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To cite this article: Jillian Peterson & James Densley (2018): Is Crisis Intervention Team (CIT) training evidence-based practice? A systematic review, Journal of Crime and Justice, DOI: 10.1080/0735648X.2018.1484303

To link to this article: https://doi.org/10.1080/0735648X.2018.1484303

Published online: 09 Jul 2018.
Is Crisis Intervention Team (CIT) training evidence-based practice? A systematic review

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ABSTRACT
This study reviews 25 empirical research articles that have examined the impact of Crisis Intervention Team (CIT) training over the past 10 years. Overall, little can be said about the effectiveness of CIT training due to varying outcomes, a reliance on self-report data, lack of comparison or control groups, and inadequate follow-up data. Results of this systematic review of 25 studies demonstrated a mix of positive and negative results, and a focus on urban environments. The impact of officer characteristics and community resources on outcomes is unknown. This review indicates that additional research is necessary before CIT training can be considered an evidence-based practice that should be widely implemented. New training protocols that incorporate empirical research and are responsive to the resources in individual agencies and communities may be more effective.

ARTICLE HISTORY
Received 25 October 2017
Accepted 24 May 2018

KEYWORDS
Crisis Intervention Team; police; mental illness

An estimated 20 percent of US adults experience some form of mental illness and about four percent have a serious and persistent mental illness, such as a psychotic disorder, resulting in significant functional impairment (Kessler et al. 2005). Owing to deinstitutionalization of state-run long-stay psychiatric hospitals and the development of psychiatric medications, since the 1970s people with serious mental illness have moved from inpatient treatment to outpatient care (Torrey 2010), in some cases, to criminal justice intervention (Teplin 1983; Slate, Johnson, and Wesley 2008). Once confined to the grounds of state hospitals, mental health problems, or time-limited ‘crises’ that overwhelm a person’s usual coping mechanisms (Caplan 1964), have over the last 50 years become a fact of public life; and law enforcement typically are the first responders (Teller et al. 2006).

Studies show that somewhere between 6 and 20 percent of police contacts involve individuals with serious mental illness (Watson et al. 2008). Police officers report these frontline interactions are challenging because general police training that relies on a command-and-control approach may not be applicable or effective in this context (Engel, Sobol, and Worden 2000; Wells and Schafer 2006). Police sometimes use jail booking for minor crimes to secure treatment for people that need it (i.e., ‘mercy bookings’, Lamb, Weinberger, and DeCuir, 2002), initiating a revolving door that becomes a lifelong trend of criminal justice involvement (Peterson and Heinz 2016).

Officer bias about the supposed dangerousness of people with mental illness can also lead police officers to respond to individuals with mental illness with more force than is necessary (Ruiz 1993; Ruiz and Miller 2004). For example, a Minneapolis Star Tribune analysis in 2016 found at least 45 percent of the people killed by police in Minnesota since 2000 had a history of mental illness or were in a mental health crisis. In 2015, 9 of the 13 people killed had a history of mental health issues (Hargarten et al. 2016). The Washington Post’s database of police officer shootings concludes
that approximately one in four police shootings involves someone with serious mental illness (Kelley et al. 2016). Headlines such as ‘Think Twice Before Calling the Cops on the Mentally Ill’ in The Atlantic demonstrate the severity of the problem (Friedersdorf 2015).

The Crisis Intervention Team (CIT) model is one proposed solution to this problem (Dupont, Cochran, and Pillsbury 2007, 14). First developed in Memphis, Tennessee in 1988, the optimum CIT model includes specialized training for law enforcement so that certified CIT officers can provide first response on every shift, and training for emergency dispatchers so that they can recognize a CIT call, ask appropriate questions, and dispatch a CIT officer. The CIT model also includes partnerships and collaboration between law enforcement and mental health service providers, including advocacy work, access to mobile crisis teams, and a 24/7 no-refusal drop-off facility. However, with over 1,000 CIT programs now in operation in 49 states and four countries (CIT International 2017), each adapted to the profile of individual sites, questions arise about the fidelity of the model.

CIT is ‘more than just training’ (CIT International 2017), but increasingly only the 40-h law enforcement training aspect of the CIT model is consistently used. In January 2018, for example, the Minnesota board of Peace Officer Standards and Training (POST) approved learning objectives for training in crisis intervention and mental illness crises, as required by Minnesota Statute 626.8469. Minnesota already required its preservice officers to ‘discuss’ what CIT was (i.e., define it, not necessarily use it; POST, 2017, p. 26), but now all Minnesota police officers must undergo a minimum 16 h of in-service training in this area every 3 years. The Minnesota legislature approved $12 million to ‘support and strengthen’ this mandate (Minnesota House of Representatives 2017), largely to cover the cost of putting all of Minnesota’s 10,500 officers through CIT training (see Smith 2017).

Media coverage in Minnesota and elsewhere routinely describes CIT training as the ‘gold standard’ for law enforcement (Lillie 2017; Smith 2017). However, in their primer on CIT, Watson and Fulambarker (2012, 71) concluded, ‘there has not been enough research to date to declare CIT an “Evidence Based” practice’, even if it ‘has been successfully utilized in many law enforcement agencies worldwide and is considered a “Best Practice” model in law enforcement’. A recent assessment concluded CIT training was at best ‘evidence-based practice for officer-level cognitive and attitudinal outcomes’, but the jury was out when it came to actual criminal justice outcomes (Watson, Compton, and Jeffrey 2017, p. 431). Thus, the question is, how effective is CIT training? To answer this timely question, a systematic review of the empirical literature from the past decade was conducted.

**CIT training**

CIT training was developed collaboratively in 1988 by the National Alliance on Mental Illness (NAMI) and the Memphis Police Department, in response to a shooting of a person with serious mental illness (Compton et al. 2008). CIT was designed to provide 40-h of training to volunteer police officers. The training is administered by a combination of senior law enforcement staff, mental health professionals, advocates, and consumers. The original goal of CIT was to redirect people with mental illness to treatment, rather than the criminal justice system. Thus, the CIT model was conceptualized as a prebooking jail diversion program that required strong community partnerships and access to a 24/7 no-refusal mental health facility (Lord et al. 2011). As discussed, however, the 40-h training is increasingly being used as a stand-alone intervention. The national curriculum includes 13.5 h of mental health didactics, 9.5 h of de-escalation skills training and role-play, 6 h of site visits to mental health facilities, 5 h of training on community support, 2 h of law enforcement issues training, and 3 administrative hours (http://cit.memphis.edu/curriculuma). CIT training has steadily gained momentum as the national model for training police officers in how to handle individuals with mental illness and skills in de-escalation strategies (Pauly 2013).
The current study: is CIT training for law enforcement officers effective?

CIT was developed nearly 30 years ago during a different climate of policing. There is little information publicly available on how exactly CIT was developed, and what initial evidence supported its wide adaptation by police departments nationally (e.g., Dupont and Cochran 2000). In the only comprehensive literature review to date, Compton et al. (2008) concluded that 20 years after its first use, little could be said about CIT’s effectiveness. Marotta et al. (2014) submitted a ‘title registration’ with the Campbell Collaboration to complete a systematic review of the CIT literature, but nothing was published. Watson and Fulambarker (2012, 75) selectively reviewed the literature and found ‘The body of research on CIT is limited, but overall it is promising’. And a recent meta-analysis by Taheri (2016) examined the impact of the entire CIT model on arrest data by examining eight studies (including three unpublished manuscripts, and one study in Australia), concluding that CIT had no impact on either arrest of individuals with mental illness or officer safety.

The current study, a systematic literature review, builds on Compton et al. (2008) by examining empirical studies that measure the effectiveness of CIT training and were published in the past 10 years. The goal was to understand what evidence base there was for adopting CIT as the ‘gold standard’ in training and to expose gaps that currently exist in our knowledge about what works in police education and training.

Method

For this systematic review, we included empirical studies of CIT training conducted in the US and published in peer-reviewed journals. The term ‘Crisis Intervention Team’ was searched for in the databases PsycINFO (75 total journal articles), Sage Journals (66 total journal articles), and Criminal Justice abstracts (22 total journal articles) between the years 1988 (the initial inception of CIT training) and 2016. We recognize that modified versions of CIT training, with varying names, exist outside of the US (see Marotta et al. 2014), but these were not included owing to concerns about comparability and curriculum fidelity. Studies of CIT training programs among non-law enforcement and criminal justice agents, such as nurses (e.g., Ellis 2014), likewise were excluded from analysis. Articles that provided qualitative descriptions of CIT programs without empirical outcome data also were excluded, as were non-refereed dissertations and master’s theses. The reference lists of a previous literature review (Compton et al. 2008; reviewed studies through 2006), meta-analysis (Taheri 2016; included eight studies focused on arrest outcomes only), and each included article were also carefully reviewed. Our final analysis includes 25 published empirical studies of CIT programs in the US from 2005–2015, representing 21 unique study samples. Owing to the varying methodologies and inconsistent outcome data across studies, a meta-analysis of the data was not possible.

Results

The detailed results of this review are presented in Table 1. Of the 25 articles included, 7 studies took place in Georgia, 5 in Chicago, three in Ohio, 3 in Kentucky, 2 in Florida, and 5 in other locations or not specified. The concentration of research in Southern and Mid-Western states, and in large urban environments, raises questions about the generalizability of findings to other communities, especially those with distinct mental health resources. Compton et al. (2006) and Demir et al. (2009) report different findings from the same study that took place in Atlanta, so they are grouped together as one study for this analysis. Furthermore, Watson et al. (2010), and Watson et al. (2011) report different findings from the same study in Chicago. Additionally, Canada, Angell, and Watson (2010) and Canada, Angell, and Watson (2012) use a qualitative subsample from this same Chicago study. These four studies are grouped together for this analysis since they represent different findings from one sample. The independence of the 21 studies is also worth noting. About
Table 1. A systematic review of CIT training studies (n = 21).

<table>
<thead>
<tr>
<th>Study</th>
<th>Design</th>
<th>Participants</th>
<th>Outcome</th>
<th>Control group</th>
<th>Time frame</th>
<th>Results</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bahora et al. (2008)</td>
<td>Pre/post survey, quasi-experimental design</td>
<td>58 officers before CIT, 40 after CIT, 34 controls</td>
<td>Self-efficacy and social distance</td>
<td>Y</td>
<td>Immediately before and after CIT</td>
<td>+</td>
<td>After training, officers showed enhanced self-efficacy and reduced social distance</td>
</tr>
<tr>
<td>Bonfine, Christian, and Munetz (2014)</td>
<td>Survey</td>
<td>57 volunteer CIT officers</td>
<td>Attitudes and perceived impact</td>
<td>N</td>
<td>One-time survey administration</td>
<td>+</td>
<td>Positive feelings about skills, knowledge, and preparedness</td>
</tr>
<tr>
<td>Borum and Franz (2010)</td>
<td>Record review of police encounters</td>
<td>1539 CIT calls</td>
<td>Rate of arrest, disposition</td>
<td>N</td>
<td>Reviewed records over a 5-year period</td>
<td>N/A</td>
<td>Overall arrest rate is low for CIT calls (3%)</td>
</tr>
<tr>
<td>Broussard et al. (2010)</td>
<td>Record review of patient charts</td>
<td>300 patient charts</td>
<td>Characteristics of patients referred for ER services</td>
<td>N</td>
<td>N/A</td>
<td>0</td>
<td>CIT officers did not have a narrower or broader view of patients’ needs</td>
</tr>
<tr>
<td>Compton et al. (2014)</td>
<td>Survey (based on vignettes), quasi-experimental design</td>
<td>568 officers (251 CIT-trained)</td>
<td>Knowledge and attitudes about MI, self-efficacy for de-escalation, stigma, referrals</td>
<td>Y</td>
<td>One-time survey administration</td>
<td>+</td>
<td>CIT officers scored better on all six areas.</td>
</tr>
<tr>
<td>Compton et al. (2014)</td>
<td>Record review of police encounters, quasi-experimental design</td>
<td>180 officers (91 CIT-trained), 1063 encounters</td>
<td>Level of force and disposition</td>
<td>Y</td>
<td>Reviewed records over a 9-month period</td>
<td>±</td>
<td>CIT officers more likely to do referral and transport, less likely to arrest. No difference in use of force between officers with and without CIT</td>
</tr>
<tr>
<td>Compton et al. (2015)</td>
<td>Survey</td>
<td>171 chiefs, 353 officers (273 with CIT)</td>
<td>6 outcomes, vignette response, job satisfaction</td>
<td>Y</td>
<td>One-time survey administration</td>
<td>-</td>
<td>No significant difference between CIT and not CIT officers on any of the six outcomes. CIT officers less likely to use force than non-CIT when controlled for carrying an electronic control device.</td>
</tr>
<tr>
<td>Compton et al. (2006)</td>
<td>Pre/post survey</td>
<td>159 CIT officers</td>
<td>Attitudes, knowledge, social distance</td>
<td>N</td>
<td>Immediately before and after CIT training</td>
<td>+</td>
<td>Improved attitudes after training, more knowledge, less social distance</td>
</tr>
<tr>
<td>Demir et al. (2009)</td>
<td>Pre/post survey</td>
<td>159 officers</td>
<td>Understanding biological causes of schizophrenia</td>
<td>N</td>
<td>Immediately before and after CIT training</td>
<td>+</td>
<td>More likely to endorse biological causes of schizophrenia after CIT training</td>
</tr>
<tr>
<td>Davidson (2016)</td>
<td>Pre/post survey and follow-up</td>
<td>179 officers, 100 correctional officers</td>
<td>Knowledge, self-efficacy, perceptions of de-escalation</td>
<td>N</td>
<td>Immediately before and after CIT training, and 1-month follow-up</td>
<td>+/−</td>
<td>Improvement immediately after training on all measures, significant decay at 1-month follow-up on self-efficacy and perceptions of de-escalation.</td>
</tr>
<tr>
<td>El-Mallakh et al. (2008)</td>
<td>Pre-post city record data</td>
<td>CIT runs versus non-CIT runs</td>
<td>Arrest rate, occupancy in jail mental health unit</td>
<td>N</td>
<td>Reviewed records 1 year before and after CIT implementation</td>
<td>+/−</td>
<td>Arrest rate for CIT runs lower than non-CIT runs. Occupancy in jail MH unit remained constant.</td>
</tr>
<tr>
<td>Hanafi et al. (2008)</td>
<td>Focus groups, qualitative</td>
<td>25 officers who had completed CIT</td>
<td>Impact on interactions in daily work</td>
<td>N</td>
<td>One-time focus group</td>
<td>+</td>
<td>Reported increase in knowledge, awareness, and practical application of learned skills</td>
</tr>
</tbody>
</table>

(Continued)
<table>
<thead>
<tr>
<th>Study</th>
<th>Design</th>
<th>Participants</th>
<th>Outcome</th>
<th>Control group</th>
<th>Time frame</th>
<th>Results</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morabito et al. (2012)</td>
<td>Interviews</td>
<td>216 officers (91 CIT-trained, 125 non-CIT)</td>
<td>Use of force during last encounter with individual with MI</td>
<td>Y</td>
<td>One-time interview</td>
<td>-</td>
<td>CIT officers more likely to use force than non-CIT officers, however several significant interactions</td>
</tr>
<tr>
<td>Ritter et al. (2011)</td>
<td>Record review of officer reports</td>
<td>2174 CIT officer reports</td>
<td>Transport to jail, treatment, or no transport</td>
<td>N</td>
<td>Five years (2000–5)</td>
<td>+/-</td>
<td>Dispatch codes predicted type of transport</td>
</tr>
<tr>
<td>Ritter et al. (2010)</td>
<td>Pre/post survey (vignette-based) with follow-up</td>
<td>65 CIT volunteers versus 45 non-CIT officers</td>
<td>Tolerance of mental illness, perceived ability to handle MI calls</td>
<td>Y</td>
<td>Immediately before and after CIT training, 1-year follow-up for 38 CIT officers</td>
<td>+</td>
<td>CIT significantly increased perceived ability to handle mental health calls, results similar at follow-up</td>
</tr>
<tr>
<td>Skeem and Bibeau (2008)</td>
<td>Record review of officer reports</td>
<td>655 police reports for CIT events</td>
<td>Use of force, hospitalization versus arrest</td>
<td>N</td>
<td>Reviewed records over a 2-year period</td>
<td>N/A</td>
<td>Low level of arrests and force utilized, most calls resolved with hospitalization. No comparison group.</td>
</tr>
<tr>
<td>Steadman et al. (2000)</td>
<td>Review of dispatch calls</td>
<td>100 calls – 3 sites, one CIT, 2 specialized programs</td>
<td>Disposition arrests &amp; hospitalizations</td>
<td>Y</td>
<td>Reviewed records over 10 months</td>
<td>+</td>
<td>Low-arrest rates across all sites, CIT program had more specialized response on the scene</td>
</tr>
<tr>
<td>Strauss et al. (2005)</td>
<td>Record review</td>
<td>ER psychiatric evaluation referrals</td>
<td>Patients brought by CIT officers versus citizens</td>
<td>Y</td>
<td>Reviewed records over a 1-month period</td>
<td>0</td>
<td>CIT officers identified need for emergency services appropriately</td>
</tr>
<tr>
<td>Teller et al. (2006)</td>
<td>Review of dispatch logs pre and post CIT program</td>
<td>2 years before CIT and 4 years after</td>
<td>Rate of mental disturbance calls, disposition</td>
<td>Y</td>
<td>Reviewed records over a 6-year period</td>
<td>+/-</td>
<td>Increase in the number of calls, increase in transports to ER by CIT officers, slight increase in arrests for CIT officers (non-significant).</td>
</tr>
<tr>
<td>Tulley and Smith (2015)</td>
<td>Survey and interview</td>
<td>32 CIT officers</td>
<td>Perceptions of preparedness</td>
<td>N</td>
<td>One-time survey and interview</td>
<td>+/-</td>
<td>CIT officers felt better prepared after CIT, though wanted more information about community resources and partnerships</td>
</tr>
<tr>
<td>Tyuse (2012)</td>
<td>Record review of dispatch calls</td>
<td>5623 CIT calls over 4 years</td>
<td>Transports to ER, type of calls, demographics</td>
<td>N</td>
<td>Reviewed records over a 4-year period</td>
<td>N/A</td>
<td>High rate of ER transport, descriptive with no control group</td>
</tr>
<tr>
<td>Watson et al. (2010)</td>
<td>Officer interviews</td>
<td>112 officers (56 CIT-trained, 56 non-CIT)</td>
<td>arrests, direction to services</td>
<td>Y</td>
<td>In-person interview, 1, 3, 6 months follow-up phone interviews</td>
<td>+/-</td>
<td>No impact on arrest, CIT directed more people to MI services (moderator relationships)</td>
</tr>
<tr>
<td>Watson et al. (2011) Same sample</td>
<td>Officer interviews</td>
<td>112 officers (56 CIT-trained, 56 non-CIT)</td>
<td>Community resources and call disposition</td>
<td>Y</td>
<td>One-time interview</td>
<td>+/-</td>
<td>CIT officers more likely to direct to mental health system than non-CIT officers, but no reduced likelihood of arrest.</td>
</tr>
<tr>
<td>Canada, Angell, and Watson (2010) Same sample</td>
<td>Qualitative interviews</td>
<td>20 officers (60% CIT)</td>
<td>Perceptions of CIT</td>
<td>N</td>
<td></td>
<td>0</td>
<td>Officers saw benefits of the CIT program.</td>
</tr>
<tr>
<td>Canada, Angell, and Watson (2012) Same sample</td>
<td>Qualitative interviews</td>
<td>20 police officers</td>
<td>Understanding of response tactics</td>
<td>N</td>
<td></td>
<td>+</td>
<td>CIT officers had more specialized understanding of response, assessment and disposition</td>
</tr>
</tbody>
</table>

Key: + = Positive, - = Negative, 0 = Neutral, +/- = Mixed.
half of them were coauthored by one or more past or present members of the Board of Directors of CIT International, the program’s governing body.

**Study design issues**

Of these 21 studies, 38% were surveys conducted with police officers ($n = 8$), 48% were record analyses ($n = 10$), and 14% involved focus groups or officer interviews ($n = 3$). Ten of the 21 studies (48%) included some sort of comparison or control group. For example, Watson et al. (2011) compared CIT-trained officers to non-CIT-trained officers in terms of their contacts with persons with mental illness. However, none of the studies randomized participants or used propensity scores to equate control groups for analysis. Without any randomized, controlled studies of CIT, it is not possible to know if positive outcomes are a result of sample bias (i.e., officers who self-select into the program), or a placebo effect from participating in a weeklong certification course. We explore these issues further in the discussion section.

There is also a lack of longitudinal studies in the literature. Only two studies include any follow-up data. Davidson (2016) found that 1 month after CIT training, knowledge about mental illness did not change, but self-efficacy and perceptions of verbal de-escalation both significantly declined to lower levels than pre-CIT training. Ritter et al. (2010) collected 1-year follow-up data for a subset of their original sample. They found that CIT training increased feelings of preparedness to handle mental health calls among officers, and these results were similar 1 year after the training took place. However, attrition was an issue for both studies. Davidson (2016) collected 1-month follow-up data for 117 of the original 279 participants (an attrition rate of 58%), and Ritter et al. (2010) collected 1-year follow-up data for 38 out of the 65 CIT participants (attrition rate of 42%).

**Outcome measures**

This review has asked, is CIT training for law enforcement officers effective? We recognize the answer is contingent on how the word effective is defined and operationalized. The 21 studies examined focused on a wide range of CIT outcomes, from knowledge to perceptions and attitudes to behaviors that impact practice. Each study was coded for whether it included 10 primary

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Number of studies</th>
<th>N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disposition</td>
<td>10</td>
<td>(47.6%)</td>
</tr>
<tr>
<td>Arrests</td>
<td>5</td>
<td>(23.8%)</td>
</tr>
<tr>
<td>Feeling prepared</td>
<td>5</td>
<td>(23.8%)</td>
</tr>
<tr>
<td>Knowledge about mental illness</td>
<td>4</td>
<td>(19.0%)</td>
</tr>
<tr>
<td>Use of force</td>
<td>4</td>
<td>(19.0%)</td>
</tr>
<tr>
<td>De-escalation skills</td>
<td>3</td>
<td>(14.3%)</td>
</tr>
<tr>
<td>Self-efficacy</td>
<td>3</td>
<td>(14.3%)</td>
</tr>
<tr>
<td>Attitudes about mental illness</td>
<td>3</td>
<td>(14.3%)</td>
</tr>
<tr>
<td>Assessment of patient needs</td>
<td>2</td>
<td>(9.5%)</td>
</tr>
<tr>
<td>Social distance</td>
<td>2</td>
<td>(9.5%)</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>(9.5%)</td>
</tr>
</tbody>
</table>

Each study could have more than one outcome.
outcomes of interest, including reductions in use of force during interactions with persons with mental illness; dispositions to not arrest persons in crisis, but rather divert them to emergency rooms or outpatient treatment centers; and improved knowledge about mental illness, and the signs and symptoms of mental health crises (Table 2).

We recognize that some of these outcomes result from implementation of the broader CIT model, of which the 40-h training is only one component. However, in the absence of a logic model detailing the causal mechanisms through which a multifaceted intervention is believed to operate, the training is the only consent and in most studies, it is identified as the primary mechanism for change. The most prevalent outcome examined across studies was disposition (i.e., outcome of a police encounter such as arrest or ER transport; 47.6% of studies), followed by arrests (23.8%). Both are behavioral outcomes and, along with use of force, arguably the most important measures of CIT’s effectiveness. However, only one study that examined call disposition or actual arrest data demonstrated positive results (Steadman et al. 2000); indeed, although results were statistically significant, some small to moderate effect sizes indicate that they may not be practically meaningful (i.e., Compton et al. 2006). The impact of CIT training on de-escalation was particularly understudied. In fact, one study found that CIT-trained officers were more likely than non-CIT-trained officers to report using force in their last interaction with an individual with mental illness (Morabito et al. 2012).

Studies also found CIT officers were more likely to transport to a hospital Emergency Room (e.g., Skeem and Bibeau 2008; Teller et al. 2006; Tyuse 2012). Again, such outcomes are contingent on more than just CIT training, including available community resources and partnerships. But where this intersects with training is the messaging around the need for hospitalization. Contrary to the CIT curriculum, hospitalization is not necessarily a positive outcome for many individuals with mental illness trying to avoid medical charges and medication changes. This suggests more work is needed to articulate why and how outcomes are truly beneficial. For example, the CIT model in some cases lowered the number of arrests (Borum and Franz 2010), but in other cases it increased them (e.g., Teller et al. 2006), and in others still, it had no impact on arrest at all (Watson et al. 2010). But the bigger question is whether arrest is meaningful outcome measure, particularly when in one study occupancy in a jail mental health unit remained constant despite lower arrest rates (Ell-Mallakh et al. 2008). The implication here is that quantitative outcomes such as arrest are contingent on the qualitative context surrounding the crisis call, which is difficult to capture or control for using conventional police data (for a discussion, see Blevins, Lord, and Bjerregaard 2014; Lord et al. 2011).

The next most cited outcome of CIT training was self-reported feelings of preparedness for an encounter with someone with mental illness (23.8%). This was captured in part using measures of self-efficacy and social distance (e.g., Bahora et al. 2008), but also perceptions of knowledge about mental illness and skills pertaining to crisis intervention (e.g., Bonfine, Christian, and Munetz 2014; Compton et al. 2014; Davidson 2016; Ritter et al. 2010). Some of these measures were narrow and arguably less aligned with law enforcement goals, for example, endorsement of the biological causes of schizophrenia (Demir et al. 2009). Still, seven of the studies (33.3%) reported a positive outcome, while the rest reported mixed results. Of the seven positive studies, five were surveys administered to officers immediately after CIT training, one was a qualitative focus group, and one was record review. Six of the studies that had positive findings relied on officer self-report.

**Moderating factors**

**Individual factors**

There is little information available about the individual characteristics of officers that may impact the overall effectiveness of CIT training. Gender, race, age, years on the force, personality, and past experiences may all moderate CIT outcomes. For example, Watson et al. (2010) found the CIT model was most effective at connecting individuals with mental illness to services among officers who
personally knew someone with a mental illness and officers who had a more positive view of mental illness. Davidson (2016) found that women gained more self-reported self-efficacy after CIT training than men. Despite its centrality to questions of internal validity, few studies examined whether there were differences between officers who volunteered for CIT training versus those who did not. Compton et al. (2011) found that CIT volunteer officers were more likely to have past experiences with mental illness (themselves or people they knew), but they not have higher baseline empathy or psychological mindfulness scores than non-volunteers. Ritter et al. (2010) found that volunteers for CIT training were more tolerant of mental illness than non-volunteers and also felt less prepared to handle mental health calls than their peers. Davidson et al. (2015) found that non-volunteers gained more knowledge about mental illness than volunteers.

Community factors

Tulley and Smith (2015) found that officers did not feel like they had enough knowledge of their community resources after CIT training and wanted stronger community partnerships between police and mental health providers. Watson et al. (2011) only found differences between CIT and non-CIT officers in well-resourced communities, indicating that the 40-h CIT training may only be activated in certain contexts; further challenging the efficacy of stand-alone training. While the full CIT model calls for a 24/7 drop-off center, typically only urban communities have access to them, and CIT training may be moot in the absence of CIT-trained dispatchers, crisis lines, open hospital beds, detox services, mental health providers, and homeless shelters (Ritter et al. 2011; Watson et al. 2011; Compton et al. 2006). Beyond questions of external validity, another issue raised in the literature is the saturation point of CIT officers; there is no consensus about how many CIT certified officers are needed in a community or what percentage of the force should be trained (Watson et al. 2011).

Discussion

Little can be said about the impact of CIT training after 30 years. The 25 published, empirical studies located for this analysis have many methodological issues including varying outcome indicators that may not be relevant to the key practices of CIT, a reliance on self-report officer data, a lack of comparison or control groups, and inadequate follow-up data (for a discussion, see Blevins, Lord, and Bjerringaard 2014; Lord et al. 2011). The findings were a mix of positive and negative outcomes across contexts. Nothing can be said about how long the impact of training lasts and how often skills should be refreshed. In the age of evidence-based practice in criminal justice (e.g., Clawson and Guevara 2010), CIT training does not have the sizable supportive evidence to justify its widespread adoption.

Implications for future research

Selection bias is a major concern with CIT training. Although there is a wide variation in how officers are chosen to become CIT-trained across the country, the original model design required officers to volunteer for the training. For example, Davidson (2016) surveyed 279 officers at CIT trainings across Florida, finding that 62% of officers were volunteers. This raises the question of what type of officer generally volunteers for training. It is possible that CIT volunteers are already predisposed to positive encounters with people with mental illness. Watson et al. (2011) conclude that ‘it appears that departments may get the biggest “bang for the buck” by selecting officers who have personal motivations for improving knowledge and skills for responding to person with mental illness’ (313). Future studies are needed to disentangle whether CIT training genuinely improves skills, habits, and social and personality attributes conducive to policing mental illness (a human capital argument) or whether having completed CIT training is merely a reliable indicator of underlying prosocial attributes that were always there (a signaling perspective). If some people are inherently better at empathy and verbal de-escalation than others, perhaps CIT training is merely a mechanism to promote this
difference (see Hilal, Densley, and Jones 2017). In personal communication with Watson and Fulambarker (2012, p. 75), CIT’s founder Sam Cochran notes, ‘it is not the specific percentage of officers that are CIT trained that is most important. Rather, it is getting the right officers trained’. Beyond the profile of CIT officers, it would be helpful to know their motivations for getting trained and the select incentives for doing so. Some caution is needed against controlling for selection in the interests of ‘gold standard myths’ (e.g., Sampson 2010), but there is no doubt in this case that a randomized controlled trial (RCT) would help identify the correlates and causes of any behavior change attributed to CIT. Individual agencies or entire law enforcement systems (e.g., Minnesota) that intend to have 100% of their patrol officers complete CIT training, would benefit most from this information.

An RCT would also help isolate other CIT training outcomes. The ‘benefits’ of self-selection or volunteering aside (Compton et al. 2017), the causal mechanism(s) underlying CIT training outcomes are unclear. For example, is 13.5 h of mental health didactics helpful to police officers? Do officers need to be distinguishing between diagnoses in the field, and is that much information retained over time? Are the role-play exercises with actors consistent with the real-life pressurized experiences of officers? Are officers adequately trained when and how to use de-escalation skills across contexts? These are all open questions for future research. Fidelity to the CIT curriculum is also in need of study, considering there is considerable variation in the training protocols across the country.

However, there are barriers to data collection, as described in detail by Blevins, Lord, and Bjerregaard (2014). Notably, mental health information is protected by the 1996 Health Insurance Portability and Accountability Act (HIPPA) and many law enforcement departments do not have a systematic way of tracking CIT-trained officers or collecting information on crisis calls (or even identifying crisis calls), rendering it almost impossible to construct a control group. Such explains why research to date has been limited to nonexperimental and quasi-experimental designs and why researchers have struggled with devising a feasible RCT for CIT training (see Watson 2010; Blevins, Lord, and Bjerregaard 2014). Still, studies with weaker designs may be inflating the apparent effects of CIT training. One solution might be to use historical controls, whereby researchers use the results of earlier, nonrandomized trials to establish a crude baseline, and then compare the results of subsequent nonrandomized studies to that benchmark. This could be coupled with single-case experiments that involve many observations of CIT-trained police officers’ behavior over time.

**Implications for policy and practice**

Law enforcement is at an inflection point following a series of high-profile use-of-force incidents (President’s Task Force on 21st Century Policing 2015). CIT training has been characterized in the media and by policy-makers as the solution. Yet, scholars warn that policy ‘cascades’ such as this can be counterproductive (Kuran and Sunstein 1998). For example, the famous domestic violence experiment in Minnesota (Sherman and Berk 1984) led to the premature adoption of mandatory arrest as a response to domestic assaults, demonstrating that generalization from a single (even very well done) study is problematic (Papachristos, Meares, and Fagan 2007). The paucity of systematic CIT training evaluations, especially those of experimental design, must be addressed before CIT training becomes a statewide or nationwide mandate.

Further, the findings of this review present an opportunity to reflect upon the current state of CIT training. Our understanding of both mental illness and policing has advanced significantly since the CIT model was first developed in 1988, likewise our understanding of the complex relationship between symptoms and crime (Skeem, Manchak, and Peterson Jillian 2011; Peterson et al. 2014). For example, CIT training is built upon a medical model of mental illness. However, there is now ample support for the idea that mental illness exists along a spectrum (Adam 2013), and that mental illness can be triggered and exacerbated by trauma, stress, and other environmental factors.
(Avison and Gotlib 1994; Belsky and Pluess 2009; Whitfield 1998). Likewise, treatment and recovery involves not only access to medication and therapy, but individual and group resilience factors such as a home, purpose, and social support (Davydov et al. 2010).

Effective criminal justice interventions for individuals with mental illness involve boundary spanners who can link systems together (Steadman 1992), and holistic approaches to support individual needs (Skeem, Manchak, and Peterson Jillian 2011). As currently delivered, CIT training neither directly incorporates these ideas, nor discusses trauma principles (i.e., Miller and Najavits 2012). CIT training also does not adequately address issues of race, gender, culture, and language (Hall, Hall, and Perry 2016; President’s Task Force on 21st Century Policing 2015) or challenge officers to examine their own stigmas, stereotypes, biases, and experiences with stress and trauma – all factors that likely influence their ability to de-escalate others (Ruiz and Miller 2004).

To this point, CIT was originally designed to help police officers connect people with serious mental illness to treatment, incorporating de-escalation skills as a helpful component during these encounters. However, there is no reason that de-escalation strategies should be employed exclusively when interacting with someone in a mental health crisis. Crises equally can be classified as developmental and maturational, situational, or disastrous and adventitious (Jakubec 2014). In Minnesota, for example, there was no evidence that either Jamar Clark or Philando Castile were afflicted with mental illness or in the midst of a mental health crisis when police shot and killed them in 2015 and 2016, respectively (Gilbert 2017). But it was these incidents that prompted the Minnesota legislature to mandate in-service crisis intervention training for law enforcement. Many other police encounters would benefit from de-escalation, including domestic violence calls (the source of Clark’s encounter), traffic stops (Castile’s), drug and alcohol use, and interactions with veterans, youth, and victims. By training officers to look for mental health diagnoses before utilizing de-escalation, therefore, CIT could be annexing strategies that are applicable in day-to-day policing. Treating mental illness as a ‘master status’ during police encounters may even increase stigmatization (Fisher, Silver, and Wolff 2006). Tying de-escalation to use of force, moreover, perpetuates the myth that people with mental illness are inherently violent, when in fact they are more often the victims of violence (Chloe, Teplin, and Abram 2008).

Other fields have established evidence-based protocols for de-escalation strategies. For example, psychiatry (Richmond et al. 2012), nursing (Price and Baker 2012), and special education (Martel and Cavanaugh 2016) regularly implement de-escalation protocols for their staff. The Crisis Prevention Institute (CPI) offers a 1-day de-escalation training program that has become the standard in health and human services (www.crisisprevention.com). It is unclear how CIT training is consistent with or deviates from established protocols. It may be possible to train officers more efficiently, in less than 40 h, by focusing on high-impact, evidence-based practices, and skipping extraneous information and activities.

Since community resources influence the impact of CIT (Watson et al. 2011; Compton et al. 2006), crisis intervention training, whether CIT or otherwise, should be tailored and specific to the needs and resources of each community and law enforcement agency. One of the studies reviewed stressed that CIT-trained officers wanted more information about community resources and partnerships (Tulley and Smith 2015). Beyond this, however, urban centers with 24/7 drop-off facilities and crisis support lines in place will need different strategies and protocols than small towns where the nearest hospital is a 3-h drive. Policing is locally controlled; therefore, an understanding of agency culture and resources is needed. CIT presently involves 40 h of training over a 1-week period. At many smaller law enforcement agencies, taking an officer off the street for 40 h is not feasible logistically. CIT also costs approximately $800 per officer, which is prohibitive at many underfunded agencies. Including the voices of individuals with mental illness from specific communities may also be helpful.
Conclusion

CIT training has limited empirical support. High-quality studies with appropriate outcome data, comparison groups, and follow-up are needed in order to establish CIT training as an evidence-based practice. Police officers are on the frontline of the mental health crisis in the US, and need the tools and resources for this role. After 30 years of CIT, it may be time for a paradigm shift in police training. A ‘gold-standard’ in police training should be adaptive to the latest research, incorporate the needs and resources of individuals agencies and communities, and embrace the complexity of the problem of mental illness in the criminal justice system. Protocols need to be periodically updated, officer skills need to be regularly refreshed, and complex interactions in the field need to be debriefed. Collaborations between researchers and police agencies can help build the evidence base needed to establish effective protocols and determine their impact.

Disclosure statement

No potential conflict of interest was reported by the authors.

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References


