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Research Paper

# Effects of a Crisis Intervention Team (CIT) Training Program Upon Police Officers Before and After Crisis Intervention Team Training

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A B S T R A C T

In communities across the United States and internationally, police officers frequently come into contact with individuals experiencing mental health crisis despite not having the skills to safely intervene. This often results in officers resorting to excessive or even deadly force. The Crisis Intervention Team (CIT) is heralded as a revolutionary and transformative intervention to correct this gap in practice. Several previous interdisciplinary national and international studies, including criminology and sociology, have examined these concepts using quantitative and qualitative methodological designs, however, no prior nursing studies have been done on this topic. The purpose of this study was to determine the effect of CIT training on police officers' knowledge, perception, and attitude toward persons with mental illness. Twenty five police officers participated. An explorative, quasi experimental, descriptive design was used to collect the data on the three major concepts. Results on knowledge about mental illness improved at $p < .0125$ ($p < .05$ after Bonferroni correction). Perception scores improved at $p < .0125$ ($p < .05$ after Bonferroni correction), and attitudes were more favorable at $p < .0125$ ($p < .05$ after Bonferroni correction). The results of this study validated the CIT program as an innovative community health program that benefits law enforcement, consumers, mental health professionals, and stakeholders.



The deinstitutionalization of patients in American psychiatric hospitals in the 1970s was meant to help re-integrate chronically-ill patients back into the community (Burris, 2004). The theory behind deinstitutionalization consists of three components: the release of patients in state psychiatric hospitals back into the community; the diversion of potential new admissions to alternative community mental health facilities; and the development of specialized services and training for the care of non-institutionalized, mentally ill persons (Lamb & Bachrach, 2001).

One negative consequence of the deinstitutionalization movement has been the marked increase in contact between persons with mental illness and the criminal justice system (Hartford, Heslop, Stitt, & Hoch, 2005). Studies show that many of the patients who were released from state hospitals had difficulties reintegrating into society, due to their long periods of institutionalization (Hartford et al., 2005). Many patients lacked the social skills, social support, or access to resources needed to successfully reestablish themselves outside of the hospital setting, and many were in need of continued multidisciplinary, coordinated, and comprehensive services (Watson, 2010). With limited available resources, large numbers of these former patients ended up homeless with untreated serious mental illness (SMI) and co-occurring disorders, and co-morbid medical conditions, and large numbers of these former patients have emerged in major cities throughout the country, including Miami (Deas-Nesmith & McLeod-Bryant, 1992).

Homelessness and lack of ability to function in the community have also resulted in increased contact with law enforcement personnel, most of who are inadequately trained in working with people experiencing psychiatric crises (Deas-Nesmith & McLeod-Bryant, 1992). This poses many challenges to law enforcement personnel in communities across the country.

Challenges between law enforcement and the mentally ill have also been identified as a global issue. Studies from Great Britain, Australia, and Canada (Durbin, Lin, & Zaslavska, 2010; Hollander, Lee, Tahtalian, Young, & Kulkarni, 2011; Lee, Brunero, Fairbrother, & Cowan, 2008; Short, McDonald, Luebbers, Ogloff, & Thomas, 2012) have highlighted these concerns and identified the need for law enforcement mental health training, greater collaboration between police, mental health professionals, and citizens; and the preference to divert to treatment rather than jail. These are educational, practice, and policy initiatives aimed at bridging gaps while achieving quality outcomes across disciplines. Globally, contemporary psychiatric nurses are at the forefront of cordoning and implementing these core caring principles.

These challenges have also generated much concern from mental health professionals, as well as from legislative and public health officials.

The purpose of this study is to determine what impact a Crisis Intervention Team (CIT) training would have on police officers'

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knowledge, perceptions, and attitudes toward mental illness from pre-CIT training to post-CIT training in Miami-Dade County, Florida. The study examined whether a 40-hour, 1 week CIT training program positively influences the knowledge, perceptions, and attitudes of police officers toward persons with mental illness and those experiencing mental health crisis. Additionally, this study demonstrates how psychiatric nurses can use collaboration, integration, and expansion of services with other disciplines to eradicate perceptual and attitudinal barriers to persons with SMI.

## THE CIT MODEL

CIT is the newest and the most innovative approach to bridge the disparity gaps between the mental health and the criminal justice systems. It was established in order to develop a more intelligent, understandable, and safe approach to mental health crisis events (Eleventh Judicial Circuit Criminal Mental Health Project, 2010). Multiple studies in criminal justice, criminology, and sociology show CIT as an effective law enforcement tool when intervening with persons with mental illness (Ellis, 2011). However, a literature search revealed that very little on CIT has been addressed by the discipline of nursing, hence the attention to this study. Nurses, particularly psychiatric nurses, could contribute significantly to CITs by drawing on their clinical expertise in acute care and community health, nursing theoretical frameworks and practice models, and education and research. Psychiatric mental health nursing expertise can serve as an important component to future CITs from the standpoint of ongoing community mental health program development and evaluation, and evidence-based best practices that result in quality health outcomes.

The CIT model is a specialized police-based program intended to enhance police officers' interactions with individuals with mental illness and improve the safety of all parties involved in mental health crises (Compton, Bahora, Watson, & Oliva, 2008). CIT is a systematic response intervention model requiring the use of specialized skills when responding to calls involving persons with mental illness. These may include assessing for the likely presence of mental illness, using communication and de-escalation techniques, communicating with mental health providers, and completing emergency evaluation petitions (Watson, Morabito, Draine, & Ottati, 2008).

The standard CIT training is a 40-hour course consisting of classroom didactics on the disease process as well as signs and symptoms of mental illness and substance use disorders (see Table 1).

**Table 1**
Standard Crisis Intervention Team (CIT) 40 – Hour Course.

| Summary of standard CIT 40 – hour class didactics model | Summary of standard CIT 40 – hour course content model |
|---|---|
| • Mental health disease processes | • Signs & symptoms of mental illness |
| • Signs & symptoms of mental illness | • Schizophrenia and psychotic disorders |
| • De-escalation techniques | • Mood – depressive & bipolar disorders |
| • Situational role play scenarios | • Cognitive disorders |
| • Film vignettes | • Substance abuse & co-occurring disorders |
| • Live testimonials from cit officers & consumers/families | • Anxiety & other brain disorders – PTSD |
| • Field trips to local jails | • Disorders in children & adolescents |
| • Field trips to local psychiatric facilities | • Risks to self & others |
| | • Psychotropic medications |
| | • Involuntary treatment |
| | • Community resources |
| | • Communication techniques |
| | • Needs of mental health consumers |
| | • Community perspective |
| | • Resiliency for the officers on how to prevent PTSD |
| | • Cultural sensitivity & mental illness |

CIT is a revolutionary approach aimed at transforming mental health treatment for a segment of society with a long history of social stigma and mental health service disparity. The psychiatric mental health nursing model has the potential to radically improve care of the severe and persistently mentally ill in the community by partnering with law enforcement.

The first CIT training was developed and implemented in Memphis, Tennessee in 1988 in conjunction with mental health professionals, local advocates, and the National Alliance on Mental Illness (NAMI), and has evolved into a specialized program supported by evidence from multiple studies (Bahora, Hanafi, Chien, & Compton, 2008). The leaders of CITs identified eight core elements that serve as anchoring pillars to the program: (1) partnerships between law enforcement and mental health advocacy; (2) community ownership through dedicated planning, implementing, and networking; (3) law enforcement policies and procedures; (4) recognitions and honors of CIT officers' accomplishments; (5) availability of mental health facilities; (6) basic and advanced training for officers and dispatchers; (7) evaluation and research; and (8) outreach to other communities (Compton, Broussard, Hankerson-Dyson, Krisham, & Stewart-Hutto, 2011; Hanafi, Bahora, Nemir, & Compton, 2008).

## IMPACT ON THE COMMUNITY

Over the years, several authors (e.g. Bahora et al., 2008; Broussard, McGriff, Neubert, D'Orio, & Compton, 2010; Compton, Esterberg, McGee, Kotwicki, & Oliva, 2006; Compton et al., 2011) have reported on the disproportionate number of mentally ill individuals who are admitted to the criminal justice system instead of to psychiatric treatment facilities. Hartford et al. (2005) reported that, in 1995, 3% of the U.S. population were mentally ill and residing in mental institutions, whereas, in 1999, 3% of the national population were mentally ill but incarcerated in criminal justice facilities. In their study, Hails and Broum (2003) reported that approximately 685,000 people with SMI are taken to U.S. jails every year, and between 6% and 15% of all jailed inmates have SMI.

At any given time, between 800–1200 people with SMI are in Miami-Dade County jails. This is a reflection of the fact that Miami-Dade County has a rate of homeless persons with SMI approximately 2–3 times the national average, the highest rate in the country (Eleventh Judicial Circuit Criminal Mental Health Project, 2012). Of the approximately 6,500 patrol officers who make up the 35 police municipalities throughout Miami-Dade County, 3,700 (57%) have been trained in CIT since 2000. The Eleventh Judicial Circuit Criminal Mental Health Project (2012) found that during 2011 there were 10,000 mental health-related emergency calls throughout Miami Dade County but only 500 arrests made compared to more than 4,000 in previous years. Likewise, a total of 21 people with SMI have been killed by police from 1999 to the present, a striking decrease from the average of 25 per year prior to the initiation of the CIT training. These are evidence that support the value and effectiveness of a successful CIT program.

## MAJOR CONCEPTS

### *Knowledge*

In an historical study on the "Effect of a Mental Health Educational Program upon Police Officers," Godschalx (1984) defined knowledge as "the learning of new concepts and behaviors that can be applied to solve, or help to solve an identified problem." Inability to use the correct psychiatric etymology and understand symptomology is a consequence of lack of knowledge (Aydin, Yigit, Inandi, & Kirpinar, 2003).

*Perceptions*

Perception is the process of attaining awareness and/or understanding the environment by organizing and interpreting sensory information (Aydin et al., 2003; Bogardus, 1925). One's perception is closely linked to the concept of self-efficacy (Bahora et al., 2008). Self-efficacy is an important underlying component of perception and of response (Bahora et al., 2008). Low self-efficacy may affect a police officer's ability to choose and enact the best response to a psychiatric crisis situation; for example, misperceiving anxious, angry, or agitated behavior in someone as violent, dangerous, or threatening (Godfredson, Thomas, Ogloff, & Luebbers, 2011).

*Attitude*

Attitude is the stable, learned predisposition toward a social object that is comprised of favorable or unfavorable cognitive, affective, and behavioral components; it is closely associated with social–cultural norms and values (Aydin et al., 2003; Godschalx, 1984). If one is given new knowledge it may change one's opinion but not necessarily his/her attitude (Aydin et al., 2003; Godschalx, 1984). Negative attitudes of police officers toward persons experiencing a psychiatric crisis create difficulties with regards to utilizing the right de-escalation approach, avoiding the use of excessive force, and transporting the person to an appropriate psychiatric facility rather than incarcerating them.

*Impact on Practice*

Ellis (2011) observed that mental health treatment is not the main goal of the criminal justice system. Ellis (2011) also stated that the role of contemporary mental health professional are multifaceted and interface across disciplines, including law enforcement and criminal justice. Nurses are the first-line responders in psychiatric emergency departments (PEDs), crisis stabilization units (CSUs), community mental health centers (CMHCs) and medical emergency departments (MEDs) (Ellis, 2011). Nurses in these clinical settings must act quickly, using critical thinking and triage assessment skills to determine any level of danger to the patient or others, and then implement the appropriate level of personal safety techniques (Ellis, 2011). Both law enforcement and nurses rely on the same level of basic communication skills and techniques taught in CIT training; however, unlike police officers, nurses have advanced skills that encompass assessment, planning, intervention, and evaluation of the individualized treatment implemented. The behavioral health crisis management techniques taught in CIT is a core requirement for psychiatric nurses.

## METHODS

*Design*

This is a one-group, pre-test/post-test, quasi-experimental study that was used to evaluate the effectiveness of CIT training on knowledge, perception, and attitudes of police officers toward persons with mental illness. Ethical approval for this study was obtained from Florida Atlantic University's Boca Raton, Florida IRB, and the Eleventh Judicial Circuit Criminal Mental Health Project in Miami, Florida. The CIT training was conducted at a site arranged by the Eleventh Judicial Circuit Court Criminal Mental Health Project and taught by the CIT training coordinator. The training was a 5-day, 40-hour mental health training which took place in June 2012. All of the officers were assigned to the CIT training by their police training departments.

**Table 2**
General Demographic of Participants.

| Values | | f | % |
|---|---|---|---|
| Gender | Female | 5 | 20 |
| | Male | 20 | 80 |
| Ethnicity | Black/African American | 2 | 8 |
| | Hispanic/Latino | 18 | 72 |
| | White/Caucasian | 4 | 16 |
| | Missing | 1 | 4 |
| Highest level of education | Completed grade 12 | 2 | 8 |
| | Some college | 10 | 40 |
| | Completed college | 12 | 48 |
| | Graduate training after college | 1 | 4 |
| Current rank | Police | 18 | 72 |
| | Sergeant | 5 | 20 |
| | Lieutenant | 1 | 4 |
| | Commander | 1 | 4 |
| Years as police officer | 1 to 5 | 10 | 40 |
| | 5 to 10 | 5 | 20 |
| | 10 to 15 | 1 | 4 |
| | 15 to 20 | 3 | 12 |
| | More than 20 | 6 | 24 |

*Participants*

The study participants were a convenience sample of 28 police officers who were employed by three of Miami-Dade County's police municipalities and who represented heterogeneity in socio-demographic characteristics (see Table 2). All study-related legal and ethical considerations were addressed including obtaining participants' informed consent. The principle investigator had no direct affiliation with any of the law enforcement departments or with the CIT program. Twenty-six (93%) of the 28 officers consented to participate in the study, and 25 (89%) completed both the training and the post-test measures.

*Measures*

Multiple measures were used to assess how the officers' knowledge, attitudes, and perceptions of people with SMI changed from before the CIT training to afterwards. A demographic measure was also used to determine the make-up of the subjects.

The Socio-demographic Questionnaire (SDQ) developed by Compton et al. (2006) is an 11-item questionnaire designed to assess a number of basic demographic characteristics. Six questions determine the subjects' level of familiarity with and exposure to mental illness, and 5 items measure a number of basic personal characteristics.

The Mental Illness Knowledge Questionnaire (MIKQ), a 30-item, 4-point Likert Scale questionnaire was developed by Compton et al. (2006) and was designed to measure knowledge and understanding of mental illness. Operationally, the MIKQ allows participants the flexibility to choose answers between “no” and “very likely”. For each of the 30 items, participants were instructed to select “no,” “possible,” “likely,” or “very likely” as the possible cause of mental illness. Scores for pre-and post-test questionnaires were derived from the total number and level of items endorsed ranging from 0–90 points (“no” = 0 points, “possible” = 1 points, “likely” = 2 points, and “very likely” = 3) [3 × 30 = 90 points]. The MIKQ also contains three subscales measuring personal knowledge, inconsistent knowledge, and external knowledge. This tool is representative of the training content and has been found by several other authors to have strong internal consistency (Compton et al., 2006).

The Mental Illness Perception Questionnaire (MIPQ), a 6-item, 4-point Likert Scale questionnaire was developed by Compton et al. (2006) and was operationally designed to measure officers' perceptions of mental illness within the construct of their self-efficacy. The items on this tool were scored according to responses ranging from 1, “very uncomfortable” to 4, “very comfortable.” This

tool has also, been cited by several other authors as having acceptable confidence level in its internal consistency reliability at alpha = .89 (Compton et al., 2006).

The Mental Illness Attitude Questionnaire (MIAQ), a 4-item, 4-point Likert Scale questionnaire was developed by Compton et al. (2006) and was operationally designed to measure officers' attitudes toward someone with mental illness within the construct of social distance (Park, 1924). The items on this tool were scored according to responses ranging from 1, "extremely unsupportive," to 4, "extremely supportive." This tool has also, been cited by several other authors as having acceptable confidence level in its internal consistency reliability at alpha = .90 (Compton et al., 2006).

## ANALYSIS

For this study, two-sample dependent t-tests were conducted on pre- and post-training scores on the Knowledge, Mental Illness Perceptions, and Mental Illness Attitudes Questionnaires. An alpha level of .05 was used to determine significance, and Bonferroni corrections were made to control for type-I error. The effect size was computed using both Eta square ($\eta^2$) and Cohen's $d$, and were interpreted based on Ferguson, Cohen's $d \geq 0.41$ and Eta square ($\eta^2$) $\geq .04$ are considered recommended minimum effect size as "practically" significant effect (recommended minimum practical effect: RMPE), d $\geq 1.15$, $\eta^2 \geq .25$ as moderate effect, and d $\geq 2.7$, $\eta^2 \geq .64$ as strong effect. The Statistical Package for Social Sciences (SPSS version 18.0 for Windows; SPSS Inc., Chicago, IL, USA) was used for data analysis.

## RESULTS

*Participants' Socio-demographics*

As shown in Table 2, most officers, 20 (80%), were males. Approximately three-quarters (72%) of the officers were identified as Hispanic/Latino while 16% as White/Caucasian. Eighteen (72%) were officers according to rank, and 10 (40%) were in these ranks between 1 and 5 years. Approximately half of the participants (12, 48%) completed college. All subjects had encountered someone with mental illness while on duty, and 80% said they had arrested a person with mental illness (Table 3). Thirteen subjects (54%) perceived people with mental illness to be as aggressive as those not suffering from a mental illness, and 14 (58%) perceived people suffering from mental illness equally as likely to commit violent crime than a person not suffering from a mental illness.

**Table 3**
Participants Perception and Interaction With Mentally Ill Individuals.

| Values | | f | % |
|---|---|---|---|
| Experience with PMI | Yes | 25 | 100 |
| Experience arresting someone with PMI | Yes | 20 | 80 |
| | No | 5 | 20 |
| Frequency dealing with PMI | Daily | 4 | 16 |
| | 2 to 3 times weekly | 8 | 32 |
| | Weekly | 3 | 12 |
| | Every 2 weeks | 1 | 4 |
| | Monthly | 3 | 12 |
| | Less than monthly | 4 | 16 |
| | Missing | 2 | 8 |
| Perceived aggression of PMI versus non-PMI | Less aggressive than the average person | 1 | 4 |
| | About the same as the average person | 13 | 52 |
| | More aggressive than the average person | 10 | 40 |
| | Missing | 1 | 4 |
| Perceived level of violent crime in PMI versus non-PMI | Less aggressive than the average person | 4 | 16 |
| | About the same as the average person | 14 | 56 |
| | More aggressive than the average person | 5 | 20 |
| | Much more aggressive than the average person | 1 | 4 |
| | Missing | 1 | 4 |
| | | M | SD |
| Average number of monthly contact with PMI | | 8.86 | 10.43 |

## PARTICIPANTS' KNOWLEDGE

Prior to the CIT training, the participants' knowledge of mental illness was scored as $M = 30.46$, $SD = 14.98$ on the Knowledge Questionnaire pretest. On the posttest, participants knowledge about mental illness improved, $M = 37.02$, $SD = 16.2$, ($t(24) = 2.841$, $p < .0125$ ($p < .05$ after Bonferroni correction), $\eta^2 = .2517$ Moderate, $d = .80$ RMPE), thus achieving statistical significance ($p = .009$). These data support the hypothesis that police officers' knowledge about mental illness improved after CIT training. Specifically, CIT training contributed about 25.17% of change in knowledge measured by knowledge questionnaire which shifted by .80 standard deviation (see Table 4).

## PARTICIPANTS' PERCEPTIONS

On the MIPQ pretest, the participants' mean score on perception of persons with mental illness was ($M = 15.33$ ($SD = 3.81$). On the posttest, the participants' perception score significantly improved, $M = 18.79$, $SD = 3.15$ ($t(23) = 3.9$, $p < .0125$ ($p < .05$ after Bonferroni correction), $\eta^2 = .3981$ moderate, $d = 1.13$ RMPE), thus achieving statistically significant ($p = .001$). CIT training contributed about 39.81% of change in perception measured by MIPQ which shifted by 1.13 standard deviation (see Table 4).

## PARTICIPANTS' ATTITUDES

On the MIAQ pretest, the participants' mean attitude score toward persons with mental illness was 7.5 ($SD = 2.04$). On the posttest, mean attitudes ($M = 9.33$, $SD = 3.0$) were significantly more favorable toward person with mental illness ($t(23) = 3.456$, $p < .0125$ ($p < .05$ after Bonferroni correction), $\eta^2 = .3418$ moderate, $d = 1.00$ RMPE), thus achieving statistically significant ($p = .002$). CIT training contributed about 34.18% of change in attitude measured by MIPQ which shifted by 1.00 standard deviation (see Table 4).

## ADDITIONAL FINDINGS

Using a subscale measurement derived from the original knowledge tool by Demir, Broussard, Goulding, and Compton (2009), the knowledge scores were divided into subsets for the purpose of a cluster analysis and investigation in the areas of personal knowledge, inconsistent knowledge, external knowledge, and biological knowledge (see Table 5).

After Bonferroni corrections are applied, none of the differences between pre- and post-test scores were significant. As all components

**Table 4**
Results of Knowledge, Perception and Attitude Pre and Post.

| Questionnaire type | | M | SD | t | df | p | $\eta^2$ | d |
|---|---|---|---|---|---|---|---|---|
| Knowledge | Pre | 30.46 | 14.98 | 2.841 | 24 | .009 | .2517 | 0.80 |
| | Post | 37.02 | 16.20 | | | | | |
| Perception | Pre | 15.33 | 3.81 | 3.900 | 23 | .001 | .3981 | 1.13 |
| | Post | 18.79 | 3.15 | | | | | |
| Attitude | Pre | 7.50 | 2.04 | 3.456 | 23 | .002 | .3418 | 1.00 |
| | Post | 9.33 | 3.00 | | | | | |

**Table 5**
Mean Knowledge Component Scores Comparison Between Pre and Post Training.

| Knowledge type | | *M* | *SD* | *t* | *p* | $\eta^2$ | *d* |
|---|---|---|---|---|---|---|---|
| Personal | Pre | 15.61 | 7.48 | 2.459 | .022 | .201 | 0.696 |
| | Post | 18.88 | 8.33 | | | | |
| Inconsistent | Pre | 4.44 | 4.87 | 1.948 | .063 | .137 | 0.551 |
| | Post | 5.72 | 5.00 | | | | |
| External | Pre | 8.32 | 3.91 | 1.533 | .138 | .089 | 0.434 |
| | Post | 9.53 | 4.08 | | | | |
| Biological | Pre | 3.48 | 1.33 | 2.221 | .036 | .170 | 0.628 |
| | Post | 4.20 | 1.56 | | | | |

NOTE. $df = 24$, all effect sizes are RMPE.

had at least RMPE level of effect size, it indicates that there might have been significant findings if the collected sample size was larger. It may be worthwhile to investigate the effect size for future study (see Table 2 for the comparison). This was based on four specific knowledge-types that emerged:

*Personal Knowledge*

The personal knowledge-type analysis assumed that officers' personal, and/or family history of mental illness or substances were more likely to respond to CIT training with attitudinal changes.

*Inconsistent Knowledge*

According to Demir et al. (2009), the inconsistent knowledge-type highlighted one limitation of the MIKQ. The authors explained that it would have been helpful if the 30 items on this scale were more explicit in providing a single "correct" answer.

*External Knowledge*

The external knowledge type reflects how participants endorsed questions regarding the possibility of external/environmental insults to the brain.

*Biological Knowledge*

The biological knowledge type reflects the degree to which officers were more likely to endorse causes of mental illness that are more consistent with modern biological conceptions of mental illness.

Analysis from this series of cluster analysis may provide an opportunity for further research to investigate which officers are more suitable for CIT training by virtue of an increased capacity to gain greater knowledge and develop empathetic responses. By using this relatively simple subscale design (see Table 5), it was shown that after the training officers were less likely to endorse causes of mental illness as personal and inconsistent conceptions and more likely to endorse causes consistent with modern external and biological conceptions (Demir et al., 2009).

## DISCUSSION

This study documents statistically significant changes in police officers' knowledge, perception and attitude scores toward persons with SMI at the end of the week-long CIT training. The results support the hypothesis that, after the training, officers' knowledge, perceptions and attitudes would improve. This validates prior studies suggesting that CIT programs may be effective across several domains. It can be inferred that the broad socio-demographic characteristics among the group of officers helped to influence the final scores. This is noted in the skewed distribution of race/ethnicity, ranks, education level, and years of experience. Demir et al. (2009) noted that years of experience as police officers significantly predicted retention of mental health knowledge among CIT-trained officers, though a number of other demographics and work-related characteristics did not.

The present findings indicate that CIT training may effectively align officers' knowledge and understanding of mental illness closer to those of mental health professionals, correcting myths and reducing stigmatizing perceptions and attitudes. This may help in achieving the goals of increasing rapport-building with SMI persons, improving de-escalation skills, improving communication among officers and family members of those with SMI, and ultimately, best practice outcomes in terms of referrals to mental health services resulting in fewer incarcerations (Ellis, 2011).

*Study Limitations*

Several methodological limitations of this study warrant discussion. First, the study includes selection bias that could not be controlled (e.g. police officers were assigned by their perspective departments rather than volunteering for the training). This is a deviation from the recommendation that ideally officers should volunteer rather than assign (Compton et al., 2011). Compton and Chien (2008) also pointed out that responders who volunteer might be more diligent, enthusiastic, and likely to be committed to CIT, due to a sense of conscientiousness and altruism that may reduce the likelihood of resistance to CIT as a diametrically opposing concept to traditional police officers' training.

Second, a more precise knowledge-measurement tool (e.g. multiple choice questions) rather than the Likert scale format used in this study might have resulted in more precise measurements of the officers' knowledge, as the Likert scale format relies on levels of endorsement rather than a definitive right or wrong response to each question. The responses on the Likert scale questions may have been influenced by officers' personal knowledge, inconsistent knowledge, or external knowledge interpretations of the questions.

Third, conducting several post-CIT training follow-up field evaluations including competencies might also influence the knowledge, perception, and attitude scores differently. Fourth, the representative sample of police was small thus did not represent a balanced cross-section of racial/ethnic groups. For example, only 3 of the 35 county municipalities (8.6%) were represented in the study. If more municipalities across a wider geographical area were represented, the 75% Latino, 17% Caucasian, and 8% African-American/Blacks might have been more diversified and more representative of the overall police force. A more cross-sectional representation might have yielded a different outcome.

It is important that socio-demographic variables be represented as a covariate in future CIT studies (Compton et al., 2011). Although the increase in knowledge, perception, and attitude scores were statistically significant, further research is needed to determine the practical meaningfulness of the differences in post-training and follow-up training scores. Also, before firm conclusions can be drawn in these arenas, a randomized controlled trial is recommended to validate differences in post CIT training knowledge, perception, and attitude scores.

*Implications for Practice*

The CIT concept is diametrically opposed to the traditional law enforcement training, which creates challenges to officers understanding the concept. However, according to Ellis (2011), this concept is easily integrated into the construct of psychiatric mental health nursing model which involve incorporating the caring principles of empathy, active listening, and a nonjudgmental attitude. These principles are the core of psychiatric nursing scope and standard of practice and can be shared with law enforcement.

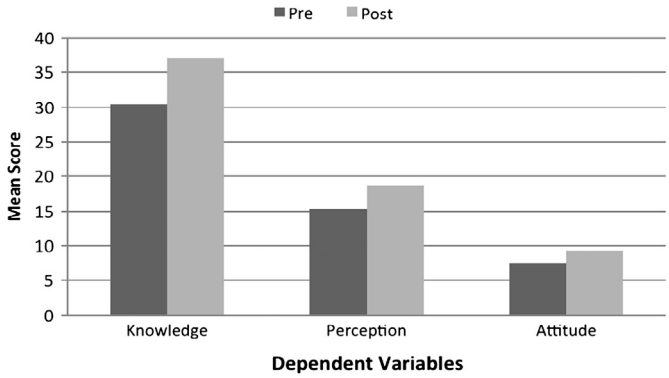


**Fig. 1.** Mean differences of each measurement between pre and post training.

It is well documented that police officers frequently respond to crisis calls involving individuals with SMI such as schizophrenia, bipolar and depressive disorders, anxiety disorders, cognitive disorders, and substance abuse disorders. Serving as de facto psychiatric specialists, police officers often must assume roles held by nurses, social workers and case managers as the principle referral source to psychiatric emergency services (Ellis, 2011). For these reasons, it is crucial that officers are equipped with knowledge about various mental illnesses, and have the appropriate communication skills to safely intervene and expedite the disposition of the individual who is experiencing a psychiatric crisis (Bahora et al., 2008; Broussard et al., 2010). The roles of contemporary psychiatric nurses have been moving from the bedside back to its original conceptual model of community care. This model of care involves systematic integration of services, multidisciplinary collaborations, and expansion of care and services that are in line with mental health parity goals. CIT provides opportunities for law enforcement and nursing to collaborate on best practice initiatives for the purpose of providing for the care, welfare, safety and security of individuals with SMI (Crisis Prevention Institute, 2012).

The fact that 100% of the officers acknowledged that they had dealt with someone with mental illness and 80% of them acknowledged that they had arrested a person with mental illness (PMI) may have also influenced the pre- and post-intervention scores. The change in the MIKQ mean score indicated that either fewer items were endorsed or that items were endorsed with a lower level of certainty at the end of the training (Fig. 1). Values on both the MIPQ and the MIAQ also changed significantly after the week-long CIT training. This suggests that experiential training, such as consumers and officers testimonials during the training, might have significant influence on different knowledge bases as well as individual officer's characterological traits.

Findings within this study suggest that exposure to the personal stories shared by consumers with SMI and substance abuse histories during the training may have led to changes in perceptions and attitudes toward mental illness over the course of the CIT training (see Table 4). This underscores a need for additional randomized qualitative and quantitative studies to determine which police officers are ideally suited for CIT training by virtue of an increased capacity to develop empathetic responses.

It is the hope that this study offers insights to internationally practicing psychiatric nurses to realize their role as experts working collaboratively with law enforcement as change agents for persons with mental illness. In addition to other scholars such as (Durbin, Lin, & Zaslavska 2010; Hollander, et al., 2011; Lee et al., 2008; Short, et al., 2012), psychiatric nurses have opportunities for exploring CIT as from the standpoint of research, practice and education.

The data generated from this study provides evidence that CIT is a valid, evidence-based program with all the elements of best-practice across nursing and law enforcement disciplines. This could have significant influence on future practice guidelines, policy development, and stakeholders' involvements in CIT. There are also opportunities for other nursing scholars to consider incorporating the concept of CIT into middle-range and practice theories, empirical research, all levels of education practice, and leadership and health policy.

## CONCLUSION

This study shows the effectiveness of CIT training with police officers, both subjectively (e.g. the police officers feelings of competency) and objectively (e.g. the low number of SMI-related arrests, incarcerations, and deaths since the implementation of the CIT training). The number of people in communities with SMI necessitates that police officers, as front-line responders, have a level of competency in assessing and effectively responding to behavioral health crises. In addition, the shared knowledge between law enforcement officers and healthcare professionals, specifically psychiatric nurses, allows for more effective communication and allows for better assessment of quality of care, welfare, safety, and security of both consumers and providers of mental health services (Crisis Prevention Institute, 2012). This is especially relevant given that psychiatric nurses are typically the contact point with police officers when someone is admitted to a psychiatric emergency department (PED).

This study also showcases how the role of psychiatric–mental health nurse has important clinical implications from the perspective of collaborative community-based health care delivery system that address specialized health care needs for a vulnerable population. Moving forward, the stakeholders of the CIT model could begin to expand on the qualitative findings of this exploration to a broader geographical and demographic range.

Given the complexities of mental health crises, special expertise is needed for planning and implementing skills training on how to care for persons who are experiencing any form of emotional or behavioral disturbance. Through their compassionate and competent practices, psychiatric nurses have the capacity to positively influence the practice of other professionals, such as law enforcement officers. In this regard, psychiatric nurses can be the catalyst for change serving in roles of educators, consult liaison, and mentors for police officers thereby improving their self-efficacy and reducing the social-distance stigma usually projected onto persons with SMI. However, these collaborative efforts must be centered on evidence-based practice guidelines around a transformative process model such as CIT. Psychiatric nurses and police officers can begin to work alongside each other to achieve paradigm shift in transformative best practice care outcomes for persons in recovery, their family members, and the community at large.

As a blending of planning and implementation resources, psychiatric nurses and other health care professionals are continuously influencing, leading, facilitating practice change, and assessing outcomes. As a facet of professional health services, caring for people in crisis is an enduring feature of the psychiatric nurse's role in communities nationally and internationally. The psychiatric–mental health nurse is well positioned to contribute their specialty and leadership expertise to contemporary community-based health programs such as CIT by training others in the field of public health and safety to better work with people with SMI. Models such as CIT empirically show that this collaborative training is effective and provides a better standard of care to consumers prevents a behavioral health crisis caused by unnecessary escalation, increased safety and proficiency for officers, lessens the intensity of care for psychiatric nurses, which is to the benefit of everyone involved.

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