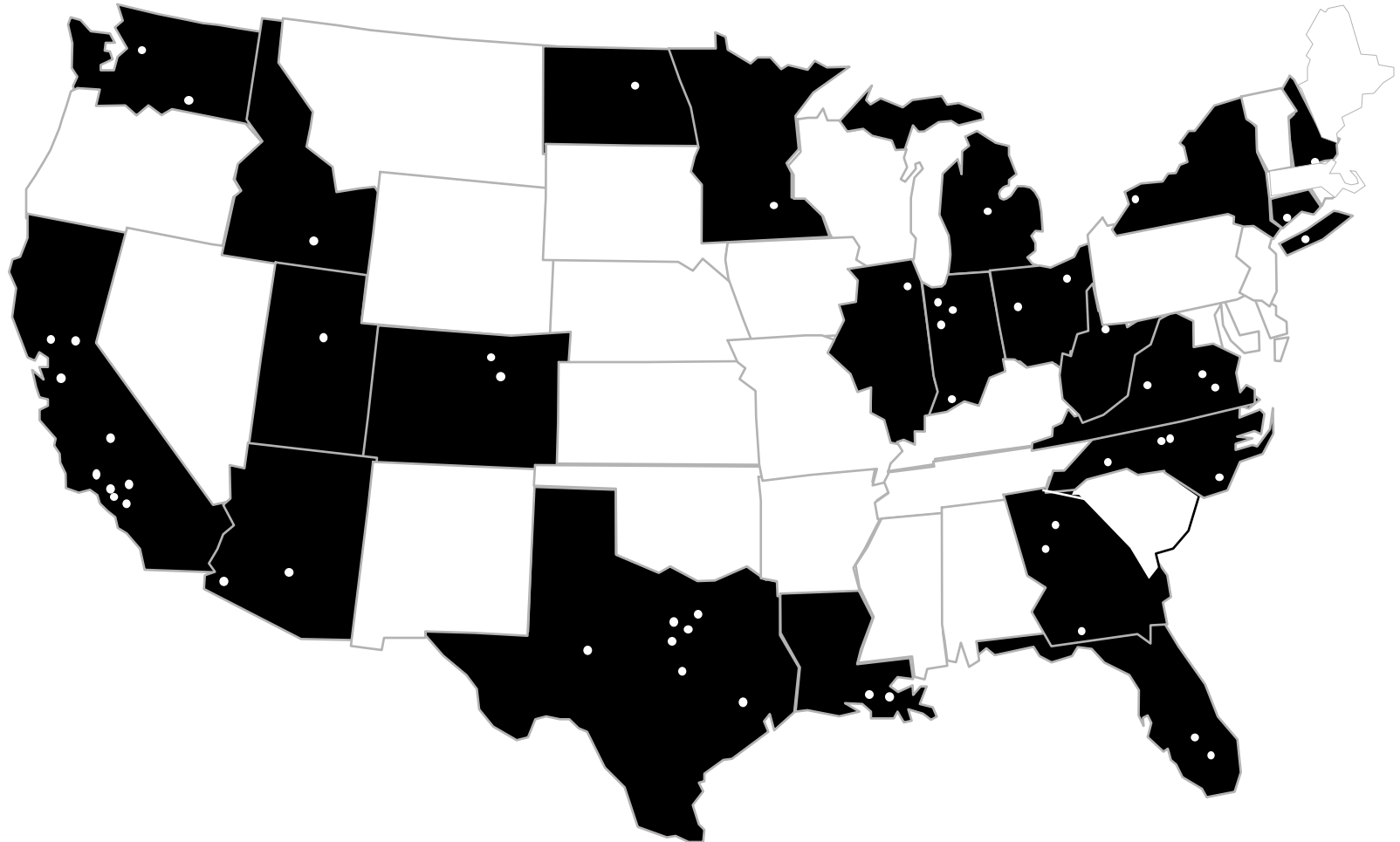
Project funded by the National Institute of Mental Health  
(R01MH47559)  
and American Foundation for Suicide Prevention

*Gould MS, Kleinman MH, Lake AM, Forman J, Midle JB.  
Lancet Psychiatry (in press)*



# Targeted Clusters 1988-1996

- 53 Clusters -





# DEFINITION OF CLUSTER

- Significant excess of suicides
- Town/city of residence/occurrence
- Within 3 month period
- Limited to communities <500,000

# SIZE OF CLUSTER

N=53

Size of Cluster	Number of Clusters
3	31
4	11
5	5
6	2
7	1
$\geq 8$	3

# MATCHING CRITERIA FOR CONTROLS

- Date of death by suicide within +/- 1 year, but not within 3-month cluster period
- Same state, non-contiguous counties
- Population size of 13-20 years-olds “nearest neighbor method”
- SMSA status
- Age within range of cluster cases



# ASSESSMENTS

## Sources of Information:

- Parent or adult in household
- Peer or sibling
- Coroner's reports
- Police records
- Census data
- **Newspaper review**





# DOES THE MEDIA PLAY A ROLE IN TRIGGERING A CLUSTER?

---

Newspaper coverage of suicide and initiation of suicide clusters in teenagers in the USA, 1988–96: a retrospective, population-based, case-control study



*Madelyn S Gould, Marjorie H Kleinman, Alison M Lake, Judith Forman, Jennifer Bassett Middle*

## Summary

**Background** Public health and clinical efforts to prevent suicide clusters are seriously hampered by the unanswered question of why such outbreaks occur. We aimed to establish whether an environmental factor—newspaper reports of suicide—has a role in the emergence of suicide clusters.

*Lancet Psychiatry* 2014

Published Online

May 2, 2014

<http://dx.doi.org/10.1016/>



# Design and Analytic Elements

- National population-based clusters identified by statistical techniques
- Matched sample of non-cluster suicides and communities (2 for each cluster community)
- Comprehensive identification of newspapers in each community (469 newspapers)
- Reliable content analysis of newspaper stories (1,729 stories)
- Sensitivity analyses and examination of confounding factors



# Content Analyses of Suicide Stories: Initiation of Clusters?

To identify specific features in media suicide reports that may contribute to the *initiation of teenage suicide clusters*, we developed a content analytic strategy of qualitative characteristics abstracted from newspaper stories. 48 youth cluster communities (648 stories) compared to 95 non-cluster communities (1,1081 stories).

↑ number of stories about any suicidal individual

↑ number of stories about the teen suicide in our study



# Content Analyses of Suicide Stories:

## Initiation of Clusters?

### *- Results: Story Characteristics*

Stories published after the index cluster suicides compared to those published after non-cluster suicides:

- ↑ front page story placement,
- ↑ size of headlines,
- ↑ headlines containing the word suicide
- ↑ headlines containing a description of the methods
- ↑ sensational headlines
- ↑ presence of picture
- ↑ detailed descriptions of the suicidal individual and act

# Implications for Prevention and Postvention

# Suicide Prevention and Postvention Strategies on Campuses (I)

- In recognition of the need for proactive suicide prevention and postvention policies, the Garret Lee Smith (GLS) program was authorized in 2005 to provide federal funding to campuses (in addition to other entities) for the establishment of suicide prevention and postvention trainings and protocols.



# Suicide Prevention and Postvention Strategies on Campuses (II)

However,

- Between October 2008 and June 2014 only 21 of 121 campus grantees had developed postvention-related policies (*GLS Cross-Site Evaluation FY 2014 Annual Report*)
- Between October 2007 and June 2014 only 6 campuses had conducted related postvention trainings (*GLS Postvention Information*).



# Suicide Prevention Strategies on Campuses: Allocation of GLS Budget

Strategy	Campus (n=102)
Outreach and awareness	36.0%
Gatekeeper training	24.8%
Assessment and referral training	2.0%
Life skills development	8.2%
Screening programs	3.8%
Hotlines and helplines	1.1%
Means restriction	0.1%
Policies and protocols	4.3%
Coalitions and partnerships	8.8%
Other strategies	5.0





# Suicide Postvention Strategies on Campuses

- Little empirical research has been conducted on the best practices for suicide postvention.
- Recently, the Higher Education Mental Health Alliance (HEMHA) disseminated a new postvention guide for college suicide.

*[http://hemha.org/postvention\\_guide.pdf](http://hemha.org/postvention_guide.pdf)*



# Suicide Postvention Strategies on Campuses: HEMHA Goals

- Facilitate the grieving or adjustment process
- Stabilize the environment
- Reduce the risk of negative behaviors
- Limit the risk of further suicides through contagion



# **Suicide Postvention Strategies on Campuses: Specific Recommendations to Limit Contagion**

- Adhere to media guidelines in the wake of a suicide
- Shape students' desire to “do something”
- Initiate online postvention
- Assess community risk
- Address myths and misinformation



# Postvention Recommendations: I. Adhere to media guidelines in the wake of a suicide

CDC  
CENTERS FOR DISEASE CONTROL AND PREVENTION

April 22, 1994 / Vol. 43 / No. RR-6


**MORBIDITY AND MORTALITY WEEKLY REPORT**

**MMWR** Recommendations and Reports

**Programs for the Prevention of Suicide Among Adolescents and Young Adults**

**Suicide Contagion and the Reporting of Suicide: Recommendations from a National Workshop**

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES  
Public Health Service  
Centers for Disease Control and Prevention (CDC)  
Atlanta, Georgia 30333



**RECOMMENDATIONS FOR REPORTING ON SUICIDE**

Developed in collaboration with: American Association of Suicidology, American Foundation for Suicide Prevention, Anzenberg Public Policy Center, Canterbury Suicide Project, University of Otago, Christchurch, New Zealand, Columbia University Department of Psychiatry, Connecticut Suicide Prevention Task Force on Media and Suicide, Medical University of Vienna, National Alliance on Mental Illness, National Institute of Mental Health, New York State Psychiatric Institute, Substance Abuse and Mental Health Services Administration, Suicide Awareness Voices of Education, Suicide Prevention Resource Center, The Centers for Disease Control and Prevention (CDC) and UCLA School of Public Health, Community Health Sciences

**IMPORTANT POINTS FOR COVERING SUICIDE**

- More than 50 research studies worldwide have found that certain types of news coverage can increase the likelihood of suicide in vulnerable individuals. The magnitude of the increase is related to the amount, duration and prominence of coverage.
- Risk of additional suicides increases when the story explicitly describes the suicide method, uses dramatic/graphic headlines or images, and repeated/extensive coverage sensationalizes or glamorizes a death.
- Covering suicide carefully, even briefly, can change public misperceptions and correct myths, which can encourage those who are vulnerable or at risk to seek help.

Suicide is a public health issue. Media and online coverage of suicide should be informed by using best practices. Some suicide deaths may be newsworthy. However, the way media cover suicide can influence behavior negatively by contributing to contagion or positively by encouraging help-seeking.

Suicide Contagion or "Copycat Suicide" occurs when one or more suicides are reported in a way that contributes to another suicide.

References and additional information can be found at: [www.ReportingOnSuicide.org](http://www.ReportingOnSuicide.org).

INSTEAD OF THIS: ❌	DO THIS: ✅
• Big or sensationalistic headlines, or prominent placement (e.g., "Kurt Cobain Used Shotgun to Commit Suicide").	• Inform the audience without sensationalizing the suicide and minimize prominence (e.g., "Kurt Cobain Dead at 27").
• Including photos/videos of the location or method of death, grieving family, friends, memorials or funerals.	• Use school/work or family photo; include hotline logo or local crisis phone numbers.
• Describing recent suicides as an "epidemic," "skyrocketing," or other strong terms.	• Carefully investigate the most recent CDC data and use non-sensational words like "rise" or "higher."
• Describing a suicide as inexplicable or "without warning."	• Most, but not all, people who die by suicide exhibit warning signs. Include the "Warning Signs" and "What to Do" sidebar (from p. 2) in your article if possible.
• "John Doe left a suicide note saying..."	• "A note from the deceased was found and is being reviewed by the medical examiner."
• Investigating and reporting on suicide similar to reporting on crimes.	• Report on suicide as a public health issue.
• Quoting/interviewing police or first responders about the causes of suicide.	• Seek advice from suicide prevention experts.
• Referring to suicide as "successful," "unsuccessful" or a "failed attempt."	• Describe as "died by suicide" or "completed" or "killed him/herself."



# Postvention Recommendations:

## I. Adhere to media guidelines in the wake of a suicide

- Limit publicity – in national, local and school newspapers;
- Shape content:
  - ↓ front page story placement,
  - ↓ size of headlines,
  - ↓ headlines containing the word suicide....etc.
- Tip the balance of the media effect in favor of “Papageno effect” rather than “Werther effect.”



# Postvention Recommendations:

## I. Adhere to media guidelines in the wake of a suicide

Getting a side bar box with the National Suicide Prevention Lifeline and other resources, and warning signs is recommended

Need help?

24-hour suicide hotline: Call (800) 273-8255

Online: chat at [suicidepreventionlifeline.org](https://suicidepreventionlifeline.org)

Warning signs of suicide: anxiety, sleep problems and unrelenting down moods



# Postvention Recommendations:

## II. Shape students' desire to “do something”

- Need to balance needs of mourners, while minimizing likelihood of contagion
- Encourage stories of resilience, and help seeking for school paper
- Encourage volunteering at nearest Lifeline crisis center (rather than starting a new crisis line) – CrisisLink, approx. 4 miles away in Arlington, VA
- Encourage participating in AFSP's “Out of Darkness” walks



# Postvention Recommendations:

## III. Initiate online postvention

- When implementing postvention strategies, it is important to also consider the role of the internet and to ensure that postvention initiatives also target existing online communities.
- Responsible postvention initiatives should utilize social networking sites to 1) distribute relevant information and resources, and 2) monitor comments from individuals connected to the bereaved.

*(<http://www.sprc.org/library/LifelineOnlinePostventionManual.pdf>)*





# Postvention Recommendations:

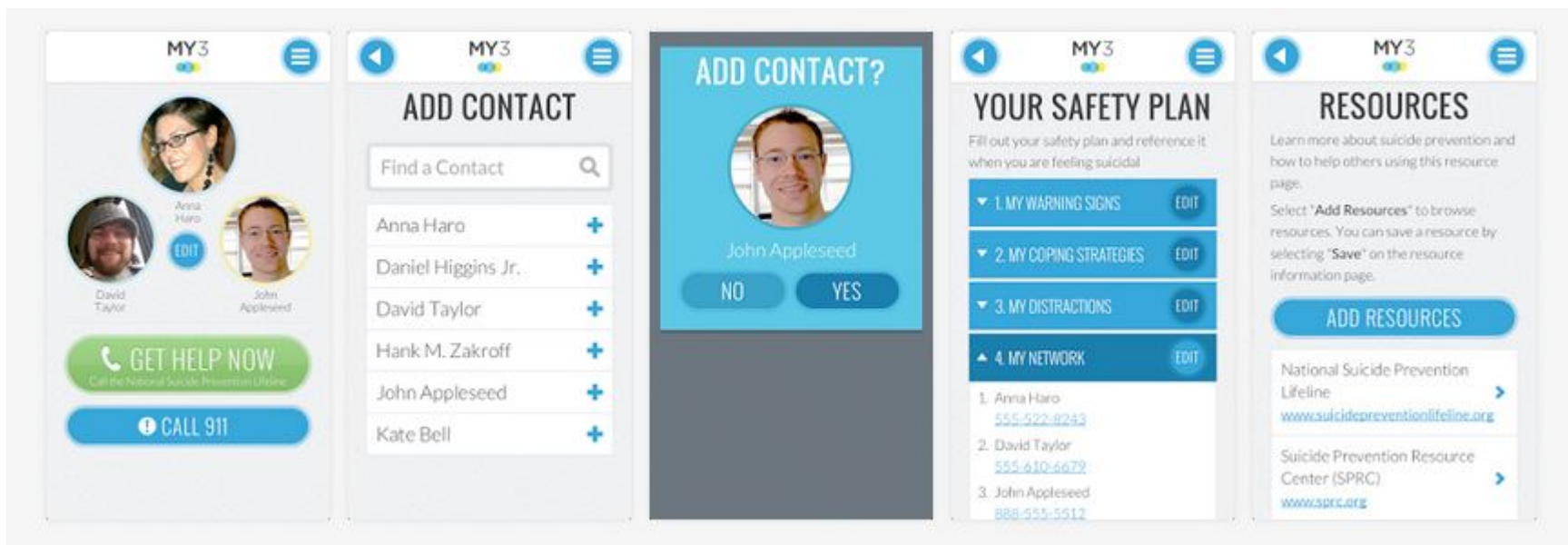
## III. Initiate online postvention

- Work with families of the deceased to bypass any privacy settings that would prohibit online postvention activities
- *Find Social Media Profiles:* The first step is to determine if and where the recent suicide death is being discussed online
- *Post Resources:* Once the deceased's profile has been identified and accessed, the next step is to post resources in the comments section of the social media profile or on the profile itself.



# Postvention Recommendations: III. Initiate online postvention

- MY3 Suicide Prevention App  
*(download at [suicidepreventionlifeline.org](http://suicidepreventionlifeline.org) or  
Apple App Store or Google Play)*





# Postvention Recommendations:

## IV. Assess community risk

- 46% of college students choose not to share their suicidal ideation with anyone (*Drum et al., 2009*)
- College students' unwillingness to reveal suicidal ideation to others could be compounded by their fellows' low confidence in their ability to help and poor knowledge of on-campus resources (*King et al., 2008*)



- Consider implement AFSP's online Interactive Screening Program (ISP) (<http://www.afsp.org/the-interactive-screening-program>)



# Postvention Recommendations:

## V. Address myths and misinformation

Suicide Myth or Fact	Correct Response	Average % Students Answering Correctly
If someone is exposed to a suicide (family, friends, other students) this increases their own risk for attempting suicide.	True	100%
The experience of physical, sexual and/or emotional abuse puts one at greater risk for attempting suicide.	True	96.0%
Social isolation/withdrawal is a risk factor for suicide attempt.	True	95.0%
Hopelessness is a risk factor for attempting suicide.	True	94.8%
People who have attempted suicide are less likely to attempt suicide in the future.	False	94.7%
Someone who has aggressive or impulsive tendencies is at lower risk for suicide attempt.	False	93.0%
People who are depressed are more likely to attempt suicide.	True	92.5%
If a person attempted suicide, their situation was probably so bad that death was the best solution.	False	90.8%
A fellow student with sleep problems is at increased risk for attempting suicide.	True	58.6%
Most suicidal people never discuss their problems with others.	False	49.5%
The great majority of people who commit suicide do not have psychiatric or substance use disorders.	False	49.2%
Reducing access to firearms and other lethal weapons reduces the risk of suicide.	True	40.4%
Sometimes a minor event (like a bad exam grade) can push an otherwise normal person to attempt suicide.	False	36.0%





# Conclusion

- Given the prevalence of suicide on college campuses, and the associated risk of contagion and clustering, it is imperative that colleges develop effective and comprehensive postvention strategies.



# Resources

- <http://reportingonsuicide.org>
- [http://hemha.org/postvention\\_guide.pdf](http://hemha.org/postvention_guide.pdf)
- <http://www.sprc.org/library/LifelineOnlinePostventionManual.pdf>
- <http://www.afsp.org/the-interactive-screening-program>