Crisis event dispositions following a crisis response team intervention

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Abstract

Objective: We examined dispositions of Crisis Response Team (CRT) events over two years in a large Midwestern city.

Methods: Between January 1, 2018 to December 31, 2019, the CRT self-dispatched to mental/behavioral health-related 9-1-1 calls. Data utilized for analysis included demographic information of persons in crisis, crisis type, and crisis event dispositions. Crisis types were mental health, self-harm, and substance use related. Event dispositions included immediate detention, arrest, transport and issue resolved. Multinomial regression models were used to predict crisis event dispositions as a function of the three crisis types, controlling for covariates. The sample included 1,426 events to distinct individuals.

Results: Most CRT events involved persons who were White (47.7%; n=680), male (56.1%; n=800), and an average of 39.3 years of age (SD=16.6). Most crises were mental health (65.4%; n=932), followed by self-harm (31.7%; n=452), and substance use (25.9%; n = 370). Events were generally resolved at the scene (55.0%, n=784); over a quarter resulted in immediate detention (26.9%, n=384), followed by voluntary transport (14.0%, n=200), and arrest (4.1%, n = 58). Crisis type was a significant predictor of event dispositions: self-harm crises were associated with immediate detention and voluntary transport, and substance use crises with arrest. Homelessness was also a significant predictor of arrest.

Conclusions and Implications for Practice: Findings provide a better understanding of the short-term impact of CRTs. Data highlight how crisis type indicators predict event dispositions, demonstrating potential for more efficient emergency responder utilization by dispatching units according to crisis type.

Keywords: Crisis response team, persons with mental illness, diversion

Impact and Implications

Findings from this study contribute to the knowledge base around crisis response teams (CRTs) and allows for a better understanding of the factors that predict crisis event dispositions. Further, findings provide insight into how crisis responses may be modified or improved, and as CRTs become increasingly popular, this will be essential to ensure best outcomes in mental/behavioral health-related emergencies.

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Introduction

In the United States persons with mental illness (PMI) are largely overrepresented in the criminal legal system. It is estimated that 44% of jail inmates and 37% of prison detainees have a diagnosable mental illness (Bronson & Berzofsky, 2017), prevalence rates that have steadily, proportionately increased alongside the overall incarceration rate in the US (Al-Rousan et al., 2017; Diamond et al., 2001; Lamb & Weinberger, 1998). Several factors contribute to this phenomenon, including deinstitutionalization and insufficient community treatment, services, and housing (Bassuk & Gerson, 1978; Bradley-Engen et al., 2010; Gilligan, 2001; Lamb, 1984; Livingston, 2016; Osher et al., 2003; Sharfstein, 2000; Steadman et al., 1984; Teplin, 1984; Yohanna, 2013). Importantly, those in economic and socially-disadvantaged contexts, especially PMI, are at a higher risk of criminal-legal system involvement (Draine et al., 2002; Sheldon et al., 2006). A compounding factor for many PMI are co-occurring substance use disorders, which increases the risk of arrest as addiction is largely criminalized in the United States (Lurigio, 2011). Indeed, more than 70 percent of inmates with a mental illness in jails and prisons also meet criteria for substance use dependence (Hartwell, 2004; James & Glaze, 2006).

Police officers often respond to mental health-related emergencies (Lamb et al., 2002), and studies suggest that PMI are more likely to be arrested than the general population (Borum et al., 1997; Charette et al., 2014; Fisher et al., 2011; Swartz & Lurigio, 2007; Teplin, 1984), which is explained in part by the lack of alternative response options following a mental health crisis (Borum, 2000; Engel & Silver, 2001; Hails & Borum, 2003; Lamb et al., 2002; Teplin, 1984). An emerging intervention to address mental health crises are co-responding police-mental health teams, also called co-response teams, mobile crisis teams, or crisis response teams (hereafter referred to as CRTs), which involve the pairing of a police officer with a social or medical

service provider to provide initial emergency and/or follow-up response (Baess, 2005; Hay, 2014; Kirst et al., 2015; Kisely et al., 2010; Ratansi, 2004; Rosenbaum, 2010; Saunders & Marchik, 2007; Roger L. Scott, 2000; Shapiro et al., 2015, 2015; Steadman et al., 2000; The Allen Consulting Group, 2012). There exists much variation in how CRTs are operationalized and implemented (Puntis et al., 2018), making it difficult to compare models; however, overall reported outcomes of CRTs are generally positive, with findings showing reductions in detainment and hospitalization of PMI and increased referral to community care services (Puntis et al., 2018; Shapiro et al., 2015; Watson et al., 2019).

However, studies of CRTs have largely focused on program implementation (Bailey et al., 2018; Helfgott et al., 2015; Kirst et al., 2015; Lamanna et al., 2018; Morabito et al., 2018) and consumer satisfaction (Kirst et al., 2015; Lamanna et al., 2018; Ligon & Thyer, 2000; Saunders & Marchik, 2007), with some positive, but limited findings focused on arrest and hospitalization rates. For example, in a study by Fahim and colleagues (2016), hospitalization outcomes were assessed using pilot data only, and arrest outcomes were based on police officers' expectations for how they would respond in various scenarios involving PMI (Fahim et al., 2016). In other studies (Morabito et al., 2018; Scott, 2000), only descriptive statistics are reported, leaving questions regarding what determines CRT event dispositions. In this paper, we refer to the immediate results of a CRT response as an event "disposition" to differentiate between these and the short- or long-term outcomes experienced by those who received a CRT response to their crisis. Event dispositions include "immediate detention," "arrest," "voluntary transport," and "issue resolved at the scene."

The current study analyzes two years of administrative data collected by a CRT to consider what factors contribute to determining CRT crisis event dispositions. This study is the

first to look at predictors of dispositions following CRT events, and unlike previous studies that have examined CRTs during implementation (Fahim et al., 2016; Helfgott et al., 2015; Kisely et al., 2010; Lamanna et al., 2018), data from the current study come from a post-pilot CRT program in a large metropolitan area (Indianapolis, Indiana). The analysis considers whether the type of crisis is predictive of the event disposition. Crisis type is recorded by the CRT and refers to the primary crisis (or crises) as conveyed over police dispatch radio. We look at three categories of crisis type that are not mutually exclusive: mental health, self-harm, and substance use. Events recorded as mental health crises are those in which the person in crisis has a known or perceived mental health diagnosis and is experiencing a related crisis. A self-harm crisis is any that involves a person who has purposefully hurt themselves or attempted suicide. A substance use crisis is one in which licit or illicit substances contributed to the crisis situation at hand (e.g., overdose, disorientation, etc.) The current paper aims to answer the following question: what factors influence CRT event dispositions? Event disposition refers to how the crisis was settled when the CRT left the scene (immediate detention, arrest, transport, or issue resolved at the scene).

Methods

Procedures

The information examined in this study comes from administrative records of completed CRT events by the Indianapolis Mobile Crisis Assistance Team (MCAT). The primary objective of the MCAT program is to respond to behavioral and mental health emergencies such that other first responders can be relieved from the scene and people in crisis can be diverted to appropriate health and social services. The MCAT consists of a police officer with Crisis Intervention Team (CIT) (Dupont & Cochran, 2002; International Crisis Intervention Team, 2021) and Mental

Health First Aid training partnered with a master's level, licensed mental health clinicians with a minimum of three years of experience working with individuals having persistent severe mental illness. The MCAT listens to police dispatch radio during weekdays between 10:00 A.M. and 5:30 P.M. and self-dispatches to 9-1-1 calls that meet the eligibility criteria. Eligible events are those for which an officer with specialized mental-health training is requested or mental health or substance use diagnosis, signs, or symptoms are mentioned. The MCAT also serves as backup at the request of other first responders during a mental health crisis (see Bailey et al., 2018 for full model description).

In this study we use administrative data from the CRT which includes information on the time, location, and circumstances of event; primary crisis type(s); demographic information on persons in crisis; and event dispositions. There were 1,895 unique CRT encounters with an event disposition; 288 were repeat or follow-up events that were removed so our analysis could focus only on the initial CRT encounter and event disposition. While repeat events merit more in-depth consideration, it is out of the scope of the current study. Of these initial encounters, 9 were missing demographic information and 172 were crisis types outside the scope of MCAT (e.g., domestic violence, physical health, or "other"). These were removed from the analysis resulting in a final sample of 1,426 events to distinct individuals between January 1, 2018, and December 31, 2019.

Measures

Demographic measures included age (continuous), gender (1 = male, 2 = female, 3 = other), race/ethnicity (1 = White, 2 = African American or Black, 3 = Other), and homelessness (1 = yes, 0 = no). The crisis types associated with each event (self-harm, mental health, substance use) were not mutually exclusive. Appendix 1 displays the overlap among these crisis types.

We examined four mutually exclusive dispositions for the CRT events: *immediate detention* indicated an individual was involuntarily admitted for hospitalization during the CRT event. According to Indiana statute (Section 12-26-4), law enforcement may place residents under immediate detention for 24 hours if an officer has reason to believe that the individual has a mental illness, is dangerous to themselves or others, or is gravely disabled and in immediate need of hospitalization and treatment. *Arrest* indicated a person was arrested at the scene either by the CRT officer or another officer. *Transport* indicated an individual was voluntarily transported to a hospital, clinic, diversion center or other location (not including instances of arrest or immediate detention). *Issue resolved* indicated the crisis was resolved at the scene of the event, meaning no immediate detention, arrest, or transport took place.

Analytic Plan

Descriptive statistics were calculated to detail the distribution of client demographics, crisis types, and event dispositions. Bivariate analyses were calculated between the three crisis types and four event dispositions to check the independence of events. Finally, a series of multinomial regression models were employed to predict event dispositions as a function of the three crisis types while controlling for covariates. All analyses were performed using SPSS version 26.0 (IBM Corp., Armonk, NY, United States). The statistical significance cutoff level was p < .05.

Results

Sample event characteristics are presented in Table 1. Among the 1,426 individual CRT events, most individuals involved were White (47.7%; n = 680) males (56.1%; n = 800), between the ages of 20 and 29 (24.8%; n = 354), and were not experiencing homelessness (97.1%; n = 1,385). A majority of crises were mental health related (65.4%; n = 932); self-harm crises

represented 31.7% of the sample (n = 452), and substance use crises 25.9% (n = 370). Most CRT events were resolved at the scene (55.0%, n = 784). The rest of CRT events resulted in immediate detention (26.9%, n = 384), transport (14.0%, n = 200), or arrest (4.1%, n = 58). Post hoc comparison using the Tukey HSD test was conducted to compare the effect of crisis types on event dispositions (Table 2). Self-harm crisis (F(3, 1422) = 48.150; p < 0.001) and substance use crisis (F(3, 1422) = 3.385; p = .018) showed more variability between event dispositions, and mental health crisis followed (F(3, 1422) = 3.385; p = .018).

Multinomial Regressions of Event Dispositions

A series of multinomial regression models were conducted to examine the relationship between crisis types (self-harm, mental health, and substance use), and event dispositions (immediate detention, arrest, transport, issue resolved), where *issue resolved* was the reference outcome category. For reference, Model 1 included the self-harm crisis type and covariates, Model 2 included the mental health crisis type and covariates, and Model 3 included the substance use crisis type and covariates.

As illustrated in Table 3, Model 1 ($\chi^2(15, N = 1,426) = 166.128$, Nagelkerke $R^2 = 0.124$, p < .001) showed that a self-harm crisis increased the likelihood of an immediate detention outcome (AOR=4.176; 95% CI=3.191-5.465; p < .001), and a transport outcome (AOR=2.258; 95% CI=1.610-3.166; p < .001); suggesting transport or immediate detention, but not arrest nor issue resolved at scene was most common event disposition in a self-harm crisis.

Model 1 further demonstrated that an immediate detention was also more likely for participants who were younger in age (AOR=0.986; 95% CI=0.978-0.994; p = .001). A disposition of arrest was more likely when participants were younger in age (AOR=0.980; 95%

CI=0.963-0.998; p = .029) or homeless (AOR=5.062; 95% CI=1.891-13.545; p = .001) and were not female (AOR=0.458; 95% CI=0.246-0.855; p = .014).

Model 2 ($\chi^2(15, N = 1,426) = 55.732$, Nagelkerke $R^2 = 0.043$, p < .001) examined the effect of a mental health crisis on event dispositions. This model found that participants with a mental health crisis were less likely to have an event disposition of arrest (AOR=0.560; 95% CI=0.323-0.972; p = .039) or transport (AOR=0.711; 95% CI=0.514-0.985; p = .041). There was no significant relationship between a mental health crisis type and a disposition of immediate detention. An event disposition of immediate detention was more likely for younger participants (AOR=0.982; 95% CI=0.975-0.990; p < .001). Arrest was more likely in events involving participants who were younger in age (AOR=0.981; 95% CI=0.963-0.999; p = .037) and homeless (AOR=5.035; 95% CI=1.872-13.542; p = .001); conversely, an arrest was less likely (AOR=0.451; 95% CI=0.242-0.840; p = .012), for those were female. Further, the likelihood of a transport disposition increased for participants who were younger in age (AOR=0.990; 95% CI=0.980-0.999; p = .038).

Finally, in Model 3 ($\chi^2(15, N = 1,426) = 66.073$, Nagelkerke $R^2 = 0.051$, p < .001) we examined the effect of including a substance use crisis type. An outcome of arrest was more likely in events that involved participants who had a substance use crisis (AOR = 3.073; 95% CI=1.759-5.368; p < .001) and was the only event disposition that was significantly associated with a substance use crisis as the findings were null with respect to an immediate detention and transport disposition. Model 3 also indicated that an immediate detention was more likely for participants younger in age (AOR = 0.982; 95% CI=0.974-0.990; p < .001). Moreover, an arrest outcome was more likely for participants who were younger in age (AOR = 0.979; 95% CI=0.960-0.998; p = .027) and for those who were experiencing homelessness (AOR = 3.900; 95%

CI=11.426-10.669; p = .008), while the likelihood of arrest was lower for participants who were not female (AOR=0.515; 95% CI=0.274-0.967; p = .039). A transport disposition was more likely for participants that were younger in age (AOR=0.989; 95% CI=0.979-0.998; p = .022).

Discussion

The current study analyzed CRT event-level data collected over a two-year period by a mobile crisis response team in a large Midwestern city. Our findings contribute to the greater understanding of the characteristics of persons and crises to which a CRT responds and the factors that influence event dispositions in these encounters. Importantly, more than half of crisis events (55.4%) were resolved at the scene; events that involved a mental health crisis were most commonly resolved at the scene relative to other event dispositions. This study found an overall arrest rate of 4.1% among all CRT events. Promising for a diversion effort, this figure is lower than the estimates of arrest rates among typical police responses to mental health emergencies. For example, in a recent study using administrative data from the Seattle Police Department, the arrest rate in police responses to mental health emergencies was identified to be approximately 10% (Todd & Chauhan, 2020). However, studies of other CRTs indicate an arrest rate of 4.1% may be relatively high for a CRT program, (Helfgott et al., 2015; Lamanna et al., 2018; Puntis et al., 2018), with one study by Morabito and colleagues (2018) reporting an arrest rate of less than 1% among a Boston CRT (Morabito et al., 2018). It is important to note that while the CRT responded to the events in the study, they were not necessarily the only first responders at the crisis scene; other first responding officers may still make an arrest despite the presence of the CRT. Unfortunately, the present study did not include data on the occurrence of arrestable offenses encountered at crisis events, which is important for understanding differences in arrest rates among diversion models. Notably, having a substance use crisis was significant in

predicting arrest. An arrest in this scenario may be related to drug possession or drug paraphernalia, but this is a concerning finding given the health risks posed by incarceration for people who use drugs (Binswanger et al., 2007; Brinkley-Rubinstein et al., 2018; Zaller & Brinkley-Rubinstein, 2018). Immediate detention outcomes, situations in which the CRT felt the person was an imminent danger to themselves or others, was more likely in events involving those with a self-harm or mental health crisis indicator. A recent study of police interactions with mental health crises also found that severe mental illness (i.e., risk of suicide) was a predictor of immediate detention (Todd & Chauhan, 2020).

The type of crisis to which the CRT responds largely determines the event disposition. This indicates that responses could be specialized based on crisis type, and that law enforcement resources could be used more efficiently for crises where they are most needed. For instance, in mental illness-related crises, the best response option may be a clinician-only unit that can deescalate and connect a person with services, given that these cases are not likely to result in immediate detention or arrest. A crisis type involving self-harm for which an individual should be placed under immediate detention may be best responded to by a CRT that includes a clinician and an officer with the authority to transport the person in crisis to a hospital or crisis center. Furthermore, for emergencies involving substance use or overdose, specialized responses that do not involve police may be better situated to connect a person with harm reduction or treatment services, whereas police protocol would warrant arrest. Training for dispatchers to best identify crisis type may allow for more specialized teams to respond to specific crises and result in better outcomes for persons in crisis and more efficient use of law enforcement services(Lum et al., 2020; Simpson, 2020).

Finally, individual characteristics outside of crisis types that impacted event outcomes included homelessness and age. Homelessness was significantly predictive of arrest in all three multinomial regression models; depending on the availability of shelters or crisis centers, arrest may be perceived by police as the only immediate option for a person experiencing homelessness – yet, although homelessness is commonly addressed with law enforcement action, the criminalization of homelessness exacerbates the issues commonly experienced by this population (Batko et al., 2020; Hartmann McNamara et al., 2013; Herring et al., 2020; Robinson, 2019). For these reasons, it is concerning that police should respond to mental health or substance use crises involving people experiencing homelessness given the long-term negative effects of incarceration. Younger age was also a significant predictor of outcomes in each model presented, highlighting the fact that elderly-aged persons represented a small portion of the overall sample of persons with a CRT-eligible crisis. Of note, nearly half of the sample of crisis events involved African American or Black persons in a city where the population is 29.1% so, highlighting a disproportionate number of CRT encounters with this subpopulation. However, race was not a predictor of any of the outcomes assessed in this study.

Future Directions and Implications of Findings

Findings of this study provide insight into how crisis responses may be modified or improved, and as CRTs become increasingly popular, this will be essential to ensure best outcomes in mental/behavioral health-related emergencies. Optimizing positive dispositions – those that were not associated with an arrest – should be a focus of future research, including factors related to risk assessment and triaging of disposition options. This may involve understanding the role of how dispatch messaging could better inform specialized emergency response. Police involvement with CRTs is another area of research that requires further investigation. Future research should

focus on incidents related to substance use and homelessness to better inform the factors that determine how to deter arrest dispositions given that they may place these individuals at a greater risk (Alex et al., 2017; Binswanger, 2013; Brinkley-Rubinstein et al., 2018). Relatedly, future research should explore the role of police in CRTs in substance use-related incidents, how to best optimize their role, or whether there are more effective means that improve linkages to treatment in lieu of involvement by police. Implementation should also be a focus of future research with the goal of establishing a systematic model of response that would allow for generalizable comparisons between CRT programs. Finally, determining short and long-term outcomes beyond event disposition, including emergency services utilization, incarceration, and treatment linkage, for persons involved in a CRT response is key in determining CRT effectiveness. These should be compared to the outcomes of people with similar emergencies who received a typical (non-CRT) response to their crisis. It will also be important to consider the extent and impact of any follow-up services provided for those who received a CRT response.

Limitations

A few limitations of this study present opportunities for future research. First, the data in this study related to persons who received a CRT response was limited to what CRT team members discovered during the crisis; it is likely that in some cases variables such as race or homelessness was limited to the team's capacity to verify this information as opposed to being discerned using a validating measure. Additionally, this study did not include information on prior emergency response utilization or linkage to treatment for individuals in crisis, which may allow for a more robust understanding of how a person's health history relates to their crisis disposition. An additional shortcoming of the present study is the lack of information on the presence of criminal offenses at CRT events. While the arrest rate found is favorable relative to

typical police responses involving PMI, this information would help to clarify the extent of the CRT's diversion capacity. Relatedly, this study does not include post-incident outcomes information, such as whether an immediate detention ultimately resulted in arrest. This study also did not consider the impact of repeat CRT responses on crisis dispositions; while out of the scope of this study, it is important to consider whether having repeat incidents with the CRT has an impact on subsequent dispositions. Finally, the outcomes of this study are not directly comparable to studies completed in other jurisdictions given that CRT models vary widely.

References

- Alex, B., Weiss, D. B., Kaba, F., Rosner, Z., Lee, D., Lim, S., Venters, H., & MacDonald, R. (2017). Death After Jail Release: Matching to Improve Care Delivery. *Journal of Correctional Health Care*, 23(1), 83–87. https://doi.org/10.1177/1078345816685311
- Al-Rousan, T., Rubenstein, L., Sieleni, B., Deol, H., & Wallace, R. B. (2017). Inside the nation's largest mental health institution: A prevalence study in a state prison system | BMC Public Health | Full Text. *BMC Public Health*, *17*, 342.
- Baess, E. (2005). Integrated Mobile Crisis Response Team (IMCRT): Review of Pairing Police
 with Mental Health Outreach Services.

 http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.583.1431&rep=rep1&type=pdf
- Bailey, K., Paquet, S. R., Ray, B. R., Grommon, E., Lowder, E. M., & Sightes, E. (2018).

 Barriers and facilitators to implementing an urban co-responding police-mental health team. *Health & Justice*, 6(1), 21. https://doi.org/10.1186/s40352-018-0079-0
- Bassuk, E. L., & Gerson, S. (1978). Deinstitutionalization and Mental Health Services. *Scientific American*, 238(2), 46–53.
- Batko, S., Gillespie, S., Ballard, K., Cunningham, M., Poppe, B., & Metraux, S. (2020).

 **Alternatives to Arrest and Police Responses to Homelessness* (p. 35). Metropolitan

 Housing and Communities Policy Center.

 https://www.urban.org/sites/default/files/publication/103158/alternatives-to-arrests-and-police-responses-to-homelessness.pdf
- Binswanger, I. A. (2013). Mortality After Prison Release: Opioid Overdose and Other Causes of Death, Risk Factors, and Time Trends From 1999 to 2009. *Annals of Internal Medicine*, 159(9), 592. https://doi.org/10.7326/0003-4819-159-9-201311050-00005

- Binswanger, I. A., Stern, M. F., Deyo, R. A., Heagerty, P. J., Cheadle, A., Elmore, J. G., & Koepsell, T. D. (2007). Release from Prison—A High Risk of Death for Former Inmates.

 New England Journal of Medicine, 356(2), 157–165.

 https://doi.org/10.1056/NEJMsa064115
- Borum, R. (2000). Improving high risk encounters between people with mental illness and the police. *Journal of the American Academy of Psychiatry and the Law*, 28(3), 332–337.
- Borum, R., Swanson, J., Swartz, M., & Hiday, V. (1997). Substance Abuse, Violent Behavior, and Police Encounters among Persons with Severe Mental Disorder. *Journal of Contemporary Criminal Justice*, *13*(3), 236–250. https://doi.org/10.1177/1043986297013003004
- Bradley-Engen, M. S., Cuddeback, G. S., Gayman, M. D., Morrissey, J. P., & Mancuso, D. (2010). Trends in State Prison Admission of Offenders With Serious Mental Illness.

 Psychiatric Services, 61(12), 1263–1265. https://doi.org/10.1176/ps.2010.61.12.1263
- Brinkley-Rubinstein, L., Zaller, N., Martino, S., Cloud, D. H., McCauley, E., Heise, A., & Seal,
 D. (2018). Criminal justice continuum for opioid users at risk of overdose. *Addictive Behaviors*, 86, 104–110. https://doi.org/10.1016/j.addbeh.2018.02.024
- Bronson, J., & Berzofsky, M. (2017). *Indicators of Mental Health Problems Reported by Prisoners and Jail Inmates*, 2011-12. 17.
- Charette, Y., Crocker, A. G., & Billette, I. (2014). Police Encounters Involving Citizens With Mental Illness: Use of Resources and Outcomes. *Psychiatric Services*, *65*(4), 511–516. https://doi.org/10.1176/appi.ps.201300053
- Diamond, P. M., Wang, E. W., Holzer, C. E., Thomas, C., & Cruser, des A. (2001). The Prevalence of Mental Illness in Prison. *Administration and Policy in Mental Health and*

- *Mental Health Services Research*, *29*(1), 21–40. https://doi.org/10.1023/A:1013164814732
- Draine, J., Salzer, M., Culhane, D., & Hadley, T. (2002). Poverty, Social Problems, and Serious Mental Illness. *Psychiatric Services*, *53*(7), 899–899. https://doi.org/10.1176/appi.ps.53.7.899
- Dupont, R., & Cochran, C. (2002). The Memphis CIT Model. In Serving Mentally Ill Offenders:

 Challenges & Opportunities for Mental Health Professionals. Springer Publishing

 Company.
- Engel, R. S., & Silver, E. (2001). Policing mentally disordered suspects: A reexamination of the criminalization hypothesis. *Criminology*, *39*(2), 225–252.
- Fahim, C., Semovski, V., & Younger, J. (2016). The Hamilton Mobile Crisis Rapid Response

 Team: A First-Responder Mental Health Service. *Psychiatric Services (Washington, D.C.)*, 67(8), 929. https://doi.org/10.1176/appi.ps.670802
- Fisher, W. H., Simon, L., Roy-Bujnowski, K., Grudzinskas, A., Wolff, N., Crockett, E., & Banks, S. (2011). Risk of Arrest Among Public Mental Health Services Recipients and the General Public. *Psychiatric Services*, *62*(1), 67–72. https://doi.org/10.1176/ps.62.1.pss6201_0067
- Gilligan, J. (2001). The Last Mental Hospital. *Psychiatric Quarterly*, 72(1), 45–61. https://doi.org/10.1023/A:1004810120032
- Hails, J., & Borum, R. (2003). Police Training and Specialized Approaches to Respond to People
 With Mental Illnesses. *Crime & Delinquency*, 49(1), 52–61.
 https://doi.org/10.1177/0011128702239235

- Hartmann McNamara, R., Crawford, C., & Burns, R. (2013). Policing the homeless: Policy, practice, and perceptions. *Policing: An International Journal of Police Strategies & Management*, 36(2), 357–374. https://doi.org/10.1108/13639511311329741
- Hartwell, S. (2004). Triple Stigma: Persons with Mental Illness and Substance Abuse Problems in the Criminal Justice System. *Criminal Justice Policy Review*, *15*(1), 84–99. https://doi.org/10.1177/0887403403255064
- Hay, T. (2014). Mental health treatment for delinquent juveniles: A new model for law enforcement-based diversion. *Appalachian Journal of Law*, 14, 151.
- Helfgott, J., Hickman, M., & Labossiere, A. (2015). A descriptive evaluation of the Seattle

 Police Department's crisis response team officer/mental health professional partnership

 pilot program. *International Journal of Law and Psychiatry*, 44.

 https://doi.org/10.1016/j.ijlp.2015.08.038
- Herring, C., Yarbrough, D., & Marie Alatorre, L. (2020). Pervasive Penality: How the Criminalization of Poverty Perpetuates Homelessness. *Social Problems*, 67(1), 131–149. https://doi.org/10.1093/socpro/spz004
- International Crisis Intervention Team. (2021). CIT International. https://www.citinternational.org/Learn-About-CIT
- James, D., & Glaze, L. (2006). Mental Health Problems of Prison. Bureau of Justice Statistics Special Report, 12.
- Kirst, M., Francombe Pridham, K., Narrandes, R., Matheson, F., Young, L., Niedra, K., & Stergiopoulos, V. (2015). Examining implementation of mobile, police-mental health crisis intervention teams in a large urban center. *Journal of Mental Health*, 24(6), 369–374. https://doi.org/10.3109/09638237.2015.1036970

- Kisely, S., Campbell, L. A., Peddle, S., & Hare, S. (2010). A controlled before-and-after evaluation of a mobile crisis partnership between mental health and police services in Nova Scotia. *The Canadian Journal of Psychiatry*, 55(10), 7.
- Lamanna, D., Shapiro, G. K., Kirst, M., Matheson, F. I., Nakhost, A., & Stergiopoulos, V. (2018). Co-responding police-mental health programmes: Service user experiences and outcomes in a large urban centre. *International Journal of Mental Health Nursing*, 27(2), 891–900. https://doi.org/10.1111/inm.12384
- Lamb, H. R. (1984). Deinstitutionalization and the Homeless Mentally Ill. *Psychiatric Services*, 35(9), 899–907. https://doi.org/10.1176/ps.35.9.899
- Lamb, H. R., & Weinberger, L. E. (1998). Persons With Severe Mental Illness in Jails and Prisons: A Review. *Psychiatric Services*, 49(4), 483–492. https://doi.org/10.1176/ps.49.4.483
- Lamb, H. R., Weinberger, L. E., & DeCuir, W. J. (2002). The police and mental health.

 *Psychiatric Services, 53(10), 1266–1271. https://doi.org/10.1176/appi.ps.53.10.1266
- Ligon, J., & Thyer, B. A. (2000). Client and Family Satisfaction with Brief Community Mental Health, Substance Abuse, and Mobile Crisis Services in an Urban Setting. *Crisis Intervention and Time-Limited Treatment*, 6(2), 93–99. https://doi.org/10.1080/10645130008951135
- Livingston, J. D. (2016). Contact Between Police and People With Mental Disorders: A Review of Rates. *Psychiatric Services*, *67*(8), 850–857. https://doi.org/10.1176/appi.ps.201500312
- Lum, C., Koper, C. S., Stoltz, M., Goodier, M., Johnson, W., Prince, H., & Wu, X. (2020).

 Constrained Gatekeepers of the Criminal Justice Footprint: A Systematic Social

- Observation Study of 9-1-1 Calltakers and Dispatchers. *Justice Quarterly*, *37*(7), 1176–1198. https://doi.org/10.1080/07418825.2020.1834604
- Lurigio, A. J. (2011). People With Serious Mental Illness in the Criminal Justice System:

 Causes, Consequences, and Correctives. *The Prison Journal*, 91(3_suppl), 66S-86S.

 https://doi.org/10.1177/0032885511415226
- Morabito, M. S., Savage, J., Sneider, L., & Wallace, K. (2018). Police Response to People with Mental Illnesses in a Major U.S. City: The Boston Experience with the Co-Responder Model. *Victims & Offenders*, *13*(8), 1093–1105. https://doi.org/10.1080/15564886.2018.1514340
- Osher, F., Steadman, H. J., & Barr, H. (2003). A Best Practice Approach to Community Reentry From Jails for Inmates With Co-Occurring Disorders: The Apic Model. *Crime & Delinquency*, 49(1), 79–96. https://doi.org/10.1177/0011128702239237
- Puntis, S., Perfect, D., Kirubarajan, A., Bolton, S., Davies, F., Hayes, A., Harriss, E., & Molodynski, A. (2018). A systematic review of co-responder models of police mental health 'street' triage. *BMC Psychiatry*, 18(1), 256. https://doi.org/10.1186/s12888-018-1836-2
- Ratansi, S. (2004). Specialized response programs: Police handling of encounters involving persons with mental disorders. University of Cincinnati.

 https://etd.ohiolink.edu/!etd.send_file?accession=ucin1108767262&disposition=inline
- Robinson, T. (2019). No Right to Rest: Police Enforcement Patterns and Quality of Life

 Consequences of the Criminalization of Homelessness. *Urban Affairs Review*, *55*(1), 41–
 73. https://doi.org/10.1177/1078087417690833

- Rosenbaum, N. (2010). Street-Level Psychiatry—A Psychiatrist's Role with the Albuquerque Police Department's Crisis Outreach and Support Team. *Journal of Police Crisis*Negotiations, 10(1/2), 175–181. https://doi.org/10.1080/15332581003757040
- Saunders, J. A., & Marchik, B. M. (2007). Building community capacity to help persons with mental illness: A program evaluation. *Journal of Community Practice*, *15*(4), 73–96.
- Scott, R. L. (2000). Evaluation of a mobile crisis program: Effectiveness, efficiency, and consumer satisfaction. *Psychiatric Services (Washington, D.C.)*, *51*(9), 1153–1156. https://doi.org/10.1176/appi.ps.51.9.1153
- Scott, Roger L. (2000). Evaluation of a Mobile Crisis Program: Effectiveness, Efficiency, and Consumer Satisfaction. *Psychiatric Services*, *51*(9), 1153–1156. https://doi.org/10.1176/appi.ps.51.9.1153
- Shapiro, G. K., Cusi, A., Kirst, M., O'Campo, P., Nakhost, A., & Stergiopoulos, V. (2015). Coresponding police-mental health programs: A review. Administration and Policy in Mental Health and Mental Health Services Research, 42(5), 606–620.
 https://doi.org/10.1007/s10488-014-0594-9
- Sharfstein, S. S. (2000). Whatever Happened to Community Mental Health? *Psychiatric Services*, *51*(5), 616–620. https://doi.org/10.1176/appi.ps.51.5.616
- Sheldon, C. T., Aubry, T. D., Arboleda-Florez, J., Wasylenki, D., & Goering, P. N. (2006).

 Social disadvantage, mental illness and predictors of legal involvement. *International Journal of Law and Psychiatry*, *29*(3), 249–256.

 https://doi.org/10.1016/j.ijlp.2003.12.007

- Simpson, R. (2020). Calling the Police: Dispatchers as Important Interpreters and Manufacturers of Calls for Service Data. *Policing: A Journal of Policy and Practice, paaa040*. https://doi.org/10.1093/police/paaa040
- Steadman, H. J., Deane, M. W., Borum, R., & Morrissey, J. P. (2000). Comparing Outcomes of Major Models of Police Responses to Mental Health Emergencies. *Psychiatric Services*, 51(5), 645–649. https://doi.org/10.1176/appi.ps.51.5.645
- Steadman, H. J., Monahan, J., Duffee, B., Hartstone, E., & Robbins, P. C. (1984). The impact of state mental hospital deinstitutionalization on United States prison populations, 1968–1978. *Journal of Criminal Law & Criminology*, 75(2), 474–490.
 https://doi.org/10.2307/1143164
- Swartz, J. A., & Lurigio, A. J. (2007). Serious Mental Illness and Arrest: The Generalized Mediating Effect of Substance Use. *Crime & Delinquency*, *53*(4), 581–604. https://doi.org/10.1177/0011128706288054
- Teplin, L. A. (1984). Criminalizing mental disorder: The comparative arrest rate of the mentally ill. *American Psychologist*, *39*(7), 794–803. https://doi.org/10.1037/0003-066X.39.7.794
- The Allen Consulting Group. (2012). Police, Ambulance and Clinical Early Response (PACER)

 Evaluation Report.
 - https://www2.health.vic.gov.au/about/publications/researchandreports/Police-Ambulance-and-Clinical-Early-Response-PACER-Evaluation-Report
- Todd, T. L., & Chauhan, P. (2020). Seattle Police Department and mental health crises: Arrest, emergency detention, and referral to services. *Journal of Criminal Justice*, 101718. https://doi.org/10.1016/j.jcrimjus.2020.101718

Watson, A. C., Compton, M. T., & Pope, L. G. (2019). Crisis Response Services for People with Mental Illnesses or Intellectual and Developmental Disabilities: A review of the literature on police-based and other first response models (https://www.vera.org/). Vera Institute of Justice. https://www.vera.org/publications/crisis-response-services-for-people-with-mental-illnesses-or-intellectual-and-developmental-disabilities

Yohanna, D. (2013). Deinstitutionalization of People with Mental Illness: Causes and Consequences. *AMA Journal of Ethics*, *15*(10), 886–891. https://doi.org/10.1001/virtualmentor.2013.15.10.mhst1-1310.

Zaller, N., & Brinkley-Rubinstein, L. (2018). Incarceration, drug use, and infectious diseases: A syndemic still not addressed. *The Lancet Infectious Diseases*, 18(12), 1301–1302. https://doi.org/10.1016/S1473-3099(18)30538-3

Tables *Table 1. Descriptive Event Characteristics (N = 1,426)*

Variable		N	Percent (%)
Age	Mean = 39.3 ; S.D. = 16.6		
Gender	Male	800	56.1
Gender	Female	626	43.9
	Caucasian or White	680	47.7
Race-Ethnicity	African American or Black	673	47.2
	Other	73	5.1
Homelessness	Yes	41	2.9
Homelessness	No	1,385	97.1
	Self-Harm	452	31.7
Crisis Type	Mental Health	932	65.4
	Substance Use	370	25.9
	Immediate Detention	384	26.9
D: ''	Arrest	58	4.1
Dispositions	Transport	200	14.0
	Issue Resolved	784	55.0

Note. Crisis types are not exclusive

Table 2: Post Hoc Comparison: Tukey HSD Test (N = 1,426)

	Dispositions	N	Mean	SD	95% CI	F	p
Self-Harm Crisis	Immediate Detention	384	0.53	0.5	0.48-0.58	48.15	< .001
	Arrested	58	0.21	0.409	0.10-0.31		
	Transported	200	0.38	0.487	0.31-0.45		
	Issue Resolved	784	0.21	0.404	0.18-0.23		
Substance Use Crisis	Immediate Detention	384	0.23	0.419	0.18-0.27	8.563	< .001
	Arrested	58	0.53	0.503	0.40-0.67		
	Transported	200	0.27	0.445	0.21-0.33		
	Issue Resolved	784	0.25	0.435	0.22-0.28		
Mental Health Crisis	Immediate Detention	384	0.63	0.483	0.58-0/68	3.385	0.018
	Arrested	58	0.55	0.502	0.42-0.68		
	Transported	200	0.6	0.492	0.53-0.66		
	Issue Resolved	784	0.69	0.464	0.65-0.72		

Table 3: Multinomial Regression Results (N = 1,426)

Predictor	Immediate Detention				Arrest		Transported			
variable	OR [95% CI]	OR [95% CI]	OR [95% CI]							
Age	0.986[0.978, 0.994]**	0.982[0.975, 0.990]***	0.982[0.974, 0.990]***	0.980[0.963, 0.998]*	0.981[0.963, 0.999]*	0.979[0.960, 0.998]*	0.991[0.981, 1.001]	0.990[0.980, 0.999]*	0.989[0.979, 0.998]*	
Female	1.118[0.863, 1.449]	1.197[0.934, 1.535]	1.186[0.924, 1.522]	0.458[0.246, 0.855]*	0.451[0.242, 0.840]*	0.515[0.274, 0.967]*	1.162[0.847, 1.594]	1.193[0.871, 1.633]	1.206[0.880, 1.653]	
White	0.899[0.693, 1.166]	1.010[0.787, 1.298]	1.054[0.821, 1.354]	0.875[0.505, 1.514]	0.807[0.464, 1.404]	0.774[0.444, 1.348]	1.133[0.825, 1.555]	1.164[0.848, 1.597]	1.213[0.885, 1.663]	
Homeless	1.407[0.630, 3.144]	1.396[0.643, 3.031]	1.443[0.664, 3.139]	5.062[1.891, 13.545]**	5.035[1.872, 13.542]**	3.900[1.426, 10.669]**	1.664[0.672, 4.116]	1.661[0.674, 4.089]	1.638[0.664, 4.037]	
Self-Harm	4.176[3.191, 5.465]***]		1.008[0.517, 1.965]			2.258[1.610, 3.166]***]	
Mental	,	0.831 [0.640,		,	0.560[0.323,		,	0.711[0.514,		
Health		1.080]			0.972]*			0.985]*		
Substance			0.864[0.643,			3.073[1.759,			1.060[0.741,	
Use			1.161]		0.5 1.1 0.1 1.1 1	5.368]***			1.518]	

Note 1. Crisis types mutually are not exclusive and were added separately; *p<.05, **p<.01, ***p<.001

Note 2. Reference disposition category is "Issue Resolved"

Appendix 1. Overlap Among Crisis Types

		Frequency	Percent (%)
Valid	SH Only	264	18.5
	MH Only	682	47.8
	SU Only	181	12.7
	SH+MH	110	7.7
	SH+SU	49	3.4
	MH+SU	111	7.8
	SH+MH+SU	29	2
	Total	1426	100

Note. SH: Self-harm; MH: Mental Health; SU: Substance Use

Appendix 2: Event Disposition and Crisis Type Crosstabulation

	2. Event Disposition and C								Total	
			SH Only	MH Only	SA Only	SH+MH	SH+SA	MH+SA	SH+MH+SA	
	Immediate Detention	Count (n)	102	133	13	62	26	35	13	384
		% within Disposition	26.6	34.6	3.4	16.1	6.8	9.1	3.4	100.0
		% within Crisis Type	38.6	19.5	7.2	56.4	53.1	31.5	44.8	26.9
	Arrested	Count (n)	8	19	17	0	1	10	3	58
		% within Disposition	13.8	32.8	29.3	0.0	1.7	17.2	5.2	100.0
0-4		% within Crisis Type	3.0	2.8	9.4	0.0	2.0	9.0	10.3	4.1
Outcome	Transported	Count (n)	47	83	25	16	9	16	4	200
		% within Disposition	23.5	41.5	12.5	8.0	4.5	8.0	2.0	100.0
		% within Crisis Type	17.8	12.2	13.8	14.5	18.4	14.4	13.8	14.0
	Issue Resolved	Count (n)	107	447	126	32	13	50	9	784
		% within Disposition	13.6	57.0	16.1	4.1	1.7	6.4	1.1	100.0
		% within Crisis Type	40.5	65.5	69.6	29.1	26.5	45.0	31.0	55.0
		Count (n)	264	682	181	110	49	111	29	1426
		% within Disposition	18.5	47.8	12.7	7.7	3.4	7.8	2.0	100.0
		% within Crisis Type	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note. SH: self-harm crisis; MH: mental health crisis; SA: substance use crisis