Trends In News Media Coverage Of Mental Illness In The United States: 1995–2014

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Abstract

The United States is engaged in ongoing dialogue around mental illness. To assess trends in this national discourse, we studied the volume and content of a random sample of 400 news stories about mental illness from the period 1995–2014. Compared to news stories in the first decade of the study period, those in the second decade were more likely to mention mass shootings by people with mental illnesses. The most frequently mentioned topic across the study period was violence (55 percent overall) divided into categories of interpersonal violence or self-directed (suicide) violence, followed by stories about any type of treatment for mental illness (47 percent). Fewer news stories, only 14 percent, described successful treatment for or recovery from mental illness. The news media's continued emphasis on interpersonal violence is highly disproportionate to actual rates of violence among those with mental illnesses. Research suggests that this focus may exacerbate social stigma and decrease support for public policies that benefit people with mental illnesses.

The United States is engaged in an ongoing dialogue around mental illness. Over the course of a lifetime, nearly half of all Americans will meet the criteria for a mental health disorder.[1] Mental illness is now the leading cause of disability in the United States,[2] but only about 40 percent of those affected receive treatment.[3] Poor treatment rates are a function of multiple factors, including the historically separate financing and delivery of mental health services in the United States, provider shortages, and stigma.[4–6] The past two decades have witnessed growing national awareness and discussion of these issues,[7] as well as debate of policy options to close the mental health treatment gap.[4,8] At the same time, considerable national

dialogue has been devoted to the role of mental illness in interpersonal violence, a topic prompted in recent years by a series of high-profile mass shootings in which the perpetrator had a documented or purported serious mental illness, such as schizophrenia.[9,10] Rising rates of suicide, particularly among members and veterans of the US military; the overrepresentation of people with mental illness in the criminal justice system; and the development of new therapies have also been a recent focus of the national discourse over mental illness.[11–13]

An established method for assessing the national dialogue around societal issues such as mental illness is analysis of news media coverage, which is viewed as both reflecting and shaping public discourse.[14,15] News coverage reflects public discourse by reporting on the views and positions of the policy makers, advocacy groups, researchers, members of the public, and others engaged in issue debates, often directly quoting the key players.[15] News coverage shapes public discourse and attitudes about societal issues in two main ways: agenda setting and issue framing.[14,16] By focusing news coverage on certain topics, the news media influence which issues audiences deem important and in need of public policy response (agenda setting).[14] By highlighting certain aspects of issues, the news media can influence public opinion about and preferred solutions to societal problems (known as "issue framing").[14]

Descriptive studies of US news media content from the 1980s and 1990s showed that news stories about mental illness emphasized interpersonal violence.[17,18] Most recently, Otto Wahl and colleagues examined news stories about mental illness that were published in six high-circulation US newspapers in a single year, 1999, and found that dangerousness was the most common theme in coverage, with more than a quarter of news stories involving accounts of violent criminal activity by people with mental illnesses.[17] Wahl and his colleagues' findings are consistent with studies of news coverage of mental illness in other nations, including Canada,[19] the United Kingdom,[20] New Zealand,[21] and Spain.[22] Emphasis on interpersonal violence in news coverage of mental illness is concerning given that most people with mental illnesses are never violent and only about 4 percent of interpersonal violence in the United States is attributable to mental illness.[23] News coverage linking interpersonal violence to mental illness has been shown to exacerbate already high levels of social stigma toward those with mental illnesses.[24] This emphasis on violence instead of other mental illness–related topics might contribute to a societal focus on enacting public safety–oriented policies, such as mandatory treatment and firearm restrictions, at the expense of public health–oriented policies designed to foster recovery.[9,25,26]

No prior US studies have either examined the content of recent news coverage of mental illness or assessed trends in coverage over time. To fill these gaps, in our study we analyzed the volume and content of news coverage of mental illness over the past two decades, from 1995 to 2014. In addition to examining the topics and policies discussed in news stories about mental illness over this period, we assessed three types of news media messages shown in prior research to influence public attitudes about societal issues and support for policy: mentions of specific causes of mental illness (for example, neurobiological, trauma, and family-related causes), mentions of the consequences of mental illness (for example, criminal justice system involvement, stigma, and premature mortality), and individual

depictions of people with mental illnesses (for example, a person with mental illness involved in the criminal justice system, undergoing successful treatment, or experiencing homelessness). Research shows that news media mentions of the causes and consequences of societal problems can influence audiences' perceptions of the importance of an issue, attributions of responsibility for solving the problem, and endorsement of certain types of policy options that target the causes and address the consequences emphasized in the messages.[27–30] Public attitudes about groups of people affected by societal problems—in this case, mental illness—are influenced by news media depictions of specific individuals who exemplify the problem in question, even if the individual depicted is not representative of the larger group.[31]

Study Data And Methods

APPROACH AND STUDY SAMPLE

We conducted a quantitative content analysis of a random sample of 400 US news stories about mental illness published or aired by high-circulation and high-viewership print and television news sources during 1995–2014.We used the LexisNexis and ProQuest online news archives to identify news stories focused on mental illness. News sources included three of the highest-circulation national newspapers in the United States during the study period (*USA Today, Wall Street Journal,* and *Washington Post*); one of the highest-circulation newspapers in each of the four US census regions (*New York Times, Chicago Tribune, Atlanta Journal Constitution,* and *Los Angeles Times*); evening news programs on three national television networks (ABC, NBC, and CBS); and all CNN news programs. All of the individual news sources selected were the highest-circulation or -viewership news source available for the twenty-year study period in the LexisNexis or ProQuest online archives.

NEWS COVERAGE SELECTION

We searched the headlines of print news stories and television transcripts (LexisNexis and ProQuest include headlines for television transcripts, which, like newspaper headlines, summarize the topic of the news story) for news stories between 1995 and 2014 using the following search terms: "mental illness" or "mental health" or "mental" or "psych" or "depression" or "schizo" or "bipolar" or "anxiety" or "ptsd" or "adhd" or "attention-deficit/ hyperactivity disorder" or "attention deficit disorder" or "post-traumatic stress disorder" or "suicide." The search returned 22,730 news stories. We selected a simple random sample of stories, excluding those not focused on mental illness (news stories were included if the majority of the story described any topic related to clinical mental illnesses; news stories about more general mental well-being topics, such as stress relief, were excluded), until we achieved an analytic sample of 400 randomly selected news stories. News stories and editorials with 100 or fewer words were excluded, as were letters to the editor, book reviews, and obituaries. The final study sample included 362 print news stories, 13 print opinion pieces, and 25 television news stories.

> **More than half of news stories mentioned some type of violence related to mental illness.**

MEASURES

To assess the content of news stories about mental illness, we developed a sixty-nine-item structured coding instrument (see Supplemental Exhibit 1 in the online Appendix)[32] that captured items in five domains: specific topics in news coverage about mental illness, causes of mental illness, consequences of mental illness, individual depictions of people with mental illnesses, and public policies related to mental illness. We measured mentions of fifteen specific topics in news coverage including interpersonal violence, suicide, and treatment. Six specific causes of mental illness were measured, including stressful life events and genetics or biology. Likewise, six specific consequences of mental illness were coded, including criminal justice involvement and premature mortality. Nine different types of individual depictions were captured, including people with mental illnesses committing interpersonal violence or experiencing discrimination. Finally, we coded eleven specific public policies related to mental illness, including policies to expand inpatient treatment and community-based services.

All measures were dichotomous items. Two of this article's authors (Alene Kennedy-Hendricks and Seema Choksy) pilot-tested the instrument on a small subset of twenty articles and refined it based on pilot results. Once the instrument was finalized, a random sample of 25 percent ($n = 100$) of news stories was double-coded by the same two authors to assess interrater reliability for each dichotomous yes-no item in the coding instrument. All items met conventional standards for adequate reliability, with kappa values of 0.69 or higher (see the Appendix).[32] Data were collected and analyzed from August to December 2015.

DATA ANALYSIS

We calculated the proportion of news stories mentioning each measure. To assess whether news coverage of mental illness changed over time, we used chi-square tests to compare the proportion of news stories mentioning a given measure in the first decade of the study period (1995–2004) versus the second decade (2005–14). We ran logistic regression models, controlling for news story word count and adjusting standard errors for lack of independence within news sources, to examine correlations between news media mentions of specific mental illness topics, causes, and consequences and mentions of mental illness treatment policies. We calculated predicted probabilities to illustrate the results of these models. We also conducted sensitivity analyses using chi-square tests to examine differences across five-year periods (1995–99 versus 2000–04 versus 2005–09 versus 2010–14).

LIMITATIONS

Our results should be interpreted in the context of several limitations. Our sample did not include the local television, blogs, and other online sources through which many Americans now access at least some of their news. Unfortunately, given that our study period spans twenty years, systematically analyzing such news sources was not feasible. Our exclusion of local television news sources is also an important limitation since a majority of Americans note local news as their primary news source,[33] and it is not clear whether local news would follow the same coverage patterns that we observed in the national and regional news sources in our sample.

Second, assessing how news media coverage of mental illness was associated with public attitudes during our study period was outside the scope of this study.

Third, because of our sampling approach, the majority of the study sample (94 percent) consisted of print news stories, which means that we were unable to test for systematic differences in coverage by news medium.

Finally, our analysis did not permit us to explain trends in news coverage of mental illness, which might be driven by competing issues in the news cycle or the shifting landscape of news coverage over time.

Study Results

The volume of news coverage about mental illness trended downward over time (Exhibit 1). The two most frequently mentioned specific topics in news coverage about mental illness were violence—including both interpersonal violence and suicide—and mental health treatment issues.

Across the two decades of news coverage examined, there were no differences in the issues mentioned in news stories about mental illness (Exhibit 2). Overall, 55 percent of news stories mentioned violence related to mental illness, either interpersonal violence (38 percent) or suicide (29 percent), and nearly half mentioned treatment (47 percent). Of the latter, issues surrounding access to, funding for, and quality of treatment for mental illness were most frequently mentioned (26 percent, 19 percent, and 16 percent, respectively). Fourteen percent of news stories mentioned successful treatment for or recovery from mental illness.

News coverage of mental illness and interpersonal violence focused on gun violence and mass shootings. In the subset of news stories about mental illness that mentioned interpersonal violence ($n = 152$), nearly three-quarters depicted a specific violent event committed by a person with or purported to have a mental illness (Exhibit 3). The most frequent type of events depicted were gun violence events generally and, more specifically, family violence events, mass shootings, and school shootings. News media descriptions of mass shootings by individuals with mental illnesses increased over the course of the study period, from 9 percent of all news stories in 1994–2004 to 22 percent in 2005–14 ($p < 0.05$). The proportion of newspaper stories about interpersonal violence related to mental illness that appeared on the front page increased from 1 percent in the first decade of the study period to 18 percent in the second decade ($p < 0.001$).

There were very few differences in news media mentions of the causes, consequences, and individual depictions of mental illness in the first versus second decade of the study period (Exhibit 4). The most frequently mentioned causes of mental illness over the entire study period were stressful life events (17 percent) and genetics or biology (14 percent). The most frequently mentioned consequences of mental illness overall were criminal justice involvement (29 percent) and stigma or discrimination (25 percent). The most frequently occurring individual depiction was of a person with mental illness committing interpersonal

violence (28 percent). Only 7 percent of news stories over the entire study period included a depiction of successful treatment or recovery by a person with mental illness.

Over the twenty-year period, about a quarter of all news stories about mental illness mentioned a specific public policy issue (24 percent) (Exhibit 5). Policies related to the treatment of mental illness were the most frequently mentioned category of policy (14 percent of news stories).

News media mentions of treatment for mental illness, interpersonal violence, and criminal justice system involvement were positively correlated with mentions of mental health treatment policies (see Supplemental Exhibits 2–6 in the Appendix).[32] Stories that mentioned mental health treatment topics had higher predicted probabilities of also mentioning any treatment-related public policies, compared to other news stories (27 percent versus 2 percent). These included policies to expand community-based outpatient services (19 percent versus 5 percent) and policies to expand inpatient services (7 percent versus 1 percent). News stories mentioning interpersonal violence related to mental illness had higher predicted probabilities of mentioning any treatment-related policies (22 percent versus 8 percent), policies to expand inpatient treatment (7 percent versus 1 percent), and mandatory treatment policies (9 percent versus 3 percent) than stories that did not mention interpersonal violence. Stories that mentioned criminal justice involvement as a consequence of mental illness had higher predicted probabilities of also mentioning any treatment-related policy (23 percent versus 10 percent), compared to other news stories. These included policies to expand community-based outpatient services (14 percent versus 8 percent), policies to expand inpatient mental health services (8 percent versus 1 percent), and mandatory treatment policies (6 percent versus 2 percent). News stories mentioning military or war involvement were more likely than other news stories to also mention policies to improve mental health screening and treatment of US military and veteran populations (62 percent versus 1 percent).

> **Coverage has continued to emphasize interpersonal violence in a way that is highly disproportionate to actual rates of such violence.**

Sensitivity analyses showed no differences in trends in the content of news coverage about mental illness over time when time was measured in five-year periods versus decades (results not shown; available from the authors on request).

Discussion

The volume of US print and television news coverage of mental illness trended downward from 1995 through 2014, aligning with the secular trend in the downsizing of newspapers. This downsizing trend had a disproportionate effect on the volume of science reporting, which might have contributed to the decreasing volume of news coverage of mental illness observed in this study.[34] The content of news stories about mental illness changed very little during those twenty years. Overall, the most frequently mentioned topics pertained to interpersonal violence, suicide, and treatment of mental illness. Policies to improve or expand treatment were also the most frequently mentioned category of mental health policies, although such policies were mentioned in only 14 percent of stories. Criminal

justice involvement was the most frequently mentioned consequence of mental illness, and when the news media portrayed a specific individual with mental illness, that individual was most frequently depicted as having committed an act of interpersonal violence.

More than half of news stories mentioned some type of violence related to mental illness. News stories were more likely to mention interpersonal violence than suicide, despite the fact that research indicates that suicide is much more directly related to mental illness than interpersonal violence.[23] While the proportion of news stories mentioning interpersonal violence did not change over the two ten-year periods studied, these news stories were more likely to appear on the front page of newspapers in the second decade of the study period, which suggests that the prominence of this issue relative to other topics reported by the news media has increased. Our finding that the share of news stories mentioning mass shootings increased substantially in the most recent decade was consistent with another recently published study showing that the majority of US news coverage of mental illness and gun violence from 1997 to 2012 focused on mass shootings.[10] These findings raise troubling implications for social stigma toward people with mental illnesses in the United States. Multiple studies have demonstrated a positive association between news coverage of violence by people with mental illnesses and stigma,[24,35,36] and the news media's emphasis on interpersonal violence over the two decades we studied mirrors unchanging levels of stigma toward people with mental illnesses in the United States.[7,37] A 2013 experimental study found that exposure to a news story describing a mass shooting by an individual with a history of mental illness significantly exacerbated already high levels of social stigma toward people with mental illnesses.[24]

In contrast, a recent study found that depictions of people with mental illnesses receiving successful treatment and living productive lives in the community decreased levels of social stigma.[38] However, we found that only 14 percent of news stories included any mention of the possibility of successful treatment or recovery, and only 7 percent included the type of individual depiction of a person in successful treatment shown to be effective at reducing stigma.[38] Social stigma toward people with mental illnesses, which was mentioned as a consequence of mental illness in a quarter of all news stories, is important for several reasons. Social stigma and related discriminatory behavior is associated with low rates of mental health treatment seeking and adherence,[39] and with a host of negative outcomes such as homelessness, unemployment, and criminal justice involvement.[40] Furthermore, high social stigma is associated with lower levels of public support for policies that benefit people with mental illnesses, such as insurance parity and expanded government funding for treatment.[41]

Interestingly, news stories about interpersonal violence more frequently mentioned mental health treatment policies than other news stories did. While effective treatment can prevent the small subset of interpersonal violence resulting directly from mental illness—for example, violent actions prompted by psychotic symptoms such as hallucinations or delusions—most interpersonal violence in US society is not caused by mental illness and therefore not preventable by treatment.[9,23] Nonetheless, in recent years many advocacy groups and policy makers have argued for improving the mental health treatment system as a strategy for addressing high rates of gun violence generally, and mass shootings specifically,

in the United States.[9,26,42] Research suggests that this policy approach, advanced partly in an attempt to shift public attention and political momentum away from strengthening US gun laws, will not meaningfully address gun violence in America and might reinforce the link between mental illness and violence in the public psyche.[23,42,43]

Our study period coincided with US military involvement in Iraq and Afghanistan, which likely influenced news media content in several domains. News stories that mentioned military or war involvement as a cause of mental illness were more likely than other news stories to also mention policies to improve mental health screening and treatment for members and veterans of the US military. Despite the fact that suicide disproportionately affects these groups, news stories about suicide were no more or less likely than other stories to mention policies in this category.

Conclusion

News media coverage of mental illness changed very little during 1995–2014. Coverage has continued to emphasize interpersonal violence in a way that is highly disproportionate to actual rates of such violence among the US population with mental illness. Initiatives to educate reporters and the opinion leaders they use as sources regarding the relationship between mental illness and interpersonal violence are needed, as are efforts to increase news media depictions of successful treatment for and recovery from mental illness, which have the potential to reduce harmful social stigma toward this population.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.
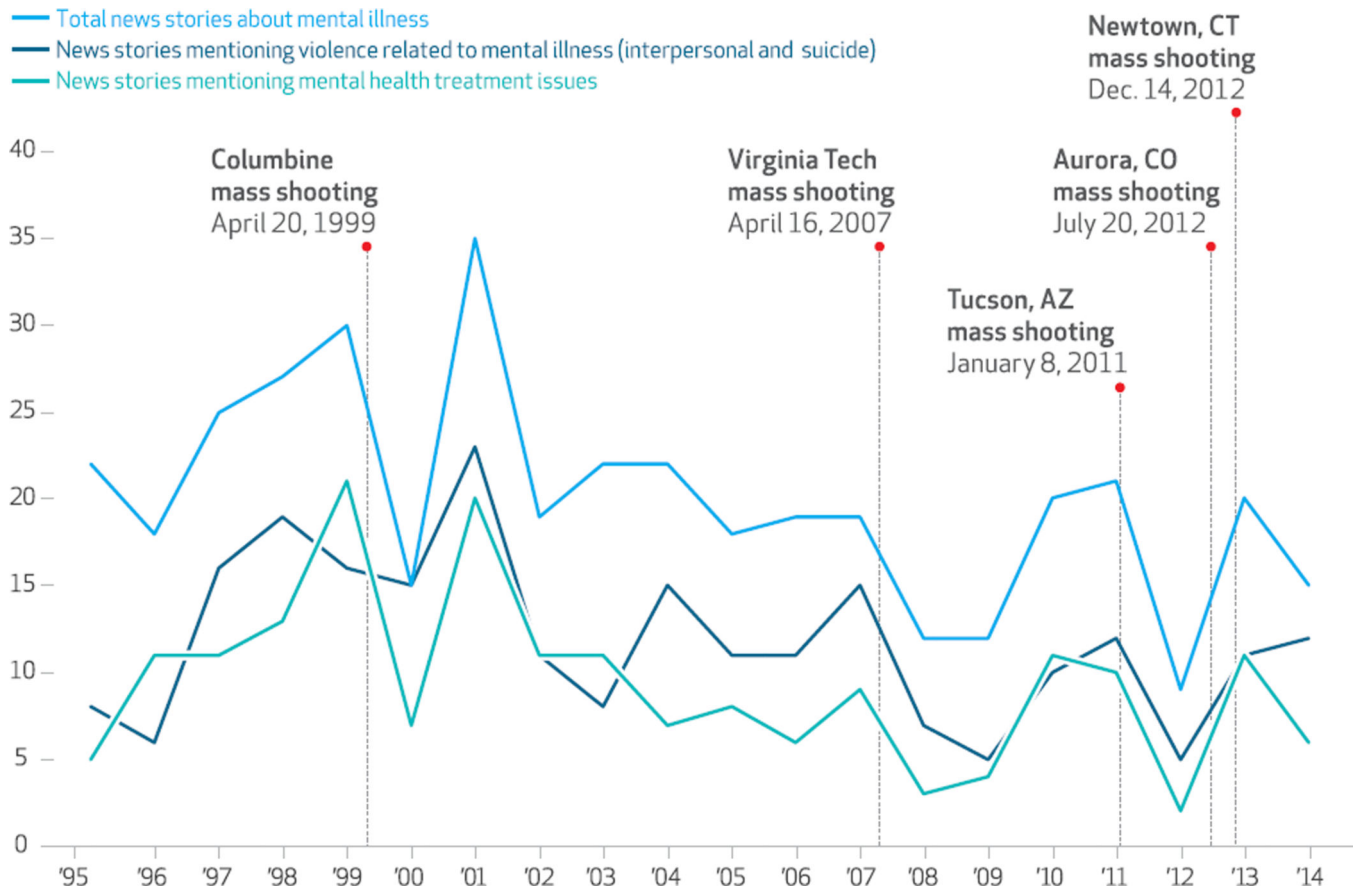
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Exhibit 1.
Volume of US news coverage focused on mental illnesses overall, by mention of violence, and by mention of treatment
SOURCE Authors' analysis of news media data, 1995–2014. **NOTE** *N* = 400 news stories.

Exhibit 2

Specific topics mentioned in news coverage about mental illness, 1995–2014

Topic	1995–2014 (N = 400)		1995–2004 (n = 235)		2005–14 (n = 165)	
	No.	%	No.	%	No.	%
Any type of violence related to mental illness	219	55	127	54	92	56
Interpersonal violence related to mental illness	152	38	92	39	60	36
Self-directed violence (suicide) related to mental illness	114	29	66	28	48	29
Any type of treatment of mental illness	187	47	117	49	70	42
Access to treatment for mental illness	102	26	63	27	39	24
Funding for treatment for mental illness	76	19	48	20	28	17
Quality of treatment for mental illness	65	16	41	17	24	15
Description of successful treatment for or recovery from mental illness	55	14	33	14	22	13
Ineffective or unsuccessful treatment	26	7	13	6	13	8
Development of a new medication or treatment for mental illness	17	4	8	3	9	5
Iatrogenic effects of treatment (for example, negative side effects)	11	3	7	3	4	2
Separation of treatment for mental illness and general medical care	9	2	7	3	2	1
Insurance coverage of treatment for mental illness	49	12	33	14	16	10
Neurobiological basis of mental illness	39	10	21	9	18	11

SOURCE Authors' analysis of news media data, 1995–2014. **NOTE** No results were significant ($p < 0.05$) after the use of chi-square tests to compare the proportion of news stories mentioning a given measure in the first decade of the study period (1995–2004) versus the second decade (2005–14).

Exhibit 3

Content and type of news stories about mental illness and interpersonal violence, 1995–2014

	1995–2014 (N = 152)		1995–2004 (n = 92)		2005–14 (n = 60)	
	No.	%	No.	%	No.	%
NEWS STORY MENTIONED:						
Depiction of specific violent event committed by a person with mental illness	113	74	68	74	45	75
Gun violence event	41	27	22	24	19	32
Mass shooting event	21	14	8	9	13	22 **
School shooting event	13	9	6	7	7	12
Family violence event	22	14	12	13	10	17
STATEMENTS ABOUT MENTAL ILLNESSES AND INTERPERSONAL VIOLENCE						
Mental illness increases the risk of interpersonal violence	57	38	34	37	23	38
Most people with mental illnesses are not violent toward others	12	8	9	10	3	5
It is difficult to predict interpersonal violence in people with mental illnesses	2	1	1	1	1	2
SPECIFIC DIAGNOSES MENTIONED IN THE CONTEXT OF INTERPERSONAL VIOLENCE						
Schizophrenia	26	17	14	15	12	20
Depression	16	11	12	13	4	7
Bipolar disorder	4	3	2	2	2	3
Post-traumatic stress disorder	2	1	0	0	2	3
Psychotic symptoms mentioned in the context of interpersonal violence	25	17	17	18	8	13
RISK FACTORS FOR VIOLENCE						
Drug use	8	5	6	7	2	3
Stressful life event precipitating violence	8	5	5	5	3	5
Alcohol use	5	3	4	4	1	2
Abuse or trauma	1	1	1	1	0	0
TYPE OF NEWS STORY						

	1995–2014 (N = 152)		1995–2004 (n = 92)		2005–14 (n = 60)	
	No.	%	No.	%	No.	%
Print news	129	85	77	84	52	87
Front page	12	8	1	1	11	18 ****
Print opinion	8	5	5	5	3	5
Television news	18	12	13	14	5	8

SOURCE Authors' analysis of news media data, 1995–2014. **NOTE** Significance was determined by the use of chi-square tests to compare the proportion of news stories mentioning a given measure in the first decade of the study period (1995–2004) versus the second decade (2005–14).

**
$p < 0.05$

****
$p < 0.001$

Exhibit 4

Causes, consequences, and individual depictions of mental illness in US news coverage, 1995–2014

News story mentioned:	1995–2014 (N = 400) No.	%	1995–2004 (n = 235) No.	%	2005–14 (n = 165) No.	%
Any cause of mental illness	140	35	71	30	69	42
Stressful life event	67	17	37	16	30	18
Genetics or biology	57	14	37	16	20	12
Military or war involvement	26	7	5	2	21	13 *** *
Trauma or abuse	25	6	11	5	14	9
Family environment or upbringing	12	3	9	4	3	2
Any consequence of mental illness	223	56	131	56	92	56
Criminal justice system involvement	115	29	75	32	40	24
Stigma or discrimination	99	25	53	23	46	28
Employment problems	53	13	27	11	26	16
Housing problems	44	11	29	12	15	9
Premature mortality	6	2	4	2	2	1
Any individual depiction of a person with mental illness	187	47	108	46	79	47
Depiction of interpersonal violence by a person with mental illness	113	28	68	29	45	27
Depiction of criminal justice system involvement by a person with mental illness	82	21	55	23	27	16
Depiction of suicide by a person with mental illness	61	15	36	15	25	15
Depiction of a person with mental illness experiencing unemployment	32	8	13	6	19	12 ***
Depiction of successful treatment or recovery by a person with mental illness	29	7	18	8	11	7
Depiction of unsuccessful treatment by a person with mental illness	24	6	12	5	12	7
Depiction of discrimination experienced by a person with mental illness	24	6	13	6	11	7
Depiction of a person with mental illness experiencing homelessness	16	4	9	4	7	4

SOURCE Authors' analysis of news media data, 1995–2014. **NOTE** Significance was determined by the use of chi-square tests to compare the proportion of news stories mentioning a given measure in the first decade of the study period (1995–2004) versus the second decade (2005–14).

*** $p < 0.01$

**** $p < 0.001$

Exhibit 5

US news coverage of mental health policy issues, 1995–2014

News story mentioned:	1995–2014 (N = 400)		1995–2004 (n = 235)		2005–14 (n = 165)	
	No.	%	No.	%	No.	%
Any mental health policy	95	24	55	23	40	24
Treatment-related policies	55	14	32	14	23	14
Policies to expand community-based outpatient mental health treatment	40	10	24	10	16	10
Policies to expand inpatient mental health treatment	13	3	10	4	3	2
Mandatory treatment policies[a]	12	3	7	3	5	3
ACA provisions related to mental health treatment	1	<1	0	0	1	1
US military or veteran mental health screening and treatment policies	18	5	4	2	14	8
Mental health insurance parity policies[b]	15	4	14	6	1	1
Criminal justice diversion policies[c]	13	3	9	4	4	2
Mental illness–focused firearm policies	4	1	2	1	2	1
Disability policies related to mental illness	4	1	1	<1	3	2

SOURCE Authors' analysis of news media data, 1995–2014. **NOTES** No results were significant ($p < 0.05$) after the use of chi-square tests to compare the proportion of news stories mentioning a given measure in the first decade of the study period (1995–2004) versus the second decade (2005–14). ACA is Affordable Care Act.

[a]For example, inpatient commitment or assisted outpatient treatment policies.

[b]For example, state insurance parity laws or the federal Mental Health Parity and Addiction Equity Act of 2008.

[c]For example, pretrial diversion policies or mental health court policies.