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Project Abstract:

Mental health stigma is prevalent in society and may lead to reduced help-seeking behaviors, increased self-stigma, and misinformation about individuals with mental illness. Priming language may increase stigmatizing attitudes and behaviors, particularly, priming language in media. For that reason, it is of interest to determine how negative and positive mental health priming may influence levels of stigma. Mental health attitudes and behaviors were studied among individuals to determine whether stigma may be influenced by priming language. Participants were 215 adults, ages 18-66 (M = 24.85, SD = 11.48) from across the midwest. Participants were randomly assigned to one of three prime groups (positive, negative, neutral) in which they read articles regarding the reopening of a bakery and the opening of a dog park. The article about the bakery reopening was written in three ways, either discussing mental health negatively (negative prime group) or positively (positive prime group), or mental health was not mentioned at all (neutral prime group). Following the articles, participants were asked a series of questions regarding mental health behaviors and attitudes. Behaviors and attitudes were compared across the groups, and while the general measures of mental health behaviors and attitudes produced no significant differences, specific attitudes were significantly different across the prime groups. The results provide evidence that priming language may cause changes in specific attitudes regarding mental health stigma.

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Addressing Mental Health Stigma Through the Use of Media Primes

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Abstract

Mental health stigma is prevalent in society and may lead to reduced help-seeking behaviors, increased self-stigma, and misinformation about individuals with mental illness. Priming language may influence stigmatizing attitudes and behaviors, particularly, priming language in media. For that reason, it is of interest to determine how negative and positive mental health priming may influence levels of stigma. Mental health attitudes and behaviors were studied among individuals to determine whether stigma may be influenced by priming language. Participants were 215 adults, ages 18-66 years ($M = 24.85$, $SD = 11.48$) from across the Midwest. Participants were randomly assigned to one of three prime groups (positive, negative, neutral) in which they read articles regarding the reopening of a bakery and the opening of a dog park. The article about the bakery reopening was written in three ways, either discussing mental health negatively (negative prime group) or positively (positive prime group), or mental health was not mentioned at all (neutral prime group). Following the articles, participants were asked a series of questions regarding mental health behaviors and attitudes. Behaviors and attitudes were compared across the groups, and while the general measures of mental health behaviors and attitudes produced no significant difference, specific attitudes were different across the prime groups. The results provide evidence that priming language may cause changes in specific attitudes regarding mental health stigma.

Addressing Mental Health Stigma Through the Use of Media Primes

Of the roughly 47.6 million U.S. citizens diagnosed with mental illness each year, nearly 90% report experiencing some form of mental illness stigma (National Alliance of Mental Health [NAMI], 2019). Due to this stigma, 66% of individuals with diagnosed mental illness go untreated (Corrigan et al., 2014). Stigma is the way in which an individual or system views something in a negative way due to a distinguishing characteristic (NAMI, 2017). Individuals with a mental illness may feel as though they have been set apart from others, that they are defined by their diagnoses, and that they are no longer seen as an individual, but as the stereotypes associated with their disorder. Unfortunately, mental health stigma is rather common.

Societal attitudes about those suffering from mental health have increased public stigma (Link et al., 1999). Stigma can create barriers to those who suffer from mental illness. Those who experience stronger stigma are less likely to seek help and treatment (Corrigan et al., 2014; Heath, 2017). Additional research on the prevalence of stigma and the treatment of mental health related issues has shown that those who receive care and support for their diagnoses are often able to either make full recovery or are able to live with and manage it successfully (Mental Health Foundation, 2018). Based on this finding, the goal of researchers and mental health advocates is to find solutions for the issue of mental health stigma.

Unlike stigma perpetuated by societal influences, self-stigma is experienced when an individual feels inferior because of their mental health and are less hopeful of recovery or management. Those who struggle with self-stigma are often hesitant to seek help and treatment for their disorder. Stigma creates a barrier for care seeking. When surveyed, only 59.6% of individuals suffering from mental illness were seeking help (Corrigan, 2014). Not only

are the number of individuals seeking help low, but many individuals who do seek help drop out of their help and treatment programs. Some of the reasons for the intensity of self-stigma may be in part due to the internalizing elements of self-stigma. Those who have mental illness may seek label avoidance and feel hopeless, as many of the stereotypes and attitudes about mental illness are imbedded within institutions (Link & Phelan, 1999). Thus, efforts must be made in order to reduce the levels of public and self-stigma, as well as attempt to dismantle institutionalized beliefs and attitudes about mental illness.

Mental illness stigma is experienced differently by different individuals. Women, for instance, experience considerably higher levels of stigma than do men. Different ethnic groups also report experiencing stigma differently. For example, Wong and colleagues (2017) have found that Asian-Americans and Latinos reported experiencing more self-stigma than Caucasians. Stigma is also experienced by individuals who serve as caregivers for those who suffer from mental illness. In a study done researching the way that caregivers to those living with schizophrenia are affected by public stigma, researchers found that many of the caregivers studied were uncomfortable sharing with others about their own mental health problems and did not feel comfortable sharing with others about the struggles of the individual of which they took care of (Koschorke et al., 2017). Further findings support that the self-stigma experienced by those who attempt to hide their mental illness, or the mental health of others is significantly higher as a result of the internalizing nature of the thoughts and concerns (Koschorke et al., 2017).

Public stigma against a family member or spouse with mental illness can affect those members of a family in a way which is often referred to as family stigma (Girmal et al., 2014). In societies in which family cohesion is high, family stigma also tends to be more readily

experienced by family members (Koschorke et al., 2017). Researchers have shown that experiencing high levels of family stigma often results in a delay in treatment seeking and social restrictions, as well as an overall decreased quality of life (Girmal et al., 2014). While family stigma has negative effects, it again, like self-stigma, arises from an overall negative and discriminatory view of mental illness on a societal level. To reduce the level of family stigma, more could be done to educate individuals about the root causes of mental illness stigma and social support for families who suffer from mental illness should increase.

Researchers have explored what could be done to reduce mental health stigma. Stuart (2016) conducted a study exploring how to reduce public stigma. In the study, mental illness was broadcasted as a 'disease like any other' and the researcher hypothesized that promoting mental illness as nothing more than neurobiological causes and that it was at no fault of the individual would reduce stigmas and public beliefs that mental illness was a fault of the individual. This hypothesis was not supported, suggesting that describing mental illness as any other sort of illness is not successful at reducing stigma. Moreover, the advertisement ultimately had quite detrimental effects (Stuart, 2016). On the other hand, researchers have demonstrated that educational interventions reduce stigma, educate the public on mental illness, and provide information on how to be a positive advocate for those that struggle (Corrigan, 2014; Griffiths, et al., 2014; Quinn, et al. 2014). While these educational interventions are effective at reducing public stigma, there is still concern for reducing family- and self-stigma for those directly affected by mental illness.

The impact of mass media and its effects on perpetuating existing stereotypes and beliefs of mental illness stigma has been researched. Researchers have investigated discriminatory word choice in media and public perceptions of mental illness. Chan and Yanos (2018) found that

when a news story included mention of a mental disorder in discussing a violent outburst, those who read the article including the diagnoses were much more likely to attribute the violent outburst to the mental illness rather than other explanatory variables. This may help explain how media and news coverage may be increasing, or at the very least, maintaining negative stereotypes of mental illness. The results of the study also demonstrate the lack of comprehensive knowledge from the public about mental disorders and their symptoms. Further evidence to support this claim may come from research that examines television viewing habits and tolerance of people with mental illness. Researchers investigated individuals who derive most of their information about mental illness from television and found that for those who rely on media for education on issues about mental health and disorders, intolerance was significantly and positively related to the amount of television they watch (Granello & Pauley, 2000). These findings further provide evidence that the media can perpetuate unrealistic and dishonest portrayals and education about mental illness.

Priming is an unconscious form of memory that involves identification of words and objects. Through priming, certain associations in memory may cause an individual to respond in a sort of way based on said primes. Priming can be used to train memory to act in both positive and negative ways. Typically, priming in research is done when the researcher exposes a subject to one stimulus in order to affect the response of another. Priming has been utilized by a number of researchers to influence certain aspects of behavior and memory and it has been found to be very effective when used correctly. Positive priming refers to using the concept of an innocuous prime to quicken the brain's memory recollection and influence a response. While even neutral primes can influence behavior, positive primes have found to be even more effective at manipulating responses (Langley et al., 1992). Primes have been used to influence mental illness

stigma (Chan & Yanos, 2018). Chan and Yanos (2018) found that those who hear mention of a mental illness in regard to a violent outburst are much more likely to accredit the behavior to the mental illness rather than other mentioned variables. Based on prime research, it would be of interest to see if a positive prime could reduce stigmatized beliefs. Implications can be made that by increasing positive word choice and better, more comprehensive education surrounding mental health issues, mental health stigma may be significantly reduced. Therefore, it was hypothesized that mental illness related primes will influence attitudes and behaviors about mental illness stigma. Specifically, those exposed to positive mental illness primes will have increased positive attitudes and behaviors toward those with mental illness compared to those who are exposed to negative mental health primes or no primes. Those exposed to negative mental illness primes will have decreased positive attitudes and behaviors toward those with mental illness compared to those who are exposed to no primes.

Method

Participants

Participants were 215 adults, ages 18-66 years ($M = 24.85$, $SD = 11.48$). Most participants were female (78.1%) and Caucasian (90.7%). Others identified as African American (1.9%), Asian (2.8%), Hispanic (1.9%), and Native American (0.5%). A majority of participants (55.8%) were college students, while others (25.1%) were graduates with degrees ranging from an associate's degree to master's degree.

Procedures

Procedures were in accordance with the Institutional Review Board (IRB) at Winona State University and the American Psychological Association (APA) Code of Ethics. Participants were recruited using classroom announcements, flyers, word-of-mouth, and email and social

media campaigns. Participants provided their contact information including their names and email addresses. Participants were randomized to receive an email with a link to a Qualtrics survey. The survey was anonymous. Prior to participating in the study, participants completed an informed consent. After consent, participants answered demographic questions and were then provided with standard instructions for each measure. Participants read two news articles, a filler article about a dog park and one of three prime articles describing a woman who opens a bakery. Her mental health condition is either mentioned positively, negatively or not at all (e.g., neutral). The order of the prime and filler articles was counterbalanced. The prime articles were developed using existing negative stereotypes regarding mental illness (Selah, 2019) and can be found in Appendix A. Following the news articles, participants answered questions designed to assess their understanding of the news articles (i.e., a manipulation check). Next participants completed questions measuring their behaviors and attitudes towards mental health and additional filler items with questions about their community. Upon completion of the surveys, participants were debriefed on the intent of the study and given contact information for any questions or concerns about the project or their rights. Finally, participants were directed to a separate survey where they could choose to enter a drawing for one of twenty \$25 Amazon.com gift cards.

Materials

Participants completed questions about demographics, read two news articles, and answered questions about attitudes and behaviors towards mental illness, and filler items related to questions about their own community, which serves to reduce socially desirable responding.

Demographics. Participants were asked to answer questions regarding gender, ethnicity, age, education, marital status, and employment status. Participants were also asked to report their

major and minor of study (if they graduated from college or are a current college student), as well as if they, or someone they know, suffers from a mental illness, and if so, approximately how many individuals they know with a mental illness.

Media Primes. The media primes were developed using existing negative stereotypes regarding mental illness (see Appendix A for primes). The negative stereotypes included: individuals with mental illnesses are suicidal, mental illness is untreatable, mental illness is a weakness of character, and that individuals with mental illnesses are lazy (Saleh, 2019). To create a positive prime condition, the reverse of the stereotypes was used to demonstrate positive attributes of those with mental illness. These positive messages included: people with mental illness may just need additional support, people with mental illness can be productive members of society, and that not all individuals with mental illness are suicidal. A neutral prime with no mention of mental illness was also created. Because hypotheses concern how mass media may perpetuate stigma, the primes were designed to replicate mass media publications in the form of news articles and images. The prime article discusses a bakery re-opening after the owner's mother passed away, leading to the initial closure of the bakery. In the positive prime article, the bakery owner shares information about her mental illness, but demonstrates positive traits, such as consistent therapy and medication to cope. In the negative prime article, the bakery owner demonstrates negative stereotypes of mental illness, such as being lazy and suicidal. In both articles, community reactions to the reopening are shared and are consistent with their prime. To control for biased responding, a filler article, with no mention of mental illness, was also developed. The filler news article discusses the opening of a dog park and the community attitudes regarding the opening.

Mental health stigma-related behavior. To test whether the primes utilized in this experiment would affect mental health stigma-related behavior, participants were given the Reported and Intended Behavior Scale (RIBS: Evans-Lacko et al., 2011). The RIBS is a measure of mental health stigma behavior, based on *The Star Social Distance Scale* (Star, 1952). It can be used in conjunction with attitude- and behavior-related measures with the general public. The RIBS consists of eight items to measure past and future behaviors towards people who have mental health problems. Items are answered on a measure in which ‘Yes’ = 1, ‘No’ = 0, and ‘Don’t know’ = 0. Higher scores indicate more social contact, such as ‘Are you currently working with, or have you ever worked with, someone with a mental health problem?’ and more positive intention, such as ‘In the future, I would be willing to live with someone with a mental health problem’ (Evans-Lacko et al., 2011). In the current study, the Cronbach’s alpha was .86.

Mental health stigma-related attitudes. To test whether the primes in this experiment would affect mental health stigma-related attitudes and beliefs, participants were given the Community Attitudes Towards the Mentally Ill (CAMI: Taylor & Dear, 1981) scale. The CAMI is a 40-item measure of community attitudes towards mental health related topics, with four domains- authoritarianism, benevolence, social restrictiveness, and community mental health ideology. The items are scored on a 5-point Likert scale describing how much the individual agrees or disagrees (1 = strongly agree, to 5 = strongly disagree) with statements such as “The mentally ill should be isolated from the rest of the community” and “The mentally ill have for too long been the subject of ridicule” (Taylor & Dear, 1981). Higher scores indicate stronger pro- and anti-attitudes toward mental illness. In the current study, Cronbach’s alpha for the subscales was between .74-.85.

Depression. To test participant experience with depressive symptoms, the Patient Health Questionnaire-9 (PHQ-9; Spitzer et al., 2000) was given. The PHQ-9 is a nine-item measure rating participant experiences in the last two weeks with depressive symptoms, such as “Feeling tired or having little energy,” rated on a four-point scale (0 = not at all, to 3 = nearly every day) and summed to determine severity of symptoms. Higher scores indicate more severe symptom experience. In the current study, reliability was acceptable with a Cronbach’s alpha of .88.

Data Analysis

Descriptives and frequencies of all variables will be calculated. Two one-way ANOVAs assessing the difference in mental health-related stigma behaviors and attitudes among the different prime groups (positive, negative, or neutral prime) will be conducted. Follow-up tests using Tukey’s post-hoc tests to control for Type 1 error will also be conducted.

Results

A one-way analyses of variance showed that prime condition had no significant effect on mental health related behaviors, ($F(2, 191) = .086, p = .917$), or attitudes of authoritarianism, ($F(2, 190) = .450, p = .639$), benevolence, ($F(2, 190) = .011, p = .989$), social restrictiveness, ($F(2, 190) = .337, p = .206$), and ideology, ($F(2, 190) = .232, p = .469$). Descriptive statistics for both the behaviors and attitudes can be found in Tables 1 and 2.

A chi-square test for independence indicated significant associations between prime group and question regarding the success of the bakery. For the question “Do you think that this new bakery is likely to be successful?” there was a significant difference among the groups, $\chi^2(2, n = 189) = 11.39, p = .003$. There was also a significant difference among the prime groups for the question “Do you think that this new bakery is likely to be successful in economically strong times?” $\chi^2(2, n = 192) = 6.337, p = .042$. For both of these items, there were more

individuals in the negative prime condition to respond no to these questions than the other prime conditions. Chi square results can be found in Table 3.

Discussion

The current study sought to further previous prime research to determine if mental illness stigma could be influenced by positive and negative primes. When analyzing the data, the results indicated that there were no significant differences in the general attitudes and behaviors of mental illness stigma among the three prime conditions. There were, however, significant differences found in the specific attitudes towards mental illness among the three prime conditions. More specifically, that those in the negative prime group were more likely to have negative attitudes about mental illness than those in the positive and neutral prime group.

The first hypothesis, that mental illness related primes would influence attitudes and behaviors about mental illness was not supported with the measures used for this study. While previous research demonstrated that mental health stigma could be primed (Chan & Yanos, 2018), this study did not fully support that hypothesis. However, the second hypothesis, that those exposed to negative primes would show greater levels of mental health stigma than those in the positive and neutral prime conditions, was supported through the analyses of specific attitudes, judged with the questions following the prime article.

Previous research supports the notion that specific primes are more effective at changing specific attitudes (Kawakami et al., 2003). According to Kawakami and colleagues (2003), results consistently demonstrated that asking specific questions about prime conditions can influence people's attitudes about the subject matter of the prime. This study may help to explain why significant results were found in the specific questions, but not in the more general measures used to gauge stigma.

These findings partially support previous research regarding mental illness stigma and primes. While there were no significant differences among the prime groups and general attitudes and behaviors towards mental illness, there were significant differences when measuring specific attitudes and behaviors regarding the bakery owner and her business. So, while the measures intended to capture the level of stigma yield nonsignificant results, there are still implications that can be made from this research.

This research supports previous findings by demonstrating that the language used to describe mental illness matters, and can have serious repercussions if used poorly (Stuart, 2016). In the current study, those in the negative prime condition expressed more stigma than those in the positive and neutral prime conditions when considering the future success of the bakery. Even when the question asked of the strength of the bakery in economically strong times, those who had read and participated in the negative prime condition were less likely to consider the bakery to be a success. While this study used a made-up article, and the effects of the prime were only measured at a single time point, we may consider what effect a real article, or repeated contact to negative, stigmatized media, may have on personal stigma.

As demonstrated in previous research, stigma can be perpetuated by media (Chan & Yanos, 2018). To reduce stigma, its source must be addressed. If a source of stigma is through the language that is used in media, efforts should be made to change the way we discuss mental illness, and we should actively combat negative mental illness stereotypes and stigma with positivity and truth. While the results of this study do not support the hypothesis that negative primes affect general beliefs and attitudes about mental illness, they do provide insight into the effect of stigmatized language on specific beliefs and attitudes. The language used in the prime conditions may not have a strong enough effect to change an individual's entire belief system

regarding those with mental illness, however, it was strong enough to affect the specific beliefs of those in the negative prime condition, to the extent at which they did not believe in the bakery's success, even in economically strong times. This introduces possible implications for the language used by the media when discussing mental illness.

One implication that may be considered is the effect of negative media on specific attitudes and beliefs. In this study, those who were assigned to the negative prime condition held more negative beliefs than the neutral and positive prime conditions when questioned on attitudes relating to the businesses success. In a 2015 study investigating the effect of media use on attitudes towards immigration, the results indicated that media use greatly affected perceptions of immigrants. More specifically, media discussing immigrants coming from places further away were stereotyped more negatively by the media, and this influenced attitudes towards those immigrants (Theorin, 2015). While this study mentioned is regarding immigration attitudes, parallels may be drawn between the results of this study and the current study of mental illness primes.

Exposure to negative stigma in the media may also increase the amplitude of existing stigma in the way of confirmation bias. The concept of confirmation bias describes the degree to which information is processed by individuals that confirms existing beliefs. If individuals are more likely to engage in media that confirms initial beliefs, stigmatizing media may continue to perpetuate existing stereotypes and stigma in individuals who already hold these false beliefs regarding the nature of individuals with mental illness. While the media itself is perhaps not the cause of stigma, it may very well increase the level of stigmatizing beliefs already held by certain individuals.

In addition to the implications of specific primes and attitude changes, the results of this study demonstrate that at the very least, negative media consumption does nothing to reduce stigma. While those in the negative prime condition did not demonstrate higher levels of stigma, they also certainly did not show a reduction of stigma. It is easy to agree with the statement that stigma is undesirable, but if media is not making an effort to speak about mental illness in a positive and educated way, it is not doing anything to reduce preexisting stigma. With that, perhaps what this research truly implies is that more should be done to increase positive media surrounding mental illness. Rather than rely on negative and non-factual information, the media should work to become educated on the realities of mental illness and discuss it in such a way that does not persist existing stigma.

Although the current study was able to demonstrate possible effects of priming language on mental health stigma, it is not without limitations. A limitation that has already been discussed is the lack of significant findings found by the general measures of mental illness stigma in behaviors and attitudes. These measures were perhaps too broad in scope to pick up on the very specific stigma perpetuated by the negative prime condition. Future researchers could use measures that are more specific to the intended behaviors and attitudes. In addition to the broad scope of the measures, the effect of the prime used in the current study may not have been strong enough to create the desired affect in the study. When running a power analysis to determine recommended sample size, a medium effect size was expected. It may be that the effect of the prime is weaker, and thus, harder to detect with the sample size. Future research could focus on increasing the strength of the prime, or account for a smaller effect size when determining sample size. Another limitation may be the sample pool for this study. While there were a sufficient number of participants ($N = 215$), a large proportion of these participants were

white, college-age students from the mid-west. The external validity of this study makes generalizability of the results limited. Future researchers may seek a more representative sample of age, gender, race, and location.

In conclusion, these findings support the notion that negative portrayals of mental illness in the context of this research had an effect on specific attitudes in judging the future success of the bakery and the bakery owner's success. This suggests that media sources need to consider how mental illness is mentioned in the context of reporting future media, and how negative language regarding mental illness may perpetuate existing stigma and stereotypes, as well as influence specific stigma.

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Table 1*Descriptive Statistics for the CAMI in each Prime Condition*

Subscale	Neutral	Positive	Negative
	M (SD)	M (SD)	M (SD)
Authoritarianism	3.98 (.46)	4.03 (.45)	4.06 (.48)
Benevolence	3.98 (.45)	3.96 (.48)	3.97 (.53)
Social Restrictiveness	4.01 (.45)	4.12 (.42)	3.98 (.51)
Ideology	3.87 (.55)	3.95 (.57)	3.89 (.55)

Note. Higher scores indicate stronger pro- and anti- attitudes toward mental illness.

Table 2.*Descriptive Statistics for the RIBS in each Prime Condition*

Neutral	Positive	Negative
M (SD)	M (SD)	M (SD)
17.87 (2.41)	18.04 (2.99)	17.87 (2.80)

Note. Higher scores indicate more social contact.

Table 3

Frequencies and Chi-Square Results (N = 192)

Source	Prime Group	Yes		No		Maybe		χ^2
		<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	
Do you trust the bakery owner to do a good job?								
	Neutral	56	86.15	1	1.54	8	12.31	
	Positive	57	81.43	0	0	13	18.57	3.051
	Negative	56	84.85	0	0	10	15.15	
Do you think the bakery will be an added benefit to the community?								
	Neutral	65	100.0	0	0.0	0	0.0	
	Positive	68	97.14	2	2.86	0	0.0	.392
	Negative	65	98.48	1	1.52	0	0.0	
Do you think that this new bakery is likely to be successful?								
	Neutral	65	100.0	0	0.0	0	0.0	
	Positive	67	95.71	3	4.29	0	0.0	11.39*
	Negative	57	86.36	9	13.64	0	0.0	
Do you think this new bakery is likely to be successful in economically strong times?								
	Neutral	65	100.0	0	0.0	0	0.0	
	Positive	67	95.71	3	4.29	0	0.0	6.337*
	Negative	60	90.91	6	9.09	0	0.0	
Do you think this new bakery is likely to be successful in economically challenging times?								
	Neutral	20	30.78	45	69.23	0	0.0	2.119
	Positive	30	42.86	40	57.14	0	0.0	

Negative	25	37.88	41	62.12	0	0.0
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If you had the money to do so – would you financially invest in this bakery?

Neutral	25	38.46	40	61.54	0	0.0
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Positive	28	40.0	42	60.0	0	0.0	2.122
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Negative	33	50.0	33	50.0	0	0.0
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Note. *p < .05.

Appendix A

Study Measures

Consent Form

You are invited to participate in a research study designed to study attitudes and behaviors towards new community businesses. We hope to learn more about what businesses may be added benefits to a community and what business may be detrimental to a community. If you decide to participate, you will be asked to answer some basic demographic questions, read two news articles about new community businesses, and answer some questions about your own community, as well as your behaviors and attitudes toward new community businesses. The study will begin when you consent. We estimate participating in the study will require 15 to 25 minutes of your time. The information you gave will be anonymous which means that your name will not be collected or linked to the data. All information you gave will be handled confidentially. All information collected will be stored password-protected computer file. When the study is completed, data will be stored in a password-protected computer. There are no appreciable risks from participating in this study. The benefits reasonably expected from this study are that you will be entered into a drawing to win 1 of 20 \$25 Amazon.com gift cards. Participation in this study is voluntary and you may stop at any time. You may decide not to participate or to discontinue participation at any time without penalty or loss of benefits. A decision not to participate or withdraw will not affect your current or future relationship with Winona State University. The main researcher conducting this study is Danielle Langworthy, a student at Winona State University. The faculty advisor for this study is Dr. Amanda Brouwer, (507-457-5477, ABrouwer@winona.edu). You may ask any questions you have about the study and your participation now or later during the study. If you have questions or concerns about your participation in the study, contact the Human Protections Administrator Brett Ayers at 507-457-5519 or bayers@winona.edu. This project has been reviewed by the Winona State University Institutional Review Board for the protection of human subjects.

- I consent and wish to participate in the study.
- I do not consent and do not wish to participate in the study.

Survey Measures

Thank you for your participation in this study. We ask that you answer these questions to the best of your ability. This survey is anonymous, answers cannot be linked to your identity, so please answer honestly. You may only complete this survey once.

Demographics

Instructions: *First, please answering the following questions about yourself.*

What is your gender?

- Male
- Female
- Other _____

What is your ethnicity?

- White
- Hispanic or Latino
- Black or African American
- Native American or American Indian
- Asian/Pacific Islander
- Other _____

What is your age? _____

Are you a college student or have you ever been a college student?

- Yes
- No

What is the highest level of education you have completed?

- Some High School
- Finished High School or High School Equivalent (GED)
- Some College (no degree)
- Earned Associates Degree
- Earned a BA/BS Degree
- Earned a Master's or Professional Degree
- Earned Doctorate/Medical/Law Degree

What is your year in school?

- First Year
- Second Year
- Third Year
- Fourth Year
- Other _____

What is/was your major(s)? _____

What is/was your minor(s)? _____

What is your relationship status?

- Married
- Widowed
- Divorced/Separated
- Single
- In a Relationship
- Other _____

What is your current employment status? Select all that apply.

- Full-time employment
- Part-time employment
- Unemployed
- Self-employed
- Student
- Retired

Where do you work and what is your title? _____

Media Primes

Now, we will ask that you read and evaluate a series of news stories regarding new community businesses. Imagine you are a member of the community in which these new businesses are opening. It is important that your community is economically strong and attractive to visitors, so the businesses in your community should reflect your values and the values of others in your community. It is important that you read these articles carefully. As a reminder, this survey is anonymous, answers cannot be linked to your identity, so please answer honestly.

Media Prime: Positive

Local Bakery to Reopen After 5 Years

by Conrad Aldwin

The Shuffle Bakery that has been closed since 2015 will reopen this weekend. The bakery's owner, Julia Gismund, first opened the business in 2012, but after a personal loss, she closed her doors to spend time with her family. Now, 5 years later, she is ready for a grand reopening at 3 P.M. Friday, March 13th.

“I never thought I would be at a point of reopening my doors,” Gismund shared. “After losing my mother, things seemed really hopeless.”



Gismund has been open about her struggle in losing her mother and her recovery process. “I have had depression from a very young age and losing my mother made things even harder.” Gismund has long been honest about her struggle with mental illness and her need for medication and therapy to function well. “My medication keeps me from staying in bed all day,” she shared. “It has really helped my work ethic.”

Many community members are excited about the bakery's reopening.

“People with mental illnesses are just like us, sometimes they just need some additional support,” shared community member Rena Elwood. Many community members share Elwood's belief. A public poll found that 78% of individuals believe that people with mental illness can be productive members of society.

Along with the public, Gismund is eager to reopen her bakery. The grand reopening will include a line-up of tasty new treats and delicious deals. “I hope that everyone will find a chance to stop in and see that I am capable of operating this business,” Gismund shared. “I just want to make my mom proud.”

Media Prime: Negative

Local Bakery to Reopen After 5 Years

by Conrad Aldwin

The Shuffle Bakery that has been closed since 2015 will reopen this weekend. The bakery's owner, Julia Gismund, first opened the business in 2012, but after a personal loss, she closed her doors to spend time with her family. Now, 5 years later, she is ready for a grand reopening at 3 P.M. Friday, March 13th.

"I never thought I would be at a point of reopening my doors," Gismund shared. "After losing my mother, things seemed really hopeless."

Gismund has been open about her struggle in losing her mother and her recovery process. "I

have had depression from a very young age and losing my mother made me think I would be better off dead." Gismund has long been honest about her struggle with mental illness and her need for medication to control suicidal ideologies and to keep her active. "I would sometimes rather spend all day in bed than work at all," she shared. "My work ethic has struggled in the past."



Many community members are apprehensive about the bakery's reopening.

"People with mental illnesses are lazy and can't run productive businesses," shared community member Rena Elwood. Many community members share Elwood's concern. A public poll found that 78% of individuals believe that individuals with mental illness are unmotivated.

Despite public concern, Gismund is eager to reopen her bakery. The grand reopening will include a line-up of tasty new treats and delicious deals. "I hope that everyone will find a chance to stop in and see that I am capable of operating this business," Gismund shared in response to public criticism. "I just want to make my mom proud."

Media Prime: Neutral

Local Bakery to Reopen After 5 Years

by Conrad Aldwin

The Shuffle Bakery that has been closed since 2015 will reopen this weekend. The bakery's owner, Julia Gismund, first opened the business in 2012, but after a personal loss, she closed her doors to spend time with her family. Now, 5 years later, she is ready for a grand reopening at 3 P.M. Friday, March 13th.

"I never thought I would be at a point of reopening my doors," Gismund shared. "After losing my mother, things seemed really hopeless."

Gismund has been open about her struggle in losing her mother and her recovery process. "My mother and I were always very close and losing her was very difficult."



Many community members are eager about the bakery's reopening. A public poll found that 78% of individuals believe new community businesses are good at increasing the economic strength of a community.

Along with the public, Gismund is eager to reopen her bakery. The grand reopening will include a line-up of tasty new treats and delicious deals. "I hope that everyone will find a chance to stop in and see that I am capable of operating this business," Gismund shared in response to the public. "I just want to make my mom proud."

Instructions: Now, with the *Bakery Reopening* article in mind, please select the item that best answers the following questions.

How well written was the article?

Not at all well	Slightly well	Moderately well	Very well	Extremely well
1	2	3	4	5

Would you go to the bakery?

- Yes
- No

Why or why not? _____

Do you trust the bakery owner to do a good job?

- Yes
- No
- Maybe

Do you think the bakery will be an added benefit to the community?

- Yes
- No

Do you think that this new bakery is likely to be successful?

- Yes
- No

Do you think that this new bakery is likely to be successful in economically strong times?

- Yes
- No

Do you think that this new bakery is likely to be successful in economically challenging times?

- Yes
- No

If you had the money to do so - would you financially invest in this bakery?

- Yes
- No

What are the weaknesses of the bakery? _____

What are the strengths of the bakery? _____

How does the community feel in response to the bakery's opening?

- Eager
- Apprehensive
- Excited

Media Prime: Filler Article

New Dog Park to Open This Month

by Caterina Erling

A new place for community dogs to play and run is expected to open this month in North Wood. An official opening is scheduled for March 20th this year.

Community members have petitioned for years to have a suitable place in town for a dog park, states Justine Wilhelm, who is chair of the dog park committee. Recently, town officials were able to secure a vacant lot for the park, which is adjacent to the railroad tracks on Ashford Avenue, away from homes and public businesses, Wilhelm added. Community members are eager for the opening of the dog park.

This dog park is a ‘place where dogs bring the community together,’ Wilhelm shared in an interview on Wednesday. “We hope the park will serve as a place for dogs to be free to socialize and for their owners to do the same.”

Dog parks are often seen as desirable public amenities for pets, but in September of last fall, a heated debate about a dog park raged on. Many community members argued about noise and safety complaints.

However, community member and veterinarian David Galenos shared in a community meeting that dog parks help ensure canines have adequate exercise. “Calmer, less aggressive animals are much less likely to attack,” stated Galenos.

To dog owners and lovers alike, this park opening will provide the community with a wonderful public place to run free and socialize.



Instructions: Now, with the *Dog Park Opening* article in mind, please select the item that best answers the following questions.

How well written was the article?

Not at all well	Slightly well	Moderately well	Very well	Extremely well
1	2	3	4	5

Would you go to the dog park?

- Yes
- No

Why or why not? _____

Do you trust the community dog owners to do a good job?

- Yes
- No
- Maybe

Do you think the dog park will be an added benefit to the community?

- Yes
- No

Do you think that this new dog park is likely to be successful?

- Yes
- No

Do you think that this new dog park is likely to be successful in economically strong times?

- Yes
- No

Do you think that this new dog park is likely to be successful in economically challenging times?

- Yes
- No

If you had the money to do so - would you financially invest in this dog park?

- Yes
- No

What are the weaknesses of the dog park? _____

What are the strengths of the dog park? _____

How does the community feel in response to the bakery's opening?

- Eager
- Apprehensive
- Excited

Now we would like to find out more information about the way that you perceive or think about your neighborhood. Please answer the following questions **about the neighborhood you live in for the majority of the year.**

Types of Residences in your Neighborhood

Please select the answer that best applies to you and your neighborhood (the one you live in for the majority of the year).

	None	A Few	Some	Most	All
1. How common are <u>detached single-family residences</u> in your immediate neighborhood?	1	2	3	4	5
2. How common are <u>townhouses or row houses</u> of 1-3 stories in your immediate neighborhood?	1	2	3	4	5
3. How common are <u>apartments or condos</u> 1-3 stories in your immediate neighborhood?	1	2	3	4	5

Reported and Intended Behavior Scale (RIBS) Part 1

Are you currently living with, or have ever lived with, someone with a mental health problem?

- Yes
- No
- Don't know

Are you currently working with, or have ever worked with, someone with a mental health problem?

- Yes
- No
- Don't know

Do you currently have, or have you ever had, a neighbor with a mental health problem?

- Yes
- No
- Don't know

Do you currently have, or have you ever had, a close friend with a mental health problem?

- Yes
- No
- Don't know

Access to Services

Please select the answer that best applies to you and your neighborhood (the one you live in for the majority of the year). Both local and within walking distance mean within a 10-15-minute walk from your home.

	Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree
1. Stores are within easy walking distance of my home.	1	2	3	4
2. There are many places to go within easy walking distance of my home.	1	2	3	4
3. It is easy to walk to a transit stop (bus, train) from my home.	1	2	3	4

Reported and Intended Behavior Scale (RIBS) Part2

Instructions: *For each of the following questions, please respond by selecting the answer that most applies.*

In the future, I would be willing to living with someone with a mental health problem.

Disagree strongly	Disagree slightly	Neither agree nor disagree	Agree slightly	Agree strongly	Don't know
1	2	3	4	5	0

In the future, I would be willing to work with someone with a mental health problem.

Disagree strongly	Disagree slightly	Neither agree nor disagree	Agree slightly	Agree strongly	Don't know
1	2	3	4	5	0

In the future, I would be willing to live nearby to someone with a mental health problem.

Disagree strongly	Disagree slightly	Neither agree nor disagree	Agree slightly	Agree strongly	Don't know
1	2	3	4	5	0

In the future, I would be willing to continue a relationship with a friend who developed a mental health problem.

Disagree strongly	Disagree slightly	Neither agree nor disagree	Agree slightly	Agree strongly	Don't know
1	2	3	4	5	0

Now that you have shared with us about your communities, we would like to know more about your values and how they influence the decisions you make regarding your participation within your community. As a reminder, this survey is anonymous, answers cannot be linked to your identity, so please answer honestly.

Attitudes

Instructions: Each of the following items contains two terms which can describe how you feel. Select the number between the two terms which you feel best captures your response to the following question:

My personal engagement in my community is....

Bad	-3	-2	-1	0	+1	+2	+3	Good
Harmful	-3	-2	-1	0	+1	+2	+3	Beneficial
Unpleasant	-3	-2	-1	0	+1	+2	+3	Pleasant
Unenjoyable	-3	-2	-1	0	+1	+2	+3	Enjoyable
Foolish	-3	-2	-1	0	+1	+2	+3	Wise
Unnecessary	-3	-2	-1	0	+1	+2	+3	Necessary

Community Attitudes about Mental Illness (CAMI)

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1. As soon as a person shows signs of mental disturbance, he should be hospitalized.	1	2	3	4	5
2. More tax money should be spent on the care and treatment of the mentally ill.	1	2	3	4	5
3. The mentally ill should be isolated from the rest of the community.	1	2	3	4	5
4. The best therapy for many patients is to be part of a normal community.	1	2	3	4	5
5. The mentally ill are a burden on society.	1	2	3	4	5
6. Mental illness is an illness like any other.	1	2	3	4	5
7. The mentally ill are far less of a danger than most people suppose.	1	2	3	4	5
8. Locating mental health facilities in a residential area downgrades the neighborhood.	1	2	3	4	5
9. There is something about the mentally ill that makes it easy to tell them from normal people.	1	2	3	4	5
10. The mentally ill have for too long been the subject of ridicule.	1	2	3	4	5
11. A woman would be foolish to marry a man who has suffered from mental illness, even though he seems fully recovered.	1	2	3	4	5
12. As far as possible mental health services should be provided through community-based facilities.	1	2	3	4	5
13. Less emphasis should be placed on protecting the public from the mentally ill.	1	2	3	4	5
14. Increased spending on mental health services is a waste of tax dollars.	1	2	3	4	5
15. No one has the right to exclude the mentally ill from their neighborhood.	1	2	3	4	5
16. Having mental patients living within residential neighborhoods might be good therapy, but the risks to residents are too great.	1	2	3	4	5
17. Mental patients need the same kind of control and discipline as a young child.	1	2	3	4	5

18. We need to adopt far more tolerant attitudes towards the mentally ill in our society.	1	2	3	4	5
19. I would not want to live next door to someone who has been mentally ill.	1	2	3	4	5
20. Residents should accept the location of mental health facilities in their neighborhood to serve the needs of the local community.	1	2	3	4	5
21. The mentally ill should not be treated as outcasts of society.	1	2	3	4	5
22. There are sufficient existing services for the mentally ill.	1	2	3	4	5
23. Mental patients should be encouraged to assume the responsibilities of normal life.	1	2	3	4	5
24. Local residents have good reason to resist the location of mental health services in their neighborhood.	1	2	3	4	5
25. The best way to handle the mentally ill is to keep them behind locked doors.	1	2	3	4	5
26. Our mental hospitals seem more like prisons than like places where the mentally ill can be cared for.	1	2	3	4	5
27. Anyone with a history of mental problems should be excluded from taking public office.	1	2	3	4	5
28. Locating mental health services in residential neighborhoods does not endanger local residents.	1	2	3	4	5
29. Mental hospitals are an outdated means of treating the mentally ill.	1	2	3	4	5
30. The mentally ill do not deserve our sympathy.	1	2	3	4	5
31. The mentally ill should not be denied their individual rights.	1	2	3	4	5
32. Mental health facilities should be kept out of residential neighborhoods.	1	2	3	4	5
33. One of the main causes of mental illness is lack of self-discipline and will power.	1	2	3	4	5
34. We have the responsibility to provide the best possible care for the mentally ill.	1	2	3	4	5

35. The mentally ill should not be given any responsibility.	1	2	3	4	5
36. Residents have nothing to fear from people coming into their neighborhood to obtain mental health services.	1	2	3	4	5
37. Virtually anyone can become mentally ill.	1	2	3	4	5
38. It is best to avoid anyone who has a mental health problem.	1	2	3	4	5
39. Most women who were once patients in a mental hospital can be trusted as babysitters.	1	2	3	4	5
40. It is frightening to think of people with mental problems living in residential neighborhoods.	1	2	3	4	5

Finally, we have a few questions about you. Please remember that the survey is anonymous and responses cannot be associated with your identity.

Do you have a diagnosed mental illness?

- Yes
- No
- Unsure
- Prefer not to answer

Do you know someone who has a diagnosed mental illness?

- Yes
- No
- Unsure
- Prefer not to answer

Patient Health Questionnaire

Over the past 2 weeks, how often have you been bothered by any of the following problems?

	Not at all	Several days	More than half the days	Nearly every day
Little interest or pleasure in doing things	0	1	2	3
Feeling down, depressed or hopeless	0	1	2	3
Trouble falling asleep, staying asleep, or sleeping too much	0	1	2	3
Feeling tired or having little energy	0	1	2	3
Poor appetite or overeating	0	1	2	3
Feeling bad about yourself – or that you’re a failure or have let yourself or your family down	0	1	2	3
Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
Moving or speaking so slowly that other people could have noticed. Or, the opposite - being so fidgety or restless that you have been moving around a lot more than usual	0	1	2	3
Thoughts that you would be better off dead or of hurting yourself in some way	0	1	2	3

Debriefing Form

Thank you for completing this survey!

The purpose of this study was to look at different attitudes and behaviors in relation to mental illness, stigma, and discrimination, based on how stereotypes of mental illness are presented. Through research such as this study, we are able to strengthen our understanding of stigma and discrimination for individuals with mental illness. Further assessment of these factors will continue to strengthen our knowledge and understanding of stigma and discrimination among individuals of varying demographics.

If you have any questions or comments about the study, please contact me, Danielle Langworthy, danielle.langworthy@go.winona.edu, or Dr. Amanda Brouwer, ABrouwer@winona.edu. Dr. Brouwer's office is in the Psychology Department at Winona State University, 507-457-5477. For any additional information about research subjects' rights, contact the Human Protections Administrator, Brett Ayers, at 507-457-5519.

If you would like to seek mental health services for any experiences related to this study, please consult the WSU Counseling and Wellness services, located in the Integrated Wellness Complex 222, located at 175 W Mark Street, Winona, MN 55987, 507-457-5330.

Thank you again for your participation in this study. After submitting the survey, you will be redirected to a separate survey where you will give your contact information to be entered into the gift card drawing. As a reminder, your identifying information will not be connect with your survey responses.

Appendix B

Recruitment Materials

