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Variation in Ohio Police Response to Mental Health Crises

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Abstract

The following paper aims to identify and explain variation in Ohio police department methods of response to calls for service (CFS) involving mental health crises. Police response to mentally ill or disturbed individuals has become a topic of increased discussion in recent decades. Communities have attempted to bring reform to this area with alternative solutions, including specially trained police officers, co-response with social workers, or community-based response teams. Geographic and demographic factors such as police department size, population served, and availability of mental health resources impact how communities and police departments approach this issue. This paper consists of a literature review covering current police approaches, data collection and analysis on a random sample of 200 Ohio police departments, individual reviews of the three largest Ohio police departments, and a discussion of findings and implications.

Variation in Ohio Police Response to Mental Health Crises

Over the past two decades, the ability of local police officers and departments to adequately handle calls for service (CFS) involving mentally ill or unstable individuals has increasingly been called into question. Individuals experiencing mental health crises or emotional disturbances may require emergency response to protect both themselves and those around them and responding police officers must be able to understand the situation and seek a peaceful, safe resolution. National media attention to police killings in general has also grown in recent years, with controversy over use of force cases making repeated headlines across the country following deaths of unarmed citizens. According to a 2020 report from the American Psychological Association, approximately 20% of all CFS in the United States involve a mentally ill individual (Abramson, 2021). The Washington Post maintains a database of all individuals that have been shot and killed by a police officer, dating back to January 1, 2015. According to their data, 21% of those killed were experiencing a mental health crisis, amounting to a total of 1747 deaths since 2015 (Washington Post, 2023). As of April 1st, 2023, 48 mentally ill individuals had been killed by police officers in 2023.

Individuals and mental health awareness groups alike have called for reform when it comes to police interaction with and response to mentally ill individuals, believing that many lives could be saved if different policies or programs are implemented. Alongside calls for reform or implementation of new practices, police departments across the country have also been facing internal pressure in recent years to improve the efficiency of their operations as cities and townships have faced severe budget challenges (Department of Justice, 2011). Budget cuts and limitations have forced police departments to re-examine their current operations and look for ways to best allocate their resources and ensure the needs of the community are met. An

additional challenge for police departments across the country has been the increasing amount of officer shortages. Midsized police departments seem to have been hit the hardest by this trend. Lack of benefits, salary, increased responsibilities, and changing public perceptions of the police, among others, are contributing factors to the shortage of officers that many departments across the country must now work with (Wilson, 2012). This combination of economic pressure and public calls for reform have led agencies across the country to consider the plausibility of alternative methods to engaging CFS involving individuals with mental health crises. Because of differences in available resources and community needs, no single approach is appropriate, or practical, for all police departments to use. This paper will review popular programs used by police departments across the country before analyzing both how and why Ohio police departments vary in their response to CFS involving mental health crises.

Literature Review

Recent research has shown that individuals with mental illness are nearly five times more likely to be killed by police than those without mental illness (Saleh et al., 2018). The same report also found that police killings of those with mental illness were 2.8 times as likely to occur at the individual's home than those without mental illness. Although each scenario is unique and complex, these findings raise concern about how CFS involving individuals with mental illness are handled by police and why they account for such a high percentage of police shootings. In response, alternative methods and programs have been established in police departments across the country in an effort to better serve their residents. Common methods include Crisis Intervention Teams (CIT), co-response, or community-based response, typically called "mobile crisis units" (Abramson, 2021).

Crisis Intervention Teams

Crisis Intervention Teams (CIT) are the most prevalent form of specialized police response to mentally ill individuals, likely because these programs are the simplest to implement and require no additional resources outside the currently sworn officers (Abramson, 2021). The concept of CIT began with the Memphis Police Department in 1988 following the death of a mentally individual at the hands of police the year before. The "Memphis Model", as it is often called, is a program that involves both officer training and cooperation with mental health professionals and other community resources to respond to and treat mentally ill individuals in need of assistance most effectively. The major goals of the CIT program are to connect mentally ill individuals with the healthcare resources they need, help them avoid the criminal justice system when possible, and promote safety of both police officers and the individuals they respond to (CIT, 2023). Reducing use of force during police interactions and enabling access to professional treatment are two primary focuses of the program as well.

As of 2016, reports estimated that about 16% of all U.S. police departments participated in CIT programs, a number that has been steadily growing in recent years (Lucas, 2016). In its full implementation, the CIT program comprises several core elements, established by a convention of leaders in 2007. Selected police officers within a department (typically around 20-25% of all sworn officers) undergo a minimum of forty hours of training relating to mental health and illness. The goal is that CIT trained officers are available and on-duty at all times. Through the training, officers learn about signs of mental illness, developmental disabilities, effects of medication abuse, negotiation and de-escalation tactics, and the mental health resources available in the community, among other key topics (CIT Core Elements, 2007).

Officers also make visits to partnering mental health facilities to familiarize themselves with the operations. Additionally, dispatchers are trained to recognize mental health crises and ensure CIT trained officers are the first responders on scene. A third critical element of the CIT program is continued partnership with local mental health resources and facilities, including identifying a mental health facility with an automatic acceptance policy to ensure mentally ill individuals transported by police are evaluated and assisted (Rogers, McNiel, Binder, 2019).

In reality, a vast majority of police departments that participate in CIT do not fully implement the program to the extent outlined above. This is especially the case for smaller or more rural police departments due to a lack of available resources or mental health facilities within the community (Rogers et al., 2019). In these departments, the implementation of CIT is often limited to only the forty-hour officer training, with little emphasis on partnership with other community resources, most often due to lack of availability. In their study, Rogers et al. found that the true effectiveness of the CIT program was mixed and difficult to determine. Their research indicated that police officers perceived CIT to be beneficial to their understanding of mental health and to reductions in use of force. Prior research has shown that CIT trained officers were twice as likely to report "verbal engagement" as the highest degree of forced use. CIT officers engaging with mentally ill individuals were found less likely to arrest and more likely to transport individuals to treatment facilities (Compton et al., 2014). However, CIT training status was not considered a significant predictor of use of force by police officers, resulting in uncertainty about the actual impact CIT programs have on officer response and handling of CFS involving mentally ill individuals (Compton et al., 2014).

Co-Response

Another method of police response to mental health crises is “police-based co-response”. This solution is less common and requires the involvement of more community resources than the typical CIT program. Co-response methods can consist of either primary or secondary co-response teams. A primary co-response team is comprised of one police officer and one mental or behavioral health professional who act as first responders to any mental health crisis CFS (Beck, Reuland, Pope, 2020). The pair work together to ensure safety at the responding location, interact with the individual in crisis, and either provide immediate treatment or transport the individual to a local treatment facility. The aim of this method is to ensure a trained mental health professional is present at the initial response to the CFS, reducing the responsibility of the police officer who may not be as adequately prepared for such a situation. The presence of the police officer to ensure safety of all individuals involved and engage if the individual becomes threatening provides necessary protection. In contrast, secondary co-response teams, also comprised of an officer and a mental or behavioral health professional, only are sent to a CFS involving a mental health crisis if requested by the officer who was first sent to respond. The initial responding officer assesses the situation, including the state of the individual and the threat to those around, and determines if response from a health professional would be more appropriate than police engagement alone (Beck et al., 2020).

Similar to CIT, the ultimate goals of co-response programs are to reduce police use of force in situations involving mentally ill individuals and divert these individuals from the criminal justice system when possible. Reducing the pressure and responsibility placed on police officers and departments, allowing them to focus more attention to crime prevention, is a proposed benefit of this model of response as well, relying more heavily on mental and

behavioral health resources in the community (Abramson, 2021). Engaging these distressed individuals with trained professionals whose occupation is centered around mental and behavioral health provides opportunity for more effective response and, ideally, an increased likelihood that the individuals access the help they need. Thus far, research on the effectiveness of co-response teams is limited and not entirely conclusive. A 2014 review of co-response programs determined such programs were effective in reducing the pressure on the justice system, diverting mentally individuals from jail, and connecting these individuals to community resources or programs, but did not reach such a conclusion on reduction in use of force by officers (Shapiro et al., 2014). However, a more recent study concluded that co-response programs were associated with significant decreases in use of force and emotionally disturbed persons being transported to hospitals, including those against their will. This study also concluded that police-based co-response programs increased the likelihood of individuals being connected with community resources or social programs (Blais et al., 2022).

Community-based Response

The third approach to responding to CFS involving mental health crisis is community-based response. This approach is less particular in definition, as a wide variety of department or city programs can fall within the general structure of a community-based response. Essentially, a community-based response is any approach where police officers are not directly involved in the initial response and engagement of a mentally ill individual. Most common are EMS-based responses or "mobile crisis teams" (Beck et al., 2020). EMS-based responses are response teams made up of any combination of EMT's, counselors, social workers, and physicians who go to the location of the mentally ill individual and provide immediate assistance, as well as transport the

individual to treatment facilities if necessary. Mobile crisis teams are similar, typically comprised of mental health professionals, crisis workers, and medics, who replace police officers in responding to mental health crises within their community (Beck et al., 2020). Mobile crisis teams aid the distressed individual at their location and can provide referral to other mental health services within the community if needed.

Despite small differences in the specific personnel included in various community-based response programs established by communities across the country, the main aspects, challenges, and goals are shared by each. Response units comprised entirely of healthcare professionals and crisis workers, rather than a traditional police officer, seek to reduce the tension of the situation and calmly aid the distressed individual. Use of force issues are essentially eliminated without an officer present and the mentally ill individuals are met with professionals who can address their immediate needs or refer them to a treatment facility if necessary (Abramson, 2021). The community-based model of response seems to be most advantageous, offering an additional benefit of reduced responsibility for already overwhelmed police departments, but this model relies upon significantly more community assistance than either CIT or co-response models. Additionally, dispatchers must be trained and authorized to have discretion to forward CFS to mental health or crisis agencies if the situation does not specifically require police response and a mentally ill individual (Beck et al., 2020).

One unique example of an effective community-based response is the Crisis Assistance Helping Out On The Streets program, called CAHOOTS. The program was launched in Eugene, Oregon in 1989 by the White Bird Clinic, a local mental health organization, and continues to operate today. CAHOOTS teams, consisting of one medical professional (EMT or paramedic) and one crisis worker, respond to non-violent, low risk CFS involving mentally ill individuals,

bringing with them medical supplies and food (CAHOOTS, 2020). CAHOOTS also responds to CFS involving individuals battling homelessness and addiction, many of whom also struggle with mental illness. In 2017, CAHOOTS handled roughly 17% of all CFS to the Eugene Police Department, assisting over 16,000 individuals in the community and reducing the workload of the police department (Elinson, 2018). In 2019, CAHOOTS teams responded to nearly 24,000 calls and requested police backup on less than 1% of those calls (CAHOOTS, 2020). According to the program website, this community-based response is also beneficial to the city's budget. Using the Eugene Police Department's quoted cost of $800 per police response, the CAHOOTS program saved EPD over $8 million a year, on average, from 2014-2017, while only having an annual budget of $2.1 million (CAHOOTS, 2020).

In recent years, police departments across the country have begun to implement various versions or aspects of each of the previously described response methods to CFS involving mental health crises. Several factors outside a community or police department's control – budget, department size, availability of resources – must be evaluated when determining a crisis response program that would best serve the needs of the community. Because of this, there is no uniform approach that all police departments, even within the same state or region, operate under. The aim of this research report is to identify and explain the various methods Ohio police departments use to approach mental health crises and the factors that cause this variation.

Methodology

This report analyzes data on Ohio police departments. A list of all Ohio police departments was gathered from the Ohio Attorney General website (OAG, 2023), and a random sample was taken through Excel to select two hundred, excluding Sheriff's offices and university

police departments to ensure more comparable geographic data between departments. From the U.S. Census Bureau website, 2020 population and land area were collected for each departments' respective city or village. The population density (per square mile) was computed to classify each department's jurisdiction as urban, suburban, or rural (Geog Type). Urban police departments were those with over 2500 residents per square mile. Suburban police departments were those between 1000 and 2499 per square mile, and rural were those with less than 1000 per square mile.

Data on the size of each police department was collected as well. For this report, the size of a police department was defined as the number of full-time sworn officers within the department. Most often, this number was found on the city police department's official website. If an exact number or roster was not available on the website, the Ohio Police Scorecard website was used (Police Scorecard, 2023). The number of officers (Officers) was used to classify each police department as small, mid-sized, or large (Department Size). Small police departments were those with 10 or fewer officers. Mid-sized police departments had 11 to 50 officers, and large police departments were those with greater than 50 full-time officers.

Each police department website was also reviewed to evaluate the existence of a specific department method of responding to CFS involving mental health crises (Specialized Response). If the police department website made any mention of a Crisis Intervention Team (CIT), specialized crisis training, co-response, or other alternative method of responding to mental health crises, a "Yes" was designated. If there was no mention of any training, program, or specialized unit that handles mental health crisis CFS, a "No" was given. The "Crisis Services Dashboard" from the Ohio Mental Health and Addiction Services (OMHA, 2023) website was also reviewed to determine which police departments were located within counties that had

either CIT programs or Mobile Crisis Teams present. One significant limitation with the collection of this variable is the potential discrepancy between actual number of police departments that have any specialized response in place and the number that have information about such a response available on their website. Additionally, police departments may partner with mental health organizations that serve multiple counties, such as the Shawnee Family Health Center, which provides CIT training services to Lawrence, Adams, and Scioto counties (OMHA, 2023).

Lastly, Google Maps was used to collect data on the availability of mental health resources within or near each police department jurisdiction. For the purposes of this study, mental or behavioral health clinics, hospitals, or other mental health facilities were counted as mental health resources. Independent psychiatrists or psychologists were not included, as they would not be able to dedicate services to emergency response. A count of the total number of mental health resources (MH Resources) within a police department's jurisdiction was recorded. If there were no mental health resources within the jurisdiction, the distance in miles to the nearest mental health resource (Nearest Resource) was recorded. The Nearest Resource variable was given a value of 0 for all jurisdictions that contained at least one mental health resource.

Statistical analysis and comparison between groups, both geographic classification and size of department, was conducted to evaluate how both factors can impact police response to mental health crisis. Individual case studies of the programs currently in place to police mental health crises for each of the three largest cities in Ohio, all of which were selected in the random sample, were also conducted. These cities were chosen to be reviewed individually because of their status as outliers, both in terms of population served and police department size.

Data Analysis

Statistical analysis of the retrieved data was conducted using Minitab statistical software. Of the 200 police departments jurisdictions included in the research, 29 were classified as Urban (14.5%), 130 as Suburban (65%), and 41 as Rural (20.5%). 17 departments were classified as Large (8.5%), 82 as Midsized (41%), and 101 as Small (50.5%). Roughly half of the Ohio police departments in the study being classified as Small, with 10 or fewer officers, is consistent with national averages which place the mark at 48% (DOJ 2016).

Tally of Geog Type, Department Size

Geog Type	Count	Percent	Department Size	Count	Percent
Rural	41	20.50	Large	17	8.50
Suburban	130	65.00	Midsized	82	41.00
Urban	29	14.50	Small	101	50.50
N=	200		N=	200	

Basic descriptive statistics were calculated on the Population, Officers, MH Resources, and Nearest Resource variables as well. In regard to the Population and Officer variables, the data is heavily right-skewed, due to data from each of Ohio's three largest cities (Columbus, Cleveland, Cincinnati) being included. The population and total sworn officers for each of these three departments is more than double that of the fourth largest, causing mean and standard deviation values for the variables to be enlarged.

Variable	N	Mean	SE Mean	StDev	Minimum	Q1	Median	Q3	Maximum
Population	200	18449	5196	73485	65	1370	4145	13928	905748
Officers	200	41.6	12.7	179.7	1.0	5.0	10.0	26.8	1870.0
MH Resources	200	0.985	0.116	1.643	0.000	0.000	0.000	2.000	12.000
Nearest Resource	200	5.186	0.469	6.636	0.000	0.000	1.600	8.900	35.500

Specialized Response

The Ohio Department of Mental Health and Addiction maintains a "Crisis Services Dashboard" identifying counties with various services and facilities available. According to their data, 87 of 88 Ohio counties provide CIT training to police departments, with the only exception being Ashland County. Additionally, 60 counties (68.2%) have some sort of "Mobile Crisis Team/Children Mobile Response Stabilization". This dashboard includes programs that are shared by multiple neighboring counties, as well as mobile crisis units that only perform assessment at jails or hospitals, not on the initial scene (OMHA, 2023). Northwestern and Southeastern Ohio counties were more likely to be without such a program.

These results differ greatly from the findings of information available on police department websites. Of the 200 police departments included, only 21 (10.5%) made any mention of a specialized response or training related to CFS involving mentally ill individuals.

Chi-Square tests comparing the Specialized Response variable to Geog Type and Department Size, respectively, were carried out.

Rows: Geog Type Columns: Specialized Response

	No	Yes	All
Rural	40 (36.70)	1 (4.30)	41
Suburban	123 (116.35)	7 (13.65)	130
Urban	16 (25.95)	13 (3.04)	29
All	179	21	200

Cell Contents:
Count
(Expected count)

	Chi-Square	DF	P-Value
Pearson	42.819	2	0.000
Likelihood Ratio	30.560	2	0.000

For both Geog Type and Department Size, the p-value resulting from the Chi-Square test < 0.001 (alpha p = 0.05). There is sufficient evidence to conclude that there is a relationship between the geographic type of a police department jurisdiction and the presence of a specialized response on their website. A relationship between the police department size classification and the presence of a specialized response on their website also exists.

Rows: Department Size Columns: Specialized Response

	No	Yes	All
Large	8	9	17
	(15.21)	(1.78)	
Midsized	71	11	82
	(73.39)	(8.61)	
Small	100	1	101
	(90.39)	(10.61)	
All	179	21	200

Cell Contents:

Count
(Expected count)

Chi-Square Test

1 cell(s) with expected counts less than 5.

	Chi-Square	DF	P-Value
Pearson	43.046	2	0.000
Likelihood Ratio	34.997	2	0.000

The Specialized Response variable was recoded (0 = 'No', 1 = 'Yes') to perform an ANOVA and Tukey's Pairwise Comparison method to compare mean values for the variable between different Geog Types and Department Sizes.

Means

Geog Type	N	Mean	StDev	95% CI
Rural	41	0.0244	0.1562	(-0.0599, 0.1087)
Suburban	130	0.0538	0.2266	(0.0065, 0.1012)
Urban	29	0.4483	0.5061	(0.3480, 0.5486)

Pooled StDev = 0.273825

Analysis of Variance

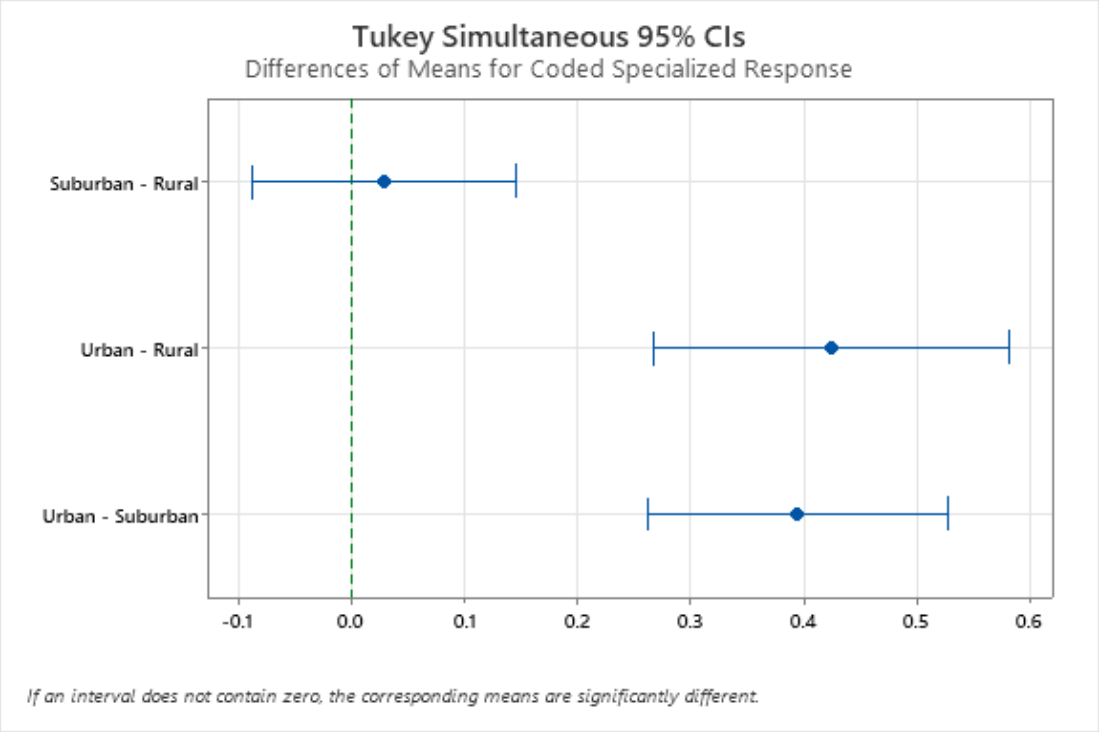
Source	DF	Adj SS	Adj MS	F-Value	P-Value
Geog Type	2	4.024	2.01195	26.83	0.000
Error	197	14.771	0.07498		
Total	199	18.795			

Results from the ANOVA F-test and corresponding p-value < 0.001 indicate that the mean values for the coded Specialize Response variable, which are equivalent to proportions, are not equal across all Geog Types. Tukey's Pairwise Comparison calculates a 95% confidence interval (CI) comparing two group means against each other. The mean for Urban departments was found to be significantly different from both Suburban and Rural; however, the coded Specialized Response means for Suburban and Rural were not significantly different.

Grouping Information Using the Tukey Method and 95% Confidence

Geog Type	N	Mean	Grouping
Urban	29	0.4483	A
Suburban	130	0.0538	B
Rural	41	0.0244	B

Means that do not share a letter are significantly different.



The same statistical operation was performed to compare the coded Specialized Response variable to Department Size. The ANOVA F-test p-value for Department Size < 0.001, indicating that the mean values for all department size categories were not equal. Tukey's Pairwise Comparison indicated significant differences in the mean values for all three department sizes, with the largest difference in means between Large and Small departments. Small and Midsized police department means were most similar, with a difference of just over 0.12 between the two.

Means

Department Size	N	Mean	StDev	95% CI
Large	17	0.529	0.514	(0.399, 0.660)
Midsized	82	0.1341	0.3429	(0.0746, 0.1937)
Small	101	0.00990	0.09950	(-0.04379, 0.06359)

Pooled StDev = 0.273627

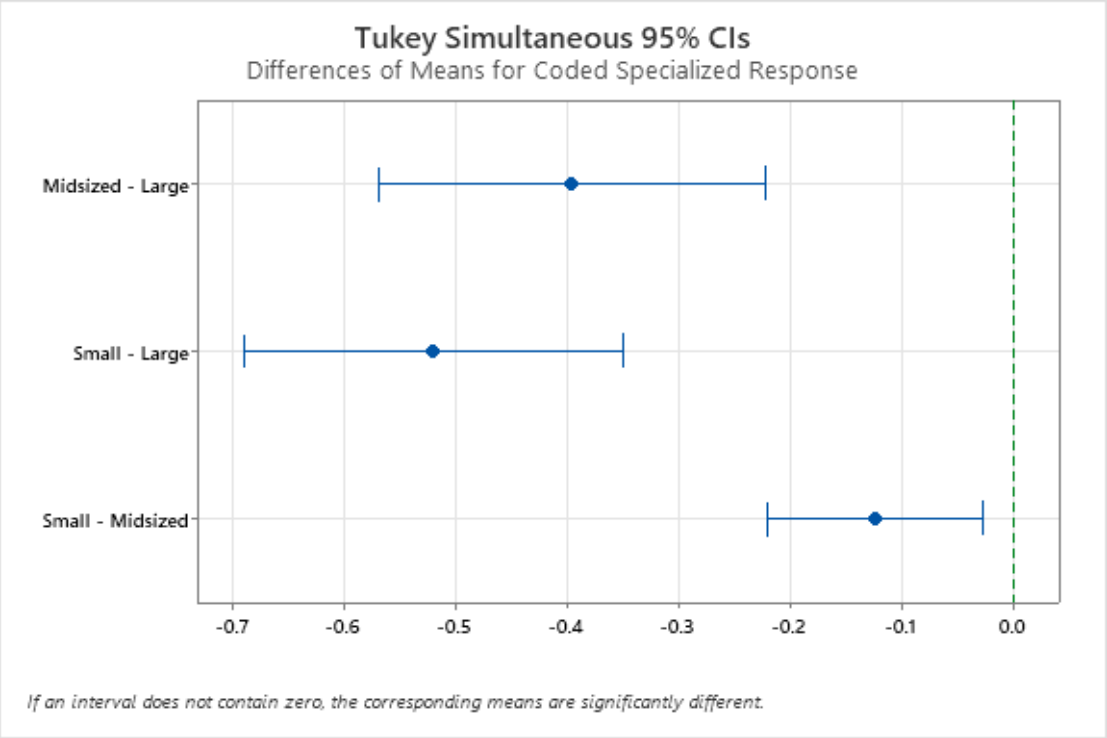
Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Department Size	2	4.045	2.02261	27.01	0.000
Error	197	14.750	0.07487		
Total	199	18.795			

Grouping Information Using the Tukey Method and 95% Confidence

Department Size	N	Mean	Grouping
Large	17	0.529	A
Midsized	82	0.1341	B
Small	101	0.00990	C

Means that do not share a letter are significantly different.



Binary logistic regressions comparing Specialized Response to Geog Type and Department Size, separately, indicated that Suburban departments were just over 50% more likely to have information about a specific police response to mental health crisis on their website when compared to Rural departments. Looking at Department Size, Midsized police departments were about 87% less likely than Large departments to have such information on their website, while Small departments were almost 92% less likely to have information on specialized response compared to Midsized departments.

Odds Ratios for Categorical Predictors

Level A	Level B	Odds Ratio	95% CI
Geog Type			
Suburban	Rural	1.5131	(0.1723, 13.2859)
Urban	Rural	12.8801	(1.3846, 119.8177)
Urban	Suburban	8.5122	(2.7499, 26.3491)

Odds ratio for level A relative to level B

Odds Ratios for Categorical Predictors

Level A	Level B	Odds Ratio	95% CI
Department Size			
Midsized	Large	0.2268	(0.0598, 0.8611)
Small	Large	0.0196	(0.0017, 0.2280)
Small	Midsized	0.0862	(0.0104, 0.7183)

Odds ratio for level A relative to level B

Number of Mental Health Resources Within Jurisdiction

One-way ANOVA, along with Tukey's Pairwise Comparison, was also used to compare the number of mental health resources within a jurisdiction, MH Resources, against Geog Type and Department Size. No jurisdiction studied had more than 12 mental health resources, and 75% had between 0 and 2. Again, the ANOVA F-test produced a p-value < 0.001 for both Geog Type and Department Size, indicating that the mean number of resources available is not equal across all geographic classifications or department size classifications. Using a 95% CI, differences in mean mental health resources within the jurisdiction between geographic classifications were significant across all groups. The same was found true for department sizes, with Large department jurisdictions averaging more than 2.5 more mental health resources than Midsized departments.

Tukey's Pairwise Comparisons, Geog Type

Geog Type	N	Mean	Grouping		
Urban	29	2.655	A		
Suburban	130	0.869		B	
Rural	41	0.1707			C

Means that do not share a letter are significantly different.

Tukey's Pairwise Comparisons, Department Size

Department Size	N	Mean	Grouping		
Large	17	4.059	A		
Midsized	82	1.402		B	
Small	101	0.1287			C

Means that do not share a letter are significantly different.

Nearest Resource

This same process was repeated for the Nearest Resource variable, which identified the distance in miles to the nearest mental health facility if the jurisdiction did not have one of its own. Police departments that did have at least one mental health resource within their jurisdiction were given a value of 0. ANOVA F-tests for both Geog Type and Department Size found sufficient evidence ($p < 0.005$) to conclude means were not equal for all classifications, consistent with the results of the ANOVA tests for the number of mental health resources. The most significant differences for Nearest Resource were found when comparing Rural departments to Suburban and Small departments to Midsized. In general, the differences between Geog Types were more pronounced than the differences between Department Sizes. Tukey's Pairwise comparison found significant differences in the mean distance to nearest mental health resource for all category comparisons except between Midsized and Large police departments, both of which had a mean distance less than 2 miles, while the mean distance for Small departments was over 8.8 miles.

Tukey's Pairwise Comparisons, Geog Type

Geog Type	N	Mean	Grouping		
Rural	41	8.64	A		
Suburban	130	5.168		B	
Urban	29	0.383			C

Means that do not share a letter are significantly different.

Tukey's Pairwise Comparisons, Department Size

Department Size	N	Mean	Grouping	
Small	101	8.876	A	
Midsized	82	1.700		B
Large	17	0.0824		B

Means that do not share a letter are significantly different.

Individual Cases of Urban Departments

Of the 21 police department websites that did have information about a specialized response to CFS involving mentally ill individuals, 17 either mentioned CIT trained officers or a specialized unit of police officers and medics that respond to high stress or dangerous situations. However, the three largest police departments in the state of Ohio, serving the cities of Columbus, Cleveland, and Cincinnati respectively, all have partnered with local resources to establish either co-response or community-based responses to address and assist mentally ill individuals.

Since June 2021, the city of Columbus has used its "Right Response Unit" (RRU), a community-based method, to respond to mental health crises. This program allows 911 calls related to mental health to be redirected to crisis workers and mental health professionals. The program operates during weekdays, costing the city over $4 million for staff and support (WBNS 2022). Crisis workers responding to these calls instead of police officers has saved the police department resources, freeing up an estimated 500 hours of officer time. Additionally, less than 1% of calls handled by the RRU led to arrest from June 2021 to September 2022, and no use of force situations have occurred (City of Columbus, 2022).

The city of Cleveland and its police department currently operate under a co-response model when it comes to handling mental health crises. Beginning in 2020, specialized teams made up of one police officer and one caseworker respond together to mental health crises. A 2022 city report on the program determined that the co-response teams were first to respond to only an estimated 10% of crisis calls, with the vast majority of their response being follow-up visits. In November of 2022, the city approved funding to double the number of co-response teams to a total of 10, as well as designate a mental health dispatcher to handle mental health crisis calls (Ugino, 2022).

Presently, the city of Cincinnati employs both a co-response and community-based response program to handle mental health crises, which both fall within the city's Alternative Response to Crisis (ARC) program. The co-response teams, comprised of a UC Health clinician and CIT trained police officer, are dispatched to "high-risk" mental health crises. This has been the CPD's long established method of responding to such crises (Knight, 2022). Starting in 2022, the city announced an additional pilot ARC Response team to serve as a community-based response. Inspired by Denver's successful STAR program, the ARC Response team consists of a

Behavioral Health Specialist from the Cincinnati Health Department and a paramedic from the Cincinnati Fire Department. Currently operating only during weekday hours, the ARC Response team handles mental health crisis calls that are deemed "low risk", replacing officers at the scene (City of Cincinnati, 2023). According to the ARC Response dashboard, the community-based response team has handled over 530 crisis calls since July 25, 2022, saving CPD an estimated 2800 hours of work (ARC Dashboard, 2023).

Findings

Evident immediately is the multicollinearity between Geographic Type of police department and Department size. The idea that urban police departments, where the populations they serve are denser – primarily in larger cities – would typically also be larger in terms of the number of officers, makes conceptual sense. However, there is not perfect overlap and connection between Urban-Large, Suburban-Midsized, or Rural-Small, so statistical analysis of both geographic type and department size is necessary. Despite the smaller sample size of Urban departments, the statistical significance of their increased resources is clear. These departments in more urban areas are benefitted by the presence of many mental and behavioral health facilities to serve the public. On the other hand, the smaller and more rural departments that represent nearly half of all Ohio police departments, do not have immediate access to mental health services in the same way.

The difference in availability of mental health resources has a clear impact on police department and community response to mental health crises. 57% (115) of the police departments studied had zero mental health resources physically located within their jurisdiction and only 25.5% had more than one. The vast majority of these departments without available

resources were located in rural areas of Ohio. These rural departments, who most often were small, with 10 or fewer full-time officers, not only had fewer mental health resources within the jurisdiction they serve, but also had greater average distances to the nearest mental health resource outside the jurisdiction. This reality severely limits how such rural police departments can choose to respond to CFS involving mental health crises. Community-based responses or co-responses are not practical, as the time and expense required to provide a mental healthcare or crisis professional would not be feasible. Because of their size, many of these police departments do not have special divisions or units of officers designated for crisis response either. Instead, rural police departments must often rely exclusively on CIT training for officers to prepare them for mental health crisis, which research has indicated has mixed results.

More variation in police response to mental health crises exists within suburban police departments, likely due to the fact that suburban jurisdictions are comprised of a wider range of police department sizes and number of mental health resources. Over 50% of all suburban police departments studied did not have a mental health resource present within the jurisdiction. However, 25% of suburban departments had between 2 and 6 resources available. Similar to the rural police departments, suburban police departments without mental health resources within the jurisdiction are much more likely to rely only on CIT officer training. However, the average distance to the nearest mental health facility outside of the jurisdiction was only 1.7 miles, compared to 8.88 for rural departments. Because of this, there is an increased possibility that these suburban departments could partner with mental health resources, either within their jurisdiction or neighboring, and establish co-response or community-based response programs, such as mobile crisis teams.

Urban police departments, unsurprisingly, had the greatest access to mental health resources within their jurisdiction, with over 50% of urban departments having between 2 and 12 resources. The mean number of mental health resources within the 29 urban police department jurisdictions was just over 2.65, significantly greater than the Suburban mean of 0.869. Only 4 urban police departments did not have a mental health resource within their jurisdiction area. Because of this comparative abundance of community resources, urban police departments have a greatly increased likelihood of having either community-based or co-response programs in place to respond to mental health crises. These communities can rely more heavily on mental health professionals to handle immediate response to mentally ill individuals and reduce the workload on police departments.

Despite making up just 14.5% of the police departments studied, Urban departments accounted for nearly 62% of the 21 department websites that had any mention of a specialized response or program. General observation showed that police department websites for more urban communities were much more professional and detailed, including more information on the police department's divisions and procedures, as well as links to mental health resources within the county. Rural police department websites were less detailed and least likely to have any information about specialized response to mental health crises available, perhaps due to IT limitations.

Conclusion

The geographic nature of a police department and the community it serves greatly impacts many of its operations. Not immune to this is the method of response to a CFS involving a mental health crisis. The availability of mental health resources in the community

and the number of full-time officers a police department has are two of the primary factors in determining a response method. Although police researchers and policymakers may encourage the adoption of co-response or community-based response approaches to mental health crises, citing their impacts on use of force and diversion from the criminal justice system, these methods are not viable for the majority of Ohio police departments, who operate in rural regions of the state and with limited resources within both the department and the community.

Although populations are smaller and mental health resources sparser in rural communities, the presence of mental illness and mental health crises is just as great. For rural departments, CIT training of all officers and regional co-response or community-based response programs seem most practical. Mental health organizations that serve three or four neighboring counties can provide crisis response services, although likely in much more of a "follow-up" role than a first response, simply due to the time it would take to respond to a CFS. Increased state or federal funding in support of officer training on mental health or community-based response programs (including physical facilities and program operational expenses) could be a practical step toward improving the ability of suburban and rural police departments to improve their responses to this key issue.

One of the limitations mentioned previously was the lack of information available on many police department websites, especially those of rural departments, about specialized response to mental health crises. Absence of a mention of CIT trained officers or other method of response does not necessarily mean these programs are not in place. Further study of individual police departments and their programs may be necessary to gain a better understanding of response methods in rural departments who do not make this information available on their website. Additionally, future research that focuses on how availability of

information regarding mental health resources can impact distressed individuals would perhaps be beneficial. Police department websites with phone numbers or website links to local mental health facilities, state health resources, or crisis helplines may enable individuals dealing with mental health crises to get the assistance they need, as well as reduce police workload.

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