

NEWS FRAMES AND ATTITUDES
TOWARD MENTAL ILLNESS

by

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A THESIS

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ABSTRACT

Informed by framing theory, the present study tested whether stimulus material designed to include pertinent educational background information about mental illness would result in more favorable or less unfavorable attitudes toward people with mental illness. The study is significant because it tested participant attitudes both before and after exposure to a newspaper article linking violence and mental illness, specifically schizophrenia. Using a simple pre-test/post-test within-subjects experimental design, the study also examined whether exposure to general media, including news and entertainment content, influences attitudes toward people with mental illness. Results indicated no significant relationship between general news and entertainment media exposure and attitudes toward people with mental illness, but suggested other variables such as personal knowledge of mental illness may influence attitudes toward people with mental illness. The study also found that the inclusion of factual, educational material in an otherwise stereotypical article linking mental illness and violence may foster less negative attitudes toward people with mental illness. The study suggests one possible, and practical, method for reporters and editors to help mitigate the stigma attached to mental illness.

DEDICATION

This thesis is dedicated to Dr. Kimberly Bissell, whose passion for teaching and research ushered me into the fascinating world of communications research, and whose constant guidance and mentoring provided me the strongest possible footing for the road ahead.

LIST OF ABBREVIATIONS AND SYMBOLS

\bar{m}	Mean: The sum of a set of measurements divided by the number of measurements in the set
p	Probability associated with the occurrence under the null hypothesis of a value as extreme as or more extreme than the observed value
<	Less than
=	Equal to
sd	Standard deviation
(n)	Number of participants
df	Degrees of freedom

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Introduction

In January 2010, a 9-year-old boy was murdered while playing video games in a New York City apartment. In the days that followed, police arrested a 25-year-old man with a criminal record and history of assault for the crime. He also had schizophrenia, a fact that became the focus of coverage by New York City newspapers. “Parolee held in boy’s killing was mentally ill, mother says,” read a headline in the Jan. 3, 2010, edition of *The New York Times*. Six days later, under the headline “He should be alive: Flawed system fails mentally ill killer and his young victim,” the *New York Post* editorial board stated that the suspect was allowed to go free before the crime “despite screaming signs that (he) was on the verge of going berserk.”

While no one would contest the tragedy of the murder, the accuracy of the media coverage may be called into question. Such newspaper articles trouble mental health care advocates, professionals, and consumers because they link mental illness and violence without providing accurate background and qualifying information (for example, the risk of violence among people with schizophrenia is small). The media influence people’s attitudes about the world, including their views on mental illness (Angermeyer & Matschinger, 1996; Diefenbach & West, 2007; Dietrich, Heider, Matschinger & Angermeyer, 2006; Granello, Pauley & Carmichael, 1999; Granello & Pauley, 2000; Thornton & Wahl, 1996). When readers pick up the newspaper and learn about the death of an innocent child at the hands of a person with schizophrenia, mental health care advocates, consumers, and professionals worry that the reader may judge an entire population based on a minority’s actions. They have reason for concern, research shows.

Mental illness is common in the United States. One in four adults has a diagnosable mental illness in a given year, which translates into 59.8 million people based on 2008 U.S. Census Bureau statistics. In fact, mental illnesses are the leading cause of disability in the U.S. and Canada for people between the ages of 15 and 44 (National Institute of Mental Health, 2008). Despite the prevalence of mental illness, the general public continues to hold negative stereotypes about people with mental illness, both in the United States and other nations around the world (Anglin, Link & Phelan, 2006; Angermeyer, Beck & Matschinger, 2003; Crisp, Gelder, Rix, Meltzer & Rowlands, 2000; Salter & Byrne, 2000). Mental health care advocates, consumers, professionals, and scholars often cite the media as a cause of stigma (National Alliance on Mental Illness, 2009). Since the 1960s, researchers have documented a predominantly negative tone in media portrayals of people with mental illness (Coverdale, Nairn & Claasen, 2002; Diefenbach & West, 2007; Granello & Pauley, 2000; Nairn, 2007; Signorelli, 1989; Stuart, 2006; Wahl, 1992; Wahl, 2003).

Whether television, film, or newspaper, the media frequently portray people with mental illness as violent, dangerous, unstable, unpredictable, and socially undesirable (Coverdale, Nairn & Claasen, 2002; Diefenbach & West, 2007; Granello & Pauley, 2000; Nairn, 2007; Stuart, 2006; Wahl, 1992; Wahl, 2003). Such media coverage may influence public attitudes toward people with mental illness, feeding stigma and bearing harmful consequences such as coercive public policy changes, discrimination in employment and housing, social distance, avoidance of treatment, and impaired self-esteem (Angermeyer, Beck & Matschinger, 2003; Corrigan, 2004; Paterson, 2006; Stuart, 2003; Wahl, 2003). Therefore, the media often become an important point of conversation when mental health care advocates discuss methods for mitigating the

stigma attached to mental illness. Challenge and change media portrayals, they contend, and perceptions may be challenged and changed.

Informed by framing theory, the present study tests whether stimulus material designed to include pertinent educational background information about mental illness may result in more favorable or less unfavorable attitudes toward people with mental illness. The study is significant because it tests participant attitudes both before and after exposure to a newspaper article linking violence and mental illness, specifically schizophrenia. Using a simple pre-test/post-test within-subjects experimental design, the study also examines whether exposure to general media, including news and entertainment content, influences attitudes toward people with mental illness.

Literature Review

American Media Consumption

With the rising use of the Internet, online video, social networking and other new media, an argument could be made that Americans are being exposed to more media than ever before, and therefore more messages about mental health and illness. Americans are spending more time in front of the television than ever before. The average American watches 151 hours of television a month, or nearly five hours a day (Nielsen Co., 2009). The amount represents a 20 percent increase since 1998. In 2009, televisions outnumbered people in the average household in the United States (Los Angeles Times, 2009).

While fewer readers picked up the print edition of newspapers in recent years, readership remains high. Granted, print circulation is down. Nearly one in three Americans read the print edition in 2006. By 2008, the number dwindled to one in four (Pew Research Center, 2009). However, newspapers continue to reach large audiences through online content.

More than one in three Internet users visited online newspapers during the third quarter of 2009, and newspapers attracted more than 74 million unique monthly visitors between July and September 2009 (Newspaper Association of America, 2009). Online newspaper readership rose in recent years. Fourteen percent of Americans surveyed in 2008 told researchers they read an online newspaper yesterday, up from 9 percent in 2006 (Pew, 2009). As Pew researchers pointed out, the figures may not take into account the number of people who read newspaper content accessed through online aggregates such as Yahoo! and Google, which dominated the list when news consumers named the Web sites they frequented for current events. Despite print circulation figures, the fact remains: content produced by newspaper reporters reaches millions of readers each day, influencing the way people think about the world. Sometimes, newspaper reporters and other media outlets may unwittingly produce an inaccurate portrayal of the world by including harmful stereotypes when writing and reporting articles, resulting in a frame about the topic or issue.

Media Portrayals of Mental Illness

Since the 1960s, research has shown that television, newspapers and other media outlets often portray mental illness in an inaccurate and negative light. A common theme emerges when reviewing the existing research literature. Studies most frequently show the media portray people with mental illness as apart from society, dangerous, violent, and as criminals (Coverdale, Nairn & Claasen, 2002; Diefenbach & West, 2007; Granello & Pauley, 2000; Nairn, 2007; Stuart, 2006; Wahl, 1992; Wahl, 2003). Research examining the relationship between mental illness and violence has produced mixed results. However, recent studies suggest mental illness may not be independently labeled a causal factor for violence. For example, Steadman, Mulvey, Monahan, Robbins, Appelbaum, Grisso, Roth & Silver (1998) found no significant difference between the

prevalence of violence by former psychiatric patients and other people living in the same neighborhood. However, the study determined that substance abuse heightened the risk of violence for both groups, and a larger portion of the psychiatric patients showed symptoms of substance abuse. Elbogen and Johnson (2009) reported similar findings, saying that the incidence of violence was only significantly higher for people with severe mental illness who also showed symptoms of substance abuse or dependence. As Swanson, Swartz, Essock, Osher, Wagner, Goodman, Rosenberg & Meador (2002) noted, “the causal determinants of violent behavior in this group are perhaps as varied and complex as those in the general population” (p. 1523). The picture provided by the media, however, is less complex.

The majority of analyses of television content focused on primetime programming, including crime-based series and family dramas. Signorelli (1989) conducted one of the most exhaustive studies, examining the content of 1,215 dramatic programs over 17 years. She found that television programming between 1969 and 1985 portrayed mental illness in negative terms. Characters presented as mentally ill stood less chance of being employed. When they held jobs, they were more often portrayed as failures. Characters with mental illness were more likely to commit violence toward others, or be victimized, than non-mentally ill characters. Finally, they stood greater chance of being killed, or killing. More than one in five (21.7%) characters with mental illness killed another character, while one in five (20.7 %) was killed. Signorielli concluded, “being cast as mentally ill greatly increases a character’s chances of being involved in hurting and even more so in killing” (p. 327).

Similar themes emerged in analyses of prime time television in the 20 years since Signorelli’s comprehensive study. Television programs often linked mental illness and violence in the sample analyzed by Diefenbach (1997). The study examined 184 programs over the course

of two weeks in 1994, finding that characters with mental illness were 10 times more likely to commit violent crimes than the general population of television characters. Of 127 characters with mental illness, 56 (44.1%) were portrayed as committing a violent crime such as murder, rape, robbery, kidnapping, or unlawful imprisonment. Violence and negativity again dominated when Diefenbach and West (2007) analyzed the content of primetime television in 2003. Again, television characters with a mental illness were 10 times more likely to be a violent criminal than characters without mental illness. More than one in three (37%) mentally ill characters appeared as violent criminals, while only 3 percent of non-mentally ill characters displayed violence or criminality.

While television content analyses primarily focused on primetime programs viewed mostly by adults, researchers have also documented negative portrayals of mental illness in children's media. For example, a consistent picture emerged when Wahl (2003) examined research studies on children's media: television programming, movies, comics and other media outlets often portrayed people with mental illness as dangerous or unattractive. When characters in children's programming referenced mental illness, they often used derogatory terms such as "looney," "wacko," and "nuts." Wahl noted, "children are also being shown that the proper response to individuals manifesting psychiatric disorder is confinement and isolation rather than empathy and treatment" (p. 255). Stuart (2006) noted that children's encounters with negative media portrayals of mental illness may shape the way they feel about themselves and others:

By the time they reach adulthood, they will have 'witnessed' untold numbers of media murders committed by someone with a mental illness. In this way, each new generation of viewers will learn how to think about the mentally ill, how to use negative and derisive terminology, and how to respond emotionally. They will also gain a clear idea of how others would treat them were they to become mentally ill. (p.102)

Television, however, is not the only medium perpetuating negative stereotypes about mental illness. Studies examining the content of newspapers — both in the United States and abroad — show that print journalists often frame stories in a way that links mental illness and violence. Wahl, Woods & Richards (2002) studied the way six major U.S. newspapers portrayed mental illness in 300 random articles printed in 1999. They found one theme — dangerousness — dominated coverage. More than one in four articles (26%) reported on crimes or violence perpetrated by people with mental illness. Further, the articles often appeared under what the researchers called “glaring” headlines. For example, the September 13th edition of the *St. Louis Post Dispatch* carried the headline “Suspect in Killing Was Repeatedly Released From Mental Institutions,” while the December 6th edition of the *Washington Post* reported “Escaped Killer From Mental Hospital is Shot, Apprehended” (Wahl, 2003). The study found few examples of positive stories about mental illness, such as articles about recovery or people with mental illness contributing to society. Wahl (2003) noted, “The vast majority of people with mental illnesses are neither violent nor criminal and the appearance of individuals with psychiatric disorders mainly in the context of crime is contrary to journalists’ commitment to accurate and unbiased reporting” (p. 1599).

Negative articles also dominated newspaper coverage of mental illness in other English-speaking countries. In New Zealand, a content analysis conducted by Coverdale, Nairn, & Claasen (2001) determined that violence and criminality were the prevailing themes found in 600 articles. Sixty-one percent of the articles depicted people with mental illness as dangerous, while 47% linked mental illness and crime. When Huang and Priebe (2003) compared the content of major newspapers in the United States, Australia and Great Britain, they found British newspapers portrayed mental illness in the most negative light. However, the researchers noted a

predominantly negative tone in all three nations. One limitation should be noted about the study: the researchers only analyzed content from two major newspapers in each country (including the *Los Angeles Times* and *New York Times* in the U.S.), which limits the generalizability of the findings. However, the results are in line with more comprehensive research examining newspaper portrayals of mental illness in each country. Nairn and Coverdale (2004) examined the frequency with which New Zealand newspaper reporters included first-hand quotes from people with mental illness. Only five (0.8%) of 600 articles included an interview with a person identified as having a history of mental illness. Personal stories about mental illness often relied on third-party sources, such as parents, friends, and lawyers. “That absence of first-person accounts may reflect the perceived incompetence of people living with mental illness and their consequent lack of credibility as informants about their own experiences,” Nairn and Coverdale noted (p. 282). However, the research produced one positive note: when one-on-one interviews were conducted, reporters treated the people with mental illness as credible, expert sources, and the “speakers depicted themselves as recognizably human and understandable” (p.282). The findings lend some support for one proposed method for combating stigma: allowing people with mental illness to “speak” directly to readers.

Despite an overall trend over the years toward negative portrayals, recent studies reported more positive findings after analyzing newspaper content about mental illness. In one of the most comprehensive (and recent) studies of U.S. newspapers, Corrigan, Watson, Slopen, Rasinski, & Hall (2005) found that major American newspapers might be doing a better job of portraying mental illness than in previous decades. Corrigan et al. (2005) examined six weeks’ worth of content from every American newspaper with a circulation above 250,000, plus the largest newspaper in states where no daily reached a quarter million readers. While the theme of

dangerousness continued to receive coverage, the researchers noted that the frequency of these articles diminished when compared with content analyses of newspapers in previous decades. Thirty-nine percent of articles contained depictions of violence and dangerousness, and often appeared on the front page, potentially reaching larger audiences than other articles about mental health and illness. However, the authors noted positive trends in addition to the fact that the frequency of “violent” and “dangerous” articles seemed to be on the decline. For example, few articles perpetuated the stigma that people with mental illness — or their families — should be blamed for the condition. Using the same sample, Slopen, Watson, Gracia and Corrigan (2007) compared newspaper coverage of mental illness involving children and adults. The researchers found that newspapers provided more feature stories about children and mental illness, and noted:

Child articles were significantly less likely to contain stigmatizing terminology, and they were significantly more likely than adult articles to include perspectives from mental health experts, to direct the reader to additional sources of information, and to include statistics that help readers to interpret current events within a broader foundation of knowledge (p. 12).

Media coverage of mental illness outside of the United States may also be improving. In their analysis of New Zealand newspapers, Coverdale, Nairn & Claasen (2001) found that 27% of articles contained positive themes, such as stories about human rights and educational achievement. An analysis of non-fiction content produced by Australian radio, newspaper, and television outlets during late 2000 and early 2001 found less focus on mental illness and violence (Francis, Pirkis, Blood, Dunt, Burgess, Stewart & Putnis, 2004). Twenty-nine percent of the content focused on mental health policy and program initiatives or on the causes, symptoms and treatment of mental illness. Unlike previous research, the Australian study found articles linking mental illness and crime were less common (5.6% of the items). Further, researchers concluded

85.6% of the items did not perpetuate negative stereotypes about mental illness. However, the negative articles and stories frequently focused on violence, crime, and unpredictability.

Over four decades, content analyses demonstrate television and newspaper coverage predominantly focus on the negative when presenting mental illness, portraying people with mental illness as violent and dangerous. The same theme emerged when researchers studied public attitudes about mental illness, and in the 1990s researchers began examining the direct link between media exposure and attitudes toward mental illness.

The Media and Attitudes Toward Mental Illness

Studies show that the general public in societies around the globe perceives mental illness in a negative light. When Crisp, Gelder, Ris, Meltzer & Rowlands (2000) studied 1,737 adults in Great Britain, they found 70% of respondents considered people with alcoholism, schizophrenia, and drug addiction as dangerous to others. Eight out of ten respondents considered them unpredictable. Six out of 10 (62%) respondents considered people with severe depression “hard to talk to,” while nearly one in four respondents (23%) considered people with severe depression as dangerous and unlikely to recover. Such negative stereotypes may lead the general public to avoid people with mental illness. When Angermeyer, Beck & Matschinger (2003) read vignettes portraying people with schizophrenia or major depression to 5,025 adults in Germany, 7 out of 10 respondents correctly identified the character in the story as a person with mental illness. They expressed an increased desire to avoid the person. Further, 54 percent considered the person portrayed in the vignette as unpredictable, while 30 percent considered the character dangerous. A study of 1,600 adults in Great Britain (Salter & Byrne, 2000) reported similar findings. The majority of respondents considered people with mental illness as unpredictable and difficult to engage in conversation.

Demographic variables may factor into attitudes toward mental illness. When Anglin, Link & Phelan (2006) studied 1,241 adults in the United States, they found African-American respondents were more likely than Caucasian respondents to believe people with schizophrenia might be violent toward others. However, they were less likely to blame the person with schizophrenia and endorse punishment for the violent behavior. Income, religious background, and age also influenced attitudes. Younger and more conservative respondents were more likely to endorse punishment and assign blame, and participants from higher income brackets were more likely to approve punishment.

While several societal and individual factors may be related to attitudes toward mental illness (Wahl, 2003), mental health care advocates, providers, and consumers often point to the media as a primary reason society clings onto harmful stereotypes. Recent research lends support to the claim. The way the media portray mental illness may influence the way the public perceives people with bipolar disorder, schizophrenia, alcoholism, and other mental illnesses. A study conducted by Angermeyer and Matschinger (1996) found that respondents' desire for social distance escalated after media reports of two assassination attempts of politicians committed by people with schizophrenia. Further, people who watch more television hold less tolerant attitudes toward people with mental illness (Granello & Pauley, 2000). A study conducted by Diefenbach and West (2007) found the more prime-time network television people watched, the less likely they were to be comfortable with a mentally ill neighbor. They also were more likely to consider the location of mental health facilities in residential neighborhoods as dangerous to residents. When Granello, Pauley & Carmichael (1999) studied college students about mental illness and media exposure, they found that respondents who received most of their

information about mental health from electronic media held less tolerant attitudes toward people with mental illness.

The present research project expands on two studies in particular. In 1996, Thornton and Wahl examined the influence of newspaper articles on attitudes toward mental illness. As previously noted, researchers have frequently found that the media provide the public inaccurate and negative portrayals of mental illness. However, no study had attempted to directly examine the influence of the newspaper portrayals on public attitudes. Thornton and Wahl (1996) conducted an experiment in which participants viewed a stereotypical newspaper article linking mental illness and violence. The article contained several characteristics considered problematic and stigmatizing by scholars and mental health professionals. As the authors noted, the characteristics included: (1) the tragic death of an innocent person at the hands of a person with mental illness, (2) a graphic description of the murder, (3) a sensational headline, (4) a description of the suspect as “different and without social identity,” and (5) a depiction of the mentally ill suspect as “unpredictable, dangerous, aggressive, strong, active and irrational” (p. 18). The authors created four article packages for the experiment. One group of participants read the stereotypical article and a factual article about mental illness. The second group read an article addressing misconceptions about mental illness and the stereotypical article. The third group read the stereotypical article and an article about inaccurate media portrayals of mental illness. A fourth group read articles unrelated to mental health. Thornton and Wahl (1996) used two measures to assess participant attitudes toward mental illness once respondents read the articles. The measures included the Community Attitudes Toward Mental Illness scale, which is used in the present study. As the authors predicted, participants who read the stereotypically violent article without having first read a prophylactic article demonstrated the least tolerant

attitudes toward people with mental illness. Although the study offered insightful — and groundbreaking — information, it had limitations. As the authors note, the study could not document any change in attitude because it did not assess participant attitudes toward mental illness both before and after exposure to the articles. However, the study lends support to the argument that fact-based, educational material may help mitigate the influence of stereotypically negative articles on reader attitudes toward mental illness. A study conducted nearly 10 years later expanded on Thornton and Wahl's work. Dietrich, Heider, Matschinger & Angermeyer (2006) assessed participant attitudes toward mental illness one week before and three weeks after exposure to newspaper articles. One group of participants read a stereotypical article linking mental illness and violence, while the second group read an article containing educational material about mental illness. The results suggested that participants who read the violent article were more likely to label people with mental illness as violent and dangerous. Respondents who read the educational article were less likely to use the labels. In their call for combating stigma, the authors wrote that “informative reporting can pull respondents’ attitudes toward more favourable views,” (p. 321).

Stigma and Its Effects

Negative public attitudes can carry serious consequences for people with mental illness, influencing everything from housing and employment to public policy. For example, Wahl (2003) cited media coverage of the Kendra Webdale murder as a demonstration of the influence media coverage and public attitudes may carry for public policy related to mental health. Andrew Goldstein, a man with a mental illness, shoved Webdale onto the New York City subway tracks in January 1999. Newspapers dubbed Goldstein “The Subway Psycho,” provided detailed accounts of the murder, and demanded reform, which came in the form of Kendra's Law, which

provides for court-ordered treatment for some people with mental illness. Wahl noted, “Despite the fact that Andrew Goldstein did not need to be compelled to receive care — he had actively sought treatment before the subway incident — the media frenzy and misplaced emphasis on dangerousness helped to transform his actions into a mandate for coerced treatment” (p. 1597). Paterson (2006) documented similar cases in Great Britain, examining the way the media framed articles about the murders of Isabel Schwarz and Jonathan Zito. Sensational media coverage of the murders touched off a panic and led to more coercive policies for treating people with mental illness, Paterson reported. Further, as Stuart (2003) noted, “negative stereotypes also offer a rationale to lobby against mental health reforms involving community care or to deny adequate funding for services and research” (p. 655).

The stigma attached to mental illness may also lead people who would benefit from treatment to avoid seeking help or completing treatment (Corrigan, 2004). People may avoid seeking help because they do not want to be labeled “mentally ill.” Corrigan wrote, “they may opt to avoid the stigma all together by denying their group status and by not seeking the institutions that mark them, i.e., mental health care” (p. 216). The stigma attached to mental illness may also lead to overt discrimination. Corrigan (2004) noted that people with mental illness internalize stigma, buying into the notion they are less valuable to society, and encounter discrimination in obtaining and keeping employment and housing.

Targeting Stigma

Mental health care consumers, professionals, advocates, and scholars propose a range of tactics for mitigating the stigma attached to mental illness. One common method: addressing media portrayals of mental illness (Salter and Byrne, 2000; Stuart, 2006). For example, Wahl (2003) recommended reporters cover more positive stories about mental illness, such as stories

of recovery and accomplishment. Coverdale, Nairn & Claasen (2001) questioned whether articles could convey more positive connotations by allowing people with mental illness to “speak” directly with readers through interviews with reporters. One recent educational intervention (Stuart, 2003) at a Canadian newspaper showed limited success in improving content related to mental illness. Stuart (2003) provided reporters with accurate background information about mental illness and helped journalists develop more positive storylines. She then analyzed the content of the newspaper eight months before the intervention, and 16 months after the intervention. The frequency of positive stories about mental health increased by 33% after the intervention, and word count for positive articles increased 25%. However, the frequency of negative stories also increased (25%) and their word count doubled. Stories about schizophrenia were particularly problematic. The frequency of negative stories about schizophrenia increased 46%, while their word count increased from 300 to 1,000 words per story per month. Based on the results, Stuart recommended several strategies for combating stigma through the print media, including making accurate background briefs about mental illness and violence readily available to reporters. The current study attempts to test whether the inclusion of accurate background information about schizophrenia and violence may lead to less negative reader attitudes toward people with mental illness, building on suggestions made by Stuart (2003) and similar recommendations made by Wahl (2003):

When stories connecting mental illness with violence do appear, reporters can take care that these actions are put in context, for example, citing the research findings that demonstrate that such actions are uncharacteristic of those with psychiatric disorders and not presenting mental illness as the sole determinant of the tragic outcome (p. 1599).

The present research project assesses participant attitudes toward mental illness before and after they read a violent article and an article that combines educational material and a report of

violence involving a person with mental illness. The results may provide evidence for a practical method in mitigating the stigma attached to mental illness. Newspaper reporters will continue to write about murders, assaults, and robberies involving people with mental illness. However, reporters working on deadline are more likely to include easily acquired background information on mental health than to conduct an interview with a mental health professional. Furthermore, while the Internet imposes no restrictions on the size of newspaper content, the print edition limits the amount of space reporters and editors may dedicate to stories. In the print edition, chances are slim readers will encounter both an “educational” and “violent” article in the daily print edition of the newspaper. Therefore, the present study examines whether the inclusion of basic educational information about mental illness in an otherwise “violent” article may lead to less negative attitudes.

Theory

Framing provides the theoretical framework for the present study. The theory, which is frequently used in communications research, helps explain the relationship between news content and public attitudes toward issues. In the present study, the theory helps explain how and why negative attitudes about mental illness may exist. As previously noted, content analyses since the 1960s have shown that the media often portray people with mental illness as violent, unstable, and socially undesirable. The framework presents readers with a central organizing idea that shapes the way they view mental illness.

Journalists frame issues through both the content included in news stories – such as the information provided and highlighted – and the way the content is presented – such as graphics, story leads, and photographs. One of the most frequently cited definitions for framing comes from Entman (1993), who wrote that “To frame is to select some aspects of a perceived reality

and make them more salient in a communicating text, in such a way as to promote a particular problem definition, causal interpretation, moral evaluation, and/or treatment recommendation” (p. 52). An entire article may frame an issue for the reader. However, a single sentence may also frame the issue. Entman (1993) outlines four associations that frames create for readers. Frames define, interpret, evaluate, and recommend treatment for issues. Frames may perform all — or none — of the tasks. According to Entman (1993), articles define problems by explaining the costs and benefits of a causal agent’s actions. They interpret the cause of the problem. They morally evaluate the causal agent. And finally, texts recommend treatment for the problem.

The theory assumes that “news frames function to suggest how audiences can interpret an issue or event” (Tewksbury and Scheufele, 2009, p. 19). The most powerful frames “invite people to think about an issue in particular ways” (Tewksbury and Scheufele, p. 19).

Sieff (2003) explained the way an article about mental illness may define problems, interpret causes, morally evaluate, and recommend treatment. According to Sieff (2003), such articles can complete all four framing functions by (a) defining the problem as “mental illnesses make people violent;” (b) interpreting the cause as “mental illnesses make people more likely to be criminals;” (c) levy a moral evaluation of “people with mental illnesses are not capable of taking care of themselves;” and (d) recommend treatment by suggesting “people with mental illnesses should be jailed when they fail to comply with treatment programs” (p. 263).

Frames are manifested by “the presence or absence of certain keywords, stock phrases, stereotyped images, sources of information, and sentences that provide thematically reinforcing clusters of facts or judgments” (Entman, 1993, p. 52). The existing literature suggests the media may frame mental illness by using keywords such as “ex-mental patient,” stock phrases such as “pushed over the edge,” or as the *New York Daily News* put it earlier, “going berserk,”

stereotyped images such as “the voices made me do it” or explicit descriptions of a crime, and sources of information confined to social authorities such as police officers, which reinforce a theme that connects violence and mental illness. Sieff (2003) concluded that the media nurture negative attitudes toward people with mental illness through the way they frame mental health and illness. “Media frames play an important role in these representations, for the media frame organizes and simplifies information about mental illnesses. The repetitive nature of the frame serves to reinforce the media image” (Sieff, 2003, p. 266).

Sieff (2003) explained on p. 262:

Whether the attempt is to show a dangerous, violent character, or one who is carefree and happy, typical media portrayals use narrow definitions of mental illnesses, at odds with the much broader definitions of contemporary psychology...Depictions of mental illnesses present at least two views, as characters portrayed as excessively dangerous and violent, or as childlike, and unable to be dependent. These and other depictions are excessive in their simplicity, and fail to describe mental illnesses fully.

The news media, according to Corrigan and colleagues (2005), provide the “fundamental frameworks through which most Americans and people from developed nations come to perceive and understand the contemporary world” (p. 551). Media outlets, including newspapers, may nurture stigma by presenting mental illness using negative frames. Such framing frequently occurs, as demonstrated by analyses of content in the United States and around the world. “Hence, whether it is intentional or not, newspapers become social structures for perpetuating stigma” (Corrigan, et al, 2005, p. 551).

Stuart (2006) wrote that frames transform neutral or incomplete information into recognizable stereotypes, which audiences use to draw conclusions. “In this way, deliberately sketchy or generic depictions implicitly link mental illness to violence by encouraging audiences to draw on pre-existing stereotypes to this effect” (p. 101). The media may frame people with mental illness in a negative light through both the information reported and ignored. “Bias is

introduced into stories whenever perspectives are limited. The type and extent of information provided can contribute to negative cultural stereotypes by limiting the views presented and the solutions proposed” (Stuart, 2006, p. 101). The limitation, inclusion, or exclusion of information in a news article influences the salience of the information.

Frames may increase or decrease salience, which Entman (1993) defined as “making a piece of information more noticeable, meaningful, or memorable to audiences.” Entman (1993) explained, “even a single unillustrated appearance of a notion in an obscure part of the text can be highly salient, if it comports with the existing schemata in a receiver’s belief system.”

Tewksbury and Scheufele (2009) note three effects that resemble framing, and may occur in concert with framing: information, persuasion, and agenda setting effects. The present study concerns both information effects and framing. The information contained in an article influences audience members’ beliefs about an issue and its treatment, while the frame “unifies the information into a package that can influence audiences” (pg. 19). Frames build associations between concepts (i.e., mental illness and violence), while the information contained in the news article may “cement” the link. Tewksbury and Scheufele (2009) explained, “information effects result from a process in which people acquire beliefs and impressions of an issue and its context. A framing effect occurs when a phrase, image, or statement suggests a particular meaning or interpretation of an issue” (p. 20).

The present study may achieve both information and framing effects. Framing research most often evaluates the influence of two strikingly different frames on audience attitudes. For example, Simon and Jerit (2007) examined the different audience effects of articles concerning abortion in which the words “fetus” and “baby” were used. The current study takes a more subtle approach, examining the potential influence of educational content on reader attitudes toward

people with mental illness. Specifically, participants in the first experimental group read an article in which the journalist framed mental illness as the causal factor for a violent act, achieving at least one of the four primary functions of a frame — defining the problem as “mental illness makes people violent” (Entman, 1993; Sieff, 2003). In the second experimental group, participants read an article in which a competing frame is presented, one in which the information calls into question whether the violent act may be independently attributed to mental illness. The educational content provides the reader greater context, thus creating the possibility of an information effect. Further, the second article contains a secondary frame which suggests a different “particular meaning or interpretation of an issue” (Tewksbury & Scheufele, 2009, p. 20). The second frame invites the reader to consider the issue as more complex, defining the problem as “mental illness – and something more – may have made this person violent.” The present study tests framing theory by examining whether the second “complex” frame proves effective in leading to less negative attitudes toward people with mental illness.

Based on the assumptions underlying framing theory, the present study poses the following research questions:

RQ1: What is the relationship between news media exposure and college student attitudes toward people with mental illness?

Believing college-age respondents may be more inclined to watch entertainment television than news broadcasts, the primary investigator measured both news and entertainment media exposure in an attempt to receive a more specific understanding of participant media exposure.

Therefore, the second research question asked:

RQ2: What is the relationship between entertainment media exposure and college student attitudes toward people with mental illness?

RQ3: How do pre-test/post-test attitudes toward people with mental illness change following exposure to only a “stereotypical” newspaper article dealing with mental illness?

RQ4: How do pre-test/post-test attitudes toward people with mental illness change following exposure to a “stereotypical” newspaper article that includes “corrective” information dealing with mental illness?

RQ5: How do attitudes toward people with mental illness compare for the three groups — those who read only the “violent” article, those who read the “violent” article with “corrective” information, and the control group that read an article unrelated to mental illness?

Methodology

Participants

The primary investigator surveyed mass communications students at a university in the South during the winter of 2009 in order to examine the relationship between media exposure and attitudes toward people with mental illness. Respondents participated in the research using online survey software. Even though undergraduates were recruited and no systematic sampling was employed, the students represent the future journalists, authors, television and film producers, advertising representatives, and public relations practitioners who will craft media messages in years to come, including messages about mental health and illness. The students' chosen field of study assigns importance to their attitudes toward mental illness because previous research indicates many Americans receive much of their information about mental health from the media (Wahl, 2003). Finally, the students' chosen field of study suggests they would be inclined to read newspapers, both print and online. The research was conducted in compliance with all university guidelines governing the use of human subjects.

Procedures

The study was a simple pre-test/post-test, three-group experimental design that included two experimental groups and one control group. The pre-test gauged participants' exposure to general news and entertainment media, personal knowledge of mental illness, and attitudes toward people with mental illness. Participants completed the instrument and were exposed to one of three articles before returning three days later to complete a second instrument. No major local, national, or international news events involving mental illness and violence occurred

during the 3-day interval. The post-test instrument asked participants for demographic information and gauged their attitudes toward people with mental illness for a second time. Two hundred and thirty seven students completed the first round of the instrument. In all, 182 returned for the second round. The figure represents a retention rate of 77 percent.

Measures

Independent variables: news media exposure, entertainment media exposure

The first research question examined the relationship between news media exposure and attitudes toward people with mental illness. The online instrument measured news media exposure by asking participants questions about the quantity of news they read, watched or heard each day. For example, the instrument asked respondents how often they did the following: Read a newspaper, watched CNN, watched Fox News, watched MSNBC, watched the Daily Show, watched the Colbert Report, read magazine articles, and read blogs. Participants responded using options that included never, rarely, sometimes, often, and regularly. The instrument also sought information on which outlets participants most often use for news — word of mouth (friends, co-workers, classmates), radio, television, newspapers and the Internet. Seven items formed the scale for news media exposure, producing a Cronbach's Alpha of .68. A statistical analysis showed that responses ranged from a minimum of 8 to a maximum of 34. A higher number on the scale represented greater news media exposure. The mean response was 19.87 (sd=5.16).

The second research question examined the relationship between entertainment media exposure and attitudes toward people with mental illness. The instrument gauged entertainment media exposure by asking participants to use a scale to indicate how often they watched particular television shows, including both fictional and non-fictional programs such as *America's Got Talent*, *Two and a Half Men*, *CSI*, *The Mentalist*, *The Family Guy*, and *The*

Simpsons. Response options included never, rarely, sometimes, often, and regularly. The final entertainment TV viewing scale included 38 items and produced a Cronbach's Alpha of .82. A statistical analysis showed that responses ranged from a minimum of 37 to a maximum of 126. A higher number on the scale represented greater entertainment media exposure. The mean response was 60.53 (sd=13.68). The instrument also asked participants to indicate how often they watched television shows, movies, or videos on an iPod or computer; to list television shows they watched the previous day; the amount of time they spend reading books for pleasure; the number of days they watch television each week; how often they use the Internet; and Web sites they frequently visit.

Dependent variable: attitudes toward people with mental illness

The attitudes held by mass communications students toward people with mental illness provided the dependent variable in this study. Two measures were employed to examine attitudes toward mental illness, both in the pre-test and the post-test. First, the instrument used the Community Attitudes Toward Mental Illness scale, a popular method developed in the field of psychology by Taylor and Dear in 1981. Taylor and Dear (1981) developed the scale as the nation witnessed a move from institutionalized to community-based mental health care. The authors outlined two objectives for developing the scales. First, they wanted to discriminate between individuals who supported and rejected people with mental illness in the community. Second, they wanted to predict and explain whether a community would accept or reject community-based mental health care in their neighborhoods. The scale remains in frequent use today and continues to provide reliable results (Diefenbach and West, 2007; Finkelstein, Lapshin & Wasserman, 2008; Granello, Pauley & Carmichael, 1999; Granello & Pauley, 2000). Respondents indicate whether they agree or disagree — and to what extent — with 40 statements

about mental health (Appendix D). Half the statements are phrased using positive language, while half use negative wording. Response options include “Strongly agree,” “disagree,” “neither agree nor disagree,” “agree” and “strongly agree.” Four subscales are represented in the CAMI (Taylor & Dear, 1981). The subscales are authoritarianism, benevolence, social restrictiveness, and community mental health ideology. Each subscale uses 10 statements. For example, the authoritarian subscale reflects “a view of the mentally ill as an inferior class requiring coercive handling,” (Taylor & Dear, 1981, p. 226) and asks participants whether they agree with statements such as “one of the main causes of mental illness is a lack of self-discipline and will power (Taylor & Dear, 1981, p. 230). The pre-test and post-test scales included eight items, and produced a Cronbach’s alpha of .67 and .65, respectively.

The benevolence subscale refers to a “sympathetic view of patients based on humanistic and religious principles” (Taylor & Dear, 1981, p. 226), and uses statements such as “the mentally ill have for too long been the subject of ridicule” (Taylor & Dear, 1981, p. 230). Ten items were used on both the pre-test and post-test subscales. The pre-test scale produced a Cronbach’s alpha of .80, while the post-test scale produced a higher Cronbach’s alpha of .82.

The social restrictiveness subscale measures the degree to which participants believe people with mental illness should be viewed as a threat to society. The subscale uses statements such as “The mentally ill should be isolated from the rest of the community,” and “The mentally ill are far less of a danger than most people suppose” (Taylor & Dear, 1981, p. 231). The pre-test scale included nine items with a Cronbach’s alpha of .81, while the nine-item post-test scale had a Cronbach’s alpha of .80.

Finally, the community mental health ideology subscale measures participants’ acceptance of community-based mental health care (versus institutional care). It contains

statements such as “The best therapy for many mental patients is to be part of a normal community” (Taylor & Dear, 1981, p. 231). Nine items formed the pre- and post-test scales. The pre-test scale produced a Cronbach’s alpha of .83, while the post-test scale had a Cronbach’s alpha of .85.

One possible limitation should be noted about the CAMI scale. Respondents may deduce the “socially desirable” response because the statements are straightforward. Therefore, the present study also used semantic differentials to measure participant attitudes toward mental illness. The measurement method has proven reliable in previous studies examining the subject (Crisp, 2000; Olmsted & Durham, 1976; Servais & Saunders, 2007). Further, Link, Yang, Phelan & Collins (2004) cited semantic differentials as a valid direct measure of stereotyping. Participants were asked to use a seven-point scale to rate six subjects in terms of worthiness, comprehensibility, similarity, and social desirability. For example, participants were asked to use the seven-point scale to choose “how safe each subject is.” Subjects included “Yourself,” “A Member of the Public,” “A Person with Moderate Depression,” “A Person With Schizophrenia,” “A Person with a Physical Disability,” and “A Person with Anxiety.” The numeral 7 represented “safe,” while 1 represented “dangerous.” Participants considered the same subjects in terms of “similar to me/dissimilar to me,” “worthy/unworthy,” “understandable/incomprehensible,” and “desirable/undesirable to be with.” When considering “similar to me/dissimilar to me,” the subject “Yourself” was removed from the instrument (Appendix E). The primary investigator expected participants would consider themselves the safest, worthiest, most understandable, and desirable to be with, followed by a member of the general public, a person with a physical disability, and then the mental health targets.

Participants also provided basic demographic information, including age, race, level of education, and gender. Both individual and social factors may influence a person's perception of the world. Therefore, the instrument also gauged respondents' individual knowledge of mental health and illness by asking three questions, each offering a yes/no response: "Do you know someone who has a mental illness," "Do you have any family or friends who have worked in the mental health care profession," and "Have you taken any classes, such as psychology courses, that discussed mental health?"

Stimulus

The study sought to shed light on the influence of newspaper content on attitudes toward people with mental illness. A filter item was used to direct participants into one of three groups. Based on the chosen number, participants viewed one of three newspaper articles. The first treatment group viewed a "stereotypical" article linking violence and schizophrenia (Appendix A). As previously mentioned, content analyses show that newspapers often portray people with mental illness as dangerous, unstable, and unpredictable in articles containing graphic descriptions and sensational headlines (Coverdale, 2002; Wahl & Thornton, 1996; Wahl, 2003). The first treatment group read an article about a mother who stabbed her two sleeping children (violent and unpredictable behavior). The article's main headline read, "SIBLINGS STABBED, MOTHER CHARGED," while a second smaller headline, or subhead, read "The suspect, an ex-mental patient, says 'the smoke made me do it.'" The article recounts the violent crime in vivid detail, informing readers the 39-year-old suspect attacked her children with a butcher knife, stabbing her son six times in the back and slashing her daughter in her shoulders and hands. The article also graphically reports the suspect's appearance in court, saying "The suspect, with a splattering of blood on the front of her pink sweater..." The article quotes a court psychologist,

who describes the suspect as incoherent and distracted, and then reports the fact the woman spent time in a psychiatric hospital for schizophrenia.

Finally, the article quotes a neighbor who describes the suspect as erratic before saying “Once, she started yelling at my son, accusing him of slashing her tires, and she called him names” (unstable behavior).

The second treatment group read the same article, with one alteration. The second article contained “corrective” information, content about schizophrenia taken from the frequently asked questions section of the National Institute of Mental Health Web site (NIHM, 2009; Appendix B). The primary investigator chose the information for two reasons. First, the additional content contradicts the newspaper stereotype linking violence and schizophrenia, altering the way the article is framed. Second, the content represents information readily — and quickly — accessible to journalists working under deadline. The additional content read by the second treatment group states, “People with schizophrenia may hear voices or hallucinate, but they are usually not violent, according to the National Institute of Mental Health. If a person with schizophrenia becomes violent, the violence is usually directed at family members and tends to take place at home, according to NIMH. However, the risk of violence among people with schizophrenia is small.” The additional content also informed readers that schizophrenia affects about 2.4 million adults in the United States. The third and final treatment group read an article unrelated to mental health (Appendix C). The instrument asked each treatment group three questions about the articles to ensure they read all the content, in addition to explicitly asking whether they read the entire article.

Results

Descriptives

Only 169 respondents provided demographic information, which was requested at the end of the instrument. The majority of respondents were white (143 participants, or 85%) and female (132 participants, or 78%). Otherwise, the demographic information provided by respondents showed: 21 respondents marked African-American for race, 2 Hispanic, 2 Asian and 1 Other; 38 respondents marked college freshman for educational level, 57 sophomore, 55 junior, 19 senior; and 37 marked male for gender, 132 female.

Research Questions, Community Attitudes Toward Mental Illness

The first research question examined the relationship between news media exposure and attitudes toward mental illness. Pearson's correlation coefficients showed no significant relationship between the independent and dependent variables. The second research question examined the relationship between entertainment media exposure and attitudes toward mental illness. Again, no significant relationship emerged. The researcher developed a third media-related scale (four items, Cronbach's alpha of .704) to examine the relationship between attitudes toward mental illness and exposure to television crime dramas. Again, a Pearson's correlation coefficient showed no significant relationship between the variables.

The remaining research questions tested the effectiveness of the corrective information contained in the second news story. Participants who viewed the "stereotypical" article linking schizophrenia with violent, unpredictable behavior ($n=114$) demonstrated significantly greater negative attitudes after reading the article. Paired sample T-tests showed that responses

became significantly more negative in all four categories of the Community Attitudes Toward Mental Illness scale. For example, respondents expressed greater desire to place social restrictions on people with mental illness (pre-test mean, 20.11; post-test mean 22.2, $p < .001$), suggesting that the negative attitudes increased after reading the stereotypical article without the corrective educational content. Further, participants adopted more authoritarian attitudes toward people with mental illness (pre-test mean, 17.65; post-test mean, 18.71, $p < .01$). Meanwhile, respondents expressed greater reservations about people with mental illness being treated in the community, rather than hospitals (pre-test mean, 30.63; post-test mean, 27.81, $p < .001$, with a higher score signaling greater acceptance of community-based mental health care). Finally, they expressed less benevolent attitudes toward people with mental illness (pre-test mean, 37.81; post-test mean, 36.17, $p < .001$, with a higher score representing more benevolent attitudes).

Table 1: Paired sample t-test of Group 1 attitudes toward people with mental illness

Dependent variables	Pre-test mean <i>SD</i> (<i>N</i>)	Post-test mean <i>SD</i> (<i>N</i>)	<i>t</i>	<i>df</i>	<i>p</i> -value
Authoritarianism*	17.65 4.01 (80)	18.71 4.17 (80)	-3.087	79	<i>p</i> <.01
Social restrictiveness	20.11 4.86 (80)	22.21 4.99 (80)	-4.708	79	<i>p</i> <.001
CMHI	30.63 5.91 (113)	27.81 5.31 (113)	34.155	112	<i>p</i> <.001
Benevolence	37.81 4.95 (80)	36.17 4.22 (80)	4.196	79	<i>p</i> <.001

* The authoritarianism subscale included 8 items respondents rated 1-5, for a range of 8 to 40, with a higher score representing more authoritarian attitudes. The benevolence subscale included 10 items rated 1-5, for a range of 10 to 50, with a higher score indicating a more benevolent attitude. The social restrictiveness subscale included 9 items rated 1-5, for a range of 9 to 45, with a higher score representing an increased desire for social restrictions. The CMHI subscale included 9 items rated 1-5, for a range of 9 to 45, with a higher score indicating greater acceptance of community-based mental health care.

The corrective material included in the stimulus demonstrated limited success. The results suggest the inclusion of the educational background information in the otherwise violent article may have lessened negative effects on reader attitudes, though the results were not dramatic. Participants who read the “educational” article (*n*=105) demonstrated no significant change in attitudes on the authoritarian and social restrictiveness scales, paired sample T-tests showed. However, negative attitudes remained. They expressed significantly less benevolent attitudes toward people with mental illness (pre-test mean, 36.15; post-test mean, 35.30, *p*<.05). They also showed less willingness to endorse community-based treatment (pre-test mean, 29.9;

post-test mean, 27.15, $p < .001$). A paired sample T-test also showed significant attitude changes in the control group, which read an article unrelated to mental illness and violence.

Control group respondents ($n=14$) showed significant negative attitude changes in support for community-based mental health care (29.91 to 27.08, $p < .001$) and benevolence (37.20 to 34.90, $p < .05$).

Table 2: Paired sample T-test of Group 2 attitudes toward people with mental illness

Dependent variables	Pre-test mean <i>SD</i> (<i>n</i>)	Post-test mean <i>SD</i> (<i>n</i>)	<i>t</i>	<i>df</i>	<i>p</i> -value
Authoritarianism*	18.83 4.22 81	19.5 3.82 81	-1.542	80	NS
Social restrictiveness	21.93 4.85 83	22.38 4.39 83	-1.190	82	NS
CMHI	29.90 4.79 103	27.15 4.40 103	34.814	102	$p < .001$
Benevolence	36.15 4.57 83	35.30 4.38 83	2.012	82	$p < .05$

* The authoritarianism subscale included 8 items respondents rated 1-5, for a range of 8 to 40, with a higher score representing more authoritarian attitudes. The benevolence subscale included 10 items rated 1-5, for a range of 10 to 50, with a higher score indicating a more benevolent attitude. The social restrictiveness subscale included 9 items rated 1-5, for a range of 9 to 45, with a higher score representing an increased desire for social restrictions. The CMHI subscale included 9 items rated 1-5, for a range of 9 to 45, with a higher score indicating greater acceptance of community-based mental health care.

The primary investigator hoped the second experimental group would demonstrate either no significant change in mean scores for all four subscales during the post-test, or lower mean scores on the authoritarian and social restrictiveness subscales and higher scores on the benevolence and CMHI subscales in the post-test. As previously mentioned, the inclusion of the factual corrective information demonstrated limited success. Participants who read the correct information showed no significant change in attitude on the post-test for the authoritarian and social restrictiveness scales. However, they demonstrated significantly less benevolent attitudes and lesser acceptance for community-based mental health care on the post-test. One-time exposure to corrective information should not be expected to completely mitigate entrenched negative attitudes toward people with mental illness.

The study design called for both between-groups and within-groups statistical analyses. An ANOVA between subjects found little difference between the experimental and control groups on the CAMI subscales.

Semantic Differentials

The present study also used semantic differential scales to assess participant attitudes toward people with mental illness. Participants used a 7-point scale to rate subjects as “safe/dangerous,” “understandable/incomprehensible,” “desirable/undesirable to be with,” “worthy/unworthy” and “similar to me/dissimilar to me.” They considered six subjects — themselves, a member of the general public, a person with moderate depression, a person with schizophrenia, a person with a physical disability, and a person with anxiety.

The primary investigator conducted paired sample T-tests to determine the mean responses for four groups: all participants, participants who only read the violent article, participants who read the violent article and “corrective” information, and participants who read

an article unrelated to mental health. The results showed that negative attitudes toward mental illness were well entrenched even before participants read a newspaper article linking violence and mental illness. As expected, respondents consistently rated themselves as the most desirable to be with, the safest, the worthiest, and the most understandable, followed by members of the general public. Across all groups, respondents held the most negative attitudes toward people with schizophrenia. Participants rated people with schizophrenia as the least desirable to be with, the most dangerous, the least worthy, and the least understandable. They also considered people with schizophrenia the least similar to themselves. The following results are based on paired sample T-tests.

The primary investigator first examined responses to the “desirable/undesirable to be with” semantic differential for each group. Participants who viewed only the violent article showed significantly improved attitudes toward people with mental illness. They indicated greater acceptance of being around people with moderate depression (pre-test mean, 3.95; post-test mean, 4.45, $p < .001$); schizophrenia (pre-test mean, 3.06; post-test mean, 3.51, $p < .05$), and anxiety (pre-test mean, 4.20; post-test mean, 4.57, $p < .01$). Participants in the second group, which read the violent article with corrective information, also demonstrated significantly improved attitudes. Mean responses improved for depression (pre-test mean, 5.90; post-test mean, 5.99, $p < .001$), schizophrenia (pre-test mean, 2.81; post-test mean, 3.44, $p < .001$), physical disabilities (pre-test mean, 4.36; post test mean, 4.89, $p < .001$), and anxiety (pre-test mean, 4; post-test mean, 4.54, $p < .001$).

Participants who read an article unrelated to mental illness showed a slightly significant change in attitude toward one target, a person with moderate depression (pre-test mean, 4.00; post-test mean, 5.00, $p < .05$).

A second semantic differential asked participants to consider how similar they felt to every target except themselves. A higher score indicated greater perceived similarity. Participants who read the violent article demonstrated a significant positive change in attitude for one target, a person with moderate depression (pre-test mean, 3.63; post-test mean, 4.18, $p < .01$). The second group, which also read corrective information, showed significant positive increases on three targets: moderate depression (pre-test mean, 3.52; post-test mean, 3.92, $p < .05$), schizophrenia (pre-test mean, 2.02; post-test mean, 2.61, $p < .01$), and physical disability (pre-test mean, 2.67; post-test mean, 3.25, $p < .05$). The control group demonstrated a significant attitude change toward people with depression (pre-test mean, 3.80; post-test mean, 4.60, $p < .01$).

Next, the primary investigator examined responses on the “safe/dangerous” semantic differential. Participants who only viewed the violent article considered four targets safer after reading the article: depression (pre-test mean, 4.53; post-test mean, 4.96, $p < .01$), schizophrenia (pre-test mean, 3.27; post-test mean, 3.83, $p < .001$), physical disability (pre-test mean, 4.99; post-test mean, 5.39, $p < .01$), and anxiety (pre-test mean, 4.61; post-test mean, 5.06, $p < .01$). Participants who also read educational information considered everyone except themselves significantly safer during the post-test. Mean scores increased for the general public (pre-test mean, 5.45; post-test mean, 5.80, $p < .01$), and people with moderate depression (pre-test mean, 4.39; post-test mean, 5.00, $p < .001$), schizophrenia (pre-test mean, 3.18; post-test mean, 3.77, $p < .001$), physical disability (pre-test mean, 5.11; post-test mean, 5.44, $p < .05$), and anxiety (pre-test mean, 4.63; post-test mean, 4.99, $p < .05$). Control group respondents showed no significant attitude change.

A fourth semantic differential asked respondents to rate each target as “worthy/unworthy,” with the higher score representing worthy. Paired sample T-tests indicated a

significant change only among participants who read educational information and the violent article. Mean scores became more positive (pre-test mean, 5.45; post-test mean, 5.76, $p < .05$) for the “anxiety” target.

The final semantic differential asked respondents to rate targets using the terms “understandable, incomprehensible,” with a higher score representing “understandable.” The most substantial attitude change occurred among participants who read the violent article. Mean scores significantly changed between the pre- and post-test for five of six targets — a member of the general public (pre-test mean, 5.80; post-test mean, 6.12, $p < .05$), plus a person with moderate depression (pre-test mean, 4.72; post-test mean, 5.33, $p < .001$), schizophrenia (pre-test mean, 3.54; post-test mean, 4.23, $p < .001$), physical disability (pre-test mean, 4.93; post-test mean, 5.04, $p < .01$), and anxiety (pre-test mean, 4.69; post-test mean, 5.04, $p < .05$). The second group, which also read educational information, significantly changed its attitude toward a person with moderate depression (pre-test mean, 4.65; post-test mean, 5.05, $p < .05$). Finally, paired sample T-tests indicated a slightly significant change when the control group rated people with schizophrenia (pre-test mean, 5.10; post-test mean, 5.40, $p < .05$).

Discussion

Since the 1960s, two primary findings emerged from studies examining media portrayals of mental illness and public attitudes toward people with bipolar disorder, schizophrenia and other mental disorders. First, the media paint a picture of people with mental illness as violent, unstable, and socially undesirable. Second, the public perceives people with mental illness as violent, unstable, and socially undesirable.

It wasn't until recent years that researchers began scientifically examining possible relationships between media exposure and attitudes toward people with mental illness. So far, most research found a relationship, concluding media portrayals may lead the general public to adopt negative stereotypes.

The present study was designed to test how or if corrective information used in news stories might result in less negative attitudes toward people with mental illness. Using framing as a theoretical framework, the pre-test/post-test within-groups experimental study predicted that participants exposed to a news story that included educational information about mental illness would exhibit less negative attitudes toward people with mental illness. Further, the primary investigator predicted that exposure to the media, specifically news and entertainment media, would be related to more stereotypical perceptions of people with mental illness. The findings suggest that general media exposure was not related to attitudes toward people with mental illness, but other variables should be considered when examining the formation of attitudes and beliefs about people with mental illness. The study also sought to identify variables that might be predictors of attitudes toward people with mental illness.

The study showed limited success on its primary goal, examining whether educational material might lead readers of an otherwise stereotypically violent article to express less negative attitudes toward people with mental illness. As expected, participants who only read the violent article expressed more negative attitudes on all four CAMI scales during the post-test. In contrast, a within-subjects comparison showed that participants who read the violent article that included educational material showed a significant attitude change on only two scales, becoming less benevolent toward people with mental illness and less willing to endorse community-based mental health care. The results raise two points. First, the study showed that an article linking mental illness and violence could lead readers to endorse more negative attitudes about people with mental illness. Second, the study showed that the inclusion of educational material in an otherwise violent article might temper the change, though the change might not be as dramatic as an entirely separate educational article such as the one used by Dietrich et al. (2006). While the educational material did not foster dramatic change, it nurtured less negative attitudes nonetheless. Two factors may be involved. First, participants asked to read the article with corrective information may not have read the entire article, missing the educational material about schizophrenia. Second, it is difficult to change pre-existing attitudes about mental illness based on one-time exposure to corrective information.

No significant relationship emerged between attitudes toward mental illness and exposure to news media, entertainment media, and crime-based television programming in the sample of college students. However, media exposure should not be disregarded as an influence on public attitudes toward people with mental illness. For example, participants in the present study spent very little time with the media, even though their backgrounds in journalism, public relations, and mass communications suggested the case might be otherwise. The author expected

participants would express more negative attitudes when they watched crime-based television programs such as Law & Order and CSI, because these programs might portray people with mental illness as criminals. However, crime-based programming could not be considered a predictor with so few respondents watching the programs. Second, the college students in the present study may have developed their attitudes toward people with mental illness long ago. They may be less susceptible than younger audiences to negative media messages about mental health. For example, Dietrich et al. (2006) were studying adolescents when they found a link between media exposure and negative attitudes toward people with mental illness. Further, several social and individual factors may shape the way we view the world, not just the media. The present study accounted for several variables. In the current sample, for example, college students who personally knew someone with mental illness expressed less negative attitudes toward people with mental illness.

The present study had limitations that should be noted. First, conclusions may not be drawn about the general population because of the limited diversity of the sample group. The majority of respondents were white (85%) and female (78%). Second, while the author attempted to control for socially desirable responses, the straightforward nature of the questions concerning mental illness may have led respondents to provide what they considered “politically correct” answers. Respondents may have caught on to the purpose of the study after reading the stimulus and then encountering questions about mental illness for a second time. However, a note should be made. While participants may have figured out the goal of the study, providing more socially desirable responses on the post-test, the semantic differentials demonstrated that negative attitudes about people with mental illness remained present. For example, while respondents demonstrated greater willingness to be around people with schizophrenia, anxiety, and

depression on the post-test, they still rated people with mental illness as the least desirable to be around. Further, people with schizophrenia — the mental illness included in the stimulus article — received the most negative rating on every semantic differential. The instrument also did not assess the political and religious background of respondents, which may influence perceptions of mental illness (Anglin, Link & Phelan, 2006) and also influence how participants respond to statements included in the Community Attitudes Toward Mental Illness scale.

The present study demonstrates that the inclusion of corrective, educational material in otherwise stereotypical articles about mental illness and violence may encourage less negative attitudes, though the change is not overly dramatic. The author encourages future research along the same line. Research since the 1960s has consistently and repeatedly documented the problematic way in which the media portrays mental illness. Further, repeated studies have shown that the general public tends to assign more negative character traits to people with mental illness. The problem has been documented. Now, scholars in psychology and communications should work together to test methods for mitigating stigma. Future research could expand on the present study by testing whether placement of educational material higher in an article might lead to more effective changes in attitude. Future research could also examine the possible relationship between participants' cognitive processing styles and their attitudes toward mental illness. Further, researchers should examine whether attitudes improve when reporters allow people with mental illness to “speak directly” to readers through personal interviews. The area is ripe for study. The current study contributes to existing knowledge by suggesting one possible, and practical, method for reporters, editors, and other news producers to help mitigate stigma against people with mental illness. Newspapers and other news outlets will continue covering stories involving crime and mental illness. While one-on-one interviews may be impractical in

some cases because of time constraints, reporters facing the tightest deadline should have time to copy-and-paste educational background information from the National Institute of Mental Health for inclusion in an article involving crime and mental illness. The author contends any step toward mitigating stigma, no matter how large or small, helps. Granted, exposure to a single newspaper article with educational material about schizophrenia will not likely carry lasting effects on public attitudes. However, it is a step, and the present study provides a foundation for future research exploring potential positive changes in the way the media frames mental illness.

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Appendix A
Stimulus One (Experimental Group One, “Stereotypical Article”

SIBLINGS STABBED, MOTHER CHARGED

The suspect, an ex-mental patient, says “the smoke made me do it”

By Steve Perot
Times-News Staff Writer

JEFFERSON - A woman with a history of mental illness lashed out at family members with kitchen knives before dawn Tuesday, murdering her son and daughter, authorities said.

The woman told police that "the smoke made me do it," authorities said. It was unclear what she meant.

The 39-year-old woman attacked her son with a butcher knife as he lay sleeping about 5 a.m., stabbing him six times in the back and once in the left arm, authorities said. The daughter was stabbed in her left shoulder and hands.

The suspect, with a splattering of blood on the front of her pink sweater, was led into Jefferson District Courthouse for a scheduled arraignment Tuesday afternoon on charges of murder, but she did not appear in the courtroom.

Instead, a court psychologist testified that the suspect was incoherent, distracted, and did not understand the charges against her. The woman had been hospitalized in 2003 and 2004, suffering from psychological problems that include schizophrenia.

Neighbors of the woman involved in Tuesday's stabbing said she displayed erratic behavior dating back at least two years.

"Our children were born about a month apart, and they grew up together," said Julie Wentworth, a neighbor. "Naturally, we started hanging out as well. But in the past couple of years, she started acting strange. I asked her one time what was wrong, and she told me that she always felt anxious, nervous."

"She would not let her kids play with any other kids in the neighborhood," Wentworth said. "Once, she started yelling at my son, accusing him of slashing her tires, and she called him names. When I went to talk with her, she wouldn't talk with me."

Appendix B

Stimulus Two (Experiment Group Two, “Explanatory Article”)

SIBLINGS STABBED, MOTHER CHARGED

The suspect, an ex-mental patient, says “the smoke made me do it”

By Steve Perot

Times-News Staff Writer

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The suspect, with a splattering of blood on the front of her pink sweater, was led into the Jefferson County District Courthouse for a scheduled arraignment Tuesday afternoon on charges of murder, but she did not appear in the courtroom.

Instead, a court psychologist testified that the suspect was incoherent, distracted, and did not understand the charges against her. The woman had been hospitalized in 2003 and 2004, suffering from psychological problems that include schizophrenia.

Schizophrenia is a chronic, severe and disabling brain disorder that affects about 2.4 million adults in the United States. People with schizophrenia may hear voices or hallucinate, but they are usually not violent, according to the National Institute of Mental Health. If a person with schizophrenia becomes violent, the violence is usually directed at family members and tends to take place at home, according to NIMH.

However, the risk of violence among people with schizophrenia is small.

Neighbors of the woman involved in Tuesday’s stabbing said she displayed erratic behavior dating back at least two years.

"Our children were born about a month apart, and they grew up together," said Julie Wentworth, a neighbor. "Naturally, we started hanging out as well. But in the past couple of years, she started acting strange. I asked her one time what was wrong, and she told me that she always felt anxious, nervous."

"She would not let her kids play with any other kids in the neighborhood," Wentworth said. "Once, she started yelling at my son, accusing him of slashing her tires, and she called him names. When I went to talk with her, she wouldn't talk with me."

Appendix C

Stimulus Three (Control Group)

Smoky Mountain elk may top 100 this year

By Steve Perot

Times-News Staff Writer

The Smoky Mountain elk herd, once facing dire odds, could witness its best year yet in 2010, researchers say.

The number of elk could top 100 for the first time in the Cataloochee Valley on the eastern end of Great Smoky Mountains National Park.

Researchers expect as many as 25 calves could be born in the coming weeks, the best calving season since the elk were reintroduced into the valley in 2001.

The news comes as researchers conduct the final year of an experimental reintroduction, which will determine whether the elk remain in the national park.

“This should be a monumental year for the Smoky Mountain herd,” elk researcher Joe Yarkovich wrote in a recent progress report. “Many of the younger females were old enough to breed last fall and we are expecting to have more calves hitting the ground in 2010 than any other previous year.”

Once nothing more than an entry in the history books, elk returned to the Smokies as an experiment. Eastern elk were driven into extinction by overhunting and habitat loss in the 1800s, leaving behind no trace other than namesakes — Banner Elk, Elk Park.

Most of today’s Smoky Mountain elk are cousins brought in from Canada and Kentucky through the experimental reintroduction. The Rocky Mountain Elk Foundation, the Friends of the Smokies and the Great Smoky Mountains Association covered the \$1.1 million price tag to reintroduce 52 elk to Cataloochee — 25 in 2001 and 27 in 2002.

The future of the herd appeared in jeopardy as late as 2005, as its population lingered around the mid-50s mainly because of coyotes and black bears killing calves. The national park extended the experiment’s deadline three more years, and the result has been impressive.

“We’ve had better breeding success, better calf survival and better male-female ratios,” said Bob Miller of Great Smoky Mountains National Park. “We’re really beyond worried about them going extinct.”

Appendix D

Community Attitudes Toward Mental Illness (Taylor & Dear, 1981)

Participants considered each statement and chose whether they

Authoritarianism

One of the main causes of mental illness is a lack of self-discipline and will power
The best way to handle the mentally ill is to keep them behind locked doors
There is something about the mentally ill that makes it easy to tell them from normal people
As soon as a person shows signs of mental disturbance, he should be hospitalized
Mental patients need the same kind of control and discipline as a young child
Mental illness is an illness like any other
The mentally ill should not be treated as outcasts of society
Less emphasis should be placed on protecting the public from the mentally ill
Mental hospitals are an outdated means of treating the mentally ill

Virtually anyone can become mentally ill

Benevolence

The mentally ill have for too long been the subject of ridicule
More tax money should be spent on the care and treatment of the mentally ill
We need to adopt a far more tolerant attitude toward the mentally ill in our society
Our mental hospitals seem more like prisons than like places where the mentally ill can be cared for
We have a responsibility to provide the best possible care for the mentally ill
The mentally ill don't deserve our sympathy
The mentally ill are a burden on society
Increased spending on mental health services is a waste of tax dollars
There are sufficient existing services for the mentally ill
It is best to avoid anyone who has mental problems

Social Restrictiveness

The mentally ill should not be given any responsibility
The mentally ill should be isolated from the rest of the community
A woman would be foolish to marry a man who has suffered from mental illness, even though he seems fully recovered
I would not want to live next door to someone who has been mentally ill
Anyone with a history of mental problems should be excluded from taking public office
The mentally ill should not be denied their individual rights
The mentally ill should be encouraged to assume the responsibilities of normal life
No one has the right to exclude the mentally ill from their neighborhood
The mentally ill are far less of a danger than most people suppose
Most women who were once patients in a mental hospital can be trusted as babysitters

Community mental health ideology

Residents should accept the location of mental health facilities in their neighborhood to serve the needs of the local community

The best therapy for many mental patients is to be part of a normal community

As far as possible, mental health services should be provided through community based facilities

Locating mental health services in residential neighborhoods does not endanger local residents

Residents have nothing to fear from people coming into their neighborhood to obtain mental health services

Mental health facilities should be kept out of residential neighborhoods

Local residents have good reason to resist the location of mental health services in their neighborhood

Having mental patients living within residential neighborhoods might be good therapy but the risks to residents are too great

It is frightening to think of people with mental problems living in residential neighborhoods

Locating mental health facilities in a residential area downgrades the neighborhood

Appendix E

Semantic differentials (Based on the method used by Servais and Saunders, 2007)

Please choose how **safe** you think each subject is. (Each subject rated on a scale of 1-7, with 1=dangerous, 7=safe)

Yourself

A Member of the Public

A Person with Moderate Depression

A Person with Schizophrenia

A Person with a Physical Disability

A Person with Anxiety

Please choose how **desirable to be with** each subject is. (Each subject rated on a scale of 1-7, with 1=undesirable to be with and 7=desirable to be with).

Yourself

A Member of the Public

A Person with Moderate Depression

A Person with Schizophrenia

A Person with a Physical Disability

A Person with Anxiety

Please choose how **similar** each subject is to you. (Each subject rated on a scale of 1-7, with 1=dissimilar to me and 7=similar to me).

A Member of the Public

A Person with Moderate Depression

A Person with Schizophrenia

A Person with a Physical Disability

A Person with Anxiety