

Keeping it REAL: Assisting Individuals after a Police-Abated Mental Health Crisis

This paper evaluates a community-based, peer support program in which police officers and mental health workers collaboratively address citizens' mental health needs following encounters with law enforcement. We analyze data 12, 24, and 36 months after a police-abated mental health crisis for 775 individuals, some of whom were referred to this program. Using lagged regression models, we find that compared to non-referred individuals, referred participants generated fewer mental health calls for service and were less likely to be taken into emergency protective custody 24 and 36 months after a crisis. We found no difference in arrest rates. The program was especially effective for individuals with lengthier mental health histories. This free, voluntary, and non-clinical assistance program appears effective, but it also requires 12-24 months before participants and communities reap the benefits.

Keywords: Police, mental health encounters, peer support

Historically, mental health calls for service (MHCFS) have been challenging incidents for law enforcement officers (Teplin, 2000). For one, officers may have insufficient training, experience, and resources to assist a person with a mental illness (PMI) (Borum, 1998; Finn & Sullivan, 1988; Borum, 2000; Ruiz & Miller, 2004), although the last two decades have witnessed a rise in improved police response to mental health encounters (Teller, 2006; Compton et al., 2011; Dupont & Cochran, 2000; Steadman et al. 2000). A more complicated issue, however, involves officers' use of "provisional" solutions to resolve mental health encounters (Woods, Watson & Fulambarker, 2016), due mainly to a lack of long-term mental health resources and options. These provisional solutions may temporarily resolve a call for service (even in cases where officers make an arrest or take a PMI into protective custody), but they do not address a PMI's long-term needs. Moreover, while law enforcement has become more proficient at de-escalating and resolving police-PMI encounters, there has been less

attention devoted to developing long-term assistance for PMIs *after* these encounters (Dean et al., 1999; Geller, Fisher, & McDermeit, 1995).

Furthermore, establishing collaborative, peer-based mental health resources embodies many of the tenets of community policing, in particular, developing relationships with community partners to proactively address community issues (Corder, 2014; Weisel & Eck, 1994; Kelling, 1988). Indeed, research has found that many agencies view their mental health response as an extension of their community policing philosophy, believing that police departments should collaborate with community partners to develop resources for PMIs (Steadman et al, 2000).

This paper evaluates a community-based, peer support program that assists PMIs following a police encounter. Called the REAL program (Respond, Empower, Advocate, and Listen), this collaborative effort between police officers and mental health workers helps connect PMIs to mental health resources and develop long-term mental health plans. Specifically, after resolving a mental health encounter, a police officer can refer a PMI to the REAL program. The REAL program then deploys a peer specialist to contact and offer assistance to the PMI within 24-48 hours. In the weeks and months after the referral, peer specialists update the referring officer about the PMI's condition and collaborate to develop additional plans, if necessary.

To assess the efficacy of the REAL program, we analyzed whether being referred to the REAL program affected 1) a PMI's odds of being arrested, 2) a PMI's odds of being taken into emergency protective custody, and 3) the number of MHCFS generated by a PMI. We analyzed these outcomes 12, 24, and 36 months after a mental health encounter with police.

Literature Review

Despite frequent encounters between police and PMIs (Cordner, 2006; Coleman & Cotton, 2010), these calls for service remain among the most challenging and frustrating incidents for police officers (Cooper, Mclearn & Zapf, 2004). First, PMIs may not only be living with a mental health condition(s), but also many other co-occurring conditions such as homelessness, substance abuse, a history of physical abuse, unemployment, and other physical maladies (Teplin, 2000; Teplin, 1986). Hence, even if officers can address and provide resources for PMIs' mental health issue(s), the number of co-occurring issues may thwart any progress made towards mental health stabilization.

MHCFS are also challenging because officers may not be trained to contact and communicate with PMIs, nor how to properly resolve these types of incidents (Dupont & Cochran, 2000; Steadman et al., 2000). Agencies train officers to investigate and resolve many types of law violations, but resolving a domestic disturbance or investigating a burglary can be quite different than contacting a transient with schizophrenia who has committed no law violation.

Historically, officers have had limited options for resolving MHCFS, namely, informal resolution, arrest and lodge in jail, and protective custody (Lamb, Weinberger & DeCuir, 2002). The most common tactic involves simply talking to PMIs and evaluating their mental health state (Bittner, 1967; Teplin & Pruett, 1992). Officers may converse with and calm a PMI, arrange transportation or shelter via family or friends, or simply contact the person and depart, generally due to a lack of options.

On the other hand, if a PMI in crisis is breaking the law, officers may have the option to arrest and lodge the PMI in jail, thereby satisfying the short-term needs of the PMI's neighbors, family, or friends. Abramson (1972) deemed the over-enforcement of the mentally ill the "criminalization of the mentally disordered behavior," suggesting that officers resort to arresting PMIs to mollify residents or even out of lack of alternatives.

Finally, officers also have the option of detaining and transporting PMIs to mental health facilities if they meet the jurisdiction's protective custody criteria. Generally, officers may take PMIs into emergency protective custody (EPC) only if PMIs are mental ill and/or substance dependent and pose an imminent danger to themselves or others. Officers may also invoke protective custody for PMIs who are so mentally ill that they cannot take care of themselves (e.g., a delusional citizen wandering the streets naked on a winter night).

In response to concerns about officers' lack of options for assisting PMIs in crisis, as well as concerns about appropriate uses of force (Kesic & Thomas, 2014; Rossler & Terrill, 2017) and over-enforcement involving the mentally ill (Perez, Leifman & Estrada, 2003), agencies have improved officers' training through programs such as Crisis Intervention Training (CIT). CIT first teaches officers about the nature of mental illness and then trains them to effectively communicate with and provide aid to PMIs in crisis. Furthermore, CIT trains departments to partner with local mental health agencies to provide the most knowledgeable and appropriate response to mental health crises. Studies suggest that CIT may help PMIs access mental health services (Watson, 2010), reduce officers' use of force during MHCFS (Compton et al., 2011), and overall, improve officers' perceptions of PMIs (Bahora, 2008).

Despite their popularity and apparent efficacy, programs such as CIT often overlook a key issue of mental health encounters, specifically, linking PMIs with long-term mental health *and* non-mental health services after a crisis. Although CIT-based programs may enable officers to better identify and de-escalate PMIs in crisis, PMIs may still struggle to develop long-term mental health plans after the crisis abates and officers depart. In short, officers understand their actions are temporary solutions to chronic mental health issues, in particular, because the possibility of long-term solutions may not even exist.

We speculate there may be several reasons for the shortage of long-term mental health solutions in a community. First, a department's officers may not all be trained in CIT or a similar program. In turn, the department's culture may not view PMIs any different from law-breakers, potentially increasing the rate of incarceration among persons with a mental illness. Second, an agency's jurisdiction may not have sufficient mental health professionals, facilities, and personnel to meet the needs of residents. Third, an agency may not be actively collaborating with its local mental health partners to create and maintain resources for PMIs. However, even if an agency's mental health training and policing philosophy intersects with sufficient infrastructure and active collaboration, how effective are long-term solutions? To answer this question, we analyze a community-based, collaborative mental health program that aids PMIs after a police-abated mental health crisis.

The REAL Program

The Lincoln (Nebraska, USA) Police Department (LPD) serves a community of approximately 273,000 with 335 law enforcement officers. Each year, LPD officers conduct

roughly 2,800 mental health investigations and contacts hundreds of more PMIs in other encounters (e.g., as suspects of crimes, drivers in motor vehicle collisions, and witnesses).¹

The REAL (Respond, Empower, Advocate, and Listen) program is a referral service that is activated by police officers, staffed by mental health workers, and utilized by PMIs. LPD officers can contact PMIs in a variety of contexts, but generally, officers contact PMIs because of a mental health crisis. Often, family members, friends, and/or neighbors recognize a PMI in crisis and contact law enforcement. Unfortunately, these people frequently do not have the expertise or financial resources to assist PMIs and turn to law enforcement for help (Wood, Watson & Fulambarker, 2017). After an LPD officer contacts a PMI in crisis and resolves the incident, he or she has the option of referring the PMI to the Lincoln chapter of the Nebraska Mental Health Association's (MHA) REAL program.

An LPD officer makes a referral to the REAL program by sending an email to MHA that identifies the PMI, the PMI's contact information, possible mental health issues, and a brief description of the mental health encounter. Here is a fictional example of an email referral an officer might write:

John A. Smith, date of birth, address, and phone number.

I contacted John during a mental health investigation. His

neighbors called police because John was running through traffic,

chasing people who he believed were trying to kill him. He was

¹ Officers also contact PMIs in more positive settings, such as community meetings, neighborhood gatherings, and educational events.

shouting at his neighbors to help him. John admitted that he has been diagnosed with schizophrenia and anxiety. He said he stopped taking his medications because of the side effects. John has not been to a psychiatrist in two months to get his medications changed because his doctor recently moved out of state and he is scared to try a new doctor.

Officer Jones, #1691

When MHA receives a referral, they deploy a “peer specialist” to contact the PMI within 24-48 hours. A peer specialist is a trained mental health advocate who is also a PMI. Being PMIs themselves gives peer specialists significant credibility when they contact other PMIs in crisis. Peer specialists are able to tell their mental health story and history to PMIs, explaining how they developed long-term mental health plans and eventually stabilized. PMIs may trust peer specialists more than police officers or mental health professionals because these types of mental health workers have experienced many of the exact same symptoms and situations.

Contact from an MHA peer specialist is free to the PMI, voluntary, and non-clinical. Peer specialists do not diagnose PMIs, recommend medications or doctors, or attempt to institutionalize PMIs. Instead, they help PMIs identify needs and issues that may have precipitated their mental health crisis. These issues may or may not be directly mental health-related. A PMI may experience a mental health crisis because of anxiety over a lost job or inability to pay bills. In general, instead of providing answers and telling PMIs what to do, peer specialists listen to PMIs and help them develop their own solutions and strategies. They guide

rather than govern. For example, peer specialists may help PMIs find mental health professionals, locate stable housing, arrange for contact from a substance abuse counselor, and/or secure long-term employment. As the name of the program suggests, peer specialists respond to PMIs after a crisis, empower PMIs by helping them develop long-term mental health plans, advocate for PMIs when attempting to secure resources, and listen to PMIs' needs, wants, and frustrations rather than coerce them into decisions.

Collaboration between MHA and LPD occurs in two ways. First, peer specialists update the referring officer about the PMI and provide information about the PMIs' plans and strategies. These updates may help officers when contacting the PMI in the future—if an officer knows that the PMI is anxious about finding a new job or has experienced a death in the family, an officer may be able to establish a better rapport with the PMI and de-escalate future encounters. Moreover, updates help peer specialists collaborate with officers who are more knowledgeable about the array of community resources than the average citizen. If part of a PMI's crisis involves food, shelter, or basic necessities, LPD officers can assist peer specialists in contacting local outreach groups or resource centers. The Lincoln Police Department has fully embraced community policing over the last few decades and has developed numerous relationships with a wide variety of community partners. Because of these relationships, Lincoln police officers are able to help citizens find food, housing, and many other resources and social services.

For example, if an officer encounters a PMI or family lacking basic necessities, that officer can go to the Lincoln Center for People in Need (LCPN) and assemble a package of toiletries, diapers, food, clothing, and, depending on availability, even small furniture items.

The LCPN gives LPD officers after-hours access, meaning that officers can assist citizens in the middle of the night, if necessary. Officers can also refer citizens to the LCPN instead of delivering supplies to them.

In addition, Lincoln is a gateway community that receives thousands of immigrants and refugees each year. Many of these individuals, as well as non-immigrant citizens, seek shelter, food, job training, and language lessons. If an LPD officer encounters one of these citizens in need, he or she can refer them to several places for services. For example, Lincoln has numerous cultural centers that provide citizens of all nationalities (not just immigrants or those of a particular ethnicity) with housing placement, language lessons, citizenship classes, bus passes, food distribution, and even legal assistance. Moreover, Lincoln features over thirty food distribution centers that provide free meals for anyone, often three times a day. With regard to job training, Prosper Lincoln, The Good Neighbor Center, and the LCPN both offer free job training and computer education classes for several types of employment. These organizations attempt to help not only people in need or immigrants, but also people recently released from correctional facilities and PMIs.

LPD also places police officers on Lincoln's Homeless Coalition, a group that identifies vulnerable individuals in greatest need of shelter and other basic necessities. This group solicits and gathers referrals from police officers and other community members, maintains a database of these individuals, and then attempts to secure housing and other resources for those deemed most vulnerable (e.g., a family with small children or a PMI experiencing a severe mental health crisis).

Finally, Prosper Lincoln and LPD have partnered with local technology companies to develop an app that centralizes the handbooks, monthly calendars, and resources of every Lincoln community partner. This free app (which does not require a wireless connection to function, only to download) enables police officers and citizens to find resources pertaining to education, employment, food, health, housing, legal, community outreach, personal needs, society re-entry, transportation, and many more. When encountering people in need (especially PMIs), LPD teaches its officers to encourage citizens to download the app so they can locate the resources themselves.

The aforementioned examples are only a snapshot of the resources at the fingertips of Lincoln police officers. Hence, when officers encounter a PMI in crisis, they may not only conduct a mental health investigation and make a referral to the REAL program, they can also partner with a peer specialist to direct the PMI to an appropriate resource center or even bring the PMI supplies. For example, if a PMI is struggling with a recent job loss, the officer and peer specialist could direct them to Prosper Lincoln or the Good Neighbor Center for job training and placement. If the PMI is food-insecure, the officer and peer specialist could inform the PMI about Lincoln's food distribution centers and/or centers that serve meals. The officer could even go the LCPN and bring back food for the individual, as well as a bus pass so the person could go to the food centers. If a PMI is transient, LPD officers are known to regularly drive people to the Lincoln City Mission, which offers not only shelter, but also housing placement, food, and free medical care. The officer could also send this person's name to the Homeless Coalition for further follow-up and additional services.

Collaboration between LPD and MHA also takes place in the form of quarterly meetings between peer specialists and patrol officers, team² detectives, and team captains. During these meetings, MHA and LPD discuss ways improve the community's mental health services, enhance outreach to at-risk PMI populations (such as the homeless), and create plans for high-use PMIs of police services. For example, if officers have contacted a PMI ten times in the last month, LPD and MHA members will discuss the case and attempt to identify the cause of the PMI's rash of police contacts (e.g., recent momentous life event, change in medication, upcoming anniversary of an important incident) and specific strategies to connect that PMI to resources.

The amount of time an officer spends engaged in REAL program activities varies considerably from officer to officer. Unfortunately, we do not have data to make definitive estimates about these activities, such as direct observations of how LPD officers spend their time and what percent of their time is dedicated to something REAL-related. We agree that such a study would be useful, but we have only data from the mental health referrals. In general, the amount of time spent on REAL-related matters varies considerably depending on the number of mental health calls for service (MHCFS) an officer handles, as well as the nature of those MHCFS. For example, if an officer takes three MHCFS in a week and all of the PMIs are individuals well-connected to mental health and other resources, then the officer may spend minimal time on anything REAL-related. On the other hand, if an officer takes one MHCFS in a week, but it involves a PMI who has generated numerous prior MHCFS, then the officer may spend considerably more time on REAL-related matters. For example, the officer may make a

² LPD divides the city into five policing precincts called teams.

referral, then work with a peer specialist the next day to identify what else the PMI needs, such as food, shelter, legal assistance, etc. The officer may reach out to community centers, locate resources, and then re-contact the peer specialist and/or the PMI with the information. Furthermore, the officer may work with the detective in charge of the patrol area to monitor the PMI's calls for service history to determine if follow-up contact is needed.

The following real-life example demonstrates how officers, peer specialists, and PMIs might use the REAL program. LPD officers responded to a report of a neighborhood disturbance. LPD officers contacted Tim³ and ascertained that Tim could not care for himself due to unaddressed mental health symptoms. Notably, Tim was also being evicted from his house due to non-payment on his mortgage. The officers eventually took Tim into emergency protective custody and transported him to the Mental Health Crisis Center for evaluation.

However, instead of simply departing after releasing Tim to the Crisis Center, the officers referred Tim to the REAL Program. Peer specialists made contact with Tim at the Crisis Center and learned that Tim was very worried about his mental health condition, his financial situation with the bank, his future living arrangements, and his lack of income. In many jurisdictions, Tim would be released from the hospital after 72 hours and left to work out these issues on his own. However, MHA and the REAL Program worked with Tim even before his discharge from the Crisis Center. They helped him contact his bank and also helped him recover his personal effects from his house after the eviction. Peer specialists guided Tim to transitional housing and helped Tim through some pending legal issues, the result of which

³ We have changed the actual PMI's name to protect the PMI's identity.

provided Tim with additional mental health resources. Additionally, peer specialists helped Tim manage his pension so he could pay rent and save.

With the continued assistance of the REAL program, Tim sought medical and mental health care, which is how he discovered that he had likely sustained a traumatic brain injury (TBI) earlier in his life. The TBI contributed to Tim's memory loss, chronically poor hygiene, and deteriorating physical health. The REAL program helped Tim meet with a local TBI expert so he could receive care and learn strategies for coping with his condition.

This incident typifies both LPD and the REAL program's response to MHCFS. Instead of simply dropping Tim off at the crisis center and leaving, the officers recognized that a long-term solution was necessary. Hence, they referred Tim to the REAL program. Peer specialists then worked with financial institutions, landlords, medical professionals, mental health professionals, and the criminal justice system to help Tim develop a stable, long-term mental health plan. This incident also explains why it may take several months, or even years, to see the effect of the REAL program—resolving a financial crisis, finding housing, locating a doctor, and receiving treatment can take a considerable amount of time.

Tim's story is only one of many anecdotal examples of how LPD uses the REAL program to collaborate with MHA to create long-term solutions for PMIs in crisis. However, the precise impact of the REAL program on referred PMIs is unknown. To examine the broader effect of the REAL program on referred PMIs, we analyzed the following questions:

- 1) Does being referred to the REAL program affect the odds of a PMI being arrested 12, 24, and 36 months after a police-abated mental health crisis?*

2) Does being referred to the REAL program affect the number of MHCFS generated by a PMI 12, 24, and 36 months after a police-abated mental health crisis?

3) Does being referred to the REAL program affect the odds of a PMI being taken into emergency protective custody 12, 24, and 36 months after a police-abated mental health crisis?

4) Does the effect of being referred vary among PMIs with lengthier histories of MHCFS?

Answering these questions may help law enforcement agencies and communities determine if collaborative, peer-based responses such as the REAL program can augment existing mental health resources and if communities should adopt and fund these types of programs.

DATA AND METHODS

To analyze these questions, we secured data from the Lincoln Police Department about PMIs who were contacted by officers during mental health investigations. LPD policy strictly mandates that officers shall complete reports for all mental health investigations (e.g., situations involving attempted suicide, acting out, disturbances caused by individuals experiencing a mental health crisis, as well as requests by PMIs for assistance). These reports not only feature biographical information about PMIs, but also information about the PMI's

mental health condition and history, as well as other issues, such as pending unemployment or a recent relationship break-up. We also secured information about PMIs' history of calls for service and arrests.

After receiving our research request, LPD and MHA created an anonymized database of referred PMIs and subsequent variables between 2011-2013. We also requested that LPD include a random set of PMIs who were not referred around approximately this same time frame. Due to staffing, time, and budget constraints, LPD was only able to develop a group of 364 randomly selected individuals who were not referred. LPD then provided a database which included no identifying information about referred or non-referred individuals.

We divided the PMIs in our database into two groups. The first group is composed of PMIs who were referred to the REAL program after a police-abated mental health crisis (N=411). The second group is a randomly selected group of individuals who experienced a police-abated mental health crisis, but were not referred to the REAL program (N=364)⁴. For referred PMIs, we selected the date of their police-abated mental health crisis for which they were referred and selected data 12, 24, and 36 months afterwards. For randomly selected non-referred PMIs, we selected data 12, 24, and 36 months after a randomly chosen police-abated mental health crisis.

Ideally, we would have liked to examine four groups of individuals: 1) PMIs who were not referred (no contact), 2) PMIs who were referred but were not contacted by peer specialists

⁴ LPD officers are encouraged, but not mandated, to make a referral to the REAL program. There are many possible reasons why an officer might not refer a PMI. For example, an officer might not know about or believe in the REAL program, the PMI might already be receiving resources, or the officer might not believe the PMI's situation warrants a referral, and many others. To our knowledge, there are no studies about why officers refer or do not refer PMIs to mental health agencies, and we acknowledge this is a limitation of this study requiring further research.

(referred), 3) PMIs who were referred and contacted by peer specialists, but refused services (referred and declined), and 4) PMIs who were referred, contacted by peer specialists, and who accepted services (referred and accepted). However, due to the small number of referrals (and in turn, smaller numbers within the group of referrals), we simply decided to divide PMIs into two groups: those who were referred and those who were not referred.

There is another theoretically sound reason for dividing the group this way. Peer specialists attempt to contact PMIs several ways: in person, by phone (or by leaving a message), and by mailing information to them. Thus, it is possible for PMIs to receive some kind of treatment effect even though they refuse assistance or cannot be contacted directly. For example, PMIs who are contacted by and refuse assistance from peer specialists could later read the literature mailed to them and decide to seek treatment on their own. In this way, the REAL program has exerted an effect on the PMI which may translate into fewer future MHCFS or arrests. We acknowledge that dividing the group of PMIs this way may dilute the potential impact of the REAL program on our measured outcomes.

Biographical data. We first coded each PMI's race, gender, and age at the time of the mental health investigation. In addition, we coded for each PMI's twelve month history of arrests, MHCFS, and the number of emergency protective custody incidents.

Mental health conditions. When LPD officers contact PMIs in crisis, they are taught to ask about a PMI's mental health history and diagnosis, if applicable, and to record this information in their reports. It is common, indeed, the norm, for LPD mental health investigations to include language such as, "Smith advised that he was diagnosed with depression and anxiety when he was in college, and he currently takes medications for these

mental health conditions.” Thus, LPD was able to review the mental health investigations (as well as prior investigations and calls for service) and code for the following mental health conditions in the database: depression, anxiety, paranoia, schizophrenia, PTSD, and bipolar. We note that this is not an exhaustive clinical list, but only a general list of mental health conditions reported by PMIs and officers.

We did not have access to PMI’s medical records. Although this research was a collaboration between LPD and MHA, it was not a collaboration between LPD and actual mental health providers (i.e., a psychiatrist or a primary care physician). We agree that securing extensive medical records and medical histories would have been useful, but we did not have access to these files. MHA is an organization that connects PMIs to resources, including mental health providers, but they do not maintain medical files on PMIs.

Outcomes. Based on LPD’s report management system, our database also featured variables about a PMI’s criminal history, MHCFS history, and emergency protective custody history. We coded for a PMI’s total number of arrests in the 12 months prior to the incident, the number of MHCFS 12 months before the incident, and the number of emergency protective custody incidents in the 12 months before the incident. Finally, we coded for the number of arrests, MHCFS, and emergency protective custodies 12, 24, and 36 months after the police-abated mental health crisis. Table 1 displays the descriptive statistics for each variable.

INSERT TABLE 1 HERE

The descriptive statistics indicate that our sample has slightly more females than males (52%), is mostly white (85%), and has an average age of about thirty-six. About half of our sample was referred to the REAL program (53%). The most prevalent mental health conditions

were depression (27%) and bipolar disorder (14%). The percentage of our sample that was arrested after the MHCFS increased from 27% at twelve months to 40% at thirty-six months. Similarly, the percentage of our sample that was taken into emergency protective custody after the MHCFS increased from 12% at twelve months to 18% at thirty-six months. Finally, the PMIs in our sample generated just under one call for service twelve months after a MHCFS (.89), compared to an average of 1.9 calls for service at thirty-six months.

Method of Analysis. We used two different methods of analysis. First, since being arrested and taken into emergency protective custody⁵ are relatively rare events, we recoded and treated these two variables as dichotomous outcomes and used a lagged logistic regression to estimate the odds of PMIs being arrested and also being taken into emergency protective custody 12, 24, and 36 months after their police-abated mental health crisis. Second, since generating a MHCFS happens much more regularly than being arrested (for example), we used negative binomial regression to estimate the number of MHCFS generated 12, 24, and 36 months following a PMI's police-abated mental health crisis.

FINDINGS

Before analyzing the effect of the REAL program, it is important to identify possible sources of unobserved heterogeneity that might have contributed to whether PMIs were referred or not. This is particularly important since our study is not a controlled experiment involving randomly constructed samples. To identify potential correlates of being referred to the REAL program (which can then be included in later models analyzing program outcomes), we first constructed a logistic regression model to examine what variables are correlated with

⁵ For instance, in 2016, only 11% of LPD's MHCFS ended in subjects being taken into emergency protective custody.

whether a PMI is referred to the REAL program. There were several variables that made a police officer more and less likely to refer a PMI to the REAL program. PMIs who were female, who reported depression and paranoia, and who had lengthier EPC histories were all less likely to be referred to the REAL program. Conversely, PMIs who were older and had lengthier histories of generating mental health calls for service were more likely to be referred. Arrest history had no effect on the odds of being referred⁶.

INSERT TABLE 2 HERE

Next, we analyzed whether being referred to the REAL program is correlated with a PMI's odds of being arrested 12, 24, and 36 months later. Table 3 displays the results, showing that being referred to the REAL program was not significantly correlated with any increase or decrease in the odds of being arrested 12, 24, and 36 months after a mental health crisis. The only consistent predictors of being arrested 12, 24, and 36 months later were the total number of prior arrests in the last 12 months, reported bipolar disorder, and age. Both prior arrests and bipolar disorder were correlated with an increase in the odds of being arrested in the months following a mental health crisis, while age was correlated with a decrease in being arrested in the months following a mental health crisis. Given the results, it appears that the REAL program does not impact a PMI's odds of being arrested in the months following a mental health crisis.

INSERT TABLE 3 HERE

⁶ Admittedly, we would like to have additional information to include in our model, such as additional variables related to the PMI and officer, but we are constrained by the available data. We agree that a more in-depth analysis is warranted, and given the dearth of research on the topic of police referral programs for PMIs, we hope to pursue this vein of research in future studies.

Next, we analyzed whether being referred to the REAL program is correlated with the number of MHCFS generated by a PMI 12, 24, and 36 months after a police-abated mental health crisis. Unlike the previous results, Table 4 appears to show that being referred to the REAL program reduces future MHCFS generated by PMIs. True, Table 4 indicates that there is no difference in the number of MHCFS one year after a crisis, but subsequent models show that referred PMIs generated fewer MHCFS than non-referred PMIs 24 months after a crisis. This seems to suggest that it takes between 1-2 years for the effect of the REAL program to take hold. This is not entirely surprising. Often, PMIs experiencing a crisis need many months to find doctors, acclimate to new or changes in medications, secure stable employment, find or change housing, or to navigate a major life event (e.g., death of a loved one). Notably, these are all challenges for which the REAL program and its peer specialists provide support.

INSERT TABLE 4 HERE

Next, we examined if being referred to the REAL program is correlated with the odds of a PMI being taken into emergency protective custody 12, 24, and 36 months after a police-abated mental health crisis. The results of Table 5 show a pattern similar to Table 4, namely, a delayed and increased effect over 12, 24, and 36 months. At 12 months, the REAL program does not appear to have an effect on the odds of being EPC'd. Although the effect at 24 months is also not significant ($p=.06$), we observe an increase in the effect size ($-.19$ to $-.40$). Then, at 36 months, the effect again increases ($b=-.58$) and is statistically significant ($p<.05$). Substantively speaking, being referred to the REAL program appears to reduce the odds of being EPC'd 12 and 24 months after a crisis by 33% and 44%, respectively. This pattern is consistent with the effect of the REAL program on mental health calls for service. After 12

months, there does not seem to be a difference in outcomes between referred and non-referred PMIs. Instead, we see differences at 24 and 36 months, which again seems to indicate it takes between 1-2 years for a referred PMI to experience the benefits of the REAL program (i.e., being guided to services by a peer specialist).

INSERT TABLE 5 HERE

Finally, we analyzed whether the effect of being referred varies among PMIs with lengthier histories of mental health calls for service. First, we created an interaction term by multiplying a PMI's referred status by the total number of prior MHCFS and included this interaction (along with its variables) in the regression equation. Next, we estimated a negative binomial regression model estimating the number of mental health calls for service 12, 24, and 36 months after a PMI's mental health crisis.

INSERT TABLE 6 HERE

Table 6 indicates that the interaction term of referred status and prior mental health calls for service was significantly correlated with a decrease in the number of mental health calls for service 12, 24, and 36 months after a PMI's crisis. Moreover, the effect increases each year ($b = -.22, -.28, -.31$). This finding suggests that while the REAL program appears to have an effect on PMIs, it is particularly beneficial to PMIs with lengthier histories of generating mental health calls for service.

We also inserted this new interaction term into the logistic regression estimating the odds of being taken into emergency protective custody 12, 24, and 36 months after a mental health crisis. We found a similar effect, namely, that the REAL program appeared to have an added effect on referred PMIs with lengthier mental health calls for service histories.

Specifically, having more prior mental health calls for service and being referred to the REAL program decreased the odds of being EPC'd 24 and 36 months after a crisis by an extra 4% and 8%, respectively.

INSERT TABLE 7 HERE

Taken as a whole, these results appear to indicate the REAL program is not a “quick fix” for when police officers encounter PMIs, but rather, a long-term solution that takes between 12-24 months to benefit a PMI. In addition, the evidence suggests that the REAL program offers extra benefits for PMIs who generate above-average mental health calls for service.

DISCUSSION

In describing the often stark reality of responding to MHCFS, Wood, Watson & Fulambarker (2016) write, “When it comes to mental health-related encounters, police navigate horizons of context with the tools to implement only provisional solutions” (p.97). Our research and experience supports this grim reality, but we also identified how improved collaboration between law enforcement and mental health workers may give agencies a tool for implementing long-term solutions. We analyzed the impact of one such collaboration, namely, the REAL program (Respond, Empower, Advocate, and Listen), a resource created by the Lincoln chapter of the Nebraska Mental Health Association (MHA) and used by LPD officers after they encounter PMIs in crisis. We found that compared to non-referred PMIs, referred PMIs generated fewer mental health calls for service and were less likely to be taken into emergency protective custody 24 and 36 months after a police-abated mental health crisis. We found no difference in arrest rates between referred and non-referred PMIs. We found that the program was especially effective for individuals with lengthier mental health histories.

There are two substantive takeaways from our study. One, law enforcement agencies and communities must recognize that it may take approximately 12-24 months to experience the benefits of a collaborative, peer support-based mental health referral program. We speculate this timeframe is necessary for PMIs to connect with resources and providers, adjust their medications (if applicable), develop mental health plans, and enact those plans. Police officers and community members must exercise patience and understand that developing a stable mental health plan takes many months.

The second key point is that this type of program seems especially effective for PMIs with lengthier MHCFS histories. We speculate that LPD officers, in particular, the team detectives, have a “case-worker” mentality regarding PMIs with lengthy MHCFS histories. Officers not only refer these PMIs, but remain involved in the response coordinated by the REAL program to make sure the PMI finds resources. They may call and check up on PMIs, stop by their houses to talk, or help peer specialists contact landlords and providers for the PMI. In general, the philosophy has changed from “respond and report” to “respond, report, refer, and re-contact with resources.”

We acknowledge our study has limitations. For one, we relied upon law enforcement reports to gather key pieces of a PMI’s mental health condition. Future studies may consider incorporating professional mental health diagnoses, as well as additional medical records to more accurately identify a PMI’s mental health issues. Second, we only measured outcomes thirty-six months after a police-abated MHCFS. More research is needed to determine why it takes at least twelve months to see results from the program, and whether these results persist beyond three years. Third, although we controlled for many key variables, we acknowledge

that effects from unobserved variables may bias our results. Furthermore, future studies should attempt to better isolate the treatment effect to identify what type of participation and/or contact from peer specialists is most beneficial (i.e., phone calls, mailed materials, or in-person contact).

Finally, we only evaluated the peer support program from one jurisdiction. We do not yet know if other agencies and jurisdictions can replicate the REAL program's success. We believe it is possible, but we note that the Lincoln community may differ from other jurisdictions in three important ways: a strong emphasis on mental health training for its police officers, robust mental health infrastructure, and an active, ongoing partnership between its police department and local mental health partners.

First, LPD strongly emphasizes de-escalation and other non-force tactics for resolving mental health encounters. LPD teaches its police recruits and officers 1) to recognize the symptoms of mental illnesses, 2) a CIT-based method of contacting and communicating with PMIs in crisis, and perhaps most importantly, 3) how to connect PMIs with resources during and after the incident. In some instances, officers may contact a PMI's mental health worker who will respond to assume responsibility for the PMI. In other incidents, officers may request a mental health professional respond to the scene to help evaluate the PMI and offer suggestions for resources and placement. LPD also issues a mental health investigation guide that helps officers navigate mental health encounters, and this guide lists different types of mental health resources for PMIs (e.g., addiction services, outpatient mental health treatment, respite houses). In addition, LPD gives officers the opportunity to complete an additional week-long mental health training course after graduating from the academy and completing field training.

The Lincoln community is different from other communities in another important way: a robust mental health infrastructure. The city of Lincoln features several hospitals, a mental health crisis center, and a number of mental health professionals and clinics. In contrast, PMIs in other jurisdictions may have to drive several hours to contact a mental health professional because services are not available in their community. In fact, availability and quality of care can vary greatly between communities, especially in urban versus rural communities (Merwin et al., 2003). Likewise, police officers in other jurisdictions may also have to drive several hours to transport PMIs due to shortages of mental health resources, such as beds, rooms, and doctors. Even in major cities, the sheer volume of MHCFS may overwhelm mental health services, leaving officers to navigate the “gray zone” with provisional resources (Wood, Watson & Fulambarker, 2017).

Lincoln’s third distinguishing feature is the ongoing collaboration between the police department and local mental health agencies. The police and mental health advocates understand their goal is the same—long-term solutions for PMIs to improve their quality of life and reduce future encounters with police. LPD trains its officers to recognize that MHCFS are unique encounters. Officers cannot simply arrive on scene, take a report, and leave. Instead, LPD officers refer PMIs and also work with mental health workers after the incident to connect the PMI to resources.

Every jurisdiction may not have the ability to immediately implement community-based peer support programs such as the REAL program. However, we believe every agency can adopt LPD’s philosophical approach to MHCFS and improve their collaboration with local mental health workers. Police departments may not necessarily be able to refer and help every

PMI, but they may be able to focus on collaboratively assisting those PMIs who generate an especially high number of MHCFS. The REAL program did not develop overnight, but rather, required two decades to develop training, protocols, partnerships, grant funding, and finally, public funding. It is our hope that other agencies can use the REAL program as a template for improving their respective responses to MHCFS.

DRAFT

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TABLE 1. DESCRIPTIVE STATISTICS FOR VARIABLES (N=775)

VARIABLE	RANGE	MEAN	SD
Dependent variables (following MHCFS)			
Was the Subject Referred? (<i>referred=1</i>)*	0-1	.53	.50
Post-arrests—12 months (<i>arrest=1</i>)	0-1	.27	.44
Post-arrests—24 months (<i>arrest=1</i>)	0-1	.36	.48
Post-arrests—36 months (<i>arrest=1</i>)	0-1	.40	.49
Post-MHCFS—12 months	0-25	.89	2.1
Post-MHCFS—24 months	0-29	1.5	3.4
Post-MHCFS—36 months	0-48	1.9	4.7
Post-EPCs—12 months (<i>EPC=1</i>)	0-1	.12	.33
Post-EPCs—24 months (<i>EPC=1</i>)	0-1	.16	.37
Post-EPCs—36 months (<i>EPC=1</i>)	0-1	.18	.39
Independent variables			
Gender of Subject (<i>female=1</i>)	0-1	.52	.50
Race of Subject (<i>non-white=1</i>)	0-1	.15	.36
Age of Subject	11-78	36.1	14.7
Did the Subject Live with Depression? (<i>yes=1</i>)	0-1	.27	.45
Did the Subject Live with Anxiety? (<i>yes=1</i>)	0-1	.08	.27
Did the Subject Live with Paranoia? (<i>yes=1</i>)	0-1	.02	.15
Did the Subject Live with Schizophrenia? (<i>yes=1</i>)	0-1	.09	.29
Did the Subject Live with PTSD? (<i>yes=1</i>)	0-1	.03	.18
Did the Subject Live with Bipolar? (<i>yes=1</i>)	0-1	.14	.35
Did the Subject Live with Dementia/Alzheimer's? (<i>yes=1</i>)	0-1	.00	.05
# of arrests in last 12 months	0-49	.57	2.2
Total # of prior MHCFS	0-58	2.7	6.3
# of MHCFS last 12 months	0-22	.66	1.8
Total # of prior EPCs	0-23	.76	2.3
# of EPCs in last 12 months	0-4	.08	.36

* This variable is analyzed as an independent variable in subsequent models predicting the other dependent variables.

TABLE 2. LOGISTIC REGRESSION MODELS ESTIMATING ODDS OF BEING REFERRED TO THE REAL PROGRAM (N=775)

Variable	b	SE	Odds Ratio
Female (compared to Male)	-.53*	.15	.59
Non-White (compared to White)	-.03	.21	.97
Age	.03*	.01	1.03
Reported depression	-.67*	.18	.51
Reported anxiety	.48	.30	1.62
Reported paranoia	-1.37*	.53	.25
Reported schizophrenia	.57	.29	1.76
Reported PTSD	1.29	.53	3.65
Reported bipolar	.11	.23	1.12
# of arrests in last 12 months	-.03	.04	.97
# of MHCFS last 12 months	.24*	.07	1.23
# of EPCs in last 12 months	-.95*	.30	.38
Constant	-.57*	.23	.57

* p < .05

TABLE 3. LOGISTIC REGRESSION MODELS ESTIMATING ODDS OF BEING ARRESTED 12, 24, AND 36 MONTHS AFTER A POLICE-ABATED MENTAL HEALTH CRISIS (N=775)

	12 MONTHS			24 MONTHS			36 MONTHS		
	b	SE	Odds Ratio	b	SE	Odds Ratio	b	SE	Odds Ratio
Referred to REAL program	.32	.18	1.38	.11	.17	1.11	.10	.17	1.11
Female (compared to Male)	.10	.17	.90	.03	.03	1.03	.10	.16	1.10
Non-White (compared to White)	.18	.23	1.20	.30	.30	1.34	.40	.22	1.49
Age	-.02*	.01	.98	-.02*	.01	.98	-.02*	.01	.98
Reported depression	-.20	.21	.81	.01	.19	.99	.09	.19	1.09
Reported anxiety	.31	.33	1.36	.00	.31	1.00	.09	.30	1.10
Reported paranoia	-.38	.75	.69	-1.71	.96	.18	-2.02*	.99	.13
Reported schizophrenia	-.57	.35	.58	-.36	.32	.69	-.21	.31	.81
Reported PTSD	-.98	.68	0.37	-.69	.56	.50	-.61	.52	.54
Reported bipolar	.52*	.25	1.68	.52*	.24	1.69	.56*	.23	1.75
# of arrests in last 12 months	.63*	.09	1.88	.69*	.10	2.00	.74*	.11	2.09
# of MHCFS last 12 months	-.22*	.08	.80	-.15*	.07	.86	-.12	.06	.88
# of EPCs in last 12 months	.87*	.33	2.40	.60	.31	1.82	.60*	.30	1.83
Constant	-.82*	.28	.44	-.42	.26	.66	-.32	.25	.73

* p < .05

TABLE 4. NEGATIVE BINOMIAL REGRESSION MODELS ESTIMATING THE NUMBER OF MENTAL HEALTH CALLS FOR SERVICE 12, 24, AND 36 MONTHS AFTER A POLICE-ABATED MENTAL HEALTH CRISIS (N=775)

	12 MONTHS		24 MONTHS		36 MONTHS	
	b	SE	b	SE	b	SE
Referred to REAL program	-.09	.16	-.42*	.14	-.53*	.14
Female (compared to Male)	-.12	.15	-.05	.14	-.10	.14
Non-White (compared to White)	-.41	.22	-.38*	.05	-.43*	.20
Age	.00	.01	.01	.01	.01	.01
Reported depression	.04	.18	-.13	.16	-.09	.16
Reported anxiety	.05	.28	.37	.25	.43	.25
Reported paranoia	-.15	.51	-.35	.47	-.17	.46
Reported schizophrenia	.07	.27	.18	.24	.16	.24
Reported PTSD	.05	.42	.02	.39	-.01	.39
Reported bipolar	.70*	.21	.73*	.20	.64*	.20
# of arrests in last 12 months	.06	.05	.03	.04	.03	.04
# of MHCFS last 12 months	.24*	.06	.25*	.06	.25*	.06
# of EPCs in last 12 months	.35	.24	.28	.24	.30	.24
Constant	-.62	.25	-.11	.23	.28	.23
Overdispersion parameter	2.70	.29	2.60	.23	2.76	.08
Log-likelihood	-902.03		-1145.32		-1268.14	
LR Test	660.46*		1331.57*		2068.06*	

* p < .05

TABLE 5. LOGISTIC REGRESSION MODEL ESTIMATING ODDS OF BEING TAKEN INTO EMERGENCY PROTECTIVE CUSTODY 12, 24, AND 36 MONTHS AFTER A POLICE-ABATED MENTAL HEALTH CRISIS (N=775)

	12 MONTHS			24 MONTHS			36 MONTHS		
	b	SE	Odds Ratio	b	SE	Odds Ratio	b	SE	Odds Ratio
Referred to REAL program	-.19	.24	.83	-.40	.21	.67	-.58*	.21	.56
Female (compared to Male)	.00	.23	1.00	.22	.20	1.25	.33	.20	1.38
Non-White (compared to White)	-.15	.33	.86	-.04	.29	.96	-.07	.28	.93
Age	-.01	.01	.99	.00	.01	.99	.00	.01	.99
Reported depression	-.14	.28	.87	.02	.24	1.02	.02	.23	1.02
Reported anxiety	.48	.40	1.62	.61	.34	1.43	.54	.34	1.72
Reported paranoia	.71	.63	2.04	.27	.62	1.31	.41	.58	1.50
Reported schizophrenia	.52	.36	1.68	.36	.34	1.43	.28	.33	1.32
Reported PTSD	-1.38	.06	.25	-.07	.59	.93	.40	.52	1.49
Reported bipolar	.19	.32	1.20	.06	.30	1.06	.02	.29	1.03
# of arrests in last 12 months	.04	.04	1.04	.03	.04	1.03	.04	.04	1.04
# of MHCFS last 12 months	-.06	.08	.94	.07	.06	1.08	.06	.06	1.06
# of EPCs in last 12 months	1.40*	.34	4.04	1.37*	.32	3.94	1.43*	.32	4.19
Constant	-1.81*	.37	.16	-1.84*	.33	.16	-1.65*	.31	.19

* p < .05

TABLE 6. NEGATIVE BINOMIAL REGRESSION MODEL ESTIMATING THE NUMBER OF MENTAL HEALTH CALLS FOR SERVICE 12, 24, AND 36 MONTHS AFTER A POLICE-ABATED MENTAL HEALTH CRISIS (INCLUDING INTERACTION TERM) (N=775)

	12 MONTHS		24 MONTHS		36 MONTHS	
	b	SE	b	SE	b	SE
Referred to REAL program	.54*	.18	.24	.15	.17	.15
Referral X Prior MHCFS	-.09*	.03	-.09*	.02	-.09*	.03
Female (compared to Male)	-.07	.15	.03	.13	.03	.13
Non-White (compared to White)	-.19	.21	-.13	.18	-.13	.17
Age	.00	.01	.01	.00	.00	.00
Reported depression	.07	.17	.01	.15	.12	.15
Reported anxiety	-.42	.28	-.14	.24	-.17	.23
Reported paranoia	-.05	.49	-.20	.43	.20	.41
Reported schizophrenia	-.06	.26	.18	.22	.18	.21
Reported PTSD	.15	.38	.27	.34	.28	.33
Reported bipolar	.61*	.20	.57*	.17	.49*	.17
# of arrests in last 12 months	.05	.05	.03	.03	.04	.04
Total # of prior MHCFS	.19*	.03	.20*	.02	.20	.03
Total # of prior EPCs	-.13*	.06	-.11*	.05	-.10	.05
Constant	-1.06*	.25	-.75*	.22	-.47*	.22
Overdispersion parameter	2.15	.25	1.85	.18	1.94	.09
Log-likelihood	-873.20		-1092.88		-1206.56	
LR Test	539.44*		996.77*		1494.28*	

* p < .05

TABLE 7. LOGISTIC REGRESSION MODEL ESTIMATING ODDS OF BEING TAKEN INTO EMERGENCY PROTECTIVE CUSTODY 12, 24, AND 36 MONTHS AFTER A POLICE-ABATED MENTAL HEALTH CRISIS (INCLUDING INTERACTION TERM) (N=775)

	12 MONTHS			24 MONTHS			36 MONTHS		
	b	SE	Odds Ratio	b	SE	Odds Ratio	b	SE	Odds Ratio
Referred to REAL program	-.07	.26	.93	-.19	.24	.93	-.32	.23	.73
Referral X Prior MHCFS	-.04	.03	.96	-.06*	.03	.96	-.08*	.03	.92
Female (compared to Male)	-.02	.23	.98	.20	.21	.98	.31	.20	1.37
Non-White (compared to White)	-.03	.32	.97	.08	.28	.97	.05	.27	1.05
Age	-.01	.01	.99	.00	.01	.99	.00	.01	1.00
Reported depression	.21	.28	.81	-.04	.24	.81	-.04	.23	.96
Reported anxiety	.39	.41	1.48	.48	.36	1.48	.42	.35	1.51
Reported paranoia	.70	.62	2.02	.29	.61	2.02	.44	.58	1.56
Reported schizophrenia	.47	.36	1.60	.35	.34	1.60	.27	.33	1.31
Reported PTSD	-1.27	1.05	.28	.08	.58	.28	.54	.50	1.71
Reported bipolar	.24	.32	1.27	.08	.29	1.27	.02	.29	1.02
# of arrests in last 12 months	.03	.04	1.03	.03	.04	1.03	.03	.04	1.03
Total # of prior MHCFS	.07	.04	1.07	.11*	.04	1.07	.12*	.04	1.13
Total # of prior EPCs	.04	.08	1.04	.02	.08	1.04	.05	.08	1.06
Constant	-1.92*	.37	.15	-1.98*	.34	.15	-1.82*	.32	.16

* p < .05