CHANGING STUDENTS' PERCEPTIONS OF PEOPLE WITH MENTAL ILLNESS

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Research reveals negative attitudes toward people with mental illness among the general public and among people who work with this group. However, there is a dearth of literature on criminal justice and criminology students' attitudes toward this group. The present research reports on the measurement of criminal justice and criminology students' attitudes toward people with mental illness before and after a class on the criminalization of this group. Results reveal significantly more positive attitudes toward people with mental illness at the conclusion of the class. These results are encouraging; current criminal justice and criminology students are likely to encounter people with mental illness in their future field or academic work, and more positive attitudes are an important step in stigma reduction.

Keywords: people with mental illness; criminalization of mental illness; stigma; attitude measurement

INTRODUCTION

Negative attitudes toward people with mental illness are common among the general population. They also are distressingly common among professionals who work with this group in some capacity. However, education, even just a semester-long class, has been shown to be an effective way to improve attitudes toward people with mental illness. More positive attitudes toward this group is an important step toward stigma reduction. Curiously, though, measurement of criminal justice and criminology students' attitudes about people with mental illness and attempts to change negative attitudes through education are largely, if not totally, absent in the criminal justice and criminology literature. This is a strange omission, considering the fact that many people with mental illness become ensnared in the criminal justice system, thanks in large part to lack of support from the mental health system following nationwide deinstitutionalization, and people with mental illness are now a key concern for practitioners and academics alike. This study starts to overcome this void by reporting on criminal justice and criminology students' attitudes

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toward people with mental illness before and after a class on this group's involvement with the criminal justice system.

Attitudes Toward People with Mental Illness

Attitudes toward people with mental illness has been a topic of interest to researchers for some time. Link, Yang, Phelan, and Collins (2004) provide a list of 123 studies published just between 1995 and 2003 that each report on attitudes toward people with mental illness. About half of those studies were conducted with the general population or segments thereof. Among the general public, negative attitudes toward people with mental illness are evident. For example, Pescosolido, Monahan, Link, Stueve, and Kikuzawa (1999) used vignettes in their national sample of Americans that described people with and without mental illness and with and without substance abuse issues and asked respondents for estimations of dangerousness and competence. They found that the respondents' expectations for incompetence and likelihood of violence were higher when the person in the vignette was characterized as mentally ill. Similarly, using a random sample of households in Albany, New York, Steadman and Cocozza (1977/1978) found that respondents rated "mental patients" and "criminally insane mental patients" as significantly more dangerous and unpredictable than they rated "most people."

In their meta-analysis, Link et al. (2004) also found that about 20 percent of studies were conducted with professional groups of some kind and commonly with groups who are likely to have contact with people with mental illness. Negative attitudes toward people with mental illness are also evident among these groups. For example, Jegede (1976) found that student nurses rated "typical mental case" and "mad man" significantly more negatively than they rated "normal person." Kropp, Cox, Roesch, and Eaves (1989) found that correctional officers rated "mentally disordered prisoners" significantly more negatively than they rated "prisoners," "the mentally ill" and "most people." Ukpong and Abasiubong (2010) found that physicians, students, and other staff at a teaching hospital held negative attitudes toward people with mental illness, including the belief that they are a threat to public safety.

Other research with professional groups reveals that participation in classes or programs that focus on mental illness can serve to improve attitudes toward people with mental illness among participants. For example, Costin and Kerr (1962) found that authoritarian (i.e., people with mental illness are inferior and require coercive handling) and unsophisticated benevolent (i.e., people with mental illness should be infantilized and handled as such) attitudes toward people with mental illness decreased among students who completed an abnormal psychology class. Consistent with a handful of similar research conducted during this time period, Smith (1969) found that authoritarian and socially restrictive (i.e., need to restrict the activities of people with mental illness to preserve public safety) attitudes toward people with mental illness decreased among student nurses who participated in a psychiatric rotation at a hospital. Olade (1983) found that authoritarian and socially restrictive attitudes toward people with mental illness decreased, and mental hygiene ideology (i.e., mental illness is an illness like any other) increased among student nurses who participated in a program containing courses on mental health concepts.

Madianos, Priami, Alevisopoulos, Koukia, and Rogakou (2005) found that authoritarian and socially restrictive attitudes toward people with mental illness decreased, and both social integration ideology (i.e., people with mental illness should have equal social participation in everyday life) and etiological knowledge (i.e., an accurate understanding of what causes mental illness) increased among nursing students who participated in courses on and who had a clerkship in clinical psychology. Barney, Corser, and White (2010) found that attitudes indicative of fear and exclusion, lack of good will, and social control and isolation toward people with mental illness significantly decreased after participation in a class on psychopathology that featured service learning and reflection components.

Taken together, this research indicates that negative attitudes about people with mental illness can be improved through classroom and clinical education. Note, however, that this research focuses exclusively on nursing and psychology students. The increasing involvement of people with mental illness in the criminal justice system necessitates conducting similar work with criminal justice and criminology students.

The Criminalization of Mental Illness

The increasing involvement of people with mental illness in the criminal justice system has been called the criminalization of mental illness, and this phenomenon has its roots in deinstitutionalization (Slate, Buffington-Vollum, & Johnson, 2013). The process of deinstitutionalization, in which psychiatric hospitals began shuttering their doors and turning out patients, began in the United States in the middle of the 20th Century. The end of the era of the psychiatric hospital in America was spurred on by many factors, including belief in the effectiveness of psychiatric services delivered in the community; the advent of medications such as Thorazine; an anticipated cost savings resulting from community delivery of psychiatric services; and an increased concern with the civil rights of people with mental illness (Slate et al., 2013). However, community-based services did not materialize as planned and, beginning in the 1970s, hundreds of thousands of people with severe mental illness were released into the community with few services, few educational or job prospects, and little or no family support. In short order, strange behavior, illegal means of survival, and the public's perception of people with mental illness as dangerous and unpredictable (e.g., Steadman & Cocozza, 1977/1978) resulted in this group coming into frequent and repeated contact with the criminal justice system (see Lurigio, 2013 for a nuanced view of this process and its outcomes).

The evidence for the involvement of people with mental illness in the criminal justice system is abundant. Patch and Arrigio (1999) note that since the mid-20th Century, there has been an increase in the rate of arrest of people with mental illness. Bernstein and Seltzer (2003) report that people with mental illness are about twice as likely as those without mental illness to be arrested when they encounter a police officer; Teplin (2000) reports an even higher likelihood of arrest, 67 percent, for people exhibiting signs and symptoms of mental illness during encounters with the police compared to those not exhibiting such signs and symptoms.

The high number of arrests for people with mental illness has increased this population in our nation's jails and prisons. Jails and prisons throughout the country hold at least three to five times the number of people with mental illness than do state psychiatric hospitals (Lerner-Wren, 2000; Leifman, 2001; Fellner, 2006; Torrey, Kennard, Eslinger, Lamb, & Pavle, 2010).The largest psychiatric institutions in the United States are now the jails in Los Angeles, New York and Chicago (Fields & Phillips, 2013). Steadman, Osher, Clark Robbins, Case, and Samuels (2009) found that 14.5 percent of males and 31 percent of females in jail have current serious mental illness. This is a notable increase from the 6.4 percent reported by Teplin (1990). Wilper et al. (2009) found that 14.8 percent of state and 25.5 percent of federal prison inmates had a recent history of mental illness and that 30 percent of state and 26 percent of federal inmates were on psychotropic medication at the time of arrest. Once incarcerated, people with mental illness have longer stays in custody than those without mental illness (Solomon & Draine, 1995; Ditton, 1999; McPherson, 2008) and, with limited treatment available in jails and prisons, especially lack of transitional services, people with mental illness are more likely to recidivate upon release (Harris & Koepsell, 1996; Solomon, Draine, & Marcus, 2002; Herinckx, Swartz, Ama, Dolezal, & King, 2005; Prince, 2006; Morrissey, Cuddeback, Cuellar, & Steadman, 2007).

One serious consequence of the criminalization of people with mental illness is that it contributes to stigmatization of this group. Goffman (1961) was the first to formally recognize the stigmatization of people with mental illness. Link and Phelan (2001) explain that the process of stigmatization involves the labeling of differences (e.g., behavioral manifestations of symptoms); connecting those differences with stereotypes (e.g., people with mental illness are unpredictable and violent); defining "them" as an out-group solely by the negative features of the stereotype different from "us;" and finally, creating loss of status. Once present, stigma and its deleterious effects are observed at the macro level, a combination of the macro and micro levels, and at the micro level. At the macro level, stigma is manifested in policies and practices that diminish the rights of people with mental illness. At the combined macro and micro levels, stigma is manifested in the general public's fear about dangerousness and violence among people with mental illness. At the micro level, stigma is manifested in label avoidance and failure to seek treatment; the latter is also known as self-stigma (Corrigan, Markowitz, & Watson, 2004; Corrigan & Watson, 2002). The internalization of more macro level stigmas is distressing for people with mental illness (Hocking, 2003), and it can make them reluctant to seek treatment, the very treatment that has the potential to diminish or eliminate their contact with the criminal justice system. Slate et al. (2013) note that a crucial step to improving access to treatment for people with mental illness is the reduction in stigma, particularly at the macro level, which may then stimulate a reduction at the micro level.

Despite some promising initiatives from law enforcement, courts, and corrections to provide treatment for people with mental illness, the criminalization of people with mental illness is unlikely to fully abate in the near future (Slate et al., 2013). Therefore, it is highly likely that current criminal justice and criminology students will come into contact with people with mental illness in their future careers, whether as practitioners or as academics;

such is the reality of the 21st Century criminal justice system in the United States. We believe reductions in stigma toward people with mental illness can start in the classroom and that this is a crucial first step on the path toward the more humane treatment of people with mental illness in the criminal justice system and toward the eventual decriminalization of mental illness. In order to test our first notion, that negative attitudes toward people with mental illness among criminal justice and criminology students can be reduced through classroom education, we conducted the research described below. To our knowledge, this is the first such research conducted with these particular student populations.

METHODOLOGY

This research was conducted at a regional university in southern Texas that is a member of one of the large state university systems as well as at a private college in central Florida. At the university in Texas, students enrolled in a 4000-level elective class on offenders with mental illness in 2012 and 2014 were offered an opportunity to complete Steadman and Cocozza's (1977/1978) survey of attitudes toward people, people with mental illness, and offenders with mental illness at the start of and the conclusion of the 15-week course. Participation in the survey was voluntary and anonymous. At the college in Florida, students enrolled in a 3000-level elective class on the criminalization of mental illness over four semesters from 2009 to 2013 were offered an opportunity to complete Taylor and Dear's (1981) Community Attitudes Toward the Mentally Ill (CAMI) survey of attitudes toward people with mental illness and community-based mental health services at the start and the conclusion of the 15-week course. Participation in this survey was also voluntary and anonymous.

Steadman and Cocozza's (1977/1978) instrument contains 14 pairs of contrasting adjectives that were derived from previous studies (i.e., Nunally, 1961; Olmstead & Durham, 1976). Each pair of adjectives is presented on a continuum, and respondents are asked to rate groups of people on a scale of 1 to 7 where 1 indicates the least desirable adjective (e.g., dangerous) to describe a group, and 7 indicates the most desirable adjective (e.g., safe) to describe a group; the pairs of adjectives as they appear in the instrument are seen below in the Results section. The groups Steadman and Cocozza (1977/1978) ask respondents to rate on the 14 adjective pairings include "most people," "mental patients," and "criminally insane patients." Steadman and Cocozza (1977/1978) report high inter-item correlation, indicative of internal validity, from their random sample study conducted in Albany, New York. Taylor and Dear's (1981) CAMI survey contains 40 items that pertain to people with mental illness and to community-based mental health services that were derived from existing instruments, including the Opinions about Mental Illness (Cohen & Struening, 1962) and the Community Mental Health Ideology (Baker & Schulberg, 1967) surveys. The 40 items on the CAMI fall into four factors, authoritarianism, benevolence, social restrictiveness, and community mental health ideology (Taylor & Dear, 1981); the 40 items as they appear in the instrument are seen below in the Results section. Respondents rate each item on a five-point scale from strongly agree to strongly disagree. Half of the items are positively worded, so strong agreement with them indicates more positive at-

titudes toward people with mental illness and community-based services; the reverse is true for the negatively-worded items. Taylor and Dear (1981) report high levels of internal, external, construct, and predictive validity for this instrument from their random sample study conducted in the city of Toronto.

As alluded to, there are a variety of instruments available to measure attitudes toward mental illness and people with mental illness. We chose the aforementioned instruments for this research for a variety of reasons. First, we chose Steadman and Cocozza's (1977/1978) survey because it allows differentiation between people, people with mental illness, and offenders with mental illness. It has been used in other studies (e.g., Kropp et al., 1989). Moreover, in their meta-analysis, Link et al. (2004) support the use of semantic differential measures like Steadman and Cocozza's (1977/1978) because they provide a direct measure of the effects of stigma. We chose Taylor and Dear's (1981) CAMI survey because it reveals attitudes toward people with mental illness and toward community-based mental health services in the wake of deinstitutionalization. It has been used in other studies (e.g., Wolff, Pathare, Craig, & Leff, 1996; Prior, 2009; Ukpong & Abasiubong, 2010; Barney et al. 2010). Moreover, in their meta-analysis, Link et al. (2004) recognize the CAMI specifically as one of a handful of indispensable measures of attitudes toward people with mental illness. Finally, the use of two different instruments in this study helps to ensure that any weaknesses of one does not compromise the research as a whole.

Course Content

With some slight variations, the course content across the six semesters during which the surveys were administered was consistent. Courses delivered earlier (i.e., between 2009 and 2012) in the timeline of this research relied on Slate and Johnson's (2008) first edition of *The Criminalization of Mental Illness*; those delivered after 2012 relied on the second edition of *The Criminalization of Mental Illness* by Slate et al. (2013) as the central material. Both versions of this textbook are comprehensive in their coverage of key issues, including historical perspectives on mental illness and treatment, causes and effects of deinstitutionalization, police interventions for people with mental illness (e.g., Crisis Intervention Team), court interventions for people with mental illness (e.g., diversion, mental health courts), community and institutional correctional treatment, reentry into the community, and relevant legal cases.

We provided additional relevant readings, particularly to supplement the 2008 version of the textbook in later classes. We delivered lectures on the material in the textbook and the readings. We also showed videos (examples include police interactions with people with mental illness and people with mental illness in prison), had guest speakers and shared our own experiences to supplement readings and lectures. Assessments were fairly standard and included multiple choice exams, short papers, a presentation and a comprehensive final exam; probably the most innovative assessment we used for these courses was in class activities that required students to respond to a "what do you think" question (examples include "What do you think is the most important step to take to reduce the stigma surrounding mental illness?" "What do you think should happen to a defendant whose competency to stand trial is unlikely to ever be restored?" and "If you were going to plead NGRI [not

guilty by reason of insanity], what standard for insanity would you want applied to you? Would you want that same standard applied to others? Why or why not?"[1]). These questions gave students the opportunity to engage with the material in a more meaningful way.

RESULTS

As noted above, the data from the university in Texas came from administration of Steadman and Cocozza's (1977/1978) 14-item scale to 196 student respondents in two sections of a course on offenders with mental illness. The following results reveal analysis of those data, including sample description, comparison of means, factor analysis, and comparison of means on emergent factors. The sample at the university in Texas was over half female (55%), largely young (82% between the ages of 18 and 25), and overwhelmingly Hispanic (94%). This sample is demographically representative of the university at which this research was conducted.

Table 1. *Mean Ratings of People, PWMI and OWMI at the Start of the Course* (*N*=196)

Dimension[a]	Most People	People with Mental Illness (PWMI)	Offenders with Mental Illness (OWMI)
Dangerous/Safe	4.93	3.31	1.80
Harmful/Harmless	4.66	3.65	2.16
Violent/Nonviolent	4.51	3.89	2.25
Tense/Relaxed	3.62	2.15	1.94
Low Self-control/High Self-control	4.46	1.79	1.94[b]
Bad/Good	4.26	4.14[c]	2.45
Unpredictable/Predictable	4.30	1.80	1.80[d]
Mysterious/Understandable	3.92	1.96	2.21
Ignorant/Intelligent	3.61	4.20	3.75
Not Changeable/Changeable	4.10	3.59	3.16
Aggressive/Nonaggressive	4.00	3.74	2.28
High Sex Drive/Low Sex Drive	3.04	4.56	3.60
Weak/Strong	4.18	3.97[e]	4.51
Passive/Active	4.18	3.99[f]	4.75

Note. [a] On a scale of 1-7 where 1 indicates the most negative rating (e.g., dangerous) and 7 indicates the most positive rating (e.g., safe); higher scores are indicative of more positive perceptions
[b] Difference between PWMI and OWMI not significant at the .05 level
[c] Difference between most people and PWMI not significant at the .05 level
[d] Difference between PWMI and OWMI not significant at the .05 level
[e] Difference between most people and PWMI not significant at the .05 level
[f] Difference between most people and PWMI not significant at the .05 level

1 Instructor-generated materials are available from the corresponding author.

With the exception of the five nonsignificant findings noted in Table 1, respondents perceived most people significantly more positively than people with mental illness, and people with mental illness significantly more positively than offenders with mental illness at the start of the course. These findings are similar to those of Steadman and Cocozza's (1977/1978) as well as to Kropp et al.'s' (1989), who also used Steadman and Cocozza's (1977/1978) scale and reported that correctional officers had significantly more negative perceptions of "mentally disordered prisoners" than of "prisoners" or "people with mental illness."

Factor analyses were conducted to determine the most basic dimensions of the adjective pairs for the populations of greatest interest, people with mental illness and offenders with mental illness. Our scree plot indicated our data for people with mental illness loaded onto three factors, and the data for offenders with mental illness loaded onto two factors. The results of these analyses appear in Tables 2 and 3.

Table 2. *Factor Analysis for PWMI at the Start of the Course* (*N*=196)

Factor 1: Dangerousness	
Dangerous/Safe	.862
Violent/Nonviolent	.846
Harmful/Harmless	.796
Aggressive/Nonaggressive	.619
Tense/Relaxed	.422
Percent Variance Explained	**21.84**
Cronbach's Alpha	**.805**

Factor 2: Unpredictability	
Unpredictable/Predictable	.856
Mysterious/Understandable	.787
Low Self-control/High Self-control	.785
Weak/Strong	.431
Percent Variance Explained	**16.97**
Cronbach's Alpha	**.709**

Factor 3: Other Characteristics	
Ignorant/Intelligent	.759
High Sex Drive/Low Sex Drive	.670
Bad/Good	.607
Not Changeable/Changeable	.589
Percent Variance Explained	**16.4**
Cronbach's Alpha	**.660**

Table 3. *Factor Analysis for OWMI at the Start of the Course* (*N*=196)

Factor 1: Dangerousness and Unpredictability	
Dangerous/Safe	.875
Violent/Nonviolent	.867
Harmful/Harmless	.763
Aggressive/Nonaggressive	.761
Bad/Good	.751
Tense/Relaxed	.727
Low Self-control/High Self-control	.692
Unpredictable/Predictable	.641
Mysterious/Understandable	.569
Not Changeable/Changeable	.307
High Sex Drive/Low Sex Drive	.134
Percent Variance Explained	**37.08**
Cronbach's Alpha	**.867**

Factor 2: Other Characteristics	
Weak/Strong	.742
Passive/Active	.532
Ignorant/Intelligent	.312
Percent Variance Explained	**14.62**
Cronbach's Alpha	**.447**

Similar to Steadman and Cocozza's (1977/1978) findings, our factor analyses reveal that respondents distinguish people with mental illness from most people along two underlying concepts. The first of these concepts includes dangerousness, harmfulness, violence, tension, and aggression and is called dangerousness. The second of these concepts includes self-control, unpredictability, mysteriousness, and strength and is called unpredictability. Results further reveal that respondents distinguish offenders with mental illness from most people along one underlying concept that includes dangerousness, harmfulness, violence, tension, aggression, self-control, unpredictability, and mysteriousness. For offenders with mental illness, unpredictability is part of the perceived dangerousness of this group.

The final analysis with the data from the university in Texas utilized *t*-tests to examine changes in the mean responses on the two factors of interest for people with mental illness, dangerousness and unpredictability, and on the one factor of interest for offenders with mental illness, dangerousness combined with unpredictability. The items contributing to each factor as seen in Tables 2 and 3 were summed, and the means for each factor at the start of the course were compared to those for each factor at the conclusion of the course.

Table 4. *Comparison of Means on Factors Underlying PWMI and OWMI at the Start and Conclusion of the course* (*N*=196)

Factors	*M*[g]	*N*	*SD*	*t*	*df*	Sig. (2-tailed)
PWMI Factor 1 start of course	16.78	196	4.28	-10.37	195	.000
PWMI Factor 1 end of course	21.00	196	3.76			
PWMI Factor 2 start of course	9.37	196	2.96	-8.02	195	.000
PWMI Factor 2 end of course	11.77	196	3.56			
OWMI Factor 1 start of course	25.62	196	8.57	-8.62	195	.000
OWMI Factor 1 end of course	32.40	196	8.55			

Note. [g] The higher the mean score, the more positive the perception

Respondents had significantly more positive perceptions of both people and offenders with mental illness at the conclusion of the course than they did at the start of the course.

As noted above, the data from the college in Florida came from administration of the CAMI (Taylor & Dear, 1981) to 119 student respondents in four sections of a course on offenders with mental illness. The following results reveal analysis of those data, including sample description, factor analysis, and comparison of means on emergent factors. The sample at the college in Florida was largely comprised of white (82%), unmarried (79%), female (60%), upperlevel undergraduates (68%), majoring in criminology (61%), and reporting Christianity as their religious affiliation (67%). A vast majority of the respondents (80%) reported knowing at least one person who had been diagnosed with a mental illness. This sample is demographically representative of the college at which this research was conducted.

We used a scale of 1 to 5 on the CAMI where 1 indicated strong agreement and 5 indicated strong disagreement with an item. We reverse coded positively worded items on the CAMI so that overall, lower scores would be indicative of more negative attitudes toward people with mental illness. There is debate in the literature on whether items on the CAMI load onto three or four factors. As seen above, Taylor and Dear (1981) report loading onto four factors, authoritarianism, benevolence, social restrictiveness, and community mental health ideology. However, both Wolff et al. (1996) and Barney et al. (2010) report items loading onto three factors, fear and exclusion, lack of good will, and social control and isolation. Our scree plot indicated our data loaded onto three factors, consistent with both Wolff et al. (1996) and Barney et al. (2010).

Table 5. *Factor Analysis for the CAMI* (*N*=119)

Factor 1: Fear and Exclusion	**Factor Loading**
Local residents have good reason to resist the location of mental health services in their neighborhood	.744
Mental health facilities should be kept out of residential neighborhoods	.698
Less emphasis should be placed on protecting the public from the mentally ill*	.644
The mentally ill are far less of a danger than most people suppose*	.587
Residents should accept the location of mental health facilities in their neighborhood to serve the needs of the local community*	.577
Locating mental health services in residential neighborhoods does not endanger local residents*	.566
Residents have nothing to fear from people coming into their neighborhood to obtain mental health services*	.554
Having mental patients living within residential neighborhoods might be good therapy but the risks to residents are too great	.538
Most women who were once patients in a mental hospital can be trusted as babysitters*	.477
Mental illness is an illness like any other*	.460
As far as possible, mental health services should be provided through community-based facilities*	.434
I would not like to live next door to someone who has been mentally ill	.425
The mentally ill are a burden on society	.401
Anyone with a history of mental problems should be excluded from taking office	.393
The mentally ill should not be treated as outcasts of society*	.371
Percent Variance Explained	**15.09**
Cronbach's Alpha	**.886**
Factor 2: Lack of Good Will	
The best therapy for many mental patients is to be part of a normal community*	.775
The mentally ill should be isolated from the rest of the community	.662
Mental patients should be encouraged to assume the responsibilities of normal life*	.662
It is frightening to think of people with mental problems living in residential neighborhoods	.633
It is best to avoid anyone who has mental problems	.626
A woman would be foolish to marry a man who has suffered from mental illness, even though he seems fully recovered	.528
As soon as a person shows signs of mental disturbance, he should be hospitalized	.524
We need to adopt a far more tolerant attitude toward the mentally ill in our society*	.513
Locating mental health facilities in a residential area downgrades the neighborhood	.505
The best way to handle the mentally ill is to keep them behind locked doors	.483

No one has the right to exclude the mentally ill from their neighborhood*	.466
Our mental hospitals seem more like prisons than like places where the mentally ill can be cared for*	.458
Virtually anyone can become mentally ill*	.417
The mentally ill should not be denied their individual rights*	.416
Mental hospitals are an outdated means of treating the mentally ill*	.125
Percent Variance Explained	**14.43**
Cronbach's Alpha	**.875**
Factor 3: Social Control and Isolation	
More tax money should be spent on the care and treatment of the mentally ill*	.707
Increased spending on mental health services is a waste of tax dollars	.671
The mentally ill don't deserve our sympathy	.599
We have a responsibility to provide the best possible care for the mentally ill*	.590
There is something about the mentally ill that makes it easy to tell them from normal people	.571
The mentally ill have for too long been the subject of ridicule*	.561
One of the main causes of mental illness is a lack of self-discipline and will power	.501
There are sufficient existing services for the mentally ill	.495
The mentally ill should not be given any responsibility	.424
Mental patients need the same kind of control and discipline as a young child	.372
Percent Variance Explained	**12.89**
Cronbach's Alpha	**.810**

* Indicates item was reverse coded

The final analysis with the data from the college in Florida utilized *t*-tests to examine changes in the mean responses on each factor of the CAMI. The items contributing to each factor as seen in Table 5 were summed, and the means for each factor at the start of the course were compared to those for each factor at the conclusion of the course.

Table 6. *Comparison of Means on Factors Underlying the CAMI at the Start and Conclusion of the Course* (*N*=119)

Factors	***M*[g]**	***N***	***SD***	***t***	***df***	**Sig. (2-tailed)**
Factor 1 start of course	48.86	113	7.40	-20.04	112	.000
Factor 1 end of course	58.19	113	8.30			
Factor 2 start of course	51.77	112	7.90	-12.07	111	.000
Factor 2 end of course	60.19	112	6.60			
Factor 3 start of course	36.31	116	5.25	-13.68	115	.000
Factor 3 end of course	41.49	116	4.76			

[g] The higher the mean score, the more positive the perception

Respondents had significantly more positive perceptions of people with mental illness as well as of community-based mental health services at the conclusion of the course than they did at the start of the course.

DISCUSSION

Our results indicate that criminal justice and criminology students' attitudes toward people with mental illness, offenders with mental illness, and community-based mental health services were significantly more positive at the conclusion of our classes than they were at the beginning. These outcomes were unaffected by choice of instrument or research location. As noted, this is believed to be the first such research undertaken with these specific student groups, and the results are encouraging. Many of our current students will go on to field work in law enforcement, courts, or corrections or go on to further academic study; in all of these cases, the nature of the current criminal justice system in the United States makes it reasonable to expect that they will encounter some of the many people with mental illness within that system in the course of their careers. Our students' more positive attitudes toward people with mental illness may help to promote more humane treatment of this group within the criminal justice system, as well as the eventual decriminalization and destigmatization of this group.

In this article, we have delineated an effective in-classroom approach to producing desirable changes in students' attitudes toward people with mental illness. It is important to note that while we each have varying and not negligible degrees of experience with people with mental illness, this experience is not necessarily a requirement for developing and delivering a similar course. We believe that faculty with an interest in and passion for this can develop and deliver courses that produce outcomes similar to those seen here.

Limitations and Some Future Directions

There are a number of limitations to the current research. First, it is possible that students with already positive attitudes toward people with mental illness self-selected into our courses based on their titles and/or descriptions in the course catalogs. The significant improvement overall in students' attitudes toward people with mental illness reported above serve to challenge this potential limitation, but we nevertheless acknowledge its presence. Future research that utilizes a control class from a different department (similar to Costin & Kerr, 1962) would reveal the extent to which criminal justice and criminology students have positive attitudes toward people with mental illness prior to any coursework on the subject. Similarly, it is possible that a social desirability bias may have been in effect when students completed the survey at the conclusion of the class. In other words, students may have indicated positive attitudes about people with mental illness that they did not genuinely hold because, after 15 weeks, they thought they were supposed to hold these attitudes or because they feared judgment for not holding them. We believe the anonymous nature of the surveys is an effective countermeasure and note that Link et al. (2004) found little evidence for social desirability bias in their meta-analysis of studies on attitudes toward people with mental illness. Nevertheless, we recognize social desirability bias as a potential limitation of this study; future research could provide the option of completing

both the pre- and post-course surveys outside the presence of the instructor to further minimize this concern.

While we believe our choice of instruments for this study is well justified, we nevertheless acknowledge that it is possible that students who completed Steadman and Cocozza's (1977/1978) instrument were willing to rate all groups differently at the end of the course and that any desirable changes in attitude toward people and offenders with mental illness were due more to a willingness to rate all groups differently and not to genuine shifts in attitude. In this case, these concerns are founded. There were significant differences on respondents' ratings of most people on 5 of the 14 adjective pairs at the conclusion of the class as compared to the beginning; all post-course ratings indicated more positive attitudes toward this group. However, the simultaneous use of the CAMI in this research helps confirm that changes in students' attitudes toward people with mental illness are not artifactual. Future research could be augmented with additional measures of attitudes toward mental illness that are not subject to the same potential confound as Steadman and Cocozza's (1977/1978), possibly including Cohen and Struening's (1962) Opinions about Mental Illness (OMI) scale, which has been used extensively by researchers (e.g., Costin & Kerr, 1962; Smith, 1969; Levine, 1972; Olade, 1983; Madianos et al., 2005). Moreover, Link et al. (2004) note the OMI is an ideal instrument for comparisons over time, which is clearly of interest to us.

A final future direction for this research is the delivery of a course on the criminalization of people with mental illness in an online format. Online offerings in higher education are becoming increasingly common in general (Gray, 2013) and in criminal justice and criminology in particular (Hummer, Sims, Wooditch, & Salley, 2010). Even though this has been the trend for some time, there are lingering questions about the effectiveness of this delivery format (Pelfrey & Bubolz, 2014). It would be interesting to find out if the same desirable changes in students' attitudes toward people and offenders with mental illness observed in the face-to-face classroom setting could be achieved in the online setting as well. If online education is an effective way of producing these desirable attitude changes, reaching more students more often becomes a distinct possibility.

CONCLUSION

We have demonstrated that criminal justice and criminology students' attitudes about people and offenders with mental illness can be improved during a face-to-face course on the criminalization of people with mental illness. We are encouraged by our results because current criminal justice and criminology students are very likely to encounter people with mental illness, whether they go into the field or into academia, and having positive attitudes toward this group is an important step in stigma reduction and ultimately more humane treatment. We encourage faculty with a knowledge of and—just as importantly—a passion for this topic to develop and deliver similar courses so that the impact of this education is that much more widespread.

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