COMPARING LIVE AND VIDEO-TAPED THEATRICAL PERFORMANCE IN CHANGING STIGMATIZING ATTITUDES TOWARDS PEOPLE WITH SERIOUS MENTAL ILLNESS

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ABSTRACT

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Social stigma can have a devastating effect on the lives of people coping with serious mental illness. Stigma can impact feelings of self-worth, and play a major role in limiting individuals’ access to community resources. The present study compared the effectiveness of live and video-taped theatrical presentations in reducing stigmatization of people living with serious mental illness. The study focused on the effect of a play written and performed by a group of actors who live with serious mental illnesses on attitudes about mental illness in a sample of 303 undergraduates. Attitudes related to tolerance and future contact with people with serious mental illness are assessed before, and after exposure to either 1) live performance 2) video-taped performance or 3) no performance in the context of a college course. The live theater and video groups also rated the affective impact of the presentations.

Results indicate that the students who witnessed a live performance and the students who watched a video of the play generally reported significantly more tolerance towards those with serious mental illness compared to the control group immediately following the presentations, and one month later. The live performance group generally reported significantly higher scores of behavioral intentions compared with controls, immediately following the presentations. On average, ratings of overall positive affective impact were significantly greater for the live group compared with the video group. Implications for the development of innovative classroom interventions involving contact to reduce stigma against people living with mental illness are discussed.
For Naomi
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INTRODUCTION

Social stigma can have a devastating effect on the lives of people coping with serious mental illness. For the past 40 years, many psychologists have been committed to reducing stigma and giving voice to people coping with serious mental illness. Of primary concern is developing and analyzing interventions which work to combat social stigma directed at this population. Two types of interventions that have been found to have a positive impact on stigmatizing attitudes are those that involve film presentations, and those that involve direct, live contact with people living with serious mental illness. Prior empirical research supports the idea that contact interventions are among the most powerful means of changing stigmatizing attitudes towards this population. Missing from the literature are empirical studies that use pre- and post-test measures to compare the relative attitude-changing effects of film versus live contact interventions.

The present study compares the impact of a live presentation about stigma by people living with serious mental illness, with that of a film version of the same presentation on young adults’ attitudes about mental illness. Attitudes about tolerance and willingness for future contact with people with mental illness are assessed before, immediately following, and one month after exposure to either 1) live theater 2) video or 3) no presentation in the context of a college course. A review of relevant literature on stigma, tolerance toward people with mental illness, and interventions designed to change stigma is presented to provide a framework for the present research.

Stigma

Stigma is defined as “a mark of disgrace or infamy; a stain or reproach, as on one’s reputation” (Webster’s, 2003). Another popular definition of stigma within the area of social
psychology is “any mark or sign for perceived or inferred conditions of deviation from a prototype or norm” (Jones et al., 1984). According to Jones and his colleagues, the process of stigmatization involves the identification of a deviant condition and the recognition of it as a problem in the interaction or the relationship between “marked” person and perceiver. The mark is “linked by an attributional process to dispositions that discredit the bearer, i.e., that ‘spoil’ his identity” (Jones et al., 1984, p. 8). Theories of stigma and the processes by which various groups are stigmatized make distinctions between various types of stigma, as well as the ways in which they affect the lives of the stigmatized and the larger social system.

In his seminal work, Erving Goffman defined social stigma in great detail, making a distinction between three major categories of stigma: “abomination of the body,” (various physical deformities, etc), “tribal” (race, nationality, religion, etc.), and “blemishes of individual character” (imprisonment, addiction, mental illness, sexual preference, etc) (Goffman, 1963). Social stigma placed on a person has been found to have a significant impact on the emotional and cognitive wellbeing of the stigmatized individual (Crocker & Quinn, 2000; Goffman, 1963; Smart & Wegner, 2000), as well as effectively limiting her/his access to social support and resources in the community (Page, 1995; Wahl, 1999). For example, stigmatization can effectively limit access to health care, education, employment and housing (Miller & Major, 2000). Stigma placed on a member of a marginalized group has implications for psychological treatment, public health policy, providers and consumers of social services, as well as educators.

The central distinction between stigma and other concepts such as “stereotype,” “prejudice,” and “discrimination” is that stigma is necessarily negative. That is, prejudice, discrimination, and stereotyping can involve positive or negative attributions and attitudes (Allport, 1954; Jussim, Palumbo, Chatman, Madon & Smith, 2000). One can discriminate or
stereotype a member of a group without necessarily denigrating them in anyway. For example, one might stereotype all mathematicians as being introverted, but this does not necessarily mean they stigmatize this group. Stigma, on the other hand, implies a perception of the marked person as spoiled, unwanted, or less valued than other people. Stigmatization involves a core negative value judgment placed on the individual or group.

On the personal level, a perceiver may stigmatize a marked person at any one moment on the basis of perceptual cues, the context of interaction, prior beliefs and exposure to the marked group, as well as other dispositional or circumstantial factors (Goffman, 1963, Jones et al. 1984). Also, stigmatization may run both ways. That is, both members of a dyad may simultaneously see the other as “marked” in some way. Stigmatization is created out of the interaction of the dyad, and many different attributions and behavioral factors may come into play at any one time. Yet stigmatization can also be conceptualized at the societal level. Portrayals in film (Hyler, Gobbard & Schneider, 1991) and print media, social and political policies, and religious doctrine are all examples of forces which can work to maintain stigma against a group of people. The implications of stigmatization therefore resonate at the personal and collective level.

Research on Stigma

Two major bodies of research exist which focus on different issues related to stigma. Some research focuses on what constitutes stigmatizing attitudes, and what the effects of these attitudes are on the lives of the stigmatized group (Blascovich, Mendes, Hunter, Lickel, & Kowai-Bell, 2001; Crocker & Lutsky, 1986; Hilton & von Hippel, 1996; Krueger, 1996; Schumacher, Corrigan, & Dejong, 2003; Weiner, Perry & Magnusson, 1988). This line of research is primarily focused on advancing our understanding of how stigmatizing attitudes form, how stable they are, and what situational cues work to signal these attitudes. Another
avenue of research looks at what interventions are most effective in reducing stigmatizing attitudes and beliefs in various populations (Corrigan et al., 2001; Deforges et al., 1991; Holmes, Corrigan, Williams, Conar, & Kubiak, 1999; Penn, Chamberlin, & Mueser, 2003; Penn et al, 1994; Pinfold et al., 2003; Schulze, Richter-Werling, Matshinger & Angermeyer, 2003; Sigelman & Welch, 1993; Tolomiczenko, Goering & Durbin, 2001). This latter area of inquiry is the focus of this study. The marginalized group that this study focuses on is that of individuals in society who live with serious mental illness.

Stigma and Serious Mental Illness

“Serious mental illness,” (SMI) is a term used to describe people who live with some persistent form of psychiatric disability. This term generally refers to people needing treatment for mental disorders but who are capable of independent living outside a hospital (Taylor & Dear, 1979). The exact list of diagnoses which fall in this category is not entirely agreed upon, but often includes chronic disorders such as Schizophrenia, Schizo-affective Disorder, Major Depression, Bipolor Disorder, and Obsessive Compulsive Disorder. Indeed, stigma can be related to the label of a wide variety of mental disorders, or the seeking of treatment no matter the exact diagnoses or severity. Stigma can also be attributed to the family of the person with the mental illness (Dubin & Fink, 1992). Studies have found public endorsement of stigmatizing attitudes about community members with mental illness not only in the United States, but in many other countries as well (Bhugra, 1989; Brockington, Hall, Levings, & Murphy, 1993; Hamre, Dahl, & Malt, 1994; Link, Cullen, Frank, & Wozniak, 1987; Madianos, Madianou, Vlachonikolis, & Stefanis, 1987; Rabkin, 1974; Trute, Teffit, & Segall, 1989). Due to the detrimental effects stigma can have on the lives of people with mental illness, a major line of inquiry has focused on the development of interventions which focus on decreasing stigmatizing
attitudes towards this group (Corrigan et al., 2001; Couture & Penn, 2003; Holmes, Corrigan, Williams, Canar, & Kubiak, 1999; Pinfold et al., 2003).

Interventions to Decrease Stigma

Education about the realities of mental illness and contact with people with mental illness, are two promising intervention strategies for improving negative attitudes about mental illness (Alexander & Link, 2003, Corrigan, et al. 2001; Couture & Penn, 2003; Holmes et al. 1999; Link & Cullen, 1986; Link et al., 1987; Penn et al. 1994; Pinfold et al., 2003; Schulze, Richter-Werling, Matshinger & Angermeyer, 2003). One study by Corrigan and his colleagues (2001) compared the effects of education (information presented to replace myths about mental illness with accurate conceptions), contact (direct interactions with persons who have psychiatric disorders), and protest (confrontational techniques to suppress stigmatizing attitudes about mental illness) on students’ attributions about schizophrenia and other serious mental illnesses. A total of 150 college students were randomly assigned to one of the three strategies or to a control group. The specific goal of all three intervention strategies was to specifically lessen stigma about depression and psychotic disorders. Self-report questionnaires measured ratings of controllability and stability attributions for physical and mental disability groups. Four of the six disability groups were commonly stigmatized psychiatric diagnoses: mental retardation, depression, psychosis, and cocaine addiction. This pre- / post-test design found that education had no significant effect on attributions about physical disabilities but led to improved attributions in all four psychiatric groups. Corrigan’s study also found that the contact condition produced positive changes that exceeded education effects in attributions about psychiatric disabilities. They also found that contact was the only stigma-changing strategy that has a significant positive effect on subsequent processing of information about persons with mental
illness. Protest as an intervention strategy showed no significant changes in attributions about any group. This study by Corrigan is one of the few studies to compare the effects of contact with other types of interventions.

Contact and Stigmatizing Attitude Change

Researchers studying social stigma of mental illness have generally found direct contact with people with serious mental illness to be a very powerful tool in altering attitudes in a number of settings (see Couture & Penn, 2003 for a review of the literature). Generally speaking, studies fall into one of two categories: retrospective contact, wherein participants are asked about prior contact with persons with mental illness; or prospective contact, wherein researchers bring together participants and mental health consumers to study attitudes of participants before and after contact.

Several prospective contact studies have looked at the effects of short-term interactive programs wherein participants are invited to listen to individuals share their stories about living with mental illness, and then engage in a dialogue with them to learn and share more (Corrigan et al. 2001; Cook, Jonikas, & Razzano, 1995; Stein, Ward, & Cislo, 1992; Shor & Sykes, 2002). Participant feedback and evidence from empirical results supports the idea that this type of intervention can have a significant impact on participants’ attributions and knowledge regarding people living with serious mental illness. Results also indicate changes in beliefs regarding their dangerousness, and a deeper emotional understanding of the difficulties these individuals face in society.

Researchers have designed studies in order to better understand what specific contact intervention strategies are most effective in changing stigmatizing attitudes. Past studies have used various combinations of educational workshops, video presentations, and direct interaction
with persons with mental illness (Mound & Butterill, 1993; Penn, Chamberlin, and Mueser, 2003; Schulze et al, 2003; Pinfold et al. 2003; Tolomiczenko et al. 2001). Mound and Butterill (1993) developed a high school program which informed 11th and 12th grade students about psychiatric illness using contact and education. A panel of presenters included two professional from nursing and social work, as well as two to three adults who had been treated for serious mental illness. Audience-panel discussion was a primary focus. Student responses from evaluation forms generally supported the idea that the program had a positive impact on students’ attitudes toward people with serious mental illness. The major drawbacks of this study were the lack of any quantitative pre- and post-test measures to verify attitude change, and the lack of any comparison group.

Tolomiczenko and his colleagues (2001) studied the relative effects of a brief educational session on the attitudes of a group of 575 high school students. The students participated in one of three comparison groups (control, video about homeless people with mental illness, video plus discussion with a person with SMI featured in the video). Those in the video/discussion group reported the lowest scores on scales measuring stigmatizing attitudes. Contrary to their hypothesis, the video-only group showed more negative attitudes towards people with mental illness compared to the control group. The primary methodological flaw here, again, is the lack of a pre/post-test design. Although prior exposure variables were included as covariates, the lack of any baseline measure of attitudes makes their results difficult to interpret.

Schulze and colleagues (2003) designed and analyzed a project with high school students in Germany which did include pre- and post-test measures, a control group, and a 1 month follow up assessment. Their program took place over several weeks, and the core element of contact was the use of focus groups matching participants with other teens who had been treated for
The project led to a significant reduction in negative attitudes compared with the control group who did not participate in the focus group sessions. Although the findings of this study are encouraging, the authors do little to describe the specific interactions which took place in the focus groups.

**Tolerance**

What is a stigmatizing attitude and how do we measure it? This is a central question to address when studying stigmatization of people living with mental illness. Tolerance is defined as: “A fair, objective, and permissive attitude toward those whose opinions, practices, race, religion, nationality, etc., differ from one’s own; freedom from bigotry” (Webster’s, 2003). In the context of attitudes toward people living with mental illness, the construct of tolerance has been operationalized to include *benevolence* (a sympathetic and nurturing view of people with mental illness), *authoritarianism* (seeing those with mental illness as an inferior class requiring coercive handling), and *social restrictiveness* (seeing those with mental illness as a threat to society) (Cohen & Struening, 1962; Taylor & Dear, 1981). These three factors were also found on large samples of adults in Britain (Brockington et al, 1993) and Greece (Madianos et al., 1987). Using previously validated scales for these three factors from the Opinions about Mental Illness (OMI) (Cohen & Struening, 1962, also used in Holmes et al, 1999), Taylor and Dear (1981) developed the Community Attitudes Toward the Mentally Ill scale (CAMI) which includes a forth sub-scale regarding community mental health ideology. *Community mental health ideology* refers to the acceptance of mental health services and clients in the community (the therapeutic value of the community, the impact of mental health facilities on residential neighborhoods, acceptance of deinstitutionalization). Therefore, we may consider the CAMI scales measuring tolerant attitudes as Benevolence and Community Mental Health Ideology;
where as the Authoritarianism and Social Restrictiveness scales measure intolerant attitudes. Analysis of the items included in the four sub-scales showed strong internal validity, and the instrument has been used in previous research addressing attitudes toward people living with mental illness (Taylor & Dear, 1981; Granello & Granello, 2000).

The extent to which the definitions of “intolerant” and “stigmatizing” attitudes are exactly the same is not completely clear, and may be primarily an issue of semantics. That being said, for the purposes of this study and remaining consistent with previous research, the stigmatization of people with serious mental illness is considered to be directly linked to intolerant attitudes.

**Behavioral Intentions**

An additional construct addressed in previous research on stigma and people with mental illness is behavioral intention. Behavioral intention is considered a precursor of actual behavior (Fishbein & Ajzen, 1975). Including a measure of behavioral intention in research on stigma can shed light on the impact an intervention might have on the participants’ future behavior and their willingness to interact socially with members of the target group. Although it has been emphasized that further study of the actual behavioral impact of various interventions is needed (Couture & Penn, 2003), there has not been a great deal of research on stigma and mental illness which includes a measure of behavioral intention. Previous approaches to measuring behavioral intentions in past research are inconsistent across studies. Schulze and his colleagues developed a scale that measures social distancing of oneself from people living with schizophrenia as a proxy for behavioral intention (Schulze et al, 2003). This scale showed good reliability ($\alpha = 0.80$) but not all of the items address specific future behaviors. The major advantage of their scale is that is was tailored to the population of students targeted in the intervention, as well as tailored to the
specific psychiatric diagnosis of interest. Tailoring behavioral intention items to the target population in research protocols may increase the chance that the scenario matches that target population’s lived experience. A scale measuring social distance as a proxy for behavioral intention was also used by Pinfold et al. in their study of educational interventions in secondary schools (Pinfold et al. 2003). Penn et al. (2003) addressed behavioral intentions, but only included one item in their protocol. One addition disadvantage to all three of the scales cited above is that response choices were limited to “yes”, “no,” or “unsure.” Future measures of behavioral intention would do well to include a greater range of response options. This would allow respondents the opportunity to better articulate their particular level of willingness to engage in future activity.

**Students and Stigma**

Many previous studies addressing the impact of contact on stigmatizing attitude change involved high school and undergraduate participants (Corrigan et al, 2001; Deforges et al., 1991; Granello and Granello, 2000; Schulze et. al. 2003; Stein et. al., 1992, Penn et al., 2003). Part of the rationale behind focusing on a college population is that young people’s attitudes may be more open to change than older individuals. Students are asked to consider novel information and challenge their beliefs on a regular basis in the college environment. This can be a phase of development when young people are still forming their beliefs and attributions about other people and the world.

Furthermore, school-based settings are useful and accessible environments for workshops and discussions. Regularly scheduled class meetings, students’ motivation to attend and contribute, as well as classroom layout all create a conducive environment for interventions. Presentations and interventions that can be easily brought into the classroom setting are therefore
convenient and user-friendly for student participants. In addition, stigmatization of college students who are experiencing mental health difficulties by their peers and instructors can have implications on their ability to thrive in the post-secondary environment (Granello & Granello, 2000; Stein et al., 1992). Students who experience stigmatization may be reluctant to ask for help or accommodations from an instructor, for example. Students who may be experiencing the first symptoms of a mental illness may be frightened to ask for help if they have previously experienced a stigmatizing environment in class or on campus.

**Theatrical Presentation and Discussion as Intervention**

Theatrical programs can have a strong emotional impact on the audience member, as well as act as a useful educational tool (Day, 2002; Deeney, Johnson, Boore, Leyden & McCaughan, 2001; Deloney & Graham, 2003; Shapiro & Hunt, 2003). Classroom-based interventions which use live actors have been found to have a significant positive impact on audience attitudes (Deloney & Graham, 2003; Shapiro & Hunt, 2003). Drama presented in the classroom environment provides the opportunity for 1) self-exploration and personal reflection, 2) fostering empathy, and 3) identification with imagined roles and situations (Deloney & Graham, 2003). The presence of live actors allows theater a “uniquely emotional quality, making it difficult to avoid or intellectualize the struggles and suffering portrayed” (Shapiro & Hunt, 2003 p. 923).

Audiences are often considered passive in the theatrical context. There is evidence, though, that suggests that theatrical models which allow for audience-actor interactive discussion following a performance can greatly enhance the impact of the performance. Audience-actor interaction has been found to enhance the audience’s emotional and personal connection to the material, and the actors themselves (Deloney & Graham, 2003, Fink & Tasman, 1992). Additionally, post-performance feed-back and dialogue give the audience members the
opportunity to discuss the content of the performance with the performers, and share their reactions (Deloney & Graham, 2003).

Unfortunately, most of the studies that have been done using theatrical models in the classroom have only taking place in the context of medical education, and have not dealt with stigma against mental illness specifically. Fink and Tasman (1992) focused on the use of theater in the context of changing attitudes about psychiatric disabilities, but generally there is a dearth of other studies addressing this population. This is a major limitation of prior research using theatrical presentations. For one, medical students are a specialized population who may not be representative of the greater population. Studies with more diverse samples are needed to test the generalizability of the effects of theatrical presentations.

**Video as Intervention**

The medium of video can act as a useful tool in education settings to expand the knowledge and understanding of the viewer (Ornstein, 1991; Taylor & Galligan, 2002). Video is a medium which is relatively inexpensive and accessible. Researchers have studied the effectiveness of video as a means of changing or expanding the attitudes of the viewer in regards to people living with serious mental illness (Penn, Chamberlin, and Mueser, 2003; Tolomiczenko et al. 2001; Woods & Marcks, 2005). One study by Penn, Champerlin and Mueser (2003) looked at the effects of a documentary film about schizophrenia on the attitudes of a group of college undergraduates. Participants were assigned to one of four conditions; a documentary about fears of being overweight, a documentary about schizophrenia, a documentary about polar bears, and no documentary. The two film conditions other than that on schizophrenia were used as controls. Affective responses to the films were collected, as well as a scale assessing the extent to which the video stimulus was interesting, informative, emotional engaging, appealing,
invoking feelings of sympathy, and whether they would recommend it to a friend. The stigma-dependent measures included scales which examined social distance (or behavioral intention), beliefs about dangerousness, and emotional reactions. Additional attitude and personality scales were also used to control for group differences. Penn and his colleagues found that viewing a documentary about schizophrenia resulted in attributions that ascribed less blame and responsibility to people for their disorder, and saw schizophrenia as being more likely to change, relative to participants who viewed control films or no film. These researchers did not find any significant differences in terms of social distance, dangerousness, or affective response as a function of stimulus group; though the pattern of means was in the expected direction (Penn, Chamberlin, & Mueser, 2003).

On of the major limitations of the study just described is the lack of any explanation as to why the particular video stimulus on schizophrenia was chosen. If researchers are interested in understanding the attitude-changing effects of video stimuli, videos which have a specific focus or message need to be employed in interventions. This may decrease the number of possible interpretations of the presentation.

Prior Contact with Mental Illness

Prior contact with people who live with serious mental illness has been found to have a significant impact on adults’ attitudes towards this population (Alexander & Link, 2003; Couture & Penn, 2003; Link & Cullen, 1986; Trute, Tefft & Segall, 1989). For example, Alexander and Link (2003) surveyed 1507 American adults by telephone, completing measures of perceived dangerousness of people with mental illnesses and their contact experiences with mental illness. They found that adults who reported higher amounts of social contact with people with mental illness also reported lower levels of perceived dangerousness and desired social distance.
Participants’ prior experience and contact with mental illness and people with mental illness is important to assess since this may have an effect on their attitudes before and after their exposure to any novel experience.

**Social Desirability**

Social desirability of response is one personality variable which has been studied previously in research on stigmatizing attitudes (Alexander and Link, 2003; Penn, Chamberlin, and Mueser, 2003). Previous research has indicated that people who score high on scales of social desirability are less likely to endorse prejudiced statements about minority groups (see Alexander and Link, 2003). This could be confounding when assessing participants’ attitudes about persons with mental illness. Attempting to control for level of social desirability of responses may therefore be important when analyzing between-group differences in level of stigmatizing attitude change.

**Summary and Critique**

Several studies have been done to better understand the impact of school-based, contact-oriented interventions on stigmatizing attitudes and beliefs towards people living with serious mental illness. Interventions which involve contact have consistently been shown to have a significant impact on stigmatizing attitudes. Results have generally led support to the effectiveness of such interventions, but there is a dearth of comparative studies in this area that address relative effects of contact interventions versus other types of interventions. For example, although video and contact interventions have both been studied individually, there is no singular study which has compared the effects of the two.

Educational interventions have also been found to have a positive effect on stigmatizing attitudes. It may be that interventions which combine educational components and emotionally
engaging components may increase effectiveness. Theatrical presentations are one form of intervention which can incorporate these two components. The use of theatre in the class room has been shown to be useful, but studies have mostly taken place in the area of medical education. If researchers are to better understand the effectiveness of theatrical/educational interventions, these formats need further study in a wider range of classroom environments. This requires building partnerships with community-based troupes and educators, as well as the use of validated instruments to measure the impact of the performances.

There are several similar elements of a video and a play, and several elements that are unique to the latter. These similarities and differences may lay at the heart of the relative effects of contact vs. video in the classroom setting. First, both a video and a play can be a form of information dissemination. Both can educate the participants about the realities, challenges, and triumphs of the lives of the people portrayed in the presentation. In addition, the emotional content of both a play and a video can invoke feelings of sympathy, empathy, and human connectedness in the participants.

There are, however, several elements that are unique to a theatrical performance followed by discussion. The central difference is the human presence of the actors. Rather than faces and voices on a screen, the participants are in the same room with new people and are given the opportunity to interact with them. In addition, a post-performance discussion allows participants to individualize their contact experience. That is, it allows them the opportunity to ask specific questions about the actors’ real life experiences and what the actors hope to get across in the performance. Because of the higher level of intimacy involved in a live presentation as compared with a video presentation, the emotions invoked by the performance could be greater as well. In turn, this higher level of intimacy and emotionality may then have a stronger and/or more
sustained impact on audience members’ tolerance toward the stigmatized group of which the actors are a part.

I propose that the use of theatrical performance as a means of changing attitudes about people living with mental illness may be two fold. First, the informative and emotional content of the performance may stimulate the audience members’ 1) understanding of the actors’ lived experience, 2) appreciation of the difficulties and strengths of persons with serious mental illness, and 3) the effects of stigma in their lives. Second, the actors’ behavioral portrayal of fictional characters may emphasize the actors’ autonomy, capability, ability to self-examine and change, as well as their emotional depth and complexity. This may relate to the constructs of authoritarianism and benevolence. That is, positive traits portrayed by the actors may run contrary to the idea that people with serious mental illness are irresponsible, should not be allowed to make their own life decisions, are not deserving of sympathy and support, and are a burden on society. Results from a previous study examining the public’s attitudes and behavioral intentions highlight the attitude changing effect of witnessing behaviors that run contrary to negative attitudes linked to labels of mental illness. The study found that behavioral presentation superseded labeling in determining attitudes and intentions (Aubry, Tefft, & Currie, 1995). Exposure to people living with serious mental illness in a safe and controlled environment may also lead participants to feel less avoidant and fearful toward this population. The decrease in these feelings of avoidance and fearfulness would likely manifest themselves in lower self-report levels of social restrictiveness and authoritarianism. There might also be greater willingness to interact socially with people who live with a serious mental illness in the future.

In summary, studies are needed that respond to the lack of comparative research methods addressing the relative effectiveness of different intervention modalities designed to decrease the
stigmatization of people living with serious mental illness. For example, a study is needed that empirically measures differences between the effects of live contact and video presentations on tolerant attitudes toward this group. Both interventions should address the existence and impact of stigma against persons with mental illness directly, and should be comparable in design and implementation. Gearing interventions to a college population and recording their attitudes pre- and post-intervention, it is possible to measure changes in attitudes related to tolerance of persons with serious mental illness.

**Summary of the Present Research**

This study compared the impact of a live, scripted theatrical presentation involving post-performance discussion with the actors, with a video of the same theatrical presentation. The study involved three groups: students who watched the live performance, students who watched a video-taped performance, and a control group of students who saw neither presentation. Participant attitudes were measured related to (1) tolerance of adults with serious mental illness, (2) openness to future interaction with this population, and (3) affective impact of the performance. Attitudes of Authoritarianism, Benevolence, Social Restrictiveness and Community Mental Health Ideology were measured as a means of assessing level of tolerance. Behavioral intentions were measured using a scale constructed of items presenting fictional scenarios. These scenarios describe circumstances wherein the student is given the opportunity to interact with, or assist, a person with a serious mental illness.

**Hypotheses**

The video and live performance groups were expected to endorse more favorable attitude and behavioral intention ratings as compared with the control group immediately following the presentations. Due to the live contact with the actors, and the opportunity for interactive
dialogue, it was expected that attitudes of tolerance and behavioral intention would be greater immediately following the presentations in the live performance group as compared to both the video presentation group, and those in the no-presentation comparison group.

It was expected that the relationship between the attitude and behavioral intention scores of the three groups would remain stable after a one month period. No significant change in dependent variable scores was expected in the no-presentation group. Due to the novelty of a theatrical performance in a lecture class environment, and the emotional impact of live human connection with the actors, it was expected that the live performance group would rate the overall affective impact of the presentation more favorably than the video group.
METHOD

Recruitment of Participants

First, instructors from all eight General Psychology course sections at Bowling Green State University scheduled for the Spring 2005 term were invited to participate in the study. This invitation to instructors was made in the form of a letter (see Appendix A) which described the details of the research project. The instructors were asked if they were 1) interested in having the performance and discussion take the place of one of their class meetings, and 2) whether they were willing to allow a researcher to speak to their class and ask for volunteers to fill out questionnaires. The classes of those instructors who were willing to set aside time for one of the two presentation conditions were made the basis for either the performance group or the video group. The instructors were told that their class would be placed in either the live performance group, the video group, or the no-presentation group. By volunteering to participate in the study, the instructors were allowing an invitation of voluntary recruitment of eligible students from their class, and agreeing to incorporate a presentation into their syllabus. Due to scheduling conflicts, two of the eight instructors chose not to have their sections participate in the study. This researcher was working as a teaching assistant for one of the eight instructors during the semester in question. Therefore it was decided that this course section would not be asked to participate due to conflict of interest.

To recruit participants this experimenter addressed each of the class sections in person during the week of February 14, 2005 during the regularly scheduled class period. With the use of a script (see Appendix B) students were informed that their instructor had agreed to participate in the study. Classes were also informed that any presentation related to the study would be incorporated in the mandatory class meetings, but that their participation in contributing data to
the study was completely voluntary and anonymous. Following this verbal description and invitation, pre-intervention questionnaires were distributed to all class attendees. A letter of informed consent was attached to the front of the survey (see Appendix C) and the class participants were reminded verbally that by completing the survey and returning it before the end of class, they were agreeing to the terms of the informed consent letter. Those students who chose to participate were given 1 point of research participation credit.

In order to ensure anonymity, participants were asked to hand in a separate piece of paper with their name written on it at the same time they returned the completed questionnaire at the end of the class period. These names were kept separate from the questionnaires at all times and were given to the course instructors to assign credit to the participants. No personal information which could be used to identify the participants was written on the questionnaires.

Sample Characteristics

The participants in this study consisted of college undergraduates enrolled in five different sections of a General Psychology course at Bowling Green State University. Initial recruitment from all five courses for the pre-intervention time of measurement drew a sample of 544 participants. Thirty-two percent of the participants were male, 68% were female. The age of the participants ranged from 18-40 years old with a mean of 18.9 years old (SD=1.84).

The sample of students from all five courses that completed surveys at pre- and post-intervention (Time 1 and 2) was 379 participants. Thirty percent of the participants were male, 70% were female. The age of these participants ranged from 18-40 years old with a mean of 18.9 years old (SD=2.02). The sample who completed surveys at all three time points of measurement (Time 1, 2, and 3) was 303 participants. The age of these participants ranged from 18-40 years old with a mean of 19.0 years old (SD=2.22). Thirty percent of these 303
participants were male, 70% were female. Statistical analysis was run on the survey data from this subset of the original 544 participants. Table 1 provides all demographic information for all three samples (n = 544, n = 379, n = 303). The three samples described here were not significantly different on any demographic variables.

Measures of Personal Characteristics

Besides items collecting demographic information regarding age, gender, length of enrolment in college, ethnicity, and religious affiliation; three other measures were included in baseline measures at Time 1. These included a measure of prior contact with people with serious mental illness, a measure of social desirability of responses, as well as two items addressing prior experience with theatrical performances. See Appendix D for an outline of all measures included on all questionnaires.

The Level of Contact Report

The Level of Contact Report (LCR) is a 12 item scale measuring prior contact with mental illness (See Appendix E). The items are ranked by level of intimacy with serious mental illness. For scoring, each item is assigned a number: 11 = most intimate contact with a person with mental illness, 7 = medium intimacy, 1 = little intimacy. The index for this contact is the rank score of the most intimate situation indicated. If a person checks more than one item, their highest level of intimacy is ranked. Experts in serious mental illness and psychiatric rehabilitation created the rankings for this scale. The mean of rank order correlations summarizing inter-rater reliability was 0.83 (Holmes et al, 1999).

The Marlowe-Crowne Social Desirability Scale

The Marlowe-Crowne Social Desirability Scale (MCS-8) is an eight item scale measuring social desirability of responses (Greenwald and Satow, 1970) (See Appendix E). This scale is a
shortened version of the original thirty-three item Marlowe-Crowne Social Desirability Scale (MCS; Crowne and Marlowe, 1960). This shortened form was used in the interest of lessening questionnaire administration time. Each item presents three response options, “Yes,” “No,” and “Not sure.” Items considered “honest” earn a score of 1 for 'Yes' and 3 for "No'. The same answers for the other items earn scores of 3 and 1 respectively. "Not sure" or no answer is scored 2 on all items. Higher overall scores indicate a greater tendency to respond in a socially desirable way. Ray (1984) found this scale had satisfactory reliability when given to several different general population samples (alpha = .77).

Prior experience with Theatrical Performance

In order to assess prior involvement with theatrical performance, two items were included in the Time 1 questionnaire (See Appendix E). The first item concerns the frequency of attendance to live theatrical performances. Respondents are asked to endorse one of five levels ranging from “About once every few years,” to “About once a week.” The second item concerns frequency of participation in theatrical performances in the previous five years. Respondents are asked to endorse one of five levels ranging from “0” to “10 or more.”

Dependent Measures

The following measure of participant attitudes were administered to all three participant groups, at all three time points of measurement.

Community Attitudes Toward the Mentally Ill

The Community Attitudes Toward the Mentally Ill scale (CAMI) is a 40-item self-report instrument designed to measure the public’s attitudes towards people with mental illness (Taylor & Dear, 1981) (See Appendix E). The four scales which comprise the CAMI are Authoritarianism, Benevolence, Community Mental Health Ideology, and Social Restrictiveness.
All four scales are scored on a 5-point Likert-type scale. Scale scores range from 10 to 50, and higher response scores indicate greater agreement with the factor concept of each subscale. The four CAMI scales are used in this study to tap tolerant and intolerant attitudes towards people with serious mental illness. Hence, greater tolerance for persons with mental illness is associated with higher scores on the subscales of Benevolence and Community Mental Health Ideology, and lower scores on the scales of Authoritarianism and Social Restrictiveness. The reliability of the CAMI has been measured through test-retest, yielding alpha coefficients on the subscales from .68 to .88 (Taylor & Dear, 1981), and in a more recent study from .58 to .82 (Granello & Granello, 2000).

All four of the CAMI scales were found to be significantly correlated with one another in the present study (See Table 6). The inter-correlations found here are congruent with the findings of past research using the CAMI scales (Addison & Thorpe, 2003; Granello & Granello, 2000; Taylor & Dear, 1981). This supports the notion that the scales of Benevolence and Community Mental Health Ideology, and the scales of Authoritarianism and Social Restrictiveness, are not tapping discrete attitudes related to the general constructs of tolerance and intolerance, respectively. In addition, the negative correlations found between the scales tapping tolerant and intolerant attitudes supports the idea that these are opposing constructs. That is, tolerance and intolerance can be thought of as two opposing ends of a spectrum. Therefore, high levels of tolerance necessarily indicate low levels of intolerance, and vise versa.

**Behavioral Intentions Scale for Students**

The Behavioral Intentions Scale for Students (BISS) is a measure consisting of 7 items and is scored using a 5-point Likert-type scale (Strongly agree, Agree, Neutral, Disagree, Strongly disagree) (See Appendix E). This measure was created specifically for this study. The
items were designed to better assess willingness to engage in future contact with persons with mental illness, specific to a student population. This scale was found to have good internal reliability (alpha = .80).

The following measure of participant attitudes in regards to the presentations were administered to the two theatrical performance groups only after witnessing the presentations, at Time 2 and Time 3.

The Film Rating Form

The Film Rating Form (FRF) (Penn et. al., 2003) is used to assess the participants’ affective response to the theatrical performance (See Appendix F). This 6 item scale is scored on a 5-point Likert-style scale, from “not at all” to “very…” The generic wording of the items allows the participants to rate the video or the live presentation, depending on which they witnessed. The scale was found to have good internal reliability (alpha= 0.84) (Penn et. al., 2003).

Presentation Conditions

Live Theatrical Performance: The Fisher Players

The Fisher Players are a group of 8 non-professional actors who have all at some time been members of the Fisher Clubhouse in Detroit, Michigan, where the principle qualification for membership is living with a severe and chronic mental illness. The Fisher Clubhouse is a community facility that offers social support, vocational assistance, a forum for workshops, and an outlet to connect with the greater community. The Fisher Players first came together as a troupe in 2002 and have to date developed and performed three full length plays. The Fisher Players typically perform their work at the Matrix Theatre in Detroit, a community theatre that holds approximately 65 seats. Their plays are group-written and address a variety of issues
related to living with a mental illness such as group-home living, hospitalization, the experience of mental illness, and the impact of social stigma. The troop has performed 15-20 performances to date in a variety of settings including the Matrix Theatre, community settings, and local churches. Some of the eight current troop members have been working with the group since its inception, whereas others have just recently joined.

The scripted play used in the present study is entitled, “Tuesdays at Four.” The play follows a group of people who are members of a fictional weekly mutual support group during a portion of their personal and varied quests for recovery from their mental health challenges. The general themes addressed in the play are: 1) the social challenges of living with a chronic and severe mental illness, 2) the difficulties that stigmatizing attitudes create for people living with serious mental illness, 3) the challenges of managing symptoms, treatment, financial and vocational security, and 4) the real possibility of wellness, empowerment, and recovery in the face of these difficulties. Although the characters portrayed in the play all have serious mental illness, and the actors themselves all live with serious mental illness, the Players go to great lengths to develop characters that are different from themselves to avoid simply performing their own experiences.

Every Fisher Players performance is followed by a “talk-back” session during which the actors take questions and comments from the audience. This “talk-back” is a crucial element of all Fisher Players performances, as it allows the actors to learn about the effectiveness of the play, and to answer any questions the audience might have.

Video of Performance

In order to compare the impact of video vs. live performance, a digital video of the play “Tuesdays at Four” was presented to the two target classes comprising the video group. The
video presents a previously recorded showing of the entire play as it is normally performed, followed by a talk-back discussion with an audience at the Matrix Theatre in Detroit, Michigan. The performance took place on November 12, 2004 and was recorded on two Sony digital Hi-8 video cameras. The digital recording was later transferred to a digital video disc using Final Cut Pro digital video editing software and Apple DVD Maker on a Macintosh G4 computer. The running time of the digital video presentation is one hour and ten minutes.

During the time period between the performance that was recorded on video and the live performance for the other experimental group, one of the actors left the troupe. Therefore, the character of “Laurie” was performed by a different actor in the video than the live performance. However, the script and staging of the play was identical in both presentations.

Procedure

The study used a pre-/ post-test design asking undergraduates to fill out self-report questionnaires at three different time points. Time 1 involved data collection one month prior to the in-class presentations and served as a baseline, Time 2 collected data two days after the presentations, and Time 3 collected data one month following the presentation. Questionnaires were also collected from the no-presentation group at the same three time points.

The eight participating class sections were placed in the three experimental groups based on class size and scheduling considerations. The performance group consisted of participants from two of the sections, one large section of 280 students and one smaller section of 25 students. The video group consisted of participants from two sections with similar enrollment sizes as those placed in the performance group. The no-intervention group consisted of participants from one other large course section of 270 students.
Non-random assignment of participants was used in the present study for two reasons. First, the Fisher Players preferred to perform to a large audience, and time restrictions also necessitated that they present only one performance. Therefore, in order to ensure a large enough sample size for the live performance group, one large lecture class consisting of both the large and small class sections acted as the audience. Second, in order to maintain consistency across experimental groups, the same recruitment technique was used for the video presentation and no-presentation groups. Differences in initial attitudes on the basis of non-random assignment are addressed in the first stage of analysis. Statistical tests were run on pre-intervention (baseline) measures to determine any significant differences between stimulus conditions (See Table 1).

When the students in all target classes were asked to volunteer for the study, they were informed that they would be asked to fill out questionnaires at three times of measurement. The pre-stimulus (baseline) measures were taken on the day of recruitment. The in-class presentations and post-test (Time 2) measures took place during the week of March 14, 2005, and the follow up post-test (Time 3) measures were collected during the week of April 11, 2005.

The theatrical performance and the video presentations both took place in large lecture halls on the campus of Bowling Green State University during regularly scheduled class meetings. In the four classes placed in the live performance and video groups, both pre- and post-presentation questionnaires were also filled out during regularly scheduled class meetings.

**Classroom Presentations**

**Live Theatrical Presentation/Discussion Group**

On March 15, 2005 at 1:00 pm the Fisher Players performed their production of “Tuesdays at Four” in a large lecture hall on the campus of Bowling Green State University. The
lecture hall used for the presentation was the regular meeting place of the larger of the two live performance target classes. The entire smaller live performance target class was also present, as well as the instructors for the two target classes and a few invited friends and family of the Fisher Players. The total attendance of the live performance was approximately 300 people. Immediately preceding the performance, the experimenter introduced the Players and thanked the audience for their attention. The performance lasted 1 hour.

The class discussion following the live performance was facilitated by the director of the Fisher Players. The director briefly explained that the players were willing to take any questions the audience might have about the play, the actors, or issues related to living with a mental illness. The actors sat in chairs facing the audience and took questions from the audience. Audience members raised their hands and members of the Players called on them in turn. The discussion lasted approximately 15 minutes.

Due to time constraints, questionnaires were not filed out immediately following the performance, but were administered to the two target classes respectively at their next class meeting two days following the performance. Questionnaires were given to all present members of the two classes, but verbal instructions were given reminding the target classes that only those students who had given informed consent and returned questionnaires one month previously were to fill out and turn in questionnaires. Fifteen minutes was allotted at the end of the regularly scheduled class meetings to fill out the questionnaires, though participants were given as much time as they needed to complete the questionnaires. No participant took more than 20 minutes to fill out the questionnaire.

On April 12, 2005 follow-up questionnaires (Time 3) were administered to the smaller of the two live performance target classes during the regularly scheduled class meeting. On April
On March 17, 2005 at 5:50 pm the video presentation of the play “Tuesdays at Four” was shown to the larger of the two sections comprising the video group at the regularly scheduled time and location of the class. Prior to the presentation of the video, the experimenter briefly explained that the video comprised a live performance and discussion that took place in November of 2004. The video was played and projected using equipment already present in the lecture hall.

Following the conclusion of the video, questionnaires were given to the entire class. Verbal instructions were given reminding the class that only those students who had given informed consent and returned questionnaires one month previously were to fill out and turn in questionnaires. Participants were then given as much time in class as they needed to fill out the questionnaires, and the questionnaires were then collected by the experimenter.

The video was presented to the smaller of the two sections making up the video group on March 22, 2005 at 9:30 am. The presentation took place at the regular time and location of the class. Prior to the presentation of the video, an introduction was given to the class by the experimenter identical to that which was spoken to the larger target class. The video was played and projected on equipment already present in the classroom. Following the presentation of the video, questionnaires were distributed and the participants were given as much time as they needed to complete the questionnaires.
On April 14, 2005, follow-up questionnaires (Time 3) were administered to the larger of the two video group target classes during the regularly scheduled class meeting. On April 21, 2005, these follow-up questionnaires were administered to the other target class during their regularly scheduled class meeting. Similar to the administration of the Time 2 questionnaires, participants were allowed as much time as they needed to complete them and return them to the experimenter.
RESULTS

All statistical analysis was performed using SPSS 11.0 for Windows. All analysis was performed on the data collected from the sample of participants who completed valid surveys at all three time points (n=303). No significant demographic differences were found between these participants who completed measures at all three times of measurement from those who completed measures at Time 1 only (n=544), and from those who completed measures at Time 1 and Time 2 (n=373) (See Table 1).

Pre-Intervention Measures

A series of one-way analysis of variance (ANOVA) analyses were conducted to test for any demographic differences between the three groups. Analysis of variance indicated that there were no significant demographic differences (age, gender, ethnicity, religious affiliation, years of education) between any of the three groups at Time 1 (p > .05). ANOVAs were also conducted to test for any significant differences between the groups mean scores on the four CAMI scales and the BISS at Time 1. Results indicated that there were no significant between group differences on any of the five dependent variables at Time 1 (p > .05). Results from ANOVA did however indicate a significant between-group difference in the mean scores of social desirability of response (See Table 2).

Gender Differences

Females scored significantly higher then males on measures of behavioral intentions (t(301) = -4.45, p < .001), Benevolence (t(301) = -4.75, p < .001), and Social Desirability (t(301) = -2.74, p < .01). Males scored significantly higher then females on measures of Authoritarianism (t(301) = 2.64, p < .01), and Social Restrictiveness (t(301) = 2.84, p < .01).
There was not a significant gender difference in level of prior contact with persons with serious mental illness.

**Level of Prior Contact**

A one-way ANOVA indicated that there were no significant differences between the three presentation groups on the Level of Contact Report (p = .64). Frequencies of endorsed scale items were calculated from the original Time 1 sample of 544 participants (See Table 2). Almost every participant in all the groups (97%) who filled out a questionnaire at Time 1 reported that they had at some point watched a movie or television show that depicted a person with serious mental illness. Seventy-two percent of the sample reported having watched a video about a person with mental illness. Thirteen percent of respondents reported having watched a play about serious mental illness. In addition, forty-two percent of the sample reported exposure to a person with a mental illness on a “frequent basis.” Thirty-two percent of respondents reported having a family member who has a serious mental illness. Three percent of respondents reported personally having a serious mental illness.

**Correlations**

In order to determine any important moderating effects on attitudes and intentions, correlations were investigated between the dependent measures, level of prior contact with serious mental illness, and level of social desirability of responses. Bi-variate correlations were also calculated to identify significant relationships between the dependent measures of attitudes and behavioral intentions. Correlations were calculated using the sample of participants who completed surveys at all three times of measurement.
Prior Contact and Tolerance

A series of two-tailed tests indicated a small but significant relationship between the extent of participants’ prior contact with serious mental illness and some of the scales measuring attitudes of tolerance and intolerance. Authoritarianism and Benevolence scores were not significantly correlated with level of prior contact. Higher scores of Social Restrictiveness were moderately associated with lower levels of prior contact ($r = -.13, p < .05$). Higher scores of Community Mental Health Attitudes were significantly related to a higher level of prior contact ($r = .13, p < .05$) (See Table 6).

Prior Contact and Behavioral Intentions

Results indicate a significant relationship between the participants’ prior level of contact with serious mental illness, and their willingness to interact with people with serious mental illness in the future. A significant positive correlation was indicated between ranking level of prior contact and scores of Behavioral Intentions ($r = .17, p < .01$) (See Table 6). These results suggest that prior contact should be considered a moderating factor in analysis of the between-group difference on scores of the CAMI scales and the BISS.

Social Desirability

At baseline, no significant correlations between scores of social desirability and any of the four CAMI scales or the BISS were found. These results suggest that the extent to which the participants’ chose to respond to items in a socially desirable fashion is not a critical factor in evaluating the between-group difference on scores of the CAMI scales or the BISS.

Tolerance and Behavioral Intentions

In general, participants reported a greater willingness to interact with people living with serious mental illness in the future when they reported greater tolerance toward the population.
Scores of Authoritarianism were inversely correlated with scores of Behavioral Intentions ($r = -0.35, p < .001$), as were the scores of Social Restrictiveness and Behavioral Intentions ($r = -0.47, p < .001$). Conversely, the CAMI scales measuring tolerance were both positively correlated with scores of Behavioral Intentions. Higher scores on the BISS were related to higher scores of Benevolence ($r = 0.45, p < .001$), and higher scores of Community Mental Health Ideology ($r = 0.41, p < .001$) (See Table 6).

**Post-Intervention Dependent Measures**

In regards to the post-presentation discussion that took place in the live performance group, there were relatively few participants who reported having posed a question to the players. Of those participants in the live performance group who filled out questionnaires at Time 1 and Time 2 ($n = 116$), only $4.3\%$ ($n = 5$) reported having asked a question. This may have had primarily to do with the short period of time allowed for class discussion, and the fact that members of the theater group spoke at length to each of the questions asked.

**Between-Group Differences on CAMI and BISS: Short Term**

The “short term” is defined here as the difference between the groups’ pre-performance baseline scores (Time 1), and groups’ scores immediately following the presentations (Time 2). The time between these measurements was approximately one month.

**Community Attitudes Toward Mentally Ill – Intolerant Attitudes**

The scales measuring Authoritarianism and Social Restrictiveness toward people living with SMI constitute the two scales of the CAMI that measure intolerant attitudes. Due to the significant correlation between the scales of Authoritarianism and Social Restrictiveness ($r = 0.56, p<.001$), these scales were entered as a single factor in the MANOVA. Ranking of prior contact with serious mental illness was also entered as a covariate. In order to determine whether there
were any significant differences between the mean scores of the three class groups in the short term following the presentations, a 2 x 3 (scale x group) multivariate analysis of variance test was performed.

Test results indicated that when scores at Time 1 were entered as covariates, there was a significant difference between the three groups on scores of overall intolerant attitudes immediately following the presentations (Wilks Lambda = .932; $F(4,592) = 5.30$, $p < .001$, partial eta squared=. 035). A post hoc LSD test indicated that both the video group ($p < .05$) and the live performance group ($p <.001$) reported significantly lower scores of Authoritarianism compared with the no-presentation group at Time 2. In addition, the means scores of the live performance group were significantly lower than the video group at Time 2 ($p < .05$). Post hoc tests also indicated that the live performance group reported significantly lower scores of Social Restrictiveness compared with both the video ($p < .05$) and no-presentation groups ($p < .001$), but there was not a significant difference between means scores of the video group and the no-presentation group at Time 2 (See Table 4).

Community Attitudes toward Mentally Ill – Tolerant Attitudes

The scales measuring Benevolence and Community Mental Health Ideology constitute the two scales of the CAMI that measure tolerant attitudes. In order to determine the presence of any significant differences between the mean scores of the three presentation groups in the short term following the presentations, a 2 x 3 (scale x group) multivariate analysis of variance test was performed, identical to the MANOVA performed on the intolerant attitude scales. Due to the significant correlation between the scales of Benevolence and Community Mental Health Ideology ($r = .40$, $p<.001$), these scales were entered as a single factor in the MANOVA. Ranking of prior contact with serious mental illness was also entered as a covariate.
Test results indicate that when scores at Time 1 were entered as covariates, there was a significant difference between the three groups on scores of overall tolerant attitudes immediately following the presentations (Wilks Lambda = .878; $F(4,592) = 9.93$, $p < .001$, partial eta squared = .063). A post-hoc LSD test indicated that the live performance group reported significantly higher scores of Benevolence compared with both the video group and the no-presentation group at Time 2 ($p < .001$). There was not a significant difference between the mean Benevolence scores of the video group compared with the no-presentation group at Time 2. The post-hoc test also indicated that the live performance group and the video group both reported significantly higher scores of Community Mental Health Ideology compared with the no-presentation group ($p < .05$), but there was no significant difference between scores of the video group compared with the live performance group at Time 2 (See Table 4).

**Behavioral Intentions Scale for Students**

A 1 x 3 (scale x group) analysis of variance test was performed to determine whether there was a significant difference between the presentation groups on mean scores of behavioral intentions toward people with serious mental illness in the short term. Ranking of prior contact with serious mental illness was also entered as a covariate in this analysis. When score changes were tested in the short term (comparing Time 2 means while entering Time 1 means as a covariate) a significant main effect of group was found on levels of behavioral intentions toward people with mental illness ($F(2,298) = 5.25$, $p = .006$, partial eta squared = .034) (See Table 4). Post-hoc LSD tests indicate that the live performance group scored significantly higher on the scale of behavioral intentions than both the video group and no-presentation group ($p < .05$). These tests showed no significant difference between the BISS means of the video group and the no-presentation group at Time 2.
Between-Group Differences on CAMI and BISS: Longer Term

The “longer term” is defined here by the difference between scores before the presentations (Time 1) and one month following the presentations (Time 3).

Community Attitudes toward Mentally Ill – Intolerant Attitudes

A MANOVA was performed to examine any differences between the intolerant attitude means of the three groups in the longer term (See Table 5). Test results indicate that when scores at Time 1 were entered as covariates, there continued to be a significant difference between the three groups on scores of overall intolerant attitudes one month after the presentations took place (Wilks Lambda = .927; $F(4,592) = 5.75$, $p < .001$, partial eta squared= .037). Post-hoc LSD tests indicated both the live performance group and the video group reported significantly lower scores of Authoritarianism and Social Restrictiveness compared with the no-presentation group at Time 3 ($p < .05$), yet there was not a significant difference between the means scores of the live performance group compared with the video group on either of the two intolerant attitude scales in the longer term.

Community Attitudes toward Mentally Ill – Tolerant Attitudes

A MANOVA was performed to examine any differences between the mean tolerant attitude scores of the three groups in the longer term (See Table 5). Test results indicate that when scores at Time 1 were entered as covariates, there was a significant difference between the three groups on scores of overall tolerant attitudes one month after the presentations took place (Wilks Lambda = .940; $F(4,592) = 4.66$, $p = .001$, partial eta squared= .03). Post-hoc LSD tests indicated that, congruent with the short term analysis, the live performance group reported significantly higher scores of Benevolence compared with both the video group and the no-presentation group at Time 3 ($p < .05$).
Also consistent with the short term analysis, there was not a significant difference between the mean Benevolence scores of the video group compared with the no-presentation group at Time 3. Post-hoc tests also indicated that the video group reported significantly higher scores compared with the no-presentation group on the measure of Community Mental Health Ideology at Time 3 (p < .05), but there was not a significant difference between the live performance group and the no-presentation group, or between the live performance group and the video group on this measure.

*Behavioral Intentions Scale for Students*

When BISS score changes were tested in the longer term (1 x 3 ANOVA comparing Time 3 group means while entering Time 1 means and prior contact rankings as covariates) no significant difference was found between the three groups on levels of behavioral intentions toward people with mental illness ($F(2,298) = 2.62$, NS) (See Table 5). However, the direction of the means is such that the live presentation group reported greater willingness for future interaction than both the video and the no-presentation groups.

*Film Rating Form*

A series of one-way ANOVAs was performed to test for significant differences between the live performance group and the video group on overall mean scores of the Film Rating Form, and the individual items of the FRF at Time 2. Overall mean scores of the FRF were significantly higher in the live performance group than in the video group ($F(1,178) = 20.15$, $p < .001$) (see Table 4). In addition, mean scores were significantly higher in the live performance group compared with the video group on five of the six individual items comprising the FRF ($p < .01$). The only item with mean scores that were not significantly different between the live and video groups was that asking “How informative was the presentation?”
An identical comparison of the live and video group means at Time 3 also indicated that the immediate experience of the live performance was rated significantly more positively than the video, as indicated by overall mean scores of the FRF ($F (1, 178) = 15.50, p < .001$) (see Table 5). Results for ANOVAs of the individual items of the FRF at Time 3 were congruent with those at Time 2. That is, the only item whose mean score was not significantly higher in the live performance group compared with the video group ($p < .05$) was the “how informative…” item. Finally, an additional AVOVA indicated that there was not a significant difference between the overall FRF means of the live performance group immediately following the presentation compared to the one month follow up ($F (1,160) = .034, \text{NS}$). There was also no significant change in FRF scores of the video group between Time 2 and Time 3 ($F (1,195) = 1.10, \text{NS}$) (See Figure 6).

Special consideration should be made when interpreting the significance of the group mean differences for the FRF at both Time 2 and Time 3. This is because the test for homogeneity of variance was found to be significant at both times. The variance of the video group was significantly greater than that of the play group. This indicates that the assumption of homogeneity of variance is violated. The problem this presents to the interpretation of the results of the ANOVA is exacerbated by the unequal sample sizes of the groups.
DISCUSSION

This study examined the effect of theatrical performance presented by, and about, individuals living with serious mental illness on report of stigma about this group by a college student audience. Self-report measures of tolerance and intolerance were used to measure stigmatizing attitudes toward people with serious mental illness. A measure of behavior intentions toward people living with mental illness tailored to a student population was used to access willingness of participants to interact with this population in the future. Finally, a presentation rating measure was used to access the participants’ affective experience of witnessing the presentations.

An initial sample of 544 college undergraduates was recruited for the study, comprising three groups. One group watched a live presentation of an hour long theatrical performance, followed by a discussion with the actors. A different group watched a digital video of the same theatrical performance which also showed a group discussion with the actors after the performance. The third group acted as a no-stimulus comparison group and saw no presentation at all. Measures of tolerance and intolerance toward, and intentions for future contact with, persons with mental illness were filled out by all participants before and after the presentations, as well as at a one month follow up. Response data was analyzed from a sample of 303 respondents who completed measures at all three time points.

The live-performance and the video group generally showed lower levels of intolerance (Authoritarianism and Social Restrictiveness), and higher levels of tolerance (Benevolence and Community Mental Health Ideology) compared with the control group immediately following the presentations, and in the longer term one month later. Generally speaking, participants who saw the live performance did not report significantly lower levels of intolerance or higher levels
of tolerance compared with those who watched the video one month after the presentations, though there were some significant differences in self-reported attitudes between these two groups immediately following the presentations. On average, participants who saw the live performance group showed a greater willingness for future contact with people experiencing mental health difficulties than both the video and control groups in the short term, but this difference in behavioral intention was similar to video and control groups one month later. Those participants who watched the live performance generally reported that the presentation was much more interesting, informative, and emotionally engaging, as compared with the ratings of those who watched the performance on video immediately following the presentation and one month later.

**Prior Contact with Mental Illness as Moderating Factor**

Within the overall sample of participants, a high percentage of students reported prior exposure to video-based or televised forms of media related to people with serious mental illness. In contrast, there were very few who reported exposure to a play related to this population. This supports the notion that a great number of college aged people are exposed to fictionalized depictions of mental illness.

Prior research focusing on undergraduates’ attitudes toward people with mental illness indicates that there is a significant positive relationship between the extent that exposure to mental illness occurs through electronic media, and lower levels of tolerance (Granello & Pauley, 1999). Results of the correlation analysis indicate a significant inverse relationship between the participants’ level of prior contact with mental illness, and their reported level of Social Restrictiveness. This result is consistent with prior research addressing the connection between previous contact and individual’s stigmatizing attitudes (Alexander & Link, 2003).
Effect of Contact on Tolerance: Video vs. Live Performance

When the four scales of the CAMI were grouped into “tolerant” and “intolerant” attitudes, and group means were analyzed, a main effect for group was found for both types of attitudes following the presentations, and one month later. These results indicate that students’ exposure to the theatrical presentation, in part, accounted for the observed change in scores on the four scales; although it should be noted that the percentage of the variance accounted for by group membership, as measured by eta squared, was small. Post hoc tests were run to elucidate mean differences on the four attitude scales at both times of post-presentation measurement. The results from the overall multivariate tests and the post hoc tests highlight two important points related to the comparison of the three experimental groups.

First, although scores on the two scales measuring tolerant attitudes (Benevolence and CMHI) were correlated with one another, between-group differences were often inconsistent depending on the scale, and the particular type of presentation. For example, Benevolence mean scores of the video group were not significantly different from the no-presentation group at Time 2, yet CMHI mean scores were significantly higher compared with the no-presentation group. A similar pattern can be seen when examining the two intolerance scales. The video group’s mean scale score of Authoritarianism was significantly lower than the no-presentation group’s mean scale score at Time 2. However, this difference was not seen in scores of Social Restrictiveness. Furthermore, this inconsistency in between-group differences of the two scales classified as “intolerant attitudes” is not found when the live performance group is compared with the no-presentation group. Therefore, we can be more confident in stating that the group of students who experienced live contact with the performers, rather than the video group, showed significantly more overall tolerance and less overall intolerance towards the target population.
compared with controls. This is congruent with previous research that compared the differential impact of witnessing only a video versus witnessing a video and then having contact with one of the people with mental illness in the video (Tolomiczenko et al. 2001). These researchers found that the video plus discussion group showed a significant decrease in attitudes of restrictiveness and dangerousness, but the video-only and control groups did not.

Second, the level of significance of between-group differences in tolerant attitudes compared with intolerant attitudes is different across time. That is, the MANOVA results for intolerant attitudes at Time 2 and Time 3 indicate a level of significance at the level of \( p < .001 \). The level of significant between-group difference in tolerant attitudes, on the other hand, decreases from Time 2 to Time 3, from \( p < .001 \) to \( p < .01 \). These results suggest that the significant effect of the presentations on participants’ attitudes of tolerance was more degraded by the effect of temporal distance from the presentation, compared with the effect on their attitudes of intolerance. This was the case no matter what form of presentation was seen. One possible explanation for this relates to the scale of Community Mental Health Ideology. Relative to the other CAMI scales, there was a lack of between-group differences at any time point on the CMHI scale. This directly influences the overall factor of “tolerance” considered in the multivariate analysis, and therefore may be responsible for the change in level of significant difference.

Effect of Contact on Behavioral Intentions: Video vs. Live Performance

Analysis of the BISS showed overall significant between group differences immediately following the classroom presentations, but no significant between group differences one month later. These results are consistent with previous research. Schulze et al. (2003) found that participation in a school based anti-stigma project involving live contact was related to greater
willingness to enter social relationships with students with schizophrenia compared to a control group. This is congruent with the current results comparing the post-test BISS mean scores of the live performance group and the no-presentation group at both Time 2 and Time 3. Although the live group’s mean score was greater than the no-presentation group, this difference was not large enough to show a significant overall effect for group in the Time 3 MANOVA. In addition, there was no significant difference between BISS scores of the video group and the no-presentation group at either Time 2 or Time 3. This is congruent with findings from an earlier study addressing the effects of a video presentation on attitudes and intentions towards persons living with schizophrenia (Penn et al., 2003).

The present study expanded on the work of Penn and his colleagues in two ways. First, the previous research incorporated just one item tapping behavioral intention, whereas the BISS used here is a multi-item scale with good internal reliability. The fact that a statistically significant impact was still not found with this more extensive tool supports the notion that video interventions are an insufficient means of altering behavioral intentions toward the population in question. Second, the earlier study focused specifically on schizophrenia, whereas the video in the present study presented the lives of individuals with a variety of disorders. Even when a broader array of disorders was addressed, there remained no significant increase in behavioral intentions following a video intervention.

**Does Presentation Format Matter?**

The design of this study isolated intervention *format* while holding intervention *content* constant across groups. One of the primary questions driving the present research design relates to the importance of the type, or format, of the classroom presentation: live or video. Looking at the evidence from the data collected in this study, the question of whether or not the format of a
theatrical presentation in a classroom environment matters appears to relate to the specific outcome of interest. If a facilitator is interested in a theatrical presentation that will be seen as informative and emotionally activating for a group of students, then the data suggests that a live performance may be the better choice. If educators or researchers are interested in increasing tolerance toward people with serious mental illness, it appears that the particular format of the presentation does not matter very much. However, the results do suggest that a live performance format is more effective in changing students’ attitudes specifically related to 1) a sympathetic and nurturing view of people with mental illness, 2) seeing those with mental illness as a threat to society, and 3) willingness for future interaction with people experiencing mental illness.

Presentation Effects on Tolerance versus Behavioral Intentions

Results suggest that watching either format of the theatrical production increased tolerance towards people living with serious mental illness compared to participants who did not watch the production. However, only the live presentation group reported greater willingness to engage in future contact with this population compared with the no-presentation group. This difference was present at Time 2 and Time 3.

Several possible theories can be called upon to explore the differing impact of the classroom presentations on attitudes versus behavioral intentions. One reason for the difference may be that self-reported attitudes related to tolerance are generally more flexible than behavioral intentions toward people with SMI. This suggests that there exist fundamental differences between people’s attitudes and beliefs, versus their willingness to engage in certain behaviors. Ajzen and Fishbein make two important points in regards to the correspondence between attitude and behavioral intention. First, they emphasize that measures of attitude and intention should correspond to one another if we are attempting to predict and understand
intentions in relation to attitudes (Ajzen & Fishbien, 1980). Looking at the measures used in the present study, this correspondence may not be as strong as it appears. We may look at an item on the BISS related to helping a fellow student experiencing mental health difficulties, for example, and assume that this relates to benevolent attitudes about nurturance and sympathy. But, as Ajzen and Fishbien point out, endorsing statements such as, “students should help other students connect to physical and mental health services” versus “I will help another student……” may relate to factors other than benevolence.

A second and related point concerns the importance of considering not only attitudes toward a target group, but attitudes towards the specific behavior as well. Ajzen and Fishbien (1980) conceive of attitudes toward a target group as an external variable that indirectly affects intention, and in turn an actual behavior. Attitude toward a behavior, on the other hand, is seen as more directly and consistently affecting intention to carry out that behavior. Furthermore, they point out that specific behaviors can vary in action, target, context, and time elements, and this in turn can directly affect beliefs regarding the consequences of performing a behavior (Ajzen & Fishbien, 1980). Attitudes may not vary as much due to extenuating contextual factors. This may explain why the significant group difference in attitudes measures remained after one month, and that of behavioral intentions did not.

The differing results related to tolerance and behavioral intentions have implications for educators. If the goal of a classroom intervention is specifically to increase students’ willingness to interact with people dealing with serious mental illness, then a classroom intervention which involves the live presence of members of this population may be most effective. This empirical evidence for the utility of contact interventions in general, compared with interventions which do
not involve live contact, is consistent with a good deal of the previous research on contact (Corrigan et al., 2001; Couture & Penn, 2003).

Film Rating Form, Attitudes, and Behavior

One of the most robust differences between the responses of the live group and the video group relate to the two groups’ experiential ratings of the presentations as measured by the Film Rating Form. Just following the presentation, and one month later, the analysis of variance indicated that the students who saw a live performance of the play rated the experience as more positive than those students who witnessed the video presentation of the play. This finding supports one of the original hypotheses of this study. The significant difference in affective (FRF) ratings of the two experimental groups stands in contrast to the overall lack of difference in the two groups’ attitude scale scores over time. As addressed previously in this discussion, there were certain other significant differences found between the live and video group’s mean scores on some of the scales at Time 2 and Time 3 (See Tables 4 and 5). Although, examination of the data yields no evidence to support the claim that, overall, the students in either of the two presentation groups showed a difference in how much their CAMI scale means individually differed from the no-presentation group. The key to understanding the relationship between the three groups’ scores on the FRF, the CAMI, and the BISS may be tied to the idea that affective activation differentially influences attitude versus behavioral intention.

Bernard Weiner’s work on the relationship between attribution, emotion, and action may offer a useful framework for understanding the results of this study. Weiner worked to elucidate the cognitive and emotional processes involved in help-giving behavior. In doing this, he identified a pathway wherein attributions guide our general feelings and attitudes about a person or group, but emotional reactions provide the primary motivation and direction of our behaviors
(Weiner, 1980). Results of this study can be said to be consistent with this model. Perhaps, both presentations had an overall significant impact on attitudes because the content of the play worked to significantly impact both groups cognitively. Yet behavioral intentions of just the video group were not significantly changed in the longer term because the group was not sufficiently emotionally stimulated by the presentation. This lack of emotional stimulation is indicated by the video group’s significantly lower score on the FRF.

Consideration of this discrepancy of between-group differences on measures of tolerance and rating of immediate affective experience can help us better understand the relative utility of a live or video presentation format in the classroom setting.

Implications of the Present Research

One of the primary implications from the results of this study is that empirical support is given to the use of theatrical presentations in the classroom context to decrease stigma against people with serious mental illness. Previous research showing the utility of theatrical forms in the context of medical education (Deeney, Johnson, Boore, Leyden & McCaughan, 2001; Deloney & Graham, 2003; Shapiro & Hunt, 2003) is build upon here, suggesting that theater can also be seen as useful to improve attitudes in the general undergraduate population.

Another general implication of this study relates to the lack of differential impact of the live presentation versus the video on students tolerance of people with serious mental illness. Overall, a video presentation may be just as pedagogically useful as a live theatrical performance in the classroom. However, results of this study suggest that a live performance can simulate more empathy and emotional reaction from students. A primary question then for educators is to what extent they are interested in the immediate emotional experience of their students in regards to a classroom presentation related to serious mental illness. Delving deeply
into the various debates related to emotional activation in theories of education is beyond the scope of this study. However, the results of this study suggest two things: 1) high levels of emotional/empathic activation may not be necessary to increase positive attitudes towards a stigmatized group, and 2) offering lengthy and highly personalized opportunities for interpersonal contact with members of a stigmatized group in the classroom context may not be necessary to bring about both high levels of emotional/empathetic activation and increased positive attitudes toward a stigmatized group.

Finally, strengthening ties between community groups who advocate for people living with serious mental illness and post-secondary students may benefit both groups by allowing for a richer understanding of mental illness on the part of the students, as well as an opportunity to give voice to consumer advocates in a wider array of settings.

Limitations of the Present Research

The present research project offers meaningful results as to the effectiveness of presenting theatrical presentations in the post-secondary classroom environment to decrease stigmatization of people with serious mental illness. However, there are several limitations to the particular methodology used in this study. Perhaps the greatest limitation was the lack of randomization in recruitment methods. It may be that the method used allowed for the systematic exclusion of those potential student participants who happened to be enrolled in a course section whose instructor declined to participate for some reason. Attrition rate is another important limitation related to bias at the level of the instructor. Each experimental group saw a large amount of attrition across the three times of measurement. This attrition was partially related to class attendance, which in turn, may be directly related to the extent that students found their instructors to be engaging. Another limitation to generalizability across settings is the fact that
the exact curriculum related to persons with serious mental illness, other than the presentations involve in the study, was not controlled for across groups. However, undergraduate syllabi in introductory survey courses in psychology related to psychopathology are somewhat standardized; and all of the classes involved in this study began discussing mental illness during the same period of the semester.

A second important limitation of the method used in this study concerns the lack of a long-term follow up. However, considering the significant changes seen in the dependent measures after only 1 month, questions regarding the prolonged impact of the two presentation formats on students’ attitudes over time appear that much more important. Surely, confidence in the notion that participants’ attitudes have really changed should be related, in part, to analysis of stability across a large span of time.

One additional limitation relates to the nature of the contact between the stigmatized group and the participants in this study. Due to the relatively short talk-back discussion which occurred after the live performance, there may be a limit to the comparability of this contact intervention to interventions used in similar research involving more sustained or interactive contact. Structural factors related to the large class lecture environment should also be considered. For example, the class size of the live performance group, in conjunction with the limited time period offered for discussion, directly affected the percentage of participants who were able to have their questions addressed. Indeed, previous research on similar classroom-based presentations involving mental health consumers and several different sized target classes indicated that roughly 100 students was an optimal class size (Mound & Butterill, 1993). The class present for the live Fisher Players production in this study was good deal larger than 100 students. Mound and Butterill (1993) commented that 100 people create a group large enough to allow for a
variety of viewpoints, yet small enough to encourage interaction. Consideration of all these limitations may help us to develop improved research methodology in future research endeavors.

**Future Directions for Research**

The findings of this study highlight several possible directions for future research on classroom-based interventions designed to decrease stigmatizing attitudes in a post-secondary student population. First, randomized designs could be used to help protect against bias at the level of instructor. In addition, a longer follow up with participants may help to test the stability of attitude change over time. Incorporated in a longer follow up, participants could also be asked additional questions regarding their actual behaviors related to the items on the scale of behavioral intentions. This may not only allow researchers to better design scales of behavioral intentions relevant to a college student population, but also help elucidate *why* behavioral intentions may not always relate to actual behavior.

Future investigations could also incorporate lengthier period of direct interpersonal contact between actors living with serious mental illness and audience members following a live theatrical presentation. In addition, alternative settings could be incorporated, such as smaller break-out discussion groups, or interactive focus groups designed to actively improve future research methodology. Alternative comparison group designs could thus be used to test for impact difference related to: level of intimacy of contact, type of contact (theatrical or other), or to class size. These approaches could strengthen the impact of classroom-based interventions, invigorate current trends in pedagogy, and help to enhance the literature on contact with people living with serious mental illness.

Finally, additional investigative components could be added to future research designs; addressing not only the impact of theatrical presentations on students’ tolerance of people living
with serious mental illness, but the impact of performing on the lives of the actors. How might these actors’ symptoms be affected by participating in live performance and interaction with audience members? How might participation in performance designed to decrease stigmatization from other people, simultaneously affect self-stigmatization and self-esteem? Does setting or audience characteristics matter? Addressing questions like these in future investigations may help us gain a richer understanding of the multifaceted benefits of bringing theatrical presentations into the classroom, and bringing community members together to decrease the stigma associated with mental illness.
REFERENCES


INVITATION TO INSTRUCTORS

Hello,

My name is David Faigin and I am hoping to carry out a classroom-based intervention project involving students in General Psychology course sections during the upcoming semester. I am sending this invitation to participate to all instructors who are teaching these sections. This project is a means of enhancing your presentation of topics related to psychopathology.

This project focuses on the impact of two different classroom presentations on students’ attitudes toward people with serious mental illness. The project will involve one pre-intervention (time 1), and two post-intervention (time 2 and time 3) times of measurement. The first self-report questionnaires will be administered to (1) collect demographic information, (2) assess level of previous contact with mental illness, (3) assess level of social desirability, and (4) collect baseline measures of attitudes and behavioral intentions toward persons with serious mental illness. The second self-report questionnaire will be administered to collect information on participants’ attitudes and behavioral intentions regarding people living with serious mental illness. This second questionnaire will also investigate participants’ emotional reactions to the presentation. The second questionnaire is to be filled out immediately after the interventions, and then again at a one month follow up.

Project Design

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<thead>
<tr>
<th>Classroom condition</th>
<th>No-presentation</th>
<th>Live performance</th>
<th>Video</th>
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<tbody>
<tr>
<td>Time 1 (baseline)</td>
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<td>Time 2 (day of)</td>
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<td>Time 3 (one month post)</td>
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Theatrical Presentation/Discussion

The Fisher Players are a group of 8 actors who have all at some time been members of the Fisher Clubhouse in Detroit, Michigan, where the principle qualification for membership is living with a mental illness. The Fisher Players first came together as a troupe in 2002 and have to date developed and performed three full length plays. The plays are group-written and address a variety of issues related to living with a mental illness such as group-home living, hospitalization, the experience of mental illness, and the impact of social stigma. The troop has performed 15-20 performances to date in a variety of settings.

The scripted play that the players will perform is entitled, “Tuesdays at Four.” The play follows a group of people who are members of a fictional weekly mutual support group during a portion of their personal and varied quests for recovery from their mental health challenges. The general themes addressed in the play are: 1) the social challenges of living with a chronic and severe mental illness, 2) the difficulties that stigmatizing attitudes create for people living with serious mental illness, 3) the challenges of managing symptoms, treatment, financial and vocational security, and 4) the real possibility of wellness, empowerment, and recovery in the face of these difficulties. Although the characters portrayed in the play all have serious mental illness, and the actors themselves all live with serious mental illness, the Players go to great lengths to develop characters that are different from themselves to avoid simply performing their own experiences.

Every Fisher Players performance is followed by a “talk-back” session during which the actors take questions and comments from the audience. This “talk-back” is a crucial element of all Fisher Players performances, as it allows the actors to learn about the effectiveness of the play, and to answer any questions the audience might have. The class discussion after the performance will be facilitated by the director of the Fisher Players. The director will briefly explain that the players would like to take any questions the audience might have about the play, the actors, or living with a mental illness.
In order to compare the impact of video vs. live performance, a digital video of the play “Tuesdays at Four” will be presented to a different class section(s). The video presents a previously recorded performance of the entire play as it is normally performed, as well as a talk-back discussion with an audience. The running time of the video is one hour and ten minutes.

No presentation

The class that participates in the no presentation group will be asked to fill out the questionnaires at three time points as well. If you are interested in partnering with me for this comparison group I will be sure to give you a copy of the video of the play. You would then be able to show it to your class during your lectures on psychopathology later in the semester.

If you are interested in partnering with me on this project, I will come to your class at the appropriate day in February and ask the class if they are interested in participating in the study, and inform them that they will be asked to fill out questionnaires at three times during the semester. I will explain that this is an optional component to a required part of the course, and that they will receive research experience credit for participation. TENTATIVE dates for the project are as follows: The pre-stimulus (baseline) measures will be taken during the week of February 13, 2005. This will involve taking roughly 20 min. of the class period to describe the project and allow students to fill out the questionnaires. The stimulus presentations and post-test 1 measures will take place during the week of March 13, 2005. This will take up one entire class period. The post-test 2 measures will be collected during the week of April 10, 2005, and will take up 20 minutes of class time once again. These dates can be moved around somewhat to work with your course outline and lesson plan.

Thank you for your attention. Please reply and let me know if you are interested in incorporating this project into you course.

Sincerely,

David Faigin
Doctoral Candidate in Clinical Psychology
APPENDIX B

PARTICIPANT RECRUITMENT SCRIPT

I am here today to tell you about an extra credit opportunity. As part of my work on my Masters thesis in the department of Psychology, I am conducting a research study of the effects of different classroom presentations on undergraduates’ attitudes toward people with serious mental illness. The study will use data from a short questionnaire to be filled out by students in psychology classes. This study asks you to fill out short questionnaires at three points in time during this semester. Dr. ____ has given me permission to tell you about the study and to fill out the questionnaire in class for students who wish to participate.

In a minute or two I will pass out questionnaires and all you need to do is to take a questionnaire if you would like to participate in the study. If you do not wish to be part of the study, you do not need to take a questionnaire. I will ask you to read the description of the study on the front cover of the questionnaire and complete it if you wish. It should take you about 12-15 minutes to complete the questionnaire. Subsequent participation will involve filling out a questionnaire in class one month from today, and then completing another questionnaire here in class two months from now. Each questionnaire should take about 15 minutes or less and can be completed in class. You will receive 2 credits if you choose to participate in all three parts of the study.

One of the purposes of these questionnaires is to allow you to give feedback about a classroom presentation which will take place later in the semester. This presentation will be included in one of your regularly scheduled class meetings, but filling out the questionnaires is completely voluntary and optional.

Your responses to questionnaires used in this study are anonymous. Your participation in this study is completely voluntary, and you can refrain from answering any or all questions without penalty or explanation. You are free to withdraw consent and to discontinue participation in the project at any time. I will be here today while participants fill out the first questionnaires and I can answer any questions that you have. I will also be here for the next two questionnaires as well.

The first page of the questionnaire packets is an informed consent letter. Please read this letter before completing the questionnaire. If you choose to participate in the study, please remove the consent letter and take it with you. At the bottom of the letter is my contact information, should you ever have any questions. By completing the questionnaire and turning it in, you are indicating that you have read the letter and you are indicating your consent to participate in the project. You must be at least 18 years old to give personal consent and participate in this study.

Underneath the consent letter, at the top of the second page of the questionnaire, there is spot labeled “Personal Code.” This personal code is solely for tracking reasons. Think of this as a password. It should be no more than 8 characters long and should not be connected to your name or other personal ID in any way. Please pick a personal code word that you can remember easily. You will be asked to write it at the top of the other two questionnaires as well. Next to the Personal Code, there is a spot to write in the name of your first grade teacher. This, again, is only for tracking purposes and will not be linked to you in any way. If you cannot remember your first grade teacher’s name, write in any other teacher you had in elementary school.

One last thing: In order for you to get your extra credit points, we need to know that you turned all three questionnaires. So, if you choose to volunteer today please write your name on a separate piece of paper and turn it in when you turn in your questionnaire today.

If you do not choose to volunteer today, please sit and read quietly for a few minutes while others fill out the questionnaires. Thank you for your attention.
APPENDIX C

INFORMED CONSENT LETTER

Purpose
You are invited to be in a research study which focuses on attitudes towards people living with serious mental illness. As part of my work on my Masters thesis in the department of Psychology, I am conducting a research study of the effects of different classroom presentations on undergraduates’ attitudes toward people with serious mental illness. The purpose of this study is to better understand what sorts of presentations are most effective. The study will use data from a short questionnaire to be filled out by students in general psychology courses. This study asks you to fill out questionnaires at three points in time during the spring ’05 semester.

Procedure
Your initial participation will involve filling out a questionnaire in class. I estimate that your initial participation will take approximately 12-15 minutes. Subsequent participation will involve filling out a questionnaire in class one month from the day that the first questionnaire is completed, and then completing another questionnaire in class one month later. Each questionnaire will take about 15 minutes or less to complete. You will receive 2 research credits for your participation in the study.

Risks
The anticipated risks to you are no greater than those normally encountered in daily life.

Benefits
This study may benefit you by offering you an opportunity to give feedback about the classroom presentation, may you witness one in class. You may also benefit from the opportunity to make comments on how you feel about the presentation. This study may benefit the greater community by helping to better understand how learning about people with mental illness can impact students’ attitudes.

Confidentiality
Your responses to questionnaires used in this study are anonymous. No information will be collected that can directly link you with the responses that you provide. Your participation in this study is completely voluntary, and you can refrain from answering any or all questions without penalty or explanation. At certain points in the questionnaire you are asked to write in your comments. These comments may be used in the report of the data, but your comments cannot be linked to you personally.

Your Rights as a Participant
You are free to withdraw consent and to discontinue participation in the project at any time. As a participant you have the right to have all questions concerning the study answered by the researcher, and may request a summary or copy of the results of the study after its completion. You will be provided with a copy of this consent document.

If you have any questions or comments about this study, you can contact me, David Faigin at (419) 372-4403, dfaigin@bgnet.bgsu.edu, or Dr. Catherine Stein, my project advisor, at (419) 372-2301, cstein@bgnet.bgsu.edu. If you have any questions or concerns about your rights as a research participant please contact the Chair of BGSU’s Human Subjects Review Board, 201 South Hall, (419) 372-7716, hsrb@bgnet.bgsu.edu.

By completing and returning the attached questionnaire you are indicating that: 1) you are over 18 years of age, 2) you have read this letter and 3) you are indicating your consent to participate in the project.

Please detach this letter from the packet and keep it for your records.
APPENDIX D

OUTLINE OF MEASURES

Time 1 (Baseline) Questionnaire Measures
   Demographics
   Level of Contact Report
   Previous Exposure to Theatrical Presentations
   Community Attitudes towards the Mentally Ill (CAMI)
   Marlowe-Crowne Social Desirability Scale (MCS-8)
   Behavioral Intentions Scale for Students (BISS)

Time 2 and 3 (Post-presentation) Questionnaire Measures – Live and Video Groups
   Community Attitudes towards the Mentally Ill (CAMI)
   Behavioral Intentions Scale for Students (BISS)
   Film Rating Form (FRF)
   Open-ended sentence completion

Time 2 and 3 (Post-presentation) Questionnaire Measures – No-presentation Group
   Community Attitudes towards the Mentally Ill (CAMI)
   Behavioral Intentions Scale for Students (BISS)
APPENDIX E

QUESTIONNAIRES

Time 1 Questionnaire
Note: Measure titles enclosed in brackets < > are not included in actual questionnaire

< Items used for tracking participants across time>

Personal Code _______________ (no more than 8 characters)

Name of first grade teacher______________________

<Demographics>

Please answer the following questions as best you can. Please answer all of the items.

What is your gender? (circle one) M F

What is your age? ______________

How many semesters have you attended BGSU, including the present one? _________________

What is your current academic status?

Freshman       Sophomore       Junior       Senior

What is your college major?_______________________________________

What is your ethnicity?

African American       Caucasian       Hispanic       Asian

Pacific Islander/American Indian       Other____________________

What is your religious affiliation?

Protestant       Catholic       Other Christian       Jewish       Moslem

Buddhist       Other__________
Please read each of the following statements carefully. After you have read all of the statements below, place a check by EVERY statement that represents your experience with persons with a serious mental illness.

A person with serious mental illness is defined as someone who experiences a high level of emotional distress, disorganization of their thoughts and/or emotions, and has experienced these difficulties chronically and persistently in their life. Those with serious mental illness may or may not use mental health services due to their difficulties.

___ I have watched a movie or television show in which a character depicted a person with a serious mental illness.

___ I had a job working with people with serious mental illness.

___ I have observed, in passing, a person I believe may have had a serious mental illness.

___ I have observed persons with a serious mental illness on a frequent basis.

___ I have a serious mental illness.

___ I have never observed a person that I was aware had a serious mental illness.

___ A friend of the family has a serious mental illness.

___ I have seen a video about people with serious mental illness.

___ I have a relative who has a serious mental illness.

___ I have watched a documentary on television about serious mental illness.

___ I live with a person who has a serious mental illness.

___ I have watched a play about serious mental illness.

<Previous exposure to theater (2 items)>

About how often do you attend live theatrical performances (plays, dance performances, etc.)? (Check one)

___ About once every few years
___ About once a year
___ About every few months
___ About monthly
___ About weekly

In the last five years, about how many theatrical performances have you performed in (plays, dance performances, etc.)? (Circle one)

0 1-3 4-6 7-9 10 or more
<Community Attitudes Toward Mentally Ill (CAMI)>

Please read the following statements carefully. Circle one of the five choices below each statement which best states your level of agreement with that statement.

One of the main causes of mental illness is a lack of self-discipline and will power.

Strongly agree  Agree  Neutral  Disagree  Strongly disagree

People with serious mental illness have for too long been the subject of ridicule.

Strongly agree  Agree  Neutral  Disagree  Strongly disagree

People with serious mental illness should not be given any responsibility.

Strongly agree  Agree  Neutral  Disagree  Strongly disagree

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

Strongly agree  Agree  Neutral  Disagree  Strongly disagree

The best way to handle people with serious mental illness is to keep them behind locked doors.

Strongly agree  Agree  Neutral  Disagree  Strongly disagree

More tax money should be spent on the care and treatment of the people with serious mental illness.

Strongly agree  Agree  Neutral  Disagree  Strongly disagree

People with serious mental illness should be isolated from the rest of the community.

Strongly agree  Agree  Neutral  Disagree  Strongly disagree

The best therapy for many people with serious mental illness is to be part of a normal community.

Strongly agree  Agree  Neutral  Disagree  Strongly disagree

There is something about people with serious mental illness that makes it easy to tell them from normal people.

Strongly agree  Agree  Neutral  Disagree  Strongly disagree

We need to adopt a far more tolerant attitude toward people with serious mental illness in our society.

Strongly agree  Agree  Neutral  Disagree  Strongly disagree

A woman would be foolish to marry a man who has suffered from serious mental illness, even though he seems fully recovered.

Strongly agree  Agree  Neutral  Disagree  Strongly disagree
As far as possible, mental health services should be provided through community based facilities.

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

As soon as a person shows signs of mental disturbance, he/she should be hospitalized.

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

Our mental hospitals seem more like prisons than like places where people with serious mental illness can be cared for.

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

I would not want to live next door to someone who has had a serious mental illness.

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

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

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

People with serious mental illness need the same kind of control and discipline as a young child.

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

We have a responsibility to provide the best possible care for people with serious mental illness.

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

Anyone with a history of mental problems should be excluded from taking public office.

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

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

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

Mental illness is an illness like any other.

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

People with serious mental illness don’t deserve our sympathy.

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

People with serious mental illness should not be denied their individual rights.

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

Mental health facilities should be kept out of residential neighborhoods.

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree
People with serious mental illness should not be treated as outcasts.

Strongly agree  Agree  Neutral  Disagree  Strongly disagree

People with serious mental illness are a burden on society.

Strongly agree  Agree  Neutral  Disagree  Strongly disagree

People with serious mental illness should be encouraged to assume the responsibilities of normal life.

Strongly agree  Agree  Neutral  Disagree  Strongly disagree

Having people with serious mental illness living within residential neighborhoods might be good therapy but the risks to residents are too great.

Strongly agree  Agree  Neutral  Disagree  Strongly disagree

Less emphasis should be placed on protecting the public from people with serious mental illness.

Strongly agree  Agree  Neutral  Disagree  Strongly disagree

Increased spending on mental health services is a waste of tax dollars.

Strongly agree  Agree  Neutral  Disagree  Strongly disagree

No one has the right to exclude people with serious mental illness from their neighborhood.

Strongly agree  Agree  Neutral  Disagree  Strongly disagree

It is frightening to think of people with serious mental illness living in residential neighborhoods.

Strongly agree  Agree  Neutral  Disagree  Strongly disagree

Mental hospitals are an outdated means of treating people with serious mental illness.

Strongly agree  Agree  Neutral  Disagree  Strongly disagree

There are sufficient existing services for people with serious mental illness.

Strongly agree  Agree  Neutral  Disagree  Strongly disagree

People with serious mental illness are far less of a danger than most people suppose.

Strongly agree  Agree  Neutral  Disagree  Strongly disagree

Locating mental health facilities in a residential area downgrades the neighborhood.

Strongly agree  Agree  Neutral  Disagree  Strongly disagree

Virtually anyone can become mentally ill.

Strongly agree  Agree  Neutral  Disagree  Strongly disagree

It is best to avoid anyone who has serious mental health problems.

Strongly agree  Agree  Neutral  Disagree  Strongly disagree
Most women who were once treated for serious mental illness can be trusted as babysitters.

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
</table>

It is frightening to think of people with serious mental illness living in residential neighborhoods.

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
</table>

<Marlowe-Crowne Social Desirability Scale (MCS-8)>

Listed below are a number of statements concerning personal attitudes and traits. Read each item and circle Yes, Not Sure, or No as it pertains to you personally.

Have there been occasions when you took advantage of someone?

Yes | Not Sure | No

Are you always willing to admit when you make a mistake?

Yes | Not Sure | No

Do you sometimes try to get even rather than forgive and forget?

Yes | Not Sure | No

Do you sometimes feel resentful when you don't get your own way?

Yes | Not Sure | No

Are you always courteous, even to people who are disagreeable?

Yes | Not Sure | No

Are you always a good listener, no matter whom you are talking to?

Yes | Not Sure | No

Are you quick to admit making a mistake?

Yes | Not Sure | No

Have you sometimes taken unfair advantage of another person?

Yes | Not Sure | No

Behavioral Intentions Scale for Students (BISS)>

Please read the following statements carefully. Circle one of the five choices below each statement which best states your level of agreement with that statement.

I would be willing to volunteer to spend time with patients at a psychiatric hospital.

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
</table>
I would be willing to pair up in a class project with a fellow student who lives with a mental illness.

Strongly agree    Agree    Neutral    Disagree    Strongly disagree

If a friend were hospitalized for difficulties related to mental illness, I would visit him/her in a psychiatric hospital.

Strongly agree    Agree    Neutral    Disagree    Strongly disagree

If one of my professors asked for volunteers from the class to help another student study who had a mental illness, I would be willing to volunteer.

Strongly agree    Agree    Neutral    Disagree    Strongly disagree

I am interested in sitting down one-on-one with a person with serious mental illness to learn more about their life experiences.

Strongly agree    Agree    Neutral    Disagree    Strongly disagree

I would be comfortable dating someone who has had a serious mental illness in the past, but who is currently healthy.

Strongly agree    Agree    Neutral    Disagree    Strongly disagree

If a classmate told me she/he was having difficulties related to a mental illness, I would help them contact a facility where they could get assistance.

Strongly agree    Agree    Neutral    Disagree    Strongly disagree
Time 2 and 3 Questionnaire

Note: Measure titles enclosed in brackets < > are not included in actual questionnaire

< Community Attitudes Toward Mentally Ill (CAMI)>
See Appendix E

<Behavioral Intentions Scale for Students (BISS)>
See Appendix E

<note: The following items and scales were not included in Time 2 and 3 questionnaires administered to the no-presentation group>

Did you watch the theatrical performance “Tuesdays at Four” as part of this course? (circle one)
Yes                   No

Did you ask a question/make a comment during the discussion with the actors? (circle one)
Yes                   No

<Film Rating Form (FRF)>

The following questions concern the presentation you saw in class. Please read each one carefully and circle the number which best indicates your opinion about the presentation.

How interesting was the presentation?

1                     2                     3                      4                       5
not at all                                                                               very interesting

How informative was the presentation?

1                     2                     3                      4                       5
not at all                                                                               very informative

How emotionally engaging was the presentation?

1                     2                     3                      4                       5
not at all                                                                               very engaging

How appealing was the presentation?

1                     2                     3                      4                       5
not at all                                                                               very appealing

How sympathetic did the presentation cause you to feel toward the people in the presentation?

1                     2                     3                      4                       5
not at all                                                                               very sympathetic
How much would you recommend the presentation to a friend?

1  2  3  4  5
not at all  very much

<Open-ended sentence completion>

Please finish the following statements as best you can.

After seeing this presentation, I think that people who live with serious mental illness
_____________________________________________________________________________________________
_____________________________________________________________________________________________
_____________________________________________________________________________________________

The part of the presentation that I found the most thought provoking was
_____________________________________________________________________________________________
_____________________________________________________________________________________________
_____________________________________________________________________________________________

The best part of the presentation was _____________________________________________
_____________________________________________________________________________________________
_____________________________________________________________________________________________
_____________________________________________________________________________________________

The person in the presentation who affected me the most was_________________________
___________________________________________________________________________
because_______________________________________________________________________________________
_____________________________________________________________________________________________
_____________________________________________________________________________________________

Please write any other comments below.
_____________________________________________________________________________________________
_____________________________________________________________________________________________
_____________________________________________________________________________________________
_____________________________________________________________________________________________
_____________________________________________________________________________________________
_____________________________________________________________________________________________
_____________________________________________________________________________________________

End.
Thank you for your participation.
Table 1. Demographic characteristics of participants

<table>
<thead>
<tr>
<th>Questionnaires completed</th>
<th>Time 1</th>
<th>Time 1 &amp; 2</th>
<th>Time 1,2 &amp; 3 **</th>
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</thead>
<tbody>
<tr>
<td>Sample size</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>544</td>
<td>379</td>
<td>303</td>
</tr>
<tr>
<td>Play</td>
<td>189</td>
<td>116</td>
<td>81</td>
</tr>
<tr>
<td>Video</td>
<td>176</td>
<td>122</td>
<td>99</td>
</tr>
<tr>
<td>No-intervention</td>
<td>179</td>
<td>141</td>
<td>123</td>
</tr>
<tr>
<td>Age in years (SD)</td>
<td>18.9 (1.84)</td>
<td>18.9 (2.02)</td>
<td>19.0 (2.22)</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>68%</td>
<td>70%</td>
<td>70%</td>
</tr>
<tr>
<td>Male</td>
<td>32%</td>
<td>30%</td>
<td>30%</td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caucasian</td>
<td>85.1%</td>
<td>84.7%</td>
<td>84.5%</td>
</tr>
<tr>
<td>African-American</td>
<td>7.6%</td>
<td>7.6%</td>
<td>8.6%</td>
</tr>
<tr>
<td>Hispanic/Latino-a</td>
<td>4.2%</td>
<td>5.3%</td>
<td>4.6%</td>
</tr>
<tr>
<td>Other</td>
<td>3.1%</td>
<td>2.4%</td>
<td>2.3%</td>
</tr>
<tr>
<td>Religious Affiliation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Protestant</td>
<td>14.2%</td>
<td>15.1%</td>
<td>17.2%</td>
</tr>
<tr>
<td>Catholic</td>
<td>41.6%</td>
<td>39.9%</td>
<td>38.9%</td>
</tr>
<tr>
<td>Other Christian</td>
<td>30.9%</td>
<td>31.5%</td>
<td>29.4%</td>
</tr>
<tr>
<td>Other</td>
<td>12.7%</td>
<td>13.0%</td>
<td>13.5%</td>
</tr>
<tr>
<td>None</td>
<td>0.6%</td>
<td>0.5%</td>
<td>1.0%</td>
</tr>
<tr>
<td>Year in College</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Freshmen</td>
<td>80.3%</td>
<td>80.7%</td>
<td>81.5%</td>
</tr>
<tr>
<td>Sophomore</td>
<td>14.9%</td>
<td>14.8%</td>
<td>14.2%</td>
</tr>
<tr>
<td>Junior</td>
<td>3.9%</td>
<td>3.7%</td>
<td>3.3%</td>
</tr>
<tr>
<td>Senior</td>
<td>0.9%</td>
<td>0.8%</td>
<td>1.0%</td>
</tr>
<tr>
<td>Theatrical Performance Attendance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>About once every few years</td>
<td>37.6%</td>
<td>34.4%</td>
<td>35.3%</td>
</tr>
<tr>
<td>About once a year</td>
<td>37.8%</td>
<td>41.3%</td>
<td>41.2%</td>
</tr>
<tr>
<td>About every few months</td>
<td>19.1%</td>
<td>18.0%</td>
<td>17.5%</td>
</tr>
<tr>
<td>About monthly</td>
<td>4.8%</td>
<td>5.3%</td>
<td>5.0%</td>
</tr>
<tr>
<td>About weekly</td>
<td>0.7%</td>
<td>0.8%</td>
<td>1.0%</td>
</tr>
<tr>
<td>Number of Theatrical Performances Participated in During the Last Five Years</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>49.1%</td>
<td>45.9%</td>
<td>46.5%</td>
</tr>
<tr>
<td>1-3</td>
<td>28.7%</td>
<td>32.2%</td>
<td>32.0%</td>
</tr>
<tr>
<td>4-6</td>
<td>7.7%</td>
<td>6.9%</td>
<td>5.6%</td>
</tr>
<tr>
<td>7-9</td>
<td>3.9%</td>
<td>3.7%</td>
<td>3.6%</td>
</tr>
<tr>
<td>10 or more</td>
<td>10.7%</td>
<td>11.3%</td>
<td>12.2%</td>
</tr>
</tbody>
</table>

**This sample used in all statistical analysis**
Table 2. Prior contact with mental illness

<table>
<thead>
<tr>
<th>Item of Level of Contact Report</th>
<th>Rank</th>
<th>% Sample Agreement</th>
</tr>
</thead>
<tbody>
<tr>
<td>I have never observed a person that I was aware had a serious mental illness.</td>
<td>1</td>
<td>4%</td>
</tr>
<tr>
<td>I have observed, in passing, a person I believe may have had a serious mental illness.</td>
<td>2</td>
<td>94%</td>
</tr>
<tr>
<td>I have watched a movie or television show in which a character depicted a person with a serious mental illness.</td>
<td>3</td>
<td>96%</td>
</tr>
<tr>
<td>I have seen a video about people with serious mental illness.</td>
<td>4</td>
<td>71%</td>
</tr>
<tr>
<td>I have watched a documentary on television about serious mental illness.</td>
<td>4</td>
<td>41%</td>
</tr>
<tr>
<td>I have watched a play about serious mental illness.</td>
<td>4</td>
<td>14%</td>
</tr>
<tr>
<td>I have observed persons with a mental illness on a frequent basis.</td>
<td>5</td>
<td>40%</td>
</tr>
<tr>
<td>I had a job working with people with serious mental illness.</td>
<td>6</td>
<td>22%</td>
</tr>
<tr>
<td>A friend of my family has a serious mental illness.</td>
<td>8</td>
<td>41%</td>
</tr>
<tr>
<td>I have a relative who has a serious mental illness.</td>
<td>9</td>
<td>31%</td>
</tr>
<tr>
<td>I live with a person who has a serious mental illness.</td>
<td>10</td>
<td>5%</td>
</tr>
<tr>
<td>I have a serious mental illness.</td>
<td>11</td>
<td>3%</td>
</tr>
</tbody>
</table>

*Results from sample completing measures at all three time points (n = 303)*
Table 3. Analysis of variance: Group comparisons on pre-intervention measures (Time 1)

<table>
<thead>
<tr>
<th>Scale</th>
<th>Total Mean (SD)</th>
<th>Live Mean (SD)</th>
<th>Video Mean (SD)</th>
<th>No-intervention Mean (SD)</th>
<th>F-test</th>
<th>F-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>MANOVA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAMI</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intolerance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Auth</td>
<td>2.53 (.32)</td>
<td>2.51 (.29)</td>
<td>2.57 (.33)</td>
<td>2.52 (.33)</td>
<td>0.88(2,299)NS*</td>
<td></td>
</tr>
<tr>
<td>Soc Restr</td>
<td>2.35 (.41)</td>
<td>2.35 (.31)</td>
<td>2.35 (.47)</td>
<td>2.35 (.40)</td>
<td>0.02(2,299)NS*</td>
<td></td>
</tr>
<tr>
<td>Tolerance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Benev</td>
<td>2.28 (.38)</td>
<td>2.33 (.40)</td>
<td>2.28 (.40)</td>
<td>2.25 (.38)</td>
<td>0.94(2,299)NS*</td>
<td></td>
</tr>
<tr>
<td>CMHI</td>
<td>2.41 (.46)</td>
<td>2.43 (.41)</td>
<td>2.38 (.51)</td>
<td>2.41 (.46)</td>
<td>0.33(2,299)NS*</td>
<td></td>
</tr>
<tr>
<td>ANOVA</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>BISS</td>
<td>3.65 (.57)</td>
<td>3.70 (.53)</td>
<td>3.57 (.59)</td>
<td>3.69 (.57)</td>
<td>1.45(2,299)NS*</td>
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<tr>
<td>MCS-8</td>
<td>1.97 (.50)</td>
<td>1.80 (.33)</td>
<td>2.04 (.55)</td>
<td>2.03 (.53)</td>
<td>6.52(2,299)**</td>
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</tr>
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</table>

*Not Significant
** p<.01
Table 4. Analysis of variance: Group comparisons on post-intervention measures (Time 2)

<table>
<thead>
<tr>
<th>Scale</th>
<th>Total Mean (SD)</th>
<th>Live Mean (SD)</th>
<th>Video Mean (SD)</th>
<th>No-intervention Mean (SD)</th>
<th>F value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MANOVA</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAMI</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Intolerance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Auth</td>
<td>2.44(.39)</td>
<td>2.32(.37)^e</td>
<td>2.46(.42)^g</td>
<td>2.50(.38)^bf</td>
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<td>2.36(.44)</td>
<td>2.25(.40)^ae</td>
<td>2.37(.47)^h</td>
<td>2.43(.42)^f</td>
<td></td>
</tr>
<tr>
<td>Tolerance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Benev</td>
<td>3.67(.41)</td>
<td>3.82(.37)^e</td>
<td>3.63(.47)^f</td>
<td>3.64(.36)^f</td>
<td>9.92**</td>
</tr>
<tr>
<td>CMHI</td>
<td>3.60(.50)</td>
<td>3.66(.51)^c</td>
<td>3.64(.47)^a</td>
<td>3.52(.50)^bd</td>
<td></td>
</tr>
<tr>
<td>ANOVA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BISS</td>
<td>3.65(.55)</td>
<td>3.79(.47)^c</td>
<td>3.54(.58)^d</td>
<td>3.64(.55)^d</td>
<td>5.25*</td>
</tr>
<tr>
<td>FRF</td>
<td>3.17(.84)</td>
<td>3.46(.65)</td>
<td>2.93(.90)</td>
<td>NA</td>
<td>20.15**</td>
</tr>
</tbody>
</table>

*p < .01
**p < .001

Note – Groups with different superscripts within each row differ significantly by the Least Significant Difference test:
a/b = p < .05
c/d = p < .01
e/f = p < .001
### Table 5. Analysis of variance: Group comparisons on post-intervention measures (Time 3)

<table>
<thead>
<tr>
<th>Scale</th>
<th>Total Mean (SD)</th>
<th>Live Mean (SD)</th>
<th>Video Mean (SD)</th>
<th>No-intervention Mean (SD)</th>
<th>F value</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAMI</td>
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<td></td>
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<tr>
<td>Intolerance</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Auth</td>
<td>2.44 (.39)</td>
<td>2.38 (.41)c</td>
<td>2.40 (.38)c</td>
<td>2.52 (.38)df</td>
<td>5.75**</td>
</tr>
<tr>
<td>Soc Restr</td>
<td>2.40 (.45)</td>
<td>2.34 (.43)c</td>
<td>2.32 (.44)f</td>
<td>2.51 (.45)df</td>
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<tr>
<td>Tolerance</td>
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<td></td>
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<tr>
<td>Benev</td>
<td>3.68 (.42)</td>
<td>3.72 (.44)a</td>
<td>3.65 (.42)b</td>
<td>3.67 (.40)b</td>
<td>4.66*</td>
</tr>
<tr>
<td>CMHI</td>
<td>3.55 (.50)</td>
<td>3.55 (.52)</td>
<td>3.66 (.45)</td>
<td>3.48 (.53)d</td>
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<tr>
<td>ANOVA</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>BISS</td>
<td>3.67 (.56)</td>
<td>3.75 (.52)</td>
<td>3.64 (.60)</td>
<td>3.64 (.55)</td>
<td>2.62 NS</td>
</tr>
<tr>
<td>FRF</td>
<td>3.23 (.80)</td>
<td>3.45 (.63)</td>
<td>3.02 (.87)</td>
<td>NA</td>
<td>15.50**</td>
</tr>
</tbody>
</table>

* *p < .01
** *p < .001

Note – Groups with different superscripts within each row differ significantly by the Least Significant Difference test
a/b: p < .05
c/d: p < .01
e/f: p < .001
Table 6. Pearson r correlation matrix for attitude and behavioral intention variables.

<table>
<thead>
<tr>
<th></th>
<th>Authoritarianism</th>
<th>Social Restrictiveness</th>
<th>Benevolence</th>
<th>CMHI</th>
<th>BISS</th>
<th>Prior Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Restrictiveness</td>
<td>.56***</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Benevolence</td>
<td>-.46***</td>
<td>-.46***</td>
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<tr>
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<td>-.42***</td>
<td>-.61***</td>
<td>.39***</td>
<td></td>
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<tr>
<td>BISS</td>
<td>-.39***</td>
<td>-.47***</td>
<td>.45***</td>
<td>.41***</td>
<td></td>
<td></td>
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<tr>
<td>Prior Contact</td>
<td>-.10</td>
<td>-.13*</td>
<td>.09</td>
<td>.14*</td>
<td>.17**</td>
<td></td>
</tr>
<tr>
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<td>-.07</td>
<td>.09</td>
<td>.07</td>
<td>.08</td>
<td>-.06</td>
</tr>
</tbody>
</table>

*** p < .001 (2-tailed)   ** p < .01 (2-tailed)   * p < .05 (2-tailed)

All correlations calculated from scores at Time 1 (baseline)
Figure 1. Mean scores of authoritarianism
Figure 2. Mean scores of social restrictiveness
Figure 3. Mean scores of benevolence
Figure 4. Mean scores of community mental health ideology
Figure 5. Mean scores of behavioral intentions
Figure 6. Mean scores of film rating form – full scale