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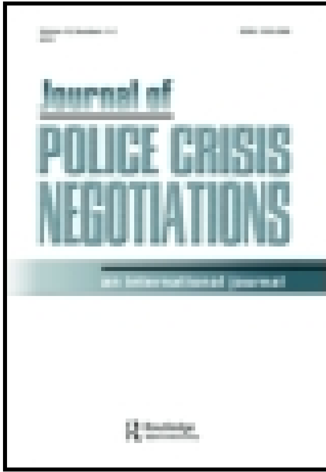

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Crisis Intervention Team (CIT) Training: Selection Effects and Long-Term Changes in Perceptions of Mental Illness and Community Preparedness

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Crisis Intervention Team (CIT) Training: Selection Effects and Long-Term Changes in Perceptions of Mental Illness and Community Preparedness

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Survey data were used to assess how training affects changes in officers' perceptions of persons with mental illness as well as perceptions of police and the mental health system's preparedness in addressing their needs. Officers' confidence in their ability to handle calls involving people with mental illness in crisis increased most over time. Exploratory analysis indicated that this increase was positively associated with the pretraining degree to which people with mental illness in crisis present a problem for the police department. This increase was positively associated with the perception that the police department's overall effectiveness in meeting the needs of people with mental illness in crisis and negatively associated with the degree to which mental illness was believed to be caused by parental upbringing. These findings suggest that initial salience of the problem for the police department posed by those with mental illness is critical to CIT officer eventual "success."

KEYWORDS Police, Crisis Intervention Team training, mental illness, preparedness

INTRODUCTION

The Crisis Intervention Team (CIT) program has been implemented in more than 1,000 communities (CIT International, 2009). However, assessments of the effects of the CIT program are limited (Compton, Bahora, Watson,

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& Oliva, 2008; Reuland, Schwarzfeld, & Draper, 2009; Watson, Morabito, Draine, & Ottati, 2008). In this article, we add to this literature by examining the effects of CIT training on police officers' beliefs about mental illness and their preparedness to deal effectively with people in a mental illness crisis.

In the following sections, we briefly discuss the need for specialized police response as a result of the increase in interactions of people with mental illness with the criminal justice system. Then we describe the CIT program and how it prepares law enforcement officers to respond more appropriately to individuals with mental illness in crisis. We also discuss attitudes about mental illness and the perceived effectiveness of the officers and the department in responding to such situations. We then present data comparing law enforcement officers who did not participate in CIT with other officers who volunteered for the program. Finally, we present our findings from a longitudinal survey of CIT officers, comparing their attitudes and opinions before participating in CIT with their attitudes and opinions at least 1 year after the training. The purpose of this article is to better understand how CIT training and experience impacts officers' attitudes and opinions about mental illness and their own abilities to respond to individuals with mental illness in crisis.

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CONTACTS BETWEEN PEOPLE WITH MENTAL ILLNESS AND THE CRIMINAL JUSTICE SYSTEM

There is an overrepresentation of people with serious mental illness in jails and prisons throughout the United States (Ditton, 1999; James & Glaze, 2006; Steadman, Osher, Robbins, Case, & Samuels, 2009). This phenomenon, often referred to as the "criminalization of the mentally ill," is a national problem (Hiday, 1991, 1999; Munetz, Grande, & Chambers, 2001; Teplin, 1984b; Teplin, Abram, McClelland, Dulcan, & Mericle, 2002; Torrey et al., 1992). For example, in Ohio there are over three times more people with severe mental disorders in state prisons than state hospitals (Ohio Department of Mental Health, 2007). In 2007, approximately 8.5% of the more than 50,000 prisoners were considered to have severe mental illness (Ohio Department of Mental Health, 2007; Supreme Court of Ohio, 2007) and estimates were that twice that number had a less-severe mental illness (James & Glaze, 2006).

Specialized Response

Police-based specialized response could serve to reduce the involvement of people with mental illness and the criminal justice system (Oliva & Compton, 2008). This involves diversion to mental health services in lieu of arrest for those individuals whose criminal or deviant behavior is thought to be caused

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by mental illness. Specialized police response training is designed to increase officer awareness of community options, increase police knowledge of mental illness, and decrease stigma towards persons with mental illness (Bahora, Hanafi, Chien, & Compton, 2008; Compton, Esterberg, McGee, Kotwicki, & Oliva, 2006; Reuland, 2004). Officers who are trained will be better able to divert, when appropriate, people experiencing mental illness crises, thus reducing the number of people involved in the "revolving door of the criminal justice system" (Munetz & Griffin, 2006). Specialized response interventions have the potential to redirect criminal justice-involved persons with mental illness to treatment as appropriate, which would positively affect the use of scarce community resources and improve community, officer, and public safety.

One such training program for specialized law enforcement response teams is based on the Memphis Crisis Intervention Team (CIT) program (City of Memphis, 1998; Cochran, Deane, & Borum, 2000; Compton et al., 2008; Deane, Steadman, Borum, Veysey, & Morrissey, 1999; Steadman, Deane, Borum, & Morrissey, 2000; Teller, Munetz, Gil, & Ritter, 2006). This program includes 40 hr of training involving the recognition of characteristics of mental illness, techniques to de-escalate situations involving people with mental illness, and information concerning local community mental health services and resources. The CIT program is designed to alter attitudes about persons with mental illness and to provide officers with skills to more effectively deal with encounters involving mental illness. Ideally, officers who participate in CIT are volunteer officers who exhibit compassion for and a willingness to learn about and engage with individuals with mental illness.

Beliefs About Mental Illness and Preparedness

Research has shown that misconceptions and inaccurate attitudes about persons with severe mental illnesses negatively affect the lives of persons with such disorders (Link, Cullen, Struening, Shrout, & Dohrenwend, 1989). One way to influence these negative attitudes about mental illness and a preference for social distance from individuals with mental illness is to address the fears and concerns and the potential for violent behavior (Angermeyer, Matschinger, & Corrigan, 2003; Sosowsky, 1980; Steadman, 1981). Researchers have argued that the risk of danger associated with severe mental disorder is modest relative to the risk associated with gender, age, education, and previous history of violence (Davis, 1991; Link, Andrews, & Cullen, 1992; Link & Stueve, 1994; Manzoni & Eisner, 2006; Marzuk, 1996; Monahan, 1992; Naples & Steadman, 2003; Penn, Kommana, Mansfield, & Link, 1999; Swanson et al., 2006). When provided with accurate information about the relative risk of violence, people perceive persons with mental illness as less dangerous (Penn et al., 1999).

Officers' attitudes and beliefs influence interactions with persons with mental illness, thereby affecting the dispositions of the calls (Watson & Angell, 2007; Watson, Corrigan, & Ottati, 2004). Beliefs that the onset of a mental illness is under the individual's control or that an individual with mental illness is dangerous have been associated with avoidance, withholding help, or endorsement of coercive treatment (Corrigan, Markowitz, Watson, Rowan, & Kubiak, 2003). On the other hand, a belief that mental illness is a life-long process may result in transport to a psychiatric emergency room or referral to a mental health facility instead of arrest or even a "no action" disposition (Strauss et al., 2005).

The amount of discretion the officers have, the options within the criminal justice system available to the officers, and the degree of knowledge that police officers have about these resources can affect the interactions between police officers and individuals with mental illness in crisis (Bittner, 1967; Green, 1997; Lamb, Weinberger, & DeCuir, 2002; Morabito, 2007; Patch & Arrigo, 1999). The options available to officers outside the criminal justice system also affect the outcome of the interaction (Teplin, 1984a, 2000; Teplin & Pruett, 1992). Educating officers to recognize the symptoms, causes, and treatment of mental illness and to understand the relative risk of violence, while equipping them with de-escalation techniques, may result in interactions with the police that less negatively impact people with mental illness (Watson, Angell, Morabito, & Robinson, 2008). CIT training is a program that gives officers such an education. Specifically, CIT aims to increase officers' knowledge and awareness of the mental health treatment system, its resources and services, and the availability of emergency psychiatric services in order to influence officers' decisions on scene.

CIT may also impact the officer's perceptions of his/her own level of preparedness to respond to individuals with mental illness in crisis. A study by Wells and Schafer (2006) revealed that police officers recognized the extent of their dealings with consumers of mental health services, indicating that these interactions increased their work load and that they lacked confidence in these interactions. Officers also indicated that they needed additional training on responding to those with mental illness and more awareness of available services (Wells & Schafer, 2006). Through training, officers are better able to recognize mental illness, learn of available services, and learn techniques. These techniques improve the officer's ability to effectively handle and de-escalate situations (Hanafi, Bahora, Demir, & Compton, 2008). Training, particularly in the framework of building a crisis response team (i.e., CIT), improves officers' use of body language, active listening, and communication skills (McMains, 2002), thus potentially improving the effectiveness of officers in responding to such calls. CIT was rated more favorably and perceived as more effective for community safety and keeping people with mental illness out of jail when compared to other mental health response teams (Borum, Dean, Steadman, & Morrissey, 1998).

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The analysis of officers' beliefs and opinions about their perceived level of preparedness and effectiveness, and the extent to which attitudes are shaped by the program and experiences, is of academic as well as applied value.

The current study had three research questions. The first was to assess how officers who volunteered to participate in CIT training differed from those who did not. That is, we examined if there were characteristics of officers that led them to volunteer for the program. The second question was to assess the impact that CIT training and subsequent experiences as a CIT-trained officer had on officers' perceptions of dangerousness, nature of the problem, causal attributions, and social distance by examining changes over time in a group of officers surveyed before CIT training and after at least 1 year of experience. The third research question was an exploration of the factors that influenced CIT officers' opinions about their own preparedness to respond to crises involving individuals with mental illness.

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METHODS

Procedure

In the Midwestern city where the research was conducted, the CIT program began in 2000. Officers volunteer for the training program and receive no incentives (such as increased pay) to participate. Upon volunteering for the program, the officers are assessed by the CIT coordinator on motivation, motives, and previous job performance before participation in the training. For this study we used a self-administered questionnaire given to police officers prior to being trained in CIT (pre-CIT) and officers who did not express an interest in CIT training. These non-CIT officers were recruited for this study with questionnaires placed in their mailboxes with an explanation by the CIT coordinator at the beginning of each shift on a day prior to the start of the training program. Officers from this group who subsequently participated in the CIT program at any time during the study period were removed from the data set. The pre-CIT trained officers were recruited by research personnel for this study prior to the start of their training (classes of 2000, 2001, 2002 and 2003) at the first session of training. We obtained complete data for 45 non-CIT officers and 65 pre-CIT officers. We tried to reach as many non-CIT officers as possible but unfortunately have no record of how many questionnaires were distributed in the department of more than 450 officers. The response rate is most certainly low. However, 69 pre-CIT-trained officers were invited to participate in the study for a response rate of 94% for this group. They were asked to complete a second survey at a follow-up training in 2003, at least 1 year after initial training. We obtained follow-up data on 38 CIT officers.

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Measures

We assessed the attitudes held by police officers using various instruments: stigma as measured by social distance and causes of mental illness and nature of the problem from the MacArthur Mental Health Module (Link, Phelan, Bresnahan, Stueve, & Pescosolido, 1999; Martin, Pescosolido, & Tuch, 2000), stigma measured as perception of dangerousness (Penn, et al., 1999), the Opinions About Mental Illness (OMI) Questionnaire (Cohen & Struening, 1962; Struening & Cohen, 1963), and department effectiveness and officer preparedness (Borum et al., 1998).

A vignette representing a man with schizophrenia based on the MacArthur Mental Health Module was presented to the officers.[1] Social distance from the person depicted was measured using a scale composed of six statements to indicate preferences of social/interactional distance from people with schizophrenia (Link et al., 1999). Officers indicated, for example, how willing they would be to move next door to the person or make friends with that person (see Appendix for complete listing). Responses of "definitely willing," "probably willing," "probably unwilling," and "definitely unwilling" were coded 1 through 4 and combined to produce a summative scale of preferences for social distance from people with schizophrenia ranging from 6 (*low social distance/stigma*) to 24 (*high social distance/stigma*). Cronbach's alpha internal consistency reliability coefficient for the six-item scale was 0.88.

Attributions of the causes of the mental health problem of the vignette's subject were assessed by six Likert-type items referencing medical/genetic, social, and moral/individual causes of the condition. The officers were asked to indicate how likely it was that the person's situation might be caused by (a) his own bad character, (b) a chemical imbalance in the brain, (c) the way he was raised, (d) stressful circumstances in his life, (e) a genetic or inherited problem, and (f) God's will. Responses were "not at all likely," "not very likely," "somewhat likely," or "very likely" and were coded from 1 to 4.

The nature of the problem was composed of three questions, coded from 1 (*not at all likely*) to 4 (*very likely*), which asked the likelihood of that person experiencing a mental illness, a physical illness, and a nervous disorder. The responses were not mutually exclusive, meaning that a respondent could indicate the likelihood that the vignette subject was experiencing one or more conditions.

Also from the 1996 MacArthur Mental Health Module were 17 items of yes/no questions to agree or disagree with possible future actions by or legal requirements for the person depicted in the vignette, which we label "opinions about the situation" variables. For example, officers were asked if they believed that the situation would improve with treatment or if the person depicted in the vignette should talk with family and friends (see Appendix).

The dangerousness scale was composed of four statements to indicate the perception of danger posed by the person described in the vignette (Penn et al., 1999). Officers were asked to indicate whether, and to what extent, they agreed or disagreed with the statements: (a) the person is dangerous, (b) the person is unpredictable, (c) one can't tell what the person will do from one moment to the next, and (d) it is dangerous to forget for a moment that the person is dangerous. Responses of "strongly disagree," "somewhat disagree," "slightly disagree," "no opinion," "slightly agree," "somewhat agree," and "strongly agree" were coded 1 through 7 and combined to form a summative scale ranging from 4 (*low perception of danger)* through 28 (*high perception of danger*). Cronbach's alpha internal consistency reliability coefficient for the four-item scale was 0.84.

The OMI scales were derived from responses to 32 Likert-type opinion items (Antonak & Livneh, 1988; Cohen & Struening, 1962; Struening & Cohen, 1963). The 32 responses were organized into three factorially-derived subscales: Authoritarianism (11 items), Benevolence (14 items), and Interpersonal Etiology (7 items) (see Appendix for item listing). Officers indicated whether, and to what extent, they agreed or disagreed with the statements, such as "nervous breakdowns usually result when people work too hard" or "mental illness is an illness like any other." Responses of "strongly agree," "agree," "not sure, but probably agree," "not sure, but probably disagree," "disagree," and "disagree strongly" were coded 1 to 6.

Officers gave their opinions about various aspects of police work (Borum et al., 1998). The responses ranged from 1 (*not at all*) to 4 (*very*). These questions concerned their own, fellow officers', the mental health system's, psychiatric emergency services', and their department's overall effectiveness. They were also asked about their department's effectiveness in keeping people with mental illness out of jail, minimizing the amount of time spent on calls involving this population, and how much of a problem people with mental illness in crisis presented for their department.

Other information provided was on race (1 = White, 0 = other), gender (1 = male, 0 = female), and age (in years). In addition, we included measures of rank (1 = patrol officer; 0 = other, higher rank), years as a police officer in the study city, and the number of encounters with people with mental illness in crisis during the last 30 days.

For the analysis, we first provide descriptive data on the sample of pre-CIT officers. We then assess selection effects for CIT officer training to address the first research question. To address the second question, we assess changes on each measure for the CIT officers just prior to the beginning of their training to their scores at follow-up 1 to 3 years after training. We also consider factors that affect attrition from baseline to follow-up for the CIT officers. Finally, we explore which measures affect changes in officer's assessment of their preparedness from pretraining levels to follow-up.

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RESULTS

The means and standard deviations of all study variables for the 65 pre-CIT officers are presented in Table 1. As shown in this table, the officers were about 32 years old, had been an officer for about 6 years, were mostly male (85%) and White (83%), and tended to be patrol officers (84%). On average, they had about seven encounters in the last 30 days with someone they believed had mental illness. Means and standard deviations for the balance of the 46 study variables are also presented.

Because of space limitations, Table 2 includes only mean values for the variables that are significantly different for (a) non-CIT officers and pre-CIT officers before training, or (b) pre-CIT officers and CIT officers after training. The first and second data columns are used to determine selection into training effects using *t*-test for independent samples. The third and fourth data columns are used to assess changes over time for CIT officers for the 12–36-month period between baseline and follow-up using paired *t*-tests.

As shown in the third and fourth data columns of Table 2, we obtained complete follow-up questionnaires from 38 of the 65 CIT officers. Analysis of attrition indicated that those followed-up differed from those not followed-up on only three variables. Those lost to attrition had higher scores on the baseline perceived dangerousness scale, and a significantly lower proportion of them thought that the person described in the vignette should be forced to take prescription medications and forced to be admitted to a hospital (data not shown).

Our first research question assessed the differences between officers who did and did not participate in CIT during the 4-year period of our study. As shown in the first two data columns of Table 2, only 4 of the 31 variables dealing with perceptions of mental illness differed by officer groups. Of the preparedness variables, 2 of the 8 were different. Officers who volunteered for CIT were more tolerant (lower social distance) and were less likely to think that the behavior described in the vignette was caused by parental upbringing. A higher proportion thought that the person in the vignette should join a self-help group or go to a natural healer. Pre-CIT officers were also less likely to report that they and their fellow officers felt prepared to handle incidents involving people with mental illness in crisis. Overall, there were few differences between the two groups. However, perceived lack of officer preparedness seems to be a stronger selection factor for training than perceptions of persons with mental illness.

Our second research question was to examine differences between officers before and after CIT training (with 1–3 years of experience as a CIT officer). The third and fourth data columns of Table 2 show significant changes in few of the perceptions about mental illness (4 of the 31 measures) and in most of the preparedness items (6 of 8). We found that, after training and with experience, officers' beliefs that interpersonal etiology affected mental

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TABLE 1 Means and Standard Deviations of Characteristics and Opinions of Pre-CIT Officers ($N = 65$)

	Mean	*SD*
Experience		
Number of mental illness encounters the past 30 days	7.49	9.804
Years as an Akron Police Officer	5.78	5.017
Rank (1 = patrol person)	0.84	0.363
Demographics		
Age (in years)	32.43	6.415
Race (1 = White)	0.83	0.378
Gender (1 = male)	0.85	0.364
Stigma		
Social distance	17.97	3.663
Dangerousness	20.82	4.756
Opinions About Mental Illness scales		
Authoritarianism	27.62	5.311
Benevolence	63.77	5.503
Interpersonal Etiology	12.83	3.267
Causal attributions[a]		
Chemical imbalance	3.45	0.730
Stressful circumstances	2.97	0.585
Genetic problem	2.89	0.710
Way raised	1.66	0.795
God's will	1.40	0.740
Bad character	1.37	0.517
Nature of problem[a]		
Mental illness	3.72	0.451
Nervous disorder	2.89	0.850
Physical illness	2.14	0.899
Opinions about situation[a]		
Improve with treatment[b]	3.49	0.590
Improve on its own[b]	1.54	0.614
Talk with family and friends[c]	0.98	0.124
Go to a therapist[c]	0.98	0.124
Forced hospitalization if danger to self[c]	0.98	0.124
Forced hospitalization if danger to others[c]	0.97	0.174
Go to psychiatrist[c]	0.94	0.242
Talk to religious leader[c]	0.89	0.312
Take prescription medicines[c]	0.89	0.312
Check into mental hospital[c]	0.89	0.312
Join self-help group[c]	0.84	0.363
Forced treatment[c]	0.78	0.414
Go to a general medical doctor[c]	0.75	0.434
Forced to take prescription medication[c]	0.73	0.445
Forced to be admitted to a hospital[c]	0.62	0.490
Go to a natural healer[c]	0.39	0.488
Take non-prescription medications[c]	0.15	0.364
Officer preparedness		
Self prepared to handle incidents[b]	2.31	0.557
Other officers prepared to handle incidents[b]	2.20	0.536
Opinions about department and mental illness		
Amount of problem presented[d]	2.95	0.717
Effectiveness maintaining community safety[b]	2.91	0.678
Helpfulness of psychiatric emergency room[b]	2.78	0.819
Effectiveness in meeting needs[b]	2.52	0.664
Helpfulness of mental health system[b]	2.48	0.731
Effectiveness in keeping out of jail[b]	2.42	0.703
Effectiveness in minimizing call time[b]	2.17	0.601

[a]based on schizophrenia vignette. [b]1 = not at all, 4 = very. [c]1 = yes. [d]1 = none, 4 = very.
$^{*}p \leq .05$. $^{**}p \leq .01$. $^{***}p \leq .001$.

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TABLE 2 Significant Difference in Means by Officer Study Groups

	Non-CIT	Pre-CIT		Post-CIT
	($n = 45$) Mean	($n = 65$) Mean	($n = 38$) Mean	($n = 38$) Mean
Stigma				
Social distance	19.43	17.97*	17.51	17.18
Opinions About Mental Illness scales				
Interpersonal Etiology	13.01	12.83	13.42	12.00**
Causal attributions				
Way raised	2.00	1.66*	1.68	1.61
Nature of the problem				
Nervous disorder	2.96	2.89	2.85	2.45**
Opinions about situation				
Talk to religious leader[a]	0.91	0.89	0.92	0.76*
Check into mental hospital[a]	0.80	0.89	0.97	0.74**
Join self-help group[a]	0.68	0.84*	0.92	0.84
Go to a natural healer[a]	0.21	0.39*	0.35	0.34
Officer preparedness				
Self prepared to handle incidents[b]	2.67	2.31**	2.26	3.34***
Other officers prepared to handle incidents[b]	2.71	2.20***	2.18	2.63**
Opinions about department and mental illness				
Helpfulness of mental health system[b]	2.42	2.48	2.50	3.00***
Effectiveness in meeting needs[b]	2.64	2.52	2.47	2.95***
Effectiveness in keeping out of jail[b]	2.52	2.42	2.34	2.79**
Effectiveness in minimizing call time[b]	2.11	2.17	2.08	2.68***
Experience				
Rank (1 = patrol person)	0.95	0.84*		

[a]1 = yes. [b]1 = not at all, 4 = very.
*$p \leq .05$. **$p \leq .01$. ***$p \leq .001$.

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illness were reduced. CIT officers responded that the nature of the problem was less likely to be attributed as a nervous disorder. Fewer officers believed that the person depicted in the vignette should check into a mental hospital or speak with a religious leader. In terms of preparedness, training, and experience, CIT officers believed the mental health system was more helpful and the department was more effective in meeting the needs of and keeping persons with mental illness in crisis out of jail than they did pretraining. In comparison to their opinions pre-CIT training, officers believed that their fellow officers were more prepared to handle calls with persons with mental illness. The largest change, however, was in the extent to which the officers themselves felt prepared to handle incidents involving people with mental illness in crisis. The increase in the mean score from 2.26 to 3.34 represents a change from about 26% to 97% feeling at least moderately prepared.

The final research question involved an exploratory analysis of the factors associated with officers' feelings of preparedness. This analysis is exploratory because (a) it is not based on prior research findings or conceptualizations and (b) our sample is small with only 38 CIT officers so that

TABLE 3 Regression Analysis Predicting Follow-Up Interview Self-Preparedness to Handle People with Mental Illness

	Model 1		Model 2	
	B	*SE*	B	*SE*
Initial interview				
Self prepared to handle incidents	0.255	0.169	0.058	0.135
Amount of problem presented to department	0.392***	0.112	0.315***	0.090
Follow-up interview				
Department's effectiveness in meeting needs			0.329**	0.106
Way raised			−0.248**	0.087
Intercept	1.621	0.466	1.717	0.474
Adjusted R^2	0.285		0.580	

* $p \leq .05$. **$p \leq .01$. ***$p \leq .001$.

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we could only consider the effects of four independent variables. For this analysis, officer preparedness at follow-up was our dependent variable. We explored various groupings of variables three at a time after controlling for the pre-CIT measure of preparedness. These results are presented in Table 3. The first data column includes only the initial (pre-CIT) variables, and the second column adds the follow-up (post-CIT) variables to the equation. As shown, controlling for baseline officer preparedness, the extent to which people with mental illness in crisis were considered a problem for the department prior to training and the degree to which officers believed that the department was effective in meeting the needs of people with mental illness in crisis are both positively associated with changes to officer preparedness. The degree to which the behavior described in the vignette is thought to be caused by the way the vignette subject was raised was negatively associated with changes in self-preparedness over the 1–3 year period to follow-up.

DISCUSSION

The CIT model was developed to increase officer effectiveness so that encounters with people in mental illness crises are less dangerous for the officer, the person with mental illness, and the community at large (Watson et al., 2008). It has also come to be viewed as a prearrest diversion program, with the goal of reducing arrests and increasing referrals to treatment (Munetz & Griffin, 2006). More recently, it has been conceptualized as also being a case-finding program, bringing to the mental health system people in need of treatment who may not particularly be at risk for arrest (Teller et al., 2006).

It is not clear what the critical components of a CIT program are to achieve these goals. The original Memphis model requires that CIT officers volunteer for the program. Is there something different about volunteer officers from nonvolunteers that are important for good outcomes? CIT training

emphasizes both the transfer of knowledge about mental illness and the mental health system, and it also focuses on attitudes about mental illness. CIT classes typically include substantial exposure to individuals with mental illness and their family members in hopes of increasing empathy, decreasing stigma and stereotypes, and increasing beliefs that people with mental illness can be helped by treatment. Officers are also taught specific de-escalation techniques so they are better able to safely resolve a mental illness crisis. However, the degree to which each component of CIT training is critical to the overall effectiveness of the program remains unclear.

While there is limited research demonstrating that CIT training reduces arrests (Skeem & Bibeau, 2008), CIT has been associated with subsequent increases in treatment referrals (Teller et al., 2006). Researchers have suggested such results may be related to the effects of training on attitudes, knowledge, stigma, self-efficacy, social distance, and knowledge of the available resources (Bahora et al., 2008; Compton et al., 2006; Hanafi et al., 2008; Wells & Schafer, 2006). Through focus groups, researchers identified two emergent themes concerning the effects officers attributed to CIT training (Hanafi et al., 2008). The first was that officers believed that CIT training increased their knowledge and awareness of mental illness; the second was officers applied the skills learned through the training. These resulted in officers' abilities to recognize the signs and symptoms of mental illness, while reducing stereotyping and stigmatization and increasing empathy towards the consumers and their caregivers (Hanafi et al., 2008). A survey conducted before and after CIT training indicated changed attitudes, knowledge, and stigma associated with schizophrenia (Compton et al., 2006). However, one limitation to the study was that a control group was not included to determine if the self-selected officers had different attitudes from officers not participating in the training. Another limitation was that the follow-up was immediately at the end of the training. The present study adds to the small research base by first comparing CIT officers with non-CIT officers prior to training, and then using a pretest/posttest design over the minimum of 1 year after training (1–3 years).

Three major findings are reported. First, there are few differences between those who volunteer for CIT training and those who do not, yet these differences may be important. While the attitude differences may be meaningful (volunteers for CIT training report being more tolerant of mental illness and less likely to attribute mental illness to family upbringing), the most dramatic difference is that CIT volunteers report prior to training that they feel significantly less well prepared to handle mental illness crises and feel the same about their fellow officers. It is not surprising that future CIT officers do not feel well prepared to handle mental illness calls (Wells & Schafer, 2006). Our data suggest that volunteering for CIT training appears to represent an interest to address a perceived skill deficit among these officers. Perhaps

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recognition of such deficits, coupled with “enlightened” attitudes towards persons with mental illness, leads officers to volunteer for CIT.

The second meaningful finding is that CIT training, followed by experience in the field, results in officers feeling substantially better prepared to handle incidents of individuals in mental illness crises and in feeling that fellow officers are better prepared as well. It is impressive indeed that after CIT training and at least a year in the field as a CIT officer, 97% felt at least moderately prepared compared with only 26% prior to training. While it is not certain that officers feeling prepared translates into actual more effective resolution of mental illness crises, there is little reason to believe this would not be the case.

Finally, exploratory analysis suggests that the predictors of whether officers will feel better prepared to handle mental illness calls after CIT training and experience were: (a) prior to training, believing that the issue of mental illness was a serious problem for the department; and (b) after training and experience, believing that the department overall was effective in meeting the needs of those with mental illness and not endorsing that mental illness was a result of how someone was raised. These admittedly preliminary findings are nevertheless intriguing. The mantra of the Memphis CIT model is “more than just training” (Cochran et al., 2000). In this sense, CIT is more than a collection of officers with particular skills, but represents an effective community program. Our findings lend credence to this mantra and allude to the emergence of CIT as a program. For instance, an officer who perceived him/herself as an effective CIT officer recognized that mental illness was a significant problem prior to the training. Our results show that these CIT officers now perceive greater individual effectiveness in dealing with persons experiencing a mental illness crisis, in addition to an improved effectiveness of the entire police department. These results contribute to an emerging discussion about how to move beyond CIT as training to develop and sustain integrated community collaboration.

This study is limited by the small sample size, that it looks at CIT officers and non-CIT officers in only one community, and by the attrition of responders from the pre- to the postassessment. It is heartening, nevertheless, to see that after training and with 1 to 3 years of experience, CIT officers believe they are well prepared to effectively handle a person in a mental illness crisis. Even more heartening is their belief that their fellow officers and their department overall have increased their effectiveness. We cannot demonstrate with these data that officers’ perceived effectiveness translates into actual effectiveness at the scene. However, independent data examining outcomes of CIT encounters with the same community program demonstrates that the overwhelming majority of CIT encounters in this department were safely resolved with a large majority of encounters resulting in transport to treatment, the desired goal of any CIT program (Teller et al., 2006). Clearly more research is needed across jurisdictions

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and CIT programs to better understand what contributes to the effectiveness of CIT programs. Whether changes in attitudes are necessary for changes in behavior is a particularly important, though still unanswered, question.

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NOTE

1. Up until a year ago, life was pretty okay for John. But then things started to change. He thought that people around him were making disapproving comments and talking behind his back. John was convinced that people were spying on him and that they could hear what he was thinking. John lost his drive to participate in his usual work and family activities and retreated to his home, eventually spending most of his day in his room. John became so preoccupied with what he was thinking that he skipped meals and stopped bathing regularly. At night, when everyone else was sleeping, he was walking back and forth in his room. John was hearing voices even though no one else was around. These voices told him what to do and what to think. He has been living this way for 6 months.

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APPENDIX: ITEMS COMPRISING THE SCALES

Social Distance

- How willing would you be to move next door to John?
- How willing would you be to spend an evening socializing with John?
- How willing would you be to make friends with John?
- How willing would you be to have John start working closely with you on a job?
- How willing would you be to have a group home for people like John opened in your neighborhood?
- How willing would you be to have John marry into your family?

Opinions About the Situation

- How likely is it that John's situation will improve on its own?
- How likely is it that John's situation will improve with treatment?
- Should John talk things over with family and friends?
- Should John talk to a minister, priest, rabbi, or other religious leader?
- Should John go to a general medical doctor for help?
- Should John go to a psychiatrist for help?
- Should John go to a therapist, or counselor, like a psychologist, social worker, or other mental health professional for help?
- Should John go to a spiritual or natural healer for help?
- Should John join a self-help group where people with similar problems help each other?

- Should John take nonprescription medications?
- Should John take prescription medications?
- Should John check into a mental hospital?
- Should people like John be forced by law to get treatment at a clinic or from a doctor?
- Should people like John be forced by law to take prescription medication to control his/her behavior?
- Should people like John be forced by law to be admitted to a hospital for treatment?
- Should people like John be forced by law to be admitted to a hospital for treatment if s/he is dangerous to her/himself?
- Should people like John be forced by law to be admitted to a hospital for treatment if s/he is dangerous to others?

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Authoritarianism

- Nervous breakdowns usually result when people work too hard.
- It is easy to recognize someone who once had a serious mental illness.
- When a person has a problem or worry, it is best not to think about it, but keep busy with more pleasant things.
- There is something about mental patients that makes it easy to tell them from normal people.
- People would not become mentally ill if they avoided bad thoughts.
- A heart patient has just one thing wrong with him, while a mentally ill person is completely different from other patients.
- People with mental illness should never be treated in the same hospital with people with physical illness.
- Mental illness is usually caused by some disease of the nervous system.
- College professors are more likely to become mentally ill than are businessmen.
- Sometimes mental illness is punishment for bad deeds.
- One of the main causes of mental illness is a lack of moral strength or willpower.
- There is little that can be done for patients in a mental hospital except to see that they are comfortable and well-fed.

Benevolence

- Mental illness is an illness like any other.
- Even though patients in mental hospitals behave in funny ways, it is wrong to laugh about them.
- Patients in mental hospitals are in many ways like children.

- More tax money should be spent in the care and treatment of people with severe mental illness.
- Anyone who tries to better himself deserves the respect of others.
- People who have been patients in a mental hospital will never be their old selves again.
- Many mental patients are capable of skilled labor, even though in some ways they are very disturbed mentally.
- To become a patient in a mental hospital is to become a failure in life.
- If a patient in a mental hospital attacks someone, he should be punished so he doesn't do it again.
- Every mental hospital should be surrounded with a high fence and guards.
- The law should allow a woman to divorce her husband as soon as he has been confined in a mental hospital with a severe mental illness.
- Regardless of how you look at it, patients with severe mental illness are no longer really human.
- Our mental hospitals should be organized in a way that makes the patient feel as much as possible like he is living at home.

Interpersonal Etiology

- If parents loved their children more, there would be less mental illness.
- Although they aren't aware of it, many people become mentally ill to avoid the difficult problems of everyday life.
- People who are successful in their work seldom become mentally ill.
- Mental patients come from homes where the patients took little interest in their children.
- If the children of mentally ill parents were raised by normal parents, they would not become mentally ill.
- The mental illness of many people is caused by the separation or divorce of their parents during childhood.
- If the children of normal parents were raised by mentally ill parents, they would probably become mentally ill.

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