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Social Determinants of Youth Crime: Parental Presence and Crime Exposure

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Abstract

This study examines criminal involvement among a largely vulnerable population—youth. The social determinants of health framework are applied to assess parental presence and youth exposure to crime/violence in and out of the home as predictors of crime relative to archival police data and census demographic information. Nineteen years (2000-2019) of data on arrests and incidents in Wilmington, North Carolina were provided by community partner Wilmington Police Department (WPD) for examination. Data on N=726,359 incidents were generated, accessed, and analyzed at both the arrest and tract levels using SPSS and ArcGIS software. Census demographic information on female-headed households was also analyzed at the tract level to examine the relationship between parental presence and youth crime. Research found more youth exposure to crime/violence occurred along tracts with many youth and adult arrests. Moreover, many youth arrests occurred along tracts with high numbers of female-headed households. These findings support previous literature on parental presence and exposure to crime/violence as predictors of youth crime. It was also discovered that arrests, incidents of exposure, and female-headed households were clustered along tracts closest to downtown. It is suggested that future research investigate both geographic and demographic features of the downtown Wilmington area to develop a broader understanding of why most crime and female-headed households are concentrated in one portion of town. *Keywords: youth crime, exposure to violence, SDOH, social determinants, police data*

Introduction

Criminal activity among young people is an enduring concern in the United States. According to the U.S. Department of Justice's Office of Juvenile Justice and Delinquency Prevention (2022), youth arrests peaked in 1996 and have steadily declined since. Although national statistics indicate a decrease in juvenile crime, criminal activity among youth is still a problem in many U.S. cities. For instance, the prevalence of juvenile crime in Wilmington, North Carolina and its consequences for youth is reflected in recent local news reports. In 2019, StarNews reported that the Wilmington Police Department (WPD) handled 118 incidents involving possession of a firearm by a minor (Dill, 2020). In March of 2021, WWAY reported an uptick in juvenile crime, including that several teenagers and young adults had been arrested for involvement in violent crimes (Bouchelle, 2021; WWAY, 2021). The following month, a 16-year-old girl and two young adults were shot and killed at a house party during an incident that

left four others injured (WTVD Staff, 2021). Later that year, a 15-year-old shot another student at New Hanover High School (WECT Staff, 2021). More recently, two boys, a six-year-old and a 16-year-old, along with two adults, were shot while attending a memorial for a victim of gun violence (WECT Staff, 2022). These instances are but a few examples of how young people in Wilmington fall victim to both the effects of youth violence and social factors that influence participation in criminal behavior. The following paper investigates these circumstances.

This study compares existing research on the predictors of youth crime with census information and reports of arrests and incidents provided by community partner WPD. To address youth crime, its prevalence, and its consequences, sociologists have turned attention to the different factors that put youth at higher risk for exposure to crime/violence and participation in criminal behavior. This paper first introduces the concept of social determinants by incorporating existing definitions and findings related to the topic. Next, parental presence and exposure to crime/violence are discussed as predictors of youth crime. Social learning theory, data, methods, and results are then detailed before a discussion on conclusions.

Literature Review

Social Determinants

Social determinant is an all-encompassing term referring to any social factors correlating with different life outcomes. To explain the concept of social determinants, many cite a metaphor by Irving Zola, which equates the act of addressing social problems retroactively to pulling drowning people out of a river; the metaphor suggests that in order to adequately address social issues, the focus must be shifted upstream to the causes of negative outcomes (Kelly, 2020). The metaphor suggests that confronting social and contextual factors that put individuals at risk for different life outcomes is necessary for combating individual-level issues. The Social Determinants of Health Framework (SDOH), introduced by the World Health Organization, proposes that factors beyond individual decisions, such as social and physical environments and community practices, serve as root causes of negative health outcomes (Nation et al., 2021; Wang et al., 2021). Further, Nation et al. (2021) suggest conceptualizing youth violence as a negative health outcome within the SDOH framework exposes social determinants that perpetuate youth violence. In the study to follow, the SDOH framework is applied to conceptualize the social determinants of youth crime in Wilmington.

Parental Presence as a Social Determinant

In the current study, parental presence refers to youth parental characteristics. Wang et al. (2021) include that youth relationships with parental figures are conclusively recognized as a social determinant of health. Many researchers have studied how differences in family structure affect children and adolescents (Shroeder et al., 2010; Cobb-Clark & Tekin, 2013; Markowitz & Ryan, 2016). More specifically, Schroeder et al. (2010) assess the relationship between familial transitions and juvenile delinquency, concluding that separation and divorce were not intrinsically linked to major increases in youth delinquency; however, an increase in delinquency was observed among those who transitioned from single-parent to two-parent households. Notably, youth belonging to two-parent households during the first wave of data collection had lower offense scores than those belonging to single-parent households (Schroeder et al., 2010).

Other research has focused specifically on the impact paternal presence has on the lives and actions of young people (Cobb-Clark & Tekin, 2013; Markowitz & Ryan, 2016). For instance, Cobb-Clark and Tekin (2013) assess the relationship between paternal presence and

juvenile delinquency, revealing that adolescent males with father figures were significantly less likely to participate in criminal behavior than those without father figures. Moreover, paternal presence appeared to be linked to decreased violence and gang affiliation in young males (Cobb-Clark & Tekin, 2013). In addition, Markowitz and Ryan (2016) found paternal departure to be linked to increased delinquency and posed that this is due to decreases in parental monitoring.

Youth Exposure to Crime/Violence as a Social Determinant

General Exposure

For this study, general exposure to crime/violence refers to incidents of direct and indirect exposure regardless of source or location (e.g., home, neighborhood, school, or community). Many studies have assessed the relationship between youth exposure to crime/violence and negative outcomes (Chen et al., 2016; Goldner et al., Gorman-Smith et al., 2004; 2015; Peterson et al., 2019; Shukla & Wiesner, 2016). Furthermore, in a study on youth exposure to crime/violence trends, Finkelhor et al. (2015) found that more than a third of the sample had experienced assault and roughly a quarter had witnessed violence within the year. Importantly, exposure to crime/violence has been associated with the externalization of problems, especially in cases where young people are directly victimized (Fowler et al., 2009). Exposure to crime/violence has been conclusively recognized as a predictor of delinquency and other negative outcomes in many studies (Chen et al., 2016; Goldner et al., Gorman-Smith et al., 2004; 2015; Peterson et al., 2019; Shukla & Wiesner, 2016).

Exposure Within the Family

The specific effects of exposure to criminal activity within the family/household have been considered by researchers. Shukla and Wiesner (2016) found victimization and crime/violence exposure that occurs within the home to be especially predictive of delinquency. Furthermore, research conducted in the field of criminology suggests that generational transmission of criminal behavior occurs within families (Aaron & Dallaire, 2009; Cobb-Clark & Tekin, 2013; Hashimi et al., 2021; Shukla & Wiesner, 2016). For instance, Aaron and Dallaire (2009) found parental incarceration to be predictive of youth delinquency. Other research, such as Hashimi et al. (2021), has investigated exposure to crime/violence among siblings. The authors explain that siblings essentially socialize each other, and sibling delinquency has the potential to encourage participation in delinquent behaviors among non-delinquent siblings (Hashimi et al., 2021). Moreover, the researchers found that gang affiliation substantially increases the likelihood of sibling gang involvement, as does having a sibling that was previously but is no longer involved in gang activity (Hashimi et al., 2021).

Literature Summary

The findings summarized above are supportive of parental characteristics and exposure to crime/violence both in and out of the home as predictors of delinquent behaviors. Notably, much of the previous research on family context aims to assess and summarize findings on many different family characteristics in single studies. Therefore, it could be beneficial for researchers to focus on individual family characteristics as predictors of crime rather than attempting to assess many factors at once. The study on sibling transmission of gang violence conducted by Hashimi et al. (2021) demonstrates the scope described above, as their findings appear more organized and succinct than other research on family and delinquency.

Social Learning Theory

Many researchers who have investigated exposure to crime/violence and a determinant of youth delinquency reference social learning theory as a possible explanation for the transmission of deviant behavior. Akers (2002) explains that social learning theory, which is characterized by the notion that all human behavior is learned from others, suggests that people participate in criminal actions as a result of exposure to criminal activity. According to the social learning perspective, normalization and reinforcement of deviant behaviors can result in an increased likelihood of participation in deviant acts (Akers, 2002). The current study examines youth and adult arrests and incidents at the tract level with the assumption that youth were exposed to crime/violence in areas with high numbers of adult arrests and incidents, and some of the arrests and incidents occurred within the family and/or household. This research considers the social learning perspective when developing research questions involving youth arrests along tracts with more overall arrests and incidents. It was hypothesized that tracts with more youth exposure to crime/violence would contain more youth arrests.

Community-Based Participatory Research Specific Information

The Wilmington Police Department served as the community partner for this research project and provided data on all adult and youth arrests and incidents in Wilmington, North Carolina between the years of 2000-2019. Researchers aim to benefit the community partner and the City of Wilmington by providing both parties with accurate and insightful information on youth arrests and the various factors that may contribute to youth participation in crime. It is recommended that these findings be used to develop community-centered programs that benefit populations most affected by crime in Wilmington, specifically programs utilizing upstream approaches to preventing youth delinquency.

Methodology

This study examines predictors of youth crime relative to 19 years of archival information on youth and adult arrest and incident reports from Wilmington, North Carolina. Data on arrests and incidents were provided by WPD for examination. Under the supervision of course instructors, a team of 11 student researchers was divided into groups and assigned specific social determinants as the research foci. The students first examined the literature on community-based participatory research (CBPR), SDOH, neighborhood effects, and other subjects relevant to the research project. Students then explored proximal, distal, and intermediate-level social determinants and reported their interests to the instructor, who divided the class into groups according to personal interests. Student groups then narrowed the WPD-provided data according to their group's research objectives. Finally, students studied the existing literature on social determinants and incorporated census demographic information on Wilmington households to further examine chosen social determinants relative to the WPD data.

Units of Analyses

Arrests and incidents involving both youth and adults and the location of female-headed households with children were analyzed to assess parental presence and exposure to crime/violence as social determinants. Wilmington Police Department data on arrests and incidents at the individual and tract levels were used, as was tract-level census data on heads of households.

Variables

Table A displays information on the variables, units of analysis, data sources, and programs used to analyze and examine the data. As shown in Table A below, census data on female-headed households with children were included in addition to WPD arrests and incidents data.

Table A.

Variable	Unit of analysis	Source	Software program
Youth arrests (#)	Arrest	WPD arrest	SPSS
Ages of youth involved	Arrest	WPD arrest	SPSS
Youth arrests type	Arrest	WPD arrest	SPSS
Adult arrests (#)	Arrest	WPD arrest	SPSS
Adult arrests type	Arrest	WPD arrest	SPSS
Adult arrests	Tract	WPD aggregate arrest	ArcGIS
Youth arrests	Tract	WPD aggregate arrest	ArcGIS
Exposure to crime/violence victim or witness	Tract	WPD aggregate incidence	ArcGIS
Female head of household	Tract	Census data	ArcGIS

WPD Arrests Data

Arrest-level data were analyzed using SPSS software. The data contains information on youth arrest characteristics, including the total number of arrests, age information (as recorded by the arresting officer), and the documented arrest type. Data on adult arrests at the arrest level include information on the number and type of adult arrests in Wilmington during the same period (2000-2019). Information on youth and adult arrest locations and incidents of exposure to crime/violence as a victim or witness between 2000-2019 was examined at the tract level using ArcGIS software.

Census Demographic Information

Tract-level census data on female-headed households with children in Wilmington was accessed and analyzed using ArcGIS software. The data consisted of 2010 census information on female-headed households with children.

Sampling

Data included N=3,261 youth and N=237,884 adults at the arrest level and N=726,359 at the incidents level. No sampling was performed as existing statistics and archival data on the entire population of incidents and arrests over the 19-year period were examined.

Data Analysis

Data were generated, accessed, and/or analyzed using SPSS and ArcGIS software. Arrest level information such as the number of arrests, age information, and arrest types for both youth and adults were accessed and compared using SPSS software. ArcGIS software was used to map and compare arrest and incident data aggregated to the tract level and census demographic

information. These analyses include adult arrests along tracts with youth exposure to crime/violence as a victim or witness, youth arrests along tracts with youth exposure to crime/violence as a victim or witness, and youth arrests along tracts with female-headed households with children.

Results

Arrest Level Findings

Youth Arrests

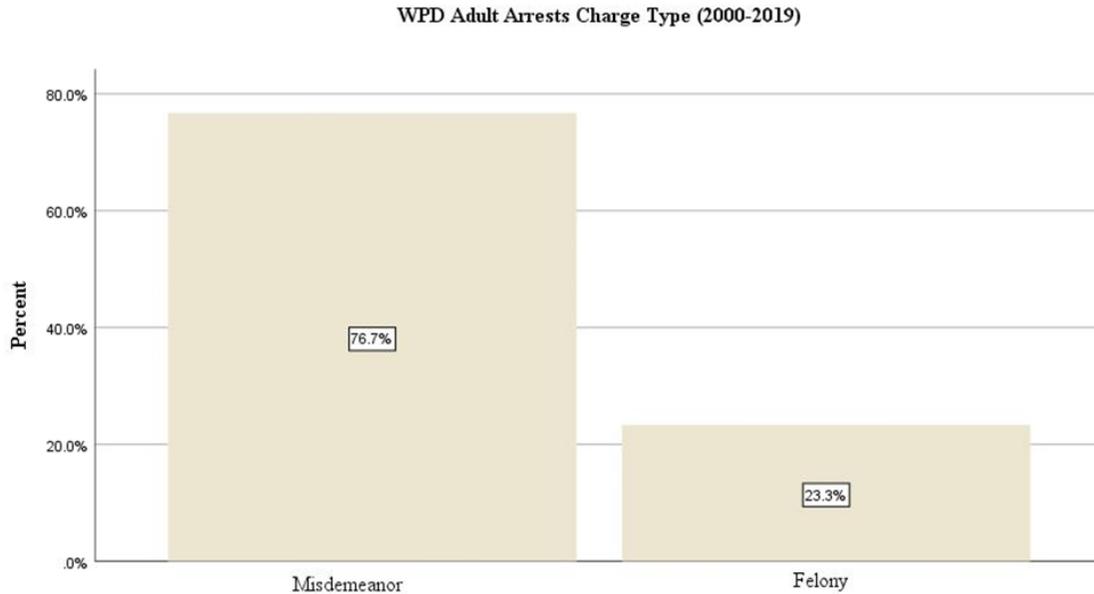
Wilmington Police Department arrest data indicates that 13,261 youth were arrested between 2000-2019. The ages of those arrested range from 0 to 17, with 17 being the most frequently reported age of youth arrested over the 19-year span. Accordingly, 74.5% of the arrests were categorized as misdemeanor-level offenses while 26.5% were regarded as felony offenses. Property offenses accounted for the majority of youth arrest types, followed by violent offenses and drug offenses. Table B contains descriptive statistics of the WPD youth arrest data discussed above.

Table B. <i>Descriptive statistics of WPD youth arrest data (2000-2019)</i>		
Variables	Valid %	N
Total youth arrests		13261
Ages		
0-5	.3	31
6-11	3.9	513
12-16	61.2	8096
17	34.8	4621
Arrest types		
Property	42.1	5581
Violent	13.7	1819
Drug	7.9	1052
Other	36.3	4809
Charge type		
Felony	26.5	3507
Misdemeanor	73.5	9744

As shown in Table B, most of the youth arrested were between the ages of 12 and 17. However, the data shows that 31 children between the ages of 0 and 5 were arrested throughout the 19-year span and 513 children between the ages of 5 and 11.

Adult Arrests

Wilmington Police Department arrest records show that 237,884 adults were arrested between 2000-2019. The data shows that most adults were arrested for failure to appear, failure to comply, warrants, and pretrial violations (21.5%), followed by property offenses (14.2%) and drug offenses (12.6%). Figure 1 below displays the percentages of adult arrests by felony or misdemeanor charge type.



As shown in Figure 1, most adult arrests were considered misdemeanor-level offenses. Notably, percentages of misdemeanor and felony charges for youth and adult arrests between 2000 and 2019 are comparable. 76.7% of adults, compared to 73.5% of youths, were charged with misdemeanor offenses, while 23.3% of adults and 26.5% of youths were charged with felony offenses. Youths were charged with 3.2% more felonies than adults over the 19-year span.

Incidents

Of the incident data provided by WPD, which contains information on incidents involving both youth and adults throughout the 19-year span, a reported 37,944 incidents involved youth victims or witnesses. It is assumed that during these incidents, the youth involved were exposed to crime and/or violence. Importantly, 2,932 (7%) of the incidents involved youth victims directly impacted by crime/violence.

Tract Level Findings

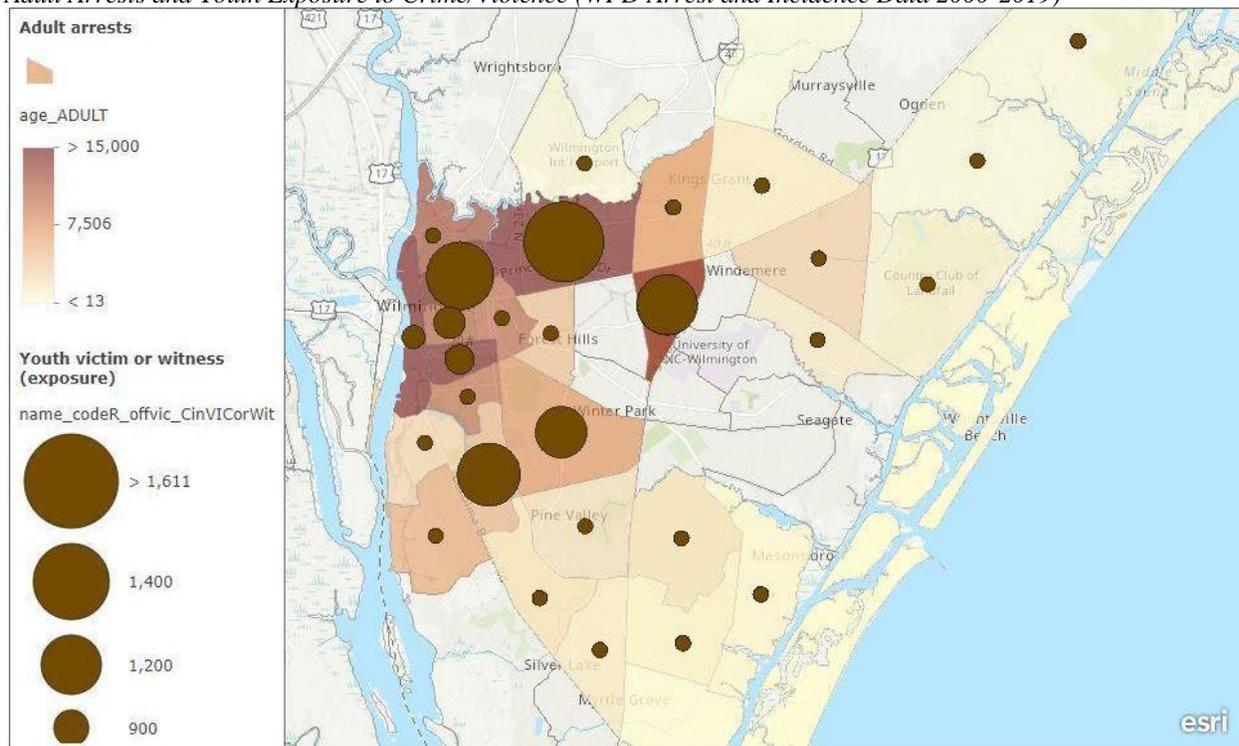
Wilmington Police Department data on arrests and incidents were examined at the tract level to assess parental presence and youth exposure to crime/violence as social determinants of youth crime. The following maps display WPD data on youth and adult arrests and incidents between 2000-2019 and 2010 U.S. Census demographic information on female-headed households.

Adult Arrests and Youth Exposure to Crime/Violence

Adult arrests and youth exposure to crime/violence were inspected at the tract levels with the assumption that youth in areas with high numbers of adult arrests would be subjected to more exposure, with some exposure occurring within the family and/or household. Figure 1 below shows adult arrests and occurrences of youth exposure to crime/violence as a victim or witness. Tract shading signifies the number of adult arrests, with darker shading representing more arrests. Occurrences of youth exposure to crime/violence as a victim or witness are signified using circles, with larger circles representing more youth exposure. As shown below, more exposure took place along tracts with higher adult arrests, with some exceptions. However, many youths were exposed to crime/violence along tracts with the most adult arrests.

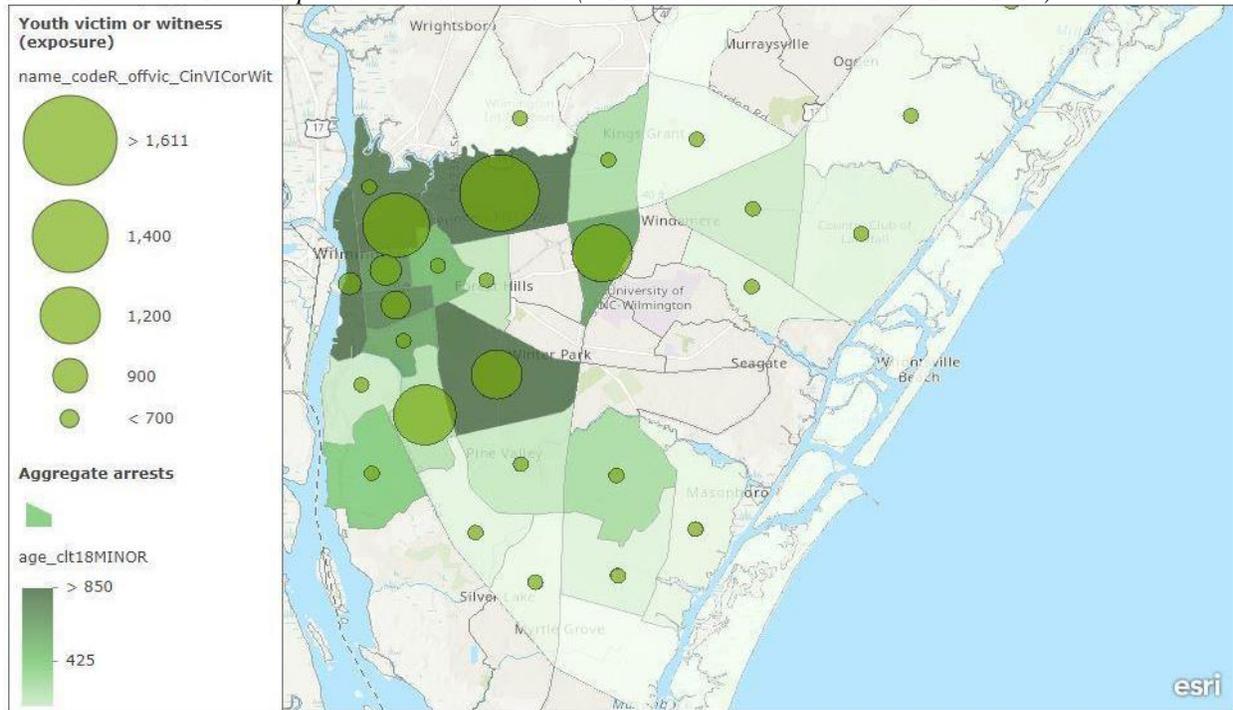
Figure 1.

Adult Arrests and Youth Exposure to Crime/Violence (WPD Arrest and Incidence Data 2000-2019)



Youth Arrests and Youth Exposure to Crime/Violence

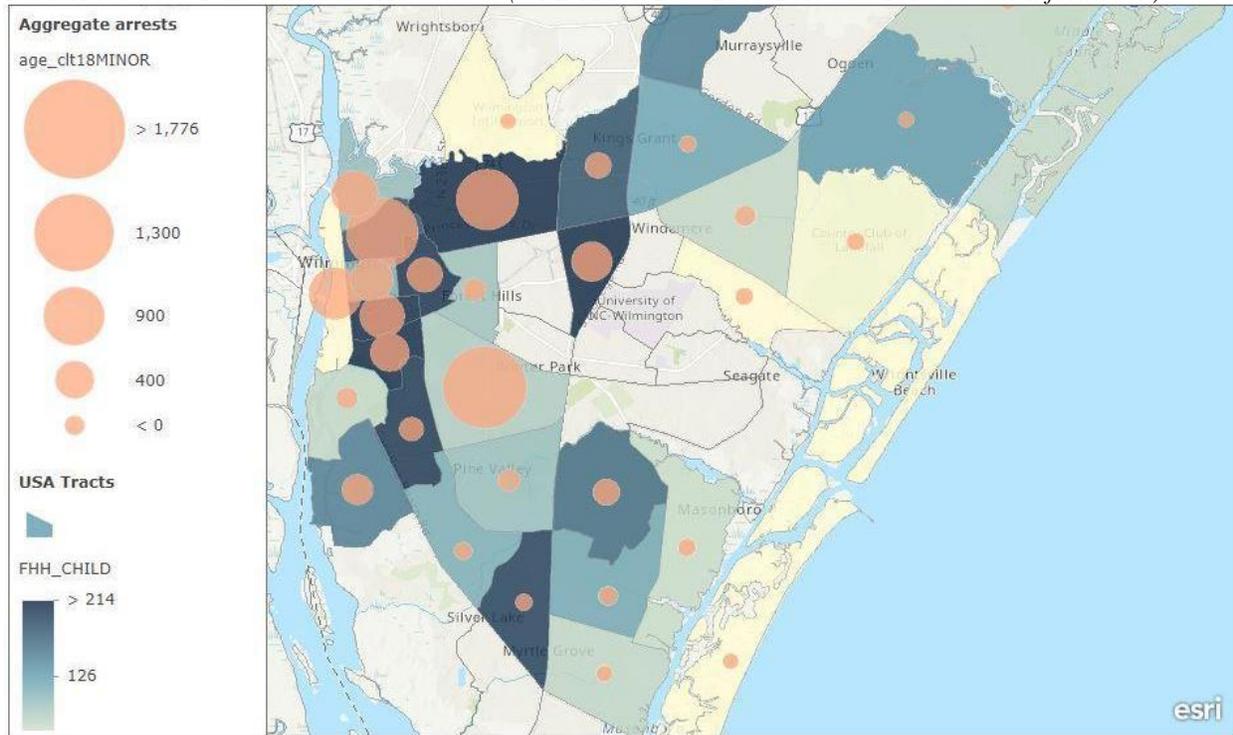
Youth arrests and youth exposure to crime/violence were examined at the tract level with the assumption that exposure could influence youth delinquency. Further, researchers chose to analyze these variables with the assumption that youth may be exposed to crime/violence by a parent or sibling. Figure 2 below displays youth arrests and youth exposure to crime/violence as a victim or witness. The darker shaded areas represent tracts where more youth arrests occurred. The larger circles represent higher numbers of youth exposure to crime/violence. As shown below, high numbers of youth arrests occurred along tracts with more youth exposure to crime/violence. Nearly all tracts where the majority of youth arrests occurred also show the highest youth exposure to crime/violence.

Figure 2.*Youth Arrests and Youth Exposure to Crime/Violence (WPD arrest and incidence data 2000-2019)****Youth Arrests and Female-Headed Households.***

Youth arrests and female-headed households with children were evaluated at the tract level to test the assumption that parental presence has the potential to influence youth participation in delinquent behaviors. The research sought to determine whether more youth arrests occurred along tracts with high numbers of female-headed households. Figure 3 below displays census information on female-headed households and WPD data on youth arrests. Darker shaded tracts represent higher numbers of female-headed households. The larger circles are representative of tracts with more youth arrests. It appears that more youth arrests occurred along some tracts with high numbers of female-headed households, but the pattern is not consistent. High numbers of youth arrests took place along tracts with relatively low numbers of female-headed households. Notably, the majority of female-headed households and youth arrests appear to be clustered along the tracts located near the downtown Wilmington area.

Figure 3.

Youth Arrests and Female Headed Households (WPD Arrest Data 2000-2019 and 2010 Census Information)



Discussion

As shown in Figure 1, aggregate incident data reveals that many youths were exposed to crime/violence as victims or witnesses along tracts with high numbers of adult arrests. Further, many of the tracts containing high numbers of exposure incidents also contain the majority of youth arrests (see Figure 2). It is assumed that in areas with high arrests and youth exposure to crime/violence, some youth were exposed to criminal activity and/or violence within the family/household. These findings support previous literature on exposure to crime/violence as a predictor of youth crime, as many youth and adult arrests occurred along tracts with high youth exposure.

Tract-level analyses also show that many youth arrests occurred along tracts with high numbers of female-headed households (see Figure 3). Although previous research supports the notion that parental presence is a social determinant of youth crime, it is worth mentioning that increased crime in areas also containing high numbers of female-headed households could indicate several different social factors. It was discovered that most female-headed households were situated along tracts in the downtown area. Most youth and adult arrests were also clustered along tracts closest to downtown. It is recommended that future research explore the demographic and geographic characteristics of downtown Wilmington to gain additional insight into why both crime and female-headed households are concentrated in the area.

Regarding future action, it is suggested that the City of Wilmington invest in youth centers and implement prevention programs focused on youth who reside near the downtown region. In a meta-analysis of 39 studies on juvenile prevention programs, Vries et al. (2015) found prevention programs to be widely effective in mitigating criminal behavior among youth. Moreover, the authors found behavioral-oriented programs that focus on behavioral modeling, behavioral contracting, and parenting skill training associated with the largest reductions in

youth criminality. Providing support to youth and parents of youth in high-crime areas could foster development and serve as a barrier between youth and exposure to crime/violence both in and out of the home. Implementing an upstream approach to managing the various factors influencing criminal behavior could aid early life development, curtail youth delinquency, and reduce adult offending.

Strengths and Limitations

This research has multiple limitations. Data on criminal history within the family/household could not be accessed at the time of this study. One of the original goals was to examine data on youth and parent crime in each household. The goal was to assess intrafamilial transmission of criminal behaviors due to exposure to crime/violence within the home. The focus was shifted to youth and adult arrests and incidents at the tract level with the assumption that youth are exposed to crime/violence during incidents involving youth as victims or witnesses, and general exposure occurs along tracts with more youth and adult arrests. In addition, this research assumes that some exposure to crime/violence occurs within the family and/or household, but this cannot be proven. Results cannot be used as a representative sample because data was limited to Wilmington, North Carolina, and population findings are only relevant to the area studied. Further, arrest and incident information was limited to that which police officers reported. For this research, the crime data analyzed was solely provided by WPD. Reporting arrest and incident characteristics were the responsibility of the officers on duty, and self-reported information has the potential to be incomplete or inaccurate because it is obtained from a single person or a small group of persons of the same status. It is worth mentioning that Mack et al. (2007) found an increased significance regarding the relationship between family structure and youth delinquency when official data, rather than self-reported data, are analyzed. This is relevant to the previous research on family structure as multiple studies utilize self-report measures. Lastly, high numbers of arrests in areas with more female-headed households could be influenced by other social factors such as neighborhood economic characteristics. Many of the tracts containing the most female-headed households are in poorer areas of Wilmington. Specifically, poverty is concentrated in neighborhoods in the downtown region. Previous literature on poverty and crime indicates a link between the two (Hsieh & Pugh, 1993; Pare & Felson, 2014; Tonry, 2015). Thus, the prevalence of poverty could have a positive impact on crime which is reflected in the number of arrests along tracts with high numbers of female-headed households.

Although there are some limitations, this study has the potential to be beneficial to WPD and the community of Wilmington. Outside assessment of arrest and demographic information is useful because researchers are capable of detecting patterns in data that often go unnoticed by the untrained individual. Findings were presented to WPD and will be utilized as they see fit, though it is suggested WPD discuss the above findings with the City of Wilmington and encourage the development of behavior-oriented prevention programs for youth and parents of youth in high-crime areas.

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