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Contributing Factors to the Rise in Juvenile Gun-Related Homicides: Investigating Criminal Behavior in Southern Georgia

Tracey Hudson
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Walden University

College of Psychology and Community Services

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Tracey Monique Hudson

has been found to be complete and satisfactory in all respects,
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Walden University
2026

Abstract

Contributing Factors to the Rise in Juvenile Gun-Related Homicides:

Investigating Criminal Behavior in Southern Georgia

by

Tracey Monique Hudson

MPhil, Walden University, 2025

MBA, Grantham University, 2020

MS, Troy University, 2011

BS, Troy University, 2008

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Criminal Justice

Walden University

May 2026

Abstract

Gun-related juvenile homicides continue to be a critical public health and social issue, disproportionately affecting African American males aged 17. Prior research identified poverty, neighborhood violence, individual and familial risks, gang affiliation, and inadequate education as contributors to the increase in juvenile gun-related homicides. In this study, the relationship between gun-related juvenile homicides and poverty, violent crimes, and gang affiliation were examined from 2019 to 2023 in 66 counties within South Georgia. Guided by sociological positivism, a quantitative non-experimental design was used using secondary data sources that included juvenile homicide totals, demographic characteristics, poverty levels, violent crime rates, and gang affiliated statistics. The chi-square tests and cross tabulation analyses were used to examine the relationship and patterns among the categorical variables. Findings indicated that violent crimes and gang affiliation are statistically significant predictors of gun-related juvenile homicides in the southern region of Georgia, while poverty did not demonstrate significance, though it displayed an upward trend. These findings suggest that exposure to violent crime and gang activity significantly influence juvenile behavior and victimization risk, while poverty's trending association requires further study. Implications for social change emphasize the need for strategies that improve neighborhood safety, youth engagement, and community cohesion, in addition to initiatives addressing public health, education, gun regulation, criminal justice reform, economic inequalities such as economic disparities, job training, and affordable housing.

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Dedication

This dissertation is dedicated to my supporters. To my mother, Annie Jean Harris Hudson: thank you for your strength, humility, and unwavering faith in God. You taught perseverance, pride in family, and trust in the Lord. Your prayers and encouragement continue to inspire me. I love and miss you dearly, and I strive to always honor your legacy.

To my daughter, Kei'Aunna Chavis: you are my motivator and my foundation. Your love, encouragement, and accountability sustained me through moments of doubt and procrastination. Because of you, I began this journey, and because of you, I completed it. I love you dearly.

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Finally, I dedicate this work to the Albany Police Department and the Dougherty County District Attorney's Office for their service, and to GOD for guidance, strength,

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Chapter 1: Introduction to the Study

Gun-related homicides have continued to be a public health concern in communities, resulting in devastating losses to families. The United States has reported violent gun-related mortality among the highest in the world (Bottiani et al., 2021). Gun-related homicides among juveniles have increased in recent years, causing concern among the stakeholders in communities. Gun-related injuries have resulted in the deaths of tens of thousands of children and young adults in the United States, highlighting the severity of this ongoing public health crisis (Lee et al., 2022). Statistical data indicated an alarming increase in gun-related juvenile homicides in South Georgia starting in 2020 and continuing through 2021 (CDC, 2021). Additionally, research indicated the numbers are alarmingly higher in African American males aged 15 to 17 years.

The increase in gun-related homicides among juveniles may be attributed to factors such as gun ownership (Bottiani et al., 2021). The high rates of gun ownership in the United States have provided a convincing explanation for the gun violence problem over the previous decades (Webster et al., 2013). Research indicated the United States civilian firearm ownership rate of 120.5 firearms per 100 persons (Karp, 2018). The accessibility of firearms may contribute to the increase in juvenile gun-related homicides.

Examining factors such as crime, poverty, and gangs in the Southern Region of Georgia from 2019 to 2021 provided information for stakeholders that could lead to the development and implementation of policies and programs to begin to decrease the homicide rate of juveniles in the 15- to 17-year age group.

Background

Gun violence has impacted communities in the Southern Region of Georgia from 2019 through 2021, indicating a significant increase in juvenile homicide rates (Georgia Bureau of Investigation Division of Forensic Sciences [GBI DFS], 2021). During this timeframe, Georgia reported 123 gun-related juvenile homicides between the ages of 15-17 from 2019 through 2021, with 30 in 2019, 43 in 2020, and 50 in 2021 (GBI DFS, 2021). In the southern region of Georgia, there were 37 gun-related juvenile homicides from 15 to 17, with 4 in 2019, 16 in 2020, and 17 in 2021 (GBI DFS, 2021). The counties included Brooks, Candler, Chatham, Coffee, Decatur, Dougherty, Glynn, Grady, Laurens, Liberty, Lowndes, McIntosh, Muscogee, Tift, Toombs, and Ware.

The statistical data indicated that African American adolescents between the 15- to 17-year age group had the highest increase in gun-related homicides. The Georgia Bureau of Investigation's *Child Fatality Review Annual Report* indicated that 65% of violent crimes were committed using firearms (GBI DFS, 2021). Research also stated that the increase in gun violence is a public health and criminality problem (McMillan, 2023).

Research indicated that juvenile gun violence is contributed to by factors such as high firearm ownership rates (Bottiani et al., 2021). The worldwide accessibility to guns is connected to the increase in juvenile gun-related homicides. Analyzing factors such as crime rate, poverty, and gangs in the southern region of Georgia from 2019 to 2021 provided stakeholders, community members, and law enforcement with an understanding of factors contributed to the increase in gun-related violence. Analyzing these factors

assisted in the development and implementation of policies and programs aimed at reducing juvenile gun-related homicides.

Problem Statement

The juvenile homicide rate has increased significantly in Georgia since 2020 (GBI DFS, 2021). The Georgia Bureau of Investigation's *Child Fatality Review Annual Report* (2021) indicated a significant increase in violent crimes among juveniles, particularly African Americans in the 15-to-17-year age group. The report also indicated that 65% of violent crimes were committed using firearms. Research also indicated that the increase in gun violence is a public health and criminality problem (McMillan, 2023).

Research studies indicated that juvenile gun violence is attributed by factors such as firearm ownership (Bottiani et al., 2021). Remarkably, the high rate of gun ownership has provided a clarification for the gun violence problem in America. Additionally, research has indicated that gun violence has become a part of the daily lives of many juveniles in the United States (Webster et al., 2013).

Despite the growing concern of juvenile gun-related homicides, there continues to be a gap in research examining factors that influence homicide rates among juveniles between 15 to 17 years in the southern region of Georgia. Examining factors such as crime rate, poverty, and gangs provided stakeholders with an awareness of underlying causes of gun-related juvenile homicides. The findings from this research will assist in the development of policies and programs designed to assist in the reduction of gun-related juvenile homicides in South Georgia.

Purpose of the Study

The purpose of this quantitative research study was to examine factors that contributed to the increase in gun-related juvenile homicides in the southern region of Georgia. The objective was to analyze specific factors to determine a relationship to gun-related juvenile homicides in South Georgia. By analyzing these factors, this research aimed to provide an understanding of the underlying causes of gun violence among juveniles.

I analyzed specific factors to determine their relationship to juvenile gun-related homicides of juveniles in South Georgia. The findings may assist stakeholders, community members, and law enforcement agencies in the development of policies and programs designed to reduce juvenile gun-related violence and reverse the upward trend in affected communities.

Research Questions and Hypotheses

RQ1: Is there a statistically significant relationship between gun-related juvenile homicides and areas with a high crime rate in the Southern Region of Georgia?

H_a1: There is a statistically significant relationship between gun-related juvenile homicides and areas with a high crime rate in the Southern Region of Georgia.

Distinctly, we hypothesize that gun-related juvenile homicides are more likely to occur in areas with a high crime rate in the Southern Region of Georgia.

H₀1: There is no statistically significant relationship between gun-related juvenile homicides and areas with a high crime rate in the Southern Region of Georgia.

Otherwise, the risk of gun-related juvenile homicides is not influenced by communities with a high crime rate in the Southern Region of Georgia.

RQ2: Is there a statistically significant relationship between gun-related juvenile homicides and poverty in the Southern Region of Georgia?

H_{a2} : There is a statistically significant relationship between gun-related juvenile homicides and poverty in the Southern Region of Georgia. Distinctly, we hypothesize that gun-related juvenile homicides are more likely to occur in communities with a prevalent poverty rate in the Southern Region of Georgia.

H_{02} : There is no statistically significant relationship between gun-related juvenile homicides and poverty in the Southern Region of Georgia. Otherwise, the risk of gun-related juvenile homicides is not influenced by communities with a high poverty rate in the Southern Region of Georgia.

RQ3: Is there a statistically significant relationship between gun-related juvenile homicides and gangs in the Southern Region of Georgia?

H_{a3} : There is a statistically significant relationship between gun-related juvenile homicides and gangs in the Southern Region of Georgia. Distinctly, we hypothesize that gun-related juvenile homicides are more likely to occur in communities that have a high gang presence in the Southern Region of Georgia.

H_{03} : There is no statistically significant relationship between gun-related juvenile homicides and gangs in the Southern Region of Georgia. Otherwise, the risk of

gun-related juvenile homicides is not influenced by communities that have a high gang presence in the Southern Region of Georgia.

Theoretical and/or Conceptual Framework for the Study

This study was based on sociological positivism, a theory that suggests that social functions are based upon a set of general laws and the observation of social life (Nickerson, 2023). Sociological positivists contend that applying scientific research principles to social phenomena can result in recommendations for social change (Nickerson, 2023). I examined the factors that contributed to the increase in gun-related juvenile homicides in the southern region of Georgia. The theory provided a basis for understanding how factors such as high crime, poverty, and gangs contributed to the increase in juvenile gun-related violence.

Comte, recognized as the founder of sociological positivism, emphasized the efforts in a scientific approach in studying the nature of society, laws, and principles causing its growth and development (Revise Sociology, 2015). Implementing Comte's principles on positivism, this study used statistical data analysis to examine factors in the increase in gun-related juvenile homicides (Nickerson, 2023). This approach authorized the collection of verified information that increased the understanding of gun-related juvenile homicides in the southern region of Georgia.

Durkheim advanced sociological positivism by suggesting that sociology should have the ability to predict social changes, such as unemployment or education, by applying a comparative method (Turner, 2001). Durkheim promoted this method, which

involves comparing groups to find correlations between two or more variables (Turner, 2001). I applied Durkheim's method by examining influencing factors such as high crime rate, poverty, and gangs to the increase in gun-related homicides of juveniles in the Southern Region of Georgia. This research provided an understanding of factors contributed to the increase in gun-related juvenile homicides and provided information to stakeholders to assist in the development of policies for social change.

Nature of the Study

In this quantitative study, I used a non-experimental research approach relying on secondary statistical data to examine factors influencing the increase in gun-related juvenile homicides in the southern region of Georgia. This approach allowed the analysis of patterns and associations between existing socioeconomical and criminological conditions and the occurrence of gun-related juvenile homicides in South Georgia. The study relied on secondary data sources, including CFR reports, law enforcement reports, juvenile court records, and superior court records. Data obtained from the secondary data sources included race, gender, age, location of incidents (community-high crime area), family income (low, medium, or high), and gang involvement.

To conduct the study, data was collected from the Georgia Bureau of Investigation's CFR reports (2019-2023), Georgia Bureau of Investigation's statistics (2019-2023), and the United States Census Bureau datasets (2019-2023) pertaining to gun-related juvenile homicides that occurred in the southern region of Georgia from 2019 through 2023. The initial counties in this study included Brooks, Candler, Chatham,

Coffee, Decatur, Dougherty, Glynn, Grady, Laurens, Liberty, Lowndes, McIntosh, Muscogee, Tift, Toombs, and Ware.

Following data collection, statistical analysis was conducted using the chi-square test and cross-tabulation analysis to calculate the significance between independent and dependent variables. These analyses increased the understanding of contributing factors to gun-related juvenile homicides and will assist stakeholders in developing programs and policies to reduce gun-related juvenile violence.

Definitions

Georgia Child Fatality Review: A panel mandated by the Georgia Legislature with a mission to provide quality child fatality data and services to prevent and reduce incidents of child abuse and fatalities in Georgia (Georgia Bureau of Investigation, n.d.).

Juvenile gun violence: Incidents where firearms were used in acts of aggression involving youths ages 10 to 24 (The Office of Juvenile Justice and Delinquency Prevention, 2024).

Secondary data analysis: The analysis of data collected from other sources for the current research (Case et al., 2017).

Sociological positivism: This theory believes that individuals' behaviors are affected by social, structural, or cultural conditions (Case et al., 2017).

Victimization: Victimization is the process in which an individual is a victim of a crime (Rouchy et al., 2020)

Assumptions

This study was based on the sociological positivism theory, which serves as the basis for this quantitative study. Sociological positivism is based on general laws and the observation of social life, providing an understanding of the correlation between the increase in gun violence among juveniles (Nickerson, 2023). Applying this structure, I presumed that social issues rather than individual choices influenced the increase in gun-related juvenile homicide.

Durkheim focused on society's influence on behavior, concluding that factors such as crime rates, socioeconomic differences, and social organizations determine individual actions (Case et al., 2017). I assumed that the increase in gun-related juvenile homicides was not limited to a single event, but part of a larger scale influenced by factors such as high crime rates, poverty, and gangs. Researchers proposed that factors such as increased neighborhood violence, gang affiliation, drug misuse, and victimization contribute to gun possession among juveniles due to peer pressure and dangerous encounters (Barrett et al., 2006; Docherty et al., 2019).

Using the positivist approach, crime trends were analyzed using quantitative methods to identify correlations between increased gun-related juvenile homicides and crime rate, poverty, and gangs. I concluded that using a non-experimental research design, by incorporating data from secondary sources, provided reliable information identifying the increase in gun-related juvenile homicides in the southern region of Georgia.

Moreover, positivist research is objective, relying on evidence rather than personal perspectives. This study assumed that secondary data sources provided an accurate depiction of gun-related juvenile homicide trends, which contributed to the analysis of scientific findings to assist in the development of policies and programs aimed at reducing gun-related juvenile violence.

Scope and Delimitations

I examined the patterns and contributing factors of gun-related juvenile homicides in the southern region of Georgia. It focused explicitly on juvenile homicide cases involving juveniles and gun-related violence. The research used quantitative methods from secondary data sources to analyze statistical data and identify trends.

The scope of this study included the time frame, geographic locations, key variables, and data sources. I examined juvenile gun-related homicides that occurred from 2019 to 2021, to identify trends and patterns in juvenile gun-related homicides. The geographic locations for the research were explicitly designed for counties in South Georgia. The counties identified in this area were: Brooks, Candler, Chatham, Coffee, Decatur, Dougherty, Glynn, Grady, Laurens, Liberty, Lowndes, McIntosh, Muscogee, Tift, Toombs, and Ware. The key factors that were analyzed in this research included areas with a high crime rate, poverty, and gangs, to analyze their impact on gun-related juvenile homicides. I analyzed information from secondary data sources from Georgia Bureau of Investigation's CFR reports, Georgia Bureau of Investigation's statistics, and the United States Census Bureau datasets. The information obtained from the secondary

data sources included race, gender, age, location of incidents (community-high crime area), family income (low, medium, or high), and gang involvement.

Although I aimed to provide comprehensive insights into the increase in gun-related juvenile homicides, the targeted population was juvenile victims between 15 and 17 years of age from 2019 through 2021. However, juvenile homicides affect all ages and targeting a specific age group results in an underestimation of the actual number of gun-related homicides.

Limitations

The limitations, barriers, or challenges that occurred during this research were data accessibility and gaps in literature. Data accessibility posed a challenge to this research. Law enforcement agencies did not respond to consent requests, which restricted my access to detailed case reports. As a result, I relied on alternative sources such as Georgia Bureau of Investigation's *Child Fatality Review Reports*, Georgia Bureau of Investigation's statistics, and the United States Census Bureau datasets. Another challenge in obtaining the information was financial limitations, as some law enforcement agencies charged fees for their reports; however, I relied primarily on public accessible datasets, and the cost of accessing additional records could have restricted data collection.

The literature covered different factors on juvenile homicides using firearms; there were identifiable gaps in the study, especially regarding the rate of occurrence.

Lack of accurate data collection on gun fatality was needed to understand the prevalence of gun violence (Centers for Disease Control and Prevention [CDC], 2023a).

Significance

This study is significant and fills the gap by examining factors that influenced the increase in gun-related homicides of adolescents in the southern region of Georgia. By examining factors such as crime rates, poverty, and gangs, the study provided stakeholders, community members, and law enforcement agencies with vital information to develop and implement policies and programs to reduce juvenile gun-related homicides in South Georgia.

Identifying factors that contributed to the increase in gun-related juvenile homicides provided statistical information to significantly improve communities by developing programs that will specifically target violent crime and gang affiliation, which can assist in reducing gun-related juvenile homicides in South Georgia.

Conclusion

The purpose of this study was to examine the factors contributing to the increase in juvenile gun-related homicides in South Georgia, focusing on juvenile victims aged 15-17. Understanding the influence of high crime rates, poverty, and gang involvement is essential in identifying conditions contributing to the increase in juvenile gun-related violence. By focusing these variables within the social and environment settings of South Georgia, this study establishes the foundation for a data-driven exploration of the patterns associated with juvenile gun violence.

Although this study focused on three primary factors, significant gaps remain in understanding the influences that contribute to juvenile gun-related homicides. Additional factors such as family, school, firearm accessibility, neighborhood violence, and community resources may also contribute to the increase in gun violence and require further investigation. The need for effective programs and policies is critical, especially in communities that are disproportionately affected by juvenile gun violence.

This chapter established the basis for the study and emphasizes the importance of identifying contributing factors to assist in identifying effective prevention strategies. By examining the relationship of violent crime, poverty, and gang involvement, this research aims to support stakeholders, policymakers, and community leaders in developing effective programs and policies that can reduce juvenile gun-related homicides in the southern region of Georgia.

Chapter 2: Literature Review

Gun-related homicides among juveniles have been on a continuous rise in Georgia, especially in the southern region. Statistical data have identified this steady upsurge since 2020, which has continued through 2021 (GBI DFS, 2020). Gun ownership has been viewed as a contributing factor to the increase in juvenile gun violence (Bottiani et al., 2021). Understanding the factors that contribute to juvenile gun-related homicides is vital for communities. Research determined that gun-related homicides have been on a continuous rise in the United States. Identifying the contributing factors to gun-related juvenile homicides was necessary for the development of successful intervention programs.

Research suggests that socioeconomic inequalities, exposure to violence, substance abuse, and access to firearms are significant contributors to juvenile homicide (Baiden et al., 2021; Pontes & Pontes, 2021). Addressing these issues through community and mental health programs and governing laws may provide strategies for reducing the cycle of violence. Additionally, early intervention that focuses on education, mentorship, and conflict resolution can provide adolescents with the necessary skills to function effectively in challenging situations without resorting to violent behaviors.

Juvenile homicides have continued to rise in Georgia since 2020 (GBI DFS, 2021). GBI DFS (2021) annual reports indicated an increase in juvenile violent crimes, with an upward trend among African Americans between the ages of 15 and 17 years. Additionally, statistical data indicated that 65% of violent crimes involved weapons.

Research also indicated that the increase in gun violence is a public health and criminality problem (McMillan, 2023).

Firearms ownership has been identified as a contributing factor in juvenile gun violence (Bottiani et al., 2021). Research showed that gun violence has become a daily way of life for many juveniles in the United States. There is a need for further research to identify contributing factors to the increase in gun-related juvenile homicides among 15–17-year-olds in South Georgia.

Literature Search Strategy

The literature for this study was identified using Walden University’s library databases, with additional data from Google Scholar, Georgia Bureau of Investigations, Department of Juvenile Justice, EBSCO, Georgia Juvenile Justice Data Clearinghouse, and Child Fatality Review articles. The initial search focused on peer-reviewed articles and reports published between 2019 and 2024. However, for the final dissertation, the search was updated to include literature published through 2025, which ensures the most recent literature is included. The search terms included *juvenile homicides*, *gun-related*, *weapons*, *firearms*, *adolescent firearm deaths*, *youth violence*, *victimization*, and *neighborhood violence*.

The updated search revealed current peer-reviewed literature related to juvenile gun violence, which includes examining youth exposure to gun violence (Liu et al., 2025) and gun carrying and youth violence (Taylor et al., 2025). These studies, combined with the Office of Juvenile Justice and Delinquency Prevention’s literature on youth gun

violence, provided current evidence of risk factors associated with youth exposure to gun violence, weapon carrying, and community influences. Collectively, the literature included into this study reflects recent and relevant research which supports the examination of contributing factors to the rise in juvenile gun-related homicides in the southern region of Georgia.

Theoretical Foundation

Sociological Positivism

According to Nickerson (2023), sociological positivism theory believes that society's functionality is based on a set of general laws and observations of social life. The contention is that applying scientific research principles to studying society can result in recommendations for social change (Nickerson, 2023). Sociological positivism theory provided an understanding of correlations between the increase in gun violence among juveniles. Sociologists proposed that the behaviors of individuals are affected by social, structural, or cultural conditions (Case et al., 2017). Sociological positivists also argue that these behaviors are predetermined and beyond the individual's control (Case et al., 2017). Moreover, these behaviors correlate to criminal behavior, which affects some outside sources beyond the control of the individual (Case et al., 2017). The current study focused on factors such as elevated levels of crime, poverty, and gangs to determine the effects on juveniles and gun violence.

Sutherland argued that crime was no exception: it was learned behavior (Case et al., 2017). This learned behavior is from an environment associated with criminal

behavior, considered normal and engrossing. Sutherland argued that criminal behavior is learned from association due to replication or direct interaction and proximity of groups. In addition, Durkheim focused on how society impacted and explained behaviors (Case et al., 2017). Durkheim examined crime rates, nonconformity in society, suicide, comparison in societies, differences in institutions, society, social rules, and regulations. Durkheim argued that observing large systems and structures can help people understand behaviors and cultures. Durkheim examined various social organizations, such as families and schools, to determine their influence on the individual.

However, Cohen suggested that juveniles use criminal behavior to resolve social problems (Case et al., 2017). Cohen's findings also aligned with Sutherland's differential association finding that associating with criminals or delinquents would cause others to offend. Cohen argued that juvenile delinquency can be a representation of peer groups. Cohen's focus on gangs referred to the young group forming a subculture where they rely on each other for comfort. The gangs provide materials such as vehicles, allowing the juveniles to belong, grow, and escape the problems caused by their society or culture (Case et al., 2017).

Understanding the factors that contribute to the increase in juvenile gun-related homicides is essential, especially when analyzing how factors such as poverty, increased crime rate, and gangs influence criminal behavior within communities. Examining these factors provided valuable information to assist stakeholders in developing resources within the southern region of Georgia. Altogether, the sociological positivism theory

from the beliefs of Sutherland, Durkheim, and Cohen provided a theoretical basis for analyzing the research problem by examining factors that influenced the increase in gun-related homicides of juveniles in the Southern Region of Georgia.

Literature Review Related to Key Variables and Concepts

Contributory Factors of Juvenile Homicides

Over the last few years, significant literature has been conducted to identify underlying factors in juvenile homicides. Due to the continued increase in juvenile homicides, an extensive amount of literature has been produced to focus on factors that may contribute to this increase. The child homicide rate has continued to increase since 2013 (Wilson et al., 2022), whereas firearms continue to be the leading cause of death in children from 0 to 24 years of age (Lee et al., 2022). In the United States, gun-related homicides were the third leading cause of death for juveniles in 2020 (Lee et al., 2022). In addition, within the last decade, the rate of homicide using firearms has increased by 14%, accounting for 58% of total deaths (Lee et al., 2022). These trends highlight the necessity for examining factors that contribute to the increase in juvenile gun-related homicides.

Comprehending the statistical data as it relates to the increase in juvenile homicides, with specifics on the 15 to 17-year-old targeted age group, guided the research. Lee (2022) identified commonality factors amongst gun-related juvenile homicides, whereas the originator was an argument, bystander, gang-related, and drug-related. Examining identifiable factors such as poverty, victimization, and gangs provided

pertinent information, particularly in understanding the correlation between gun-related homicide and its effect on juveniles in southern communities.

Additionally, these homicides are likely to occur on the streets or in a home (Fowler et al., 2017). These locations have been identified as crucial community areas and are viewed as unfavorable, disadvantaged, or lacking resources. These homicides occur in disadvantaged, racially segregated minority communities (Jacoby et al., 2018; Wong et al., 2020; *Community Gun Violence*, 2021). These factors contribute to disparities, such as multifaceted harm systems from organized racism, generational poverty-stricken neighborhoods, biases, and additional sociocultural, interpersonal, and individual factors (Bottiani et al., 2021; Formica, 2021). These structural disparities create unfavorable conditions where violence becomes more prevalent and fatal.

Urban communities have been identified as a targeted focal area due to their demographics, which is comprised primarily of African American males, which aligns with the combined number of gun-related homicides in the United States (Bottiani et al., 2021). For example, a high rate of firearm homicides and assaults has been linked to urban communities that have experienced a tremendous amount of distress and poverty (Tracy et al., 2019). African American juveniles arbitrarily live in communities where they are exposed to toxic environments and living conditions that contribute to violence and poverty (Tracy et al., 2019), blighted communities (Kondo et al., 2018), and lacking education (Bottiani et al., 2017), and employment opportunities (Shihadeh & Ousey,

1998). Together, these factors contribute to the cycle of violence which disproportionately affects African American juveniles.

Victimization, both direct and indirect exposure, has been identified as another causal factor for juvenile homicides (Bottiani et al., 2021). Young African American males have more probable exposure to indirect firearm violence in the community from witnessing or hearing a shooting compared to the other races (Turner et al., 2019; Zimmerman & Messner, 2013). The perception of danger and peer pressure often leads to access to or possession of firearms, driven by factors such as gangs, drugs, exposure to violence, chaotic neighborhoods, and peer victimization (Barrett et al., 2006; Docherty et al., 2019). Understanding the impact of direct and indirect victimization offered direction for future research and resources.

Preceding studies have agreed that gun-related juvenile homicides have increased in 2020 and continue to spike, a social issue that has captured the attention of community members, especially GBI DFS (2020). Death certificate data has been used to identify and monitor the upward trend in homicides and suicides (CDC, 2023b). This information was used to identify risk factors and geographical areas for preventative and intervention measures (GBI DFS, 2020). In addition, the Georgia CFR recognized that teens posed a greater risk of gun-related homicide incidents with a classification of gang-related, drive-by shootings, drugs, firearms, and cellular phone sales. Overall, the framework associated with this study was relevant in examining the factors related to the increase in gun-related juvenile homicides and the communities in the southern region of Georgia.

Traits of Juvenile Homicide Victims

To understand juvenile homicides, researchers have begun to focus on the traits of victims to determine a potential correlation in socio-demographics. Researchers have acknowledged the increase in the rate of juvenile homicides (Wilson et al., 2022) and identified homicides as the leading cause of death of children from 0 to 17 years of age (CDC, 2021). They are disproportionately affecting boys between the ages of 16-17 and African Americans, American Indians, Hispanics, and Alaska Natives (CDC, 2021; Sheats et al., 2018; Wilson et al., 2020), with African Americans having the highest rates amongst all ethnic groups, revealing extensive systemic inequalities.

The research proposed that the disparities in juvenile rates are due to the violence they have experienced because of the effects of racism and housing segregation shown to adolescent African American males (Jacoby et al., 2017; Nation et al., 2021; Williams, 2001). These systemic conditions expose adolescents to greater risks of neighborhood violence, limited economic opportunities, and increase their vulnerability to victimization. Research also showed that juvenile homicides of victims between the ages of 16 and 17 occurred on the streets or highway or in a house or apartment (Wilson et al., 2020). These urban areas are known as areas that were impoverished and racially segregated (*Community Gun Violence, 2022*; Jacoby et al., 2017; Wong et al., 2020), which contributes to the increase in gun-related homicides.

Researchers have identified geographical location as another victim characteristic. Homicides have continuously increased in urban and rural areas, with urban areas having

the highest number of intentional gun-related homicides compared to rural areas (Herrin et al., 2018). These urban areas frequently experience long-term economic suffering, blighted buildings, minimal education and employment opportunities, which contribute to the increase in juvenile gun-related homicides (Bottiani et al., 2017; Kondo et al., 2018; Shihadeh & Ousey, 1998). Additionally, juvenile homicide rates have continued to increase in the South, which research attributes to slavery and the encouragement of corporal punishment in schools (Messner et al., 2005; Ward et al., 2021). These past and present factors contribute to the environment where juveniles are disproportionately exposed to gun violence.

Furthermore, both direct and indirect victimization are key risk factors. Compared to their peers, African American males are disproportionately exposed to gun violence, through witnessing or hearing (Turner et al., 2019; Zimmerman & Messner, 2013). This exposure can increase fear, normalize violence, and contribute to the cycle of trauma that increases victimization. Understanding the traits of victims provides vital information that contributes to juvenile gun-related homicides.

Traits of Juvenile Homicide Offenders

Understanding juvenile homicides, researchers have also focused on the traits of offenders. Research consistently indicates that the offender and victim were known to each other, and the offender was typically a male. However, research has shown that 11–15-year-old victims' offenders were either strangers, acquaintances known to the victim, or fathers. In contrast, research shows that juvenile victims in the 16–17-year age group

offenders were most commonly acquaintances (Wilson et al., 2020). These findings suggest that older juveniles are more likely to be involved in conflicts that escalate into fatalities.

The known offenders were identified as 18 – 24, suggesting a developmental connection between older adolescents and young adults involved in violent offenses. This connection reflects broader social factors, which include peer pressure, neighborhood conditions, and continued exposure to violence. Many offenders come from neighborhoods that were impoverished and racially segregated (*Community Gun Violence, 2022*; Jacoby et al., 2017; Wong et al., 2020), which contributes to the likelihood of violent behaviors and the increase in gun-related homicides.

Environmental conditions influence offender characteristics. Juveniles residing in urban communities with blighted buildings, limited resources, and socially distressed areas that are socially distressed are more likely to engage in violent behavior (Tracy et al., 2019; Kondo et al., 2018). Exposure to violence, peer pressure, gang affiliation, and drugs contributes to juvenile possession of firearms (Barrett et al., 2006; Docherty et al., 2019). These factors combine, increasing the risk of fatalities.

Geographical location has also been identified as an offender characteristic. In Southern states, factors such as slavery and corporal punishment have been connected to an increased rate of violence (Messner et al., 2005; Ward et al., 2021). These factors, along with socioeconomic disparities, combine to form environments where juveniles are more susceptible to engaging in violent behaviors.

Researchers have continued to examine offenders' traits to understand the factors that contribute to the increase in juvenile gun-related homicides. Identifying character traits and patterns is vital in developing preventive programs and policies aimed at reducing juvenile gun-related homicides in the United States, especially in the southern region of Georgia.

Compelling Factors of Juvenile Homicides

Poverty and Juvenile Homicides. The literature on juvenile violence addresses the various risk factors associated with the violence based on the severity of the victim and offender. Researchers argued that poverty and violent crimes coexist. Quednau (2021) examined the relationship between poverty and violent crime rates, recognizing an association between the two factors. Additionally, findings suggested that as the African American population increased, crime rates also increased (Quednau, 2021). Using data from the American Community Survey Census database, Quednau studied the connection between poverty and crime rates by including variables such as age, poverty, race, employment, and education. Ahlin et al. (2020) examined factors influencing juvenile behavior, arguing that some juveniles are susceptible to violent behaviors, while others are more susceptible to victimization. Furthermore, some juveniles may experience both. These views are centered around environmental and familial influences that shape youth development. Several writers argued that such factors play a vital role in influencing youths, resulting in them being a product of their environment-whether they are victims,

offenders, or both. These influences place juveniles at a significant disadvantage, intensifying their vulnerability to unfavorable environmental conditions.

Poverty is a significant risk factor that plays a vital role in a juvenile's outcome. Poverty can be categorized as a community or structural influence (Ahlin et al., 2020) that affects juveniles. Structural influences include intense poverty, disarrayed neighborhoods, lack of home ownership, unemployment, poor quality childcare, and the criminal justice system (Ahlin et al., 2020). These structural influences can impact a juvenile's outcome and combining them can have fatal consequences (Ahlin et al., 2020). Poverty can be measured by the communities in which the youths live and play. Poor economic communities place juveniles at a disadvantage by combining their family's financial situation with their neighborhood (Ahlin et al., 2020). Poverty has been present for centuries and continues to present itself as an immediate cause of concern for many families, especially African Americans.

Individual Characteristics and Juvenile Homicides. Individual characteristics serve as a vital factor in identifying juveniles who may either become victims of violent offenses or engage in violent offenses (*Characteristics and Patterns of At-Risk Juveniles and Factors That Contribute to Violence Committed by or Against Juveniles*, n.d.). Research has found that physiological, psychological, and demographic characteristics such as gender, race, and age contribute to individual factors and behavioral patterns (*Characteristics and Patterns of At-Risk Juveniles and Factors That Contribute to Violence Committed by or Against Juveniles*, (n.d.). *Characteristics and Patterns of At-*

Risk Juveniles and Factors That Contribute to Violence Committed by or Against Juveniles (n.d.) outlined the DC study of juvenile violence and the Causes and Correlates research, where their findings indicated that the highest percentage of African American males engaged in violent crimes. Simultaneously, research revealed that juvenile homicide victims were the same race and gender as their offender (*Characteristics and Patterns of At-Risk Juveniles and Factors That Contribute to Violence Committed by or Against Juveniles*, n.d.). Combining these factors places juveniles at a greater risk of becoming victims of violent offenses such as homicides.

These factors are also consistent among juvenile homicide victims and offenders, which indicates they both come from unfavorable backgrounds (Hernandez et al., 2020). Age and gender are two individual characteristics that have the most significant impact on juvenile violent crimes. The literature identifies that by the age of 15, juveniles are involved in some form of serious violent offenses, and the 15–17 age group outlines a peak in criminal activity (*Characteristics and Patterns of At-Risk Juveniles and Factors That Contribute to Violence Committed by or Against Juveniles*, n.d.).

Familial Characteristics and Juvenile Homicides. Family or home environment is another characteristic that is significant in identifying juveniles with violent offenses. Hernandez et al. (2020) examined the backgrounds of juvenile homicide offenders, identifying a variety of negative environmental and familial factors associated with criminal behavior. The research emphasized criminality, violence, domestic abuse, parental substance use, and mental illness as significant contributing factors to juvenile

delinquency. Through studies involving juvenile homicide offenders, Hernandez et al. found that child abuse and maltreatment were everyday occurrences and critical causal factors in juvenile offenders' homes.

Moreover, a study on juvenile homicide offenders dating back to 1974 (as cited in Hernandez et al., 2020) identified eight major familial risk factors: physical abuse, sexual abuse, unstable home environments, absent fathers, parental substance abuse, parental mental illness, parental criminal histories, and exposure to domestic violence. Hernandez et al. determined that specific familial factors included broken homes, dependence on welfare, single-parent homes, physical abuse, low income, and inadequate supervision were significant indicators of juvenile homicidal behaviors.

Neighborhood Violence and Juvenile Homicides. Research has recognized a substantial correlation between victimization, neighborhood violence, and the probability of adolescents carrying weapons (Baiden et al., 2024; Semprevivo et al., 2020). Some researchers argue that exposure to street violence is a continuous cycle - initial exposure leads to violent behaviors, which contributes to violent victimization (Ahlin et al., 2020). Furthermore, research suggested that male adolescents witness an increased rate of community violence and are likely to engage in violent behaviors such as homicides (Ahlin et al., 2020).

Bottiani et al. (2021) examined the vulnerability of African American juveniles who experienced direct victimization and indirect exposure to community gun violence, including witnessing or hearing gunshots. Research indicated that African American

juveniles between the ages of 2–17 who reside in urban communities' experience gun violence at alarming rates compared to juveniles in other communities. These findings identify significant differences in firearm exposure among disadvantaged populations, increasing the need for safe communities and juvenile development programs.

Liu et al. (2025) revealed that juveniles who experience gun violence either directly or indirectly are more likely to carry firearms, indicating that violent neighborhoods increase the probability of juveniles witnessing shootings or hearing gunshots. Taylor et al. (2025) findings also indicated that juveniles carry firearms due to neighborhood threats, prior victimization, or association with peers who are involved in delinquent behaviors. These studies highlight the continued influence of disadvantaged neighborhoods on juvenile firearm and reinforce the need to examine community factors to determine their influence on juvenile gun-related homicides in South Georgia.

Researchers from the Youth Risk Behavior Survey (YRBS) analyzed the relationship between neighborhood violence and juveniles possessing weapons. Findings indicated that adolescents ages 14–18 have a significantly higher rate of carrying weapons compared to juveniles who have not had exposure (Baiden et al., 2024). This direct correlation between neighborhood violence and the possession of weapons by adolescents contributes to the increase in juvenile homicides. There were approximately 39,000 gun-related deaths among school-age children in the United States between 1999 and 2017 (Baiden et al., 2024). The National Youth Risk Behavior Survey (NYRBS) reported an increase in juvenile weapon-carrying in 2017, indicating a higher occurrence

of weapon possessions within 30 days compared to a 12-month timeframe. Additionally, statistical data from the Youth Risk Behavior Survey (YRBS) revealed that approximately 4% of juveniles in the United States reported carrying a handgun in 2021 (Harper et al., 2023).

Neighborhood violence continues to pose a substantial risk to juveniles, especially African American juveniles in urban communities. Direct and indirect exposure to violence has an influence on juveniles in urban communities, increasing their chances of being victimized or committing violent offenses (Browning et al., 2017; Kravitz-Wirtz et al., 2022). Combining racial and socioeconomic differences increases these risks, which will require intensive intervention strategies aimed at reducing the effects of violence to promoting positive community change.

Substance Abuse and Juvenile Homicides. Recent research has demonstrated an association between substance abuse and juvenile homicides. Studies have identified correlations between alcohol and drug misuse and gun violence (Pontes & Pontes, 2021), as well as an increase in violent behaviors among adolescents (Baiden et al., 2021). Additionally, findings indicate that 14 – 24-year-olds who were treated at emergency departments for assault-related injuries displayed an association with illegal substance use, firearm possession, and opioid misuse. (Pontes & Pontes, 2021).

The research's primary objective was to analyze the factors associated with possessing firearms and the misuse of prescription opioids in violent situations. Findings suggest that adolescents who engage in substance abuse have a higher risk of developing

violent thoughts and behaviors. Furthermore, research focusing on the 14 – 24 age group indicates that drug use disorder may serve as an indicator of future gun-related violence (Pontes & Pontes, 2021).

Weapon carrying has been recognized as a health concern among adolescents in the United States, and research identified a correlation between alcohol misuse and violent behaviors (Baiden et al., 2021). Research also recognized a correlation between adolescents possessing firearms and involvement in illegal drug sales, often as a means of protecting their territory, preventing theft, or resolving disputes during their transactions (Docherty et al., 2020). Moreover, adolescent males have a greater tendency to carry firearms, with differences based upon the type of drugs distributed; those selling marijuana display different patterns of firearm possession compared to those selling more potent drugs such as cocaine or heroin (Docherty et al., 2020).

The correlation between substance abuse and juvenile violence has identified the need for extensive intervention programs designed to address issues that contribute to juvenile substance misuse and carrying firearms. The programs' goal will include prevention strategies, education initiatives, mental health services, and socioeconomic policies aimed at reducing the risk factors associated with juvenile violence.

Rate of Occurrence. The rise in homicide rates has urged researchers to explore the rate of occurrence in the United States. Juvenile homicide has been identified as the leading cause of death among children (CDC, 2023b; Lee et al., 2022; Wilson et al., 2023), disproportionately affecting boys, older children, infants, and African Americans

(Wilson et al., 2023). Researchers have shown a correlation between the increased risk of juvenile contact with violence and multiple contributing factors such as poverty, racism, residential segregation, and the presence of unrelated adults in the household (Wong et al., 2020).

Wilson et al. (2023) conducted a study of the trends in homicide rates and the factors associated with the deaths of children from 0 to 17 years of age. Wilson et al. (2023) applied data from 1999 to 2020 to compute the age-adjusted rates based on the 2000 U.S. population. Juvenile homicide rates were established through the stratified sampling technique by categorizing data into subgroups based on sex, age, race, and ethnicity. The study findings revealed a 27.7% significant increase in juvenile homicides from 2019 to 2020. Additionally, specific demographic groups displayed significant increases per 100,000 rate, including males (3.1 rates in 2019, 4.1 rates in 2020, resulting in a 30.4% increase), females (1.2 rates in 2019, 1.5 rates in 2020, resulting in a 20.4% increase), 11–15 year olds (1.4 rates in 2019, 2.2 rates in 2020, resulting in a 52.2% increase), 16–17 year olds (7.0 rates in 2019, 10.0 rates in 2020, resulting in a 43.3% increase), and African American children (7.5 rates in 2019, 9.9 rates in 2020, resulting in a 32.6% increase).

Overall, homicide rates declined from 2007 to 2013, followed by an annual mean increase of 4.3 from 2013 to 2020 (Wilson et al., 2023). Wilson et al. (2023) also examined variables associated with weapon type, location, and perpetrator characteristics. The findings revealed that from 2003 to 2019, adolescents from 16 to 17 years of age

(85.8%), 11 to 15 years of age (75.0%), and 6 to 10 years of age (44.4%) were most likely killed by firearms. The findings also revealed that juvenile homicides generally occurred at a house, apartment, or a street or highway. Moreover, the findings revealed that the offender was a male.

The homicide rate has significantly increased over the years and continued an upward slope. Showing trends of juvenile homicides, especially in demographic groups, outlines the racial and ethnic discrepancies in juvenile homicides that have continued for many years (Wilson et al., 2023). Researchers have shown these demographic groups to be at a much higher risk due to social and economic factors that contribute to their probability of violence (Centers for Disease Control and Prevention [CDC], 2023a). Additionally, studies revealed that young African American and Hispanic/Latino juveniles, especially males, are significantly affected by gun violence (CDC, 2023a).

Firearms Accessibility and Juvenile Homicides. Gun violence has produced a public health crisis in the United States, affecting the safety and well-being of individuals and communities. Firearms have been identified as the leading cause of death among children aged 1 through 19 years (CDC, 2023b). Additionally, statistics indicated that firearms accounted for 81% of homicides in 2021, further emphasizing the impact of gun violence nationally (CDC, 2023c). Beyond the known damage from firearms, there are unknown damages such as adverse mental health concerns.

Access to firearms has emerged as a critical risk factor in the occurrence of juvenile-involved homicides in the United States. Easier accessibility increases the

likelihood of firearms being used by juveniles in confrontations that can result in fatal outcomes. Research has identified a correlation between firearms and has considered them as a significant risk factor for juvenile homicide (Hernandez et al., 2020; Shumaker & Prinz, 2000). Researchers identified firearms as the most used weapon, comprising 81% of male juvenile homicide offenders and 41% of female juvenile homicide offenders (Shumaker & Prinz, 2000). Research indicated that inner-city juvenile homicide offenders who carried firearms were prepared to use and had access to guns (Hernandez et al., 2020). Hernandez (2020) indicated that prior research conducted with juvenile homicide offenders established that guns were inexpensive and attainable in their neighborhoods and homes. Additionally, it revealed that the guns were most likely taken from the juvenile's home and used during offenses (DiCataldo & Everett, 2008; Lee et al., 2022).

Furthermore, access to firearms poses a significant risk to juveniles. It places them at an increased risk for homicidal behavior, such as progressing to advanced levels of crimes, escalating to shooting wars if associated with a gang, and prior victimization (Hernandez et al., 2020). Most adolescents do not carry firearms due to the Gun Control Act of 1968, which restricts anyone under the age of 21 from possessing or purchasing handguns (Keil et al., 2019). However, this has not prevented adolescents who desire a firearm from obtaining one. Many juveniles believe they can easily obtain a handgun illegally (Keil et al., 2019; Reich et al., 2002). Studies indicated that illegally obtained firearms are obtained through theft, borrowing, family members, or fellow gang members

(Braga & Kennedy, 2001; Keil et al., 2019). Addressing this complex public safety concern requires the implementation of strategies that include enforcing rigorous firearms regulations, developing communication intervention programs, and promoting preventive measures designed to reduce firearm-related violence among juveniles.

Gangs and Juvenile Homicides. Gangs and juvenile homicides are two important topics that raise concerns in communities, particularly when juvenile gang involvement is linked to violent crimes such as homicides. Gangs remain a lasting presence in the United States, particularly in urban communities (Pyrooz et al., 2020)). The National Youth Gang Survey indicated that the number of active gangs in the United States has varied over the years, with an estimate reaching over 30,000 gangs nationwide. These numbers fluctuate, however the presence of gangs remains a significant public safety concern, especially when gangs increase and maintain influence over juveniles.

Gangs' presence is associated with factors that influence communities, such as poverty limited economic opportunities, and exposure to violence which create environments where gangs can thrive (Howell & Griffiths, 2018). In many communities, gangs provide a sense of security, belonging, and support to youths especially when family support systems are weak or absent (DeVito, 2020). These factors encourage gang members for juveniles who lack access to positive developmental activities or mentorships. As a result, gangs continue to influence communities, juveniles, and criminal behavior.

Additionally, gangs' existence is influenced by cultural and social factors that strengthen group identity and unity. Gangs represent loyalty, respect, and identity, which attract juveniles who are searching for support and belonging (Decker & Pyrooz, 2015). Juveniles are often recruited into gangs through peers, family members, or associates, which makes leaving difficult and continues the cycle of violence and gang involvement.

Gangs continue to exist by adapting to their environment. Current gangs have expanded from the traditional street violence to drug trafficking, fraud, and human trafficking (Klein & Maxson, 2006). This expansion provides gangs with financial stability and relevance. Gangs' ability to adapt to changing social and economic conditions highlights the need for comprehensive approaches to preventive programs that target individual risk factors and environmental conditions.

National Trends and Juvenile Gang Homicides. Juvenile gang homicides is an extreme form of juvenile violence in the United States, which emphasizes the social, economic, and environmental factors that influence criminal behavior. Statistical data from the Supplementary Homicide Report indicated that from 2000 to 2019, there were 12,806 juvenile gang homicides (FBI UCR, n.d.). These homicides affect communities that are disadvantaged, segregated, with minimal resources. Research indicates that gang-related homicides frequently occur in specific geographic areas, particularly neighborhoods with ongoing cycles of violence, lack of social mobility and community developments (Papachristos, 2009). This pattern of violence highlights the role of social

behaviors in gang violence, where conflicts escalate through personal connections and retaliation instead of random violence.

Juvenile gang homicides display distinctive patterns that distinguish them from non-gang homicides. Studies indicated that gang homicides are associated with firearms, drugs, public surroundings, and victim-suspect relationships (Sanchez et al., 2021). The occurrence in public surroundings increases the chances of injured bystanders and terrorized communities. Furthermore, gang-related homicides often occur from ongoing disputes, disrespect, or conflicts over drugs territories, making the patterns more predictable (Decker & Pyrooz, 2015).

Demographic trends provide further insights into the patterns of juvenile gang homicides. Research indicates that victims and offenders of gang-related homicides are predominantly African American males who resides in impoverished disadvantaged neighborhoods (Howell & Griffiths, 2018). These patterns reflect inequalities that increase exposure to violence and limit access to resources. Furthermore, gang-related homicides are often committed by juveniles who have a history of victimization, school detachment, or involved with the juvenile justice system which emphasizes how risk factors effects juveniles during their developmental period (Klein & Maxson, 2006). These patterns emphasize the importance of early intervention programs specifically designed to address individual and community risk factors.

Firearms and Gang-Related Juvenile Homicides. Firearms are vital to gang-related juvenile homicides, increasing the occurrence of violent interactions and fatalities

among juveniles. Researchers identified firearms as gang members' preferred weapon (Baiden et al., 2024; Howell, 1998; Shumaker & Prinz, 2000), which has increased over time, due to the increase in gang assaults (Block & Block, 1993). As firearm possession becomes standardized among the gang culture, disputes are escalating and resulting in deadly violence. This pattern continues, with firearms acting as a symbol of status, protection, intimidation, and retaliation among gangs.

The availability of firearms in disadvantaged communities increases the risk of juvenile gang homicides. This increased availability can be contributed to illegal gun market, drug trafficking, and poor gun regulations which contribute to juveniles easily obtaining firearms (Braga et al., 2018). Research indicates that juveniles who possess firearms are at a greater chance to engage in reckless activities, conflicts, and violent encounters (Lizotte et al., 2000). Gang-related juveniles often regard possessing firearms as a survival strategy due to continuous risks of victimization and retaliation. This creates a continuous cycle that increases opportunities for violent encounters, which emphasizes the need for gang members to possess a firearm.

The presence of firearms influences how gang-related conflicts can immediately escalate and result in homicides. Studies indicate that gang violence occurs in public surroundings where the presence of firearms increases the chances of fatalities (Sanchez et al., 2021). The use of firearms endangers communities, individuals, and contributes to the continued cycle of violence by retaliation among gang members. These cycles are

reinforced by gang members with emphasis on retaliation as a way of maintaining reputation, resulting in a predictable ongoing cycle of violence.

The impact of firearms and gang-related juvenile homicides cannot be fully understood without considering the social and structural factors and their effect on juveniles. Impoverished communities, segregation, and limited resources increase rates of firearm violence, such as gang-related homicides (Bailey et al., 2017). Without stable housing, quality education, or positive mentors, many juveniles seek gangs for belonging and security. Effectively addressing firearm-related gang violence requires comprehensive strategies that focus on individual behaviors and structural conditions that enable firearm access and gang involvement.

South Georgia and Juvenile Gangs. Gang activity in South Georgia is shaped by a combination of rural, economic, and social factors that differ from those in large urban areas. Rural communities were considered safe from gangs; however, recent research and law enforcement reports indicate they have emerged in small communities across the southern United States (Georgia Gang Investigators Association, 2023). This expansion can contribute to the population shift, drug trafficking operations, and the relocation of gang members into communities with limited law enforcement. Consequently, South Georgia has seen an increase in gang presence, such as Gangster Disciples, Bloods, Crips, and hybrid gangs.

The socioeconomic factors in South Georgia significantly influence the regions exposure to gang activity. Many counties in South Georgia are impoverished, lack

employment opportunities and educational resources, which creates an excellent atmosphere for gang recruitment and criminal activity for adolescents (Georgia Bureau of Investigations, 2022). Moreover, rural communities often lack adequate juvenile programs, mental health services, and recreational facilities, resulting in fewer structured activities or programs. These deficiencies increase the odds that at-risk youth will gravitate towards gangs for identity, protection, and belonging. Research indicates that isolation, limited transportation, and a lack of community resources make it difficult for families and communities in rural areas to prevent gang activity (Weisheit & Wells, 2021).

Gang-related violence in South Georgia has mirrored national trends, especially firearm use, retaliation, and juvenile involvement. Law enforcement agencies reported an increase in gang-related shootings, assaults, and juvenile homicides, revealing a pattern of gun-related gang violence across the United States (GBI, 2022). Central transportation passageways, such as Interstate 75 and U. S. Highway 19, assist in the transportation of illegal firearms and drugs, which enable gangs to maintain their supply and expand their criminal operations. Juveniles are recruited for carriers, lookouts, or low-level distributors, which places them at increased risk for victimization and offending. These factors emphasize how geography, illegal activities, and juvenile vulnerability contribute to the patterns of gang-related homicides.

The community responses to gang activity in South Georgia highlight the challenges and opportunities associated with juvenile violence in rural areas. Local law

enforcement agencies have partnered with schools, religious organizations, and community groups to develop intervention and prevention programs tailored to the specific needs of South Georgia. However, efforts have been hindered by limited resources, short staffing, and the extensive distance across rural counties (Georgia Gang Investigators Association, 2023). Research suggests that addressing poverty, educational disparities, and the lack of juvenile services through community-driven strategies is essential in the reduction of gang involvement (Weisheit & Wells, 2021). Additionally, strengthening communities, increasing juvenile programs, and improving access to social services are critical in reducing gang-related juvenile homicides in South Georgia.

Social Media and Juvenile Gangs

Social media has emerged as a significant factor influencing current gang activities, influencing recruitment, communication, escalating conflicts, and juvenile involvement in violence behaviors. Researchers identified a significant shift in gang behavior from street-based interactions to social media where they issue threats, flaunt status, or engaging in online conflicts that often result in real-world violence (Patton et al., 2017). These online interactions increase gang identity which allows juveniles to participate in gang activities without direct physical contact to gang members.

Accessibility to social media platforms such as Facebook, Instagram, Snapchat, and TikTok has created new methods for juveniles to engage in delinquent activities, such as posting firearms, drugs, and gang signs, which contributes to the escalation of conflicts between rival gangs (Irwin-Rogers & Pinkney, 2017).

Social media has also been significant in gang recruitment and normalizing violence among juveniles. Gangs use social media to appeal to vulnerable juveniles by promoting lifestyles associated with power, respect, and financial reward, which are especially appealing to youths with limited economic opportunities (Moule et al., 2019). Social media often depicts firearms and retaliation as appealing, which normalizes violence with social status. For at-risk juveniles who are detached from school or lack adequate support, social media can function as a pathway into gang involvement, which increases interactions with violent peers and delinquent behaviors. This form of recruitment is alarming, especially in rural areas where physical gang presence is less visible and online gang activity is extremely accessible.

Social media plays a critical role in escalating conflicts among gangs, therefore increasing juvenile violence. Online threats and disrespect increase disputes between gangs, which lead to real-world confrontations involving firearms (Patton et al., 2017). Research indicates that conflicts on social media often predict shootings, therefore, allowing juveniles using social media to monitor their rivals' activities and plan retaliation (Moule et al., 2019). The rapid speed and public nature of social media increases pressure on juveniles to respond aggressively to perceived disrespect that continues the cycle of retaliation, which increases the risks of homicides. These activities are threatening for juveniles who lack conflict resolution skills or reside in communities where firearms are easily accessible.

In South Georgia, social media has become significant to juvenile violence. Juvenile shootings often derive from online disputes over relationships, disrespect, or gang tensions. In rural communities, easy access to smartphones and firearms increases the risk of online conflicts escalating to fatalities. However, in rural areas, monitoring juveniles' online activities and intervening in their conflicts before they become fatal can be difficult for schools and community stakeholders. Accordingly, social media initiates and intensifies juvenile gun-related homicides in South Georgia.

Addressing social media and gang-related juvenile violence requires an approach that combines online knowledge, violence prevention, and community involvement. Schools and community organizations can implement programs that equip youths with the skills to navigate online safely, identify risks, and de-escalate online conflicts. Law enforcement agencies and community stakeholders must collaborate and intervene before disputes escalate. Incorporating social awareness into violence prevention efforts, stakeholders and community leaders can better understand and address the evolution of social media in juvenile gun-related homicides.

Origins of Violent Behavior in Children and Adolescent

Juvenile violence remains a significant public health and social concern in the United States (Pettit, 2004). The Centers for Disease Control and Prevention (2024) defines youth violence as the intentional use of physical force or power by juveniles ages 10-24 to threaten or harm others. To understand the impact of juvenile gun-related

homicides, it is essential to first examine the origins of violent behavior in children and adolescents.

Researchers have identified numerous risk factors associated with violent behavior among juveniles. These include physical punishment, alcohol and drug use, gang involvement, developmental problems, poverty, and access to firearms (Sulkes, 2025). Additional risk factors related to firearm access include exposure to violence through media platforms, such as social media, news outlets, child abuse, and domestic violence (Sulkes, 2025). Juvenile violence often emerges from multiple risk factors such as biological, harsh, or excessive punishment, and disadvantaged communities (Rappaport & Thomas, 2004). Continued exposure to these risk factors can intensify aggression and increase the likelihood that juveniles will become victims or later offended.

Additionally, emotional dysregulation has been identified as a significant contributor to aggressive behavior among adolescents. Juveniles who struggle to manage emotional challenges such as conflicts with parents, uncertainty, negative effects, and risky behaviors because of their inability to cope may develop aggressive behaviors (Darmadi & Badayai, 2021). Behaviors such as bullying, substance abuse, and other forms of deviant behaviors are the result of emotional and behavioral difficulties (Darmadi & Badayai, 2021). These behaviors patterns can intensify during adolescence, a critical developmental period identified by participation in risky behaviors.

Environmental conditions further shape the development of violent behavior. Research indicates that childhood experiences of physical, emotional, or sexual abuse have long-lasting effects on psychological health which, social development, and behavior, increasing the likelihood of aggression and bullying. Rappaport & Thomas (2004) suggests that violent behavior seldom appears suddenly; it gradually develops through extended exposure to negative conditions that connects childhood experiences to adolescence and eventually adulthood.

These patterns emphasize the importance of identifying risk factors early, before they escalate into severe forms of violence, especially gun-related homicides. Pettit (2004) maintains that juvenile violence develops through a long-term process with influences from family, peers, and communities that outline behavioral patterns that can lead to aggressive behaviors.

Biological and Neurodevelopmental Origins

Youth aggression and rule-breaking, often referred to as youth antisocial behavior (AB) impacts child-development, families, schools, and communities (Hyde et al., 2024). Although, these behaviors frequently lead to long-term academic and social challenges, they are considered a significant public health concern (Copeland et al., 2011; Frick & Kemp, 2021), creating financial hardship in multiple systems, including families, schools, communities, and the juvenile justice system (Foster & Jones, 2005).

Research indicates that aggressive behavior is a neurodevelopmental disorder (van Goozen et al., 2022). Children who display early aggressive behaviors frequently

display differences in brain structure and neurocognitive functioning, which influence genetic factors such as emotions, stress, and control impulses (Raine, 2018). These biological liabilities can make everyday challenges, such as social, academic, and professional difficult to understand. Environmental factors, including poverty, family, and disadvantaged neighborhood, can intensify these risks by affecting parenting quality and daily exposure to hardships (Hyde et al., 2024).

Biological and neurodevelopmental factors do not operate in isolation. Instead, these factors interact with a child's experiences, shaping how the child interprets and responds to their environment. Research suggests that individual biological exposures may increase the risk for aggressive behavior, especially when combined with unfavorable environmental conditions. Moreover, research emphasizes that violent behavior appears from the interactions of genetic predispositions, brain development, neurochemical functioning, and early biological risk exposures (Hyde et al., 2024).

Although biological factors provide valuable insight into individual exposures associated with violent behavior, they do not fully explain why behaviors appear in some and not others. Children are continuing to interact with families, schools, peers, and communities, which increases biological risk factors. Additionally, understanding the origins of violence among children requires examining the biological, social, behavioral, and environmental stressors that contribute to aggressive behaviors.

Genetic and Hereditary Factors of Youth Aggression

Childhood aggression is a significant public health concern which requires further understanding to assist in the development of prevention and treatment strategies (Koyama et al., 2024).

Persistent aggressive behaviors, frequently accompanied with increased emotions such as anger, irritation and frustration are associated with long-term negative outcomes such as peer rejection, relationship and financial difficulties, poor academics, substance abuse, and criminal involvement (Bierman et al., 2013; Pedersen et al., 2007). Research indicates that approximately 30% of children raised in single parent, low-income homes display aggressive behaviors, emphasizing surrounding risk factors (Campbell, 1995; Stemmler & Lösel, 2010).

Substantial research has identified a significant genetic factor to aggressive behavior, with genetics accounting for 50-65% of high levels of aggression (Burt, 2009; Tuvblad & Baker, 2011). However, researchers identified additional environmental factors including socioeconomic status, childhood trauma, abuse and maltreatment, parenting styles, maternal sensitivity, prenatal stress, parental psychiatric disorders, and alcohol use as factors that contributes to genetic risk (Weeland et al., 2015).

Genetics is responsible for significant percentages of aggressive and violent behaviors in children and adolescents. Current research indicates that aggression is inherited and genetics influence traits such as impulsiveness, emotions, and stress (Koyama et al., 2024). Characteristics associated with the development of aggressive

behavior has been recognized in juveniles from their late childhood into early adulthood, with emphasis on multiple genes rather than a single gene (Kretschmer et al., 2023). Additionally, genetic risk is probable and prone to develop in the presence of environmental stressors, emphasizing the role of gene-environment interaction in the development of aggressive and violent behavior.

Brain Structure and Function of Youth Aggression

Violence is a significant social problem, which identifies aggression as a risk factor (Stattin & Magnusson, 1989). Youths displaying early patterns of aggression are often diagnosed with disruptive behavioral disorders (Hostetler et al., 2024). Among these youth, some display increased levels of callous-unemotional (CU) traits, which include reduced empathy, a lack of guilt, low concern for performance, and shallow affect (Frick & Ellis, 1999).

Callous-unemotional traits are associated with patterns of antisocial behavior. Youths with increased levels callous-unemotional traits commit more violent crimes (Kahn et al., 2013; Loeber et al., 2005) with higher rates of recidivism (Kimonis et al., 2016). Additionally, callous-unemotional traits are closely associated with youth aggression than empathy (Ritchie et al., 2022) and increased callous-unemotional traits in early adolescence predict criminal offending in adulthood.

Brain imaging research indicates that callous-unemotional traits are linked to differences in the prefrontal cortex structure. Increased levels of callous-unemotional traits have been associated with grey matter abnormalities in the medial orbitofrontal

cortex, anterior cingulate cortex, and ventrolateral prefrontal cortex (Cope et al., 2014; De Brito et al., 2009; Ermer et al., 2013; Fairchild et al., 2015; Sebastian et al., 2016; Tyborowska et al., 2018; Yang et al., 2015). Research suggests that normal adolescent development involves reductions in grey matter, especially in prefrontal areas, reflecting cortical maturation. Larger maturational reductions are associated with increased prosocial development, where maturational reductions are associated with fewer prosocial behaviors (Ferschmann et al., 2019), increased callous-unemotional traits (Tyborowska et al., 2018), and additional externalizing behaviors (Whittle et al., 2020), and severe conduct problems (Shaw et al., 2011).

Additionally, children and adolescents with increased levels of aggression exhibits differences in the structure and function of the brain responsible for executive functioning, emotional processing, and behavioral regulation. Uncharacteristic development of the prefrontal cortex is associated with increased aggressive and antisocial behaviors (Hostetler et al., 2024). Furthermore, increased responsiveness within limbic regions, especially the amygdala, may increase sensitivity to perceived threats, contributing to responsive aggression. Disruptive connections between the prefrontal area and the limbic systems can damage emotional regulation, especially during adolescence, a phase of brain maturation and increased exposure to risk taking behaviors (Hyde et al., 2024).

Importantly, the brain structure and function do not act in isolation. Neural development interacts with the biological systems, including neurochemical signals and

hormonal process which regulates stress, emotions, and behavior. Examining the neurochemical and hormonal influences provides an understanding of contributors to youth aggression.

Neurochemical and Hormonal Influences on Youth Aggression

Youth aggression represents a significant public health concern influenced by genetics, emotions, and the environment (Cima et al., 2025). Biological and hormonal activity, mainly testosterone and cortisol, have been associated with aggressive behaviors during adolescence. Elevated levels of testosterone have been associated to aggression, while lower levels of cortisol, especially in males, have also been associated with aggressive behavior (Cima et al., 2025). However, research suggests that the combination of high testosterone and low cortisol may increase exposure to aggression. Additionally, linking testosterone to status-seeking and dominance-related behaviors during adolescence (Cima et al., 2025; Rowe et al., 2004; Schaal et al., 1996). Prior research supports the association by demonstrating that salivary testosterone levels in boys from early adolescence through adulthood relate to various forms of aggressive and delinquent behavior during puberty development (van Bokhoven et al., 2006).

Neurochemical processes also contribute to the development of youth aggression. Reduced levels of serotonin have been associated with impulsive, reactive form of aggression, while increased serotonin is associated with deliberated and planned aggression, especially in youth displaying callous-unemotional traits (Runions et al., 2019). These findings highlight the influence of serotonin on aggression.

Aggression and impulsive traits are influenced by genetic and environmental factors (Pavlov et al., 2012). Hormonal imbalances, such as increased testosterone combined with decreased cortisol, may impair the nervous system responsible for impulse control and self-regulation, which increases aggressive behavior (Pavlov et al., 2012). Genetic factors, especially those affecting neurochemicals, contribute to aggressive behavior in children and adolescents.

Furthermore, research highlights the vital role of neurochemical and hormones in understanding youth aggression.

Prenatal and Perinatal Risk Factors to Youth Aggression

Risk factors that occur before birth can contribute to the development of aggressive behavior in youth. Prenatal stress is the physical and psychological stress a mother experiences during pregnancy including poor nutrition, illness, residing in violent crime neighborhoods, chronic stress, major life events, bereavement, depression and anxiety (Coussons-Read, 2013; Mbiydzenyuy et al., 2022). These stressors occur during rapid brain development characterized by neural formation, differentiation, and connection (van den Heuvel et al., 2021). Disruptions during this phase increase the risk of delayed emotional and behavioral problems, including aggression (van den Heuvel et al., 2021).

The prenatal period is a developmental period during which the fetus is susceptible to external and internal environmental influences (Almond & Currie, 2011). During this phase, fetal programming development forms long-term physiological and

neurological outcomes. The brain is particularly susceptible in this phase, thereby linking unfavorable prenatal exposure to later behavior disorders (Miller et al., 2014; Spiers et al., 2015).

Research indicates that early childhood stress is linked to structural and functional differences in neural areas which is associated with aggressive behavior (Mbiydzennyuy et al., 2022). Prior research suggests that prenatal trauma exposures, including prior to conception, may influence youths' development, emphasizing potential intergenerational effects (Yehuda & Lehrner, 2018). Additionally, genes and their variants have been associated with the development of several brain disorders, which increases the exposure to unfavorable behavior outcomes (Lee et al., 2019).

These findings highlight the importance of prenatal and intergenerational risk factors that contribute to youth aggression.

Connecting the Origins of Violent Behavior to Juvenile Gun-Related Homicides

Understanding the origins of violent behavior is essential in explaining why some juveniles progress from early aggression to gun-related homicides. Juvenile violence often appears from multiple risk factors such as genetics, cruel or excessive punishment, disadvantaged communities and continued exposure to these risk factors can increase aggression and the probability that juveniles will become victims or offenders. These social and environmental exposures reflect sociological positivism, which emphasize that

behavior is influenced by social structures and conditions rather than individual choice alone (Nickerson, 2023).

Sociological Positivism suggests that violent behavior is the result of constant exposure to disadvantages such as poverty, neighborhood violence, and domestic abuse. These conditions create environments where aggression is normalized and reinforced over time. As a result, constant exposure increases the likelihood of juveniles engaging in violent behavior. Research has indicated that cruel parenting, child abuse, domestic violence, and negative peer influences contribute to aggression and increases the probability that juveniles will accept violent behavior as normal (Rappaport & Thomas, 2004). Emotional instability, chronic stress, and trauma hinder decision-making and increase the risk of violent behavior, especially in disadvantaged communities (Hyde et al., 2024).

Sociological positivism also emphasizes the importance of examining community conditions that contribute to firearm violence. Disadvantaged neighborhoods and negative peer influence create conditions where firearms are viewed as necessary for protection, retaliation, or social status. Research indicates that juveniles who experience violence or victimization are more likely to carry firearms in response to perceived threats (Barrett et al., 2006; Docherty et al., 2019). These social conditions influence juvenile behavior and views toward violence, which increase the likelihood of gun violence.

Collectively, sociological positivism explains how violent behavior develops through the interaction of social, environmental, and structural factors. Juvenile gun-related homicides develop from continued exposure to unfavorable conditions that begin in childhood and intensify throughout adolescence. This perspective emphasizes looking beyond individual behaviors and instead examining social structures such as disadvantaged communities, family instability, and systemic inequalities that increases the possibility of juvenile violence.

School-to-Prison Pipeline and Juvenile Homicides

The school-to-prison pipeline refers to a systematic process where students who receive disciplinary actions in school have an increased risk of entering the criminal justice system (Hemez et al., 2021). Researchers have traced the origin of the school-to-prison pipeline to the desegregation of public schools, identifying it as a connecting system of policies and practices designed to push low-income African American students out of the educational system into juvenile detention or the criminal justice system (Keefer, 2023). During the increase in violent crimes in the 1990s, young African Americans were characterized as unstable, violent, and a threat to society, resulting in zero-tolerance policies that increased juvenile arrests and furthered the school-to-prison pipeline (King & Schindler, 2021). The effects of these policies extend beyond the school system by continuing to target specific demographics by limiting education through suspensions, expulsions, and criminal charges, resulting in a continued cycle of poverty and incarceration.

Gun-related juvenile homicides have shown a connection to disadvantaged, racially segregated minority communities (Jacoby et al., 2018; Wong et al., 2020; *Community Gun Violence*, 2021). The underlying factors contributing to this issue include organized racism, generational poverty-stricken neighborhoods, biases, and interpersonal and individual factors (Bottiani et al., 2021; Formica, 2021). Research suggests that the school-to-prison pipeline has negatively impacted students' educational outcomes due to the increased presence of school resource officers being directly associated with disciplinary actions that lead to suspensions and expulsions, resulting in academic failure (Keefer, 2023). The connection between the school-to-prison pipeline and gun-related juvenile homicides requires an urgent need for systemic reforms to disciplinary policies and preventive measures.

Efforts to reduce the school-to-prison pipeline and the adverse effects of school discipline require the implementation of school sanctions that do not negatively affect juveniles (Hemez et al., 2021). Additionally, stakeholders must demolish damaging policies and create proactive policies to invest in juveniles and the community (Keefer, 2023). Addressing gun-related juvenile homicides requires a complex approach, which includes the development of policies and intervention programs that encourage community involvement, educational advancement, conflict resolution skills, and reducing access to firearms.

Educational Disengagement and Violent Behavior

Educational disengagement is a key factor in understanding juvenile participation in violent crimes, especially juvenile gun-related homicides. Research suggests that students who fail academically, excessive absentees, or receive disciplinary actions are at risk of engaging in delinquent behavior and enter the juvenile justice system (Hemez et al., 2021). Juveniles who are suspended or expelled, especially when applied disproportionately, have an increased risk of exposure to high-risk peers and unsupervised environments. The loss of consistent academic engagement reduces students' attachment to school, weakens their social relationships, and reduces opportunities for positive social activities, therefore increasing the risk of violent behavior (Bottiani et al., 2021). Educational disengagement serves as a pathway where school disciplinary practices influence long-term patterns of behavior.

The connection between educational disengagement and juvenile violence is strengthened by structural inequalities that influence school environments in disadvantaged communities. Low-income schools, segregated communities frequently face resource shortages, overcrowded classrooms, and limited access to mental health services, conditions that challenge student engagement and academic success (Formica, 2021). These structural challenges are often associated with higher dropout rates and increased involvement in delinquent activities such as gang participation. Research suggests that disengaged juveniles are at risk of possessing firearms and involved in disputes that escalate into homicides (Jacoby et al., 2018). As disengagement continues,

juveniles lose protective factors such as mentorship, structure, and academic support which increases exposure to violent behaviors.

In South Georgia, educational disengagement combined with rural conditions, such as limited access to advanced coursework, extracurricular activities, and qualified teachers creates additional obstacles for academic success. It increases opportunities for at-risk juveniles to disconnect from school. As educational disengagement increases, juveniles encounter further exposure to gangs and firearms, which increases the risk of juvenile violence in rural communities. Addressing educational disengagement is essential in reducing juvenile gun-related homicides, particularly in rural communities where schools function as the foundational institution.

South Georgia Rural Schools and Juvenile Violence

South Georgia's rural schools encounter challenges that contribute to juvenile violence, especially gun-related homicides. Schools in rural areas lack funding, teachers, and access to mental health services, compared to urban areas (Weisheit & Wells, 2021). These lack of resources prevent schools from providing intervention programs for at-risk students. As a result, rural schools rely on disciplinary actions which increase suspension, expulsion, and juveniles entering the criminal justice system (Keefer, 2023) which contributes to the school-to-prison pipeline and increases juvenile violence.

In rural areas, prevention efforts are hindered due to the distances between communities. Several communities in South Georgia lack accessibility to youth programs, after-school activities, and community-based programs, resulting in minimal

opportunities for positive engagement. Transportation further complicates these challenges by restricting juveniles access to programs beyond their community's boundaries which results to juveniles spending additional time in unstructured environments that increases their exposure to delinquent peers, gang activity, and firearms (Georgia Bureau of Investigations, 2022). These conditions contribute to increased juvenile gun-related violence in rural southern communities.

Rural schools are encountered with challenges resulting from exposure to trauma and community violence. Although rural areas are perceived as safer than urban schools, research indicates they experience similar trauma such as domestic violence, substance abuse, and firearms (Wong et al., 2020). These factors increase the possibility of behavioral issues and violent incidents. Firearm ownership is normalized in South Georgia making gun accessible, therefore increasing the risk of fatalities during disputes. Addressing these challenges requires improving resources, mental health services, and community programs designed specifically for the needs of juveniles in rural South Georgia.

Conclusion

Juvenile gun-related homicides have increased, particularly in South Georgia. Researchers have identified this increase as a public health and criminology concern (McMillan, 2023). Studies revealed a disproportionate impact on African American juveniles between the ages of 15 to 17 (GBI DFS, 2021), specifically those residing in disadvantaged, racially segregated communities (*Community Gun Violence*, 2021; Jacoby

et al., 2018; Wong et al., 2020). Juveniles residing in disadvantaged neighborhoods often experience systemic racism, poverty, and social inequalities, all of which contribute to the increased gun-related violence (Bottiani et al., 2021; Formica, 2021).

Firearms remain a significant risk factor in juvenile homicides, with statistics indicating that 65% of violent crimes involve firearms (GBI DFS, 2021). Access to firearms in disadvantaged neighborhoods contributes to their use during confrontations, often results in fatalities (Hernandez et al., 2020). Gangs have also been identified as a contributing factor, whereas gang-related homicides are associated with firearms, drugs, neighborhood influences, and victim relationships (Sanchez et al., 2021). Research indicates that firearms are significant to gangs, used as protection, intimidation, retaliation, and status (Baiden et al., 2024; Howell, 1998; Shumaker & Prinz, 2000). Neighborhoods that are disproportionately impacted by gun violence, drug trafficking, and weak gun laws that increases juveniles' ability to easily obtain guns, escalating conflicts and increases the opportunity for fatal encounters (Braga et al., 2018; Lizotte et al., 2000).

In South Georgia, risk factors such as poverty, limited youth programs, and rural isolation create an environment that increases gang development and juvenile involvement in violence (Georgia Gang Investigators Association, 2023; GBI, 2022). Rural isolation, combined with limited transportation and community resources, contributes to gang expansion by providing identity, belonging, and protection. Additionally, major highways, such as Interstate 75 and U. S. Highway 19 facilitate the

movement of illegal drugs and firearms, which increases juvenile exposure to gang activity and the risk of victimization. Moreover, these factors influence South Georgia's increased risk for gang-related juvenile homicides.

Social media has also appeared to be a significant risk factor of juvenile violence, altering gang behavior from street-level interactions to online conflicts that frequently escalate into real-world shootings (Patton et al., 2017). Social media platforms such as Facebook, Instagram, Snapchat, and TikTok provide juveniles ability to display firearms, issue threats, and retaliation which normalize violence and increase gang identity (Irwin-Rogers & Pickney, 2017; Moule et al., 2019). In South Georgia areas where physical gang presence is less visible, online disputes often serve as the facilitator for juvenile shootings, making intervention challenging for schools, families, and community stakeholders.

Additionally, understanding juvenile gun-related homicides requires examining the developmental origins of violent behavior. Researchers identified child abuse, exposure to violence, substance abuse, poverty, and access to firearms as contributing risk factors to aggressive behaviors (Rappaport & Thomas, 2004; Sulkes, 2025). Difficulties with uncontrolled emotions increases aggression and involvement in risky behaviors among juveniles, especially during adolescence (Darmadi & Badayai, 2021). Genetics, neurochemical imbalances, prenatal and perinatal stress also contribute to long-term behavior which is associated with aggression (Cima et al., 2025; Koyama et al., 2024; Mbiydzenyuy et al., 2022). These developmental and environmental risk factors

align with sociological positivism, which emphasize that behavior is shaped by social, structural, and environmental conditions instead of individual choices.

Reducing juvenile gun violence requires the assistance of all stakeholders, community members, and governmental agencies to develop prevention programs that reflect the needs of the affected communities. Researchers identified risk factors such as poverty, segregation, and deprived neighborhoods (Kondo et al., 2018; Ngo et al., 2019), as well as systemic racism (Bailey et al., 2017), as essential to the reduction of disparities in juvenile gun-related homicides. However, minimal resources for violence prevention remains a significant obstacle to effectively addressing this public health crisis (Bottiani et al. 2021). These programs should identify juveniles who are high risk for involvement in violence by providing them with support systems and resources to assist with resolving conflicts (Centers for Disease Control and Prevention [CDC], 2023a). Understanding these challenges is vital in developing effective violence prevention programs to reduce juvenile gun-related homicides and promote safe communities where juveniles can thrive.

Chapter 3: Research Method

In this chapter, I outline the methodological framework used in examining the increase in gun-related juvenile homicides in the Southern region of Georgia. The purpose of this quantitative study was to examine contributing factors associated with the increase in gun-related homicides of juveniles in South Georgia. The motivation for this research developed due to the United States reporting that violent gun-related mortality was among the highest in the world (see Bottiani et al., 2021). Statistical data also revealed an alarming increase in gun-related juvenile homicides in South Georgia, with a significant increase in 2020 and continuing through 2021. Additionally, data indicated that African American males aged 15 to 17 years were disproportionately affected (CDC, 2019; GBI DFS, 2020).

Due to the effects of juvenile gun-related homicides, examining contributing factors to this increase was essential for the development of effective policies and intervention programs to assist in the reduction of juvenile gun-related homicides in communities in the Southern region of Georgia. Prior research suggested that the occurrence of gun-related juvenile violence contributed to the increase in firearm ownership (Bottiani et al., 2021). Furthermore, gun violence has become an essential characteristic of daily life for many juveniles in the United States (Webster et al., 2013).

I examined factors such as increasing crime rate, poverty, and gangs to determine their potential relationship to gun-related juvenile homicides in the southern region of Georgia. The purpose was to recognize factors that can inform stakeholders, community

members, and law enforcement agencies about developing policies and programs designed to reduce juvenile gun-related violence within communities.

Research Design and Rationale

A quantitative non-experimental research design was used to examine factors contributing to the increase in juvenile gun-related homicides in the southern region of Georgia. This design was appropriate because it allowed the observation and measurement of naturally occurring conditions without manipulating any variables. Quantitative methods are appropriate for identifying statistical relationships among variables, especially when examining relationships between violent crime, poverty, and gang affiliation. Using secondary data, the study-maintained objectivity, by ensuring the analysis was based on verifiable patterns.

Non-experimental research designs are commonly used in criminology when the variables cannot be ethically or practically manipulated. In this study, the independent variables, violent crimes, poverty, and gang affiliation are naturally occurring conditions in the specified counties in the Southern Region of Georgia. These variables cannot be altered or controlled by the researcher, therefore making experimental research design inappropriate. Instead, the study used an observational approach by examining secondary data to determine whether statistically significant relationships existed between poverty, violent crime, and gang affiliation and juvenile gun-related homicides.

A non-experimental research design was supported because of the availability of reliable secondary data collected from 2019 through 2021 from government and criminal

justice agencies using standard reporting procedures. Using secondary data also minimized influence, reduced bias, and allowed the examination of multiple trends which enhanced the study's validity.

This design enabled the testing of hypotheses related to the correlation between the independent variables and juvenile gun-related homicides. The purpose of the study was to identify statistical relationships rather than establish causation, the non-experimental research design was appropriate and aligned with the research. This design also supported the goal of identifying which factors were significantly associated with the increase in juvenile gun-related homicides and creating evidence to assist policymakers, community leaders, and law enforcement agencies in developing targeted interventions.

Furthermore, the non-experimental research design provided an ethical framework for examining the social and environmental factors contributing to juvenile gun-related homicides in the southern region of Georgia. The findings provide insight that can assist in future research, preventive strategies, and policies aimed at reducing juvenile violence.

Research Questions and Hypotheses

RQ1: Is there a statistically significant relationship between gun-related juvenile homicides and areas with a high crime rate in the Southern Region of Georgia?

H_{a1} : There is a statistically significant relationship between gun-related juvenile homicides and areas with a high crime rate in the Southern Region of Georgia.

Distinctly, we hypothesize that gun-related juvenile homicides are more likely to occur in areas with a high crime rate in the Southern Region of Georgia.

H_{01} : There is no statistically significant relationship between gun-related juvenile homicides and areas with a high crime rate in the Southern Region of Georgia.

Otherwise, the risk of gun-related juvenile homicides is not influenced by communities with a high crime rate in the Southern Region of Georgia.

RQ2: Is there a statistically significant relationship between gun-related juvenile homicides and poverty in the Southern Region of Georgia?

H_{a2} : There is a statistically significant relationship between gun-related juvenile homicides and poverty in the Southern Region of Georgia. Distinctly, we hypothesize that gun-related juvenile homicides are more likely to occur in communities with a prevalent poverty rate in the Southern Region of Georgia.

H_{02} : There is no statistically significant relationship between gun-related juvenile homicides and poverty in the Southern Region of Georgia. Otherwise, the risk of gun-related juvenile homicides is not influenced by communities with a high poverty rate in the Southern Region of Georgia.

RQ3: Is there a statistically significant relationship between gun-related juvenile homicides and gangs in the Southern Region of Georgia?

H_{a3} : There is a statistically significant relationship between gun-related juvenile homicides and gangs in the Southern Region of Georgia. Distinctly, we

hypothesize that gun-related juvenile homicides are more likely to occur in communities that have a high gang presence in the Southern Region of Georgia.

H₀₃: There is no statistically significant relationship between gun-related juvenile homicides and gangs in the Southern Region of Georgia. Otherwise, the risk of gun-related juvenile homicides is not influenced by communities that have a high gang presence in the Southern Region of Georgia.

Methodology

I used a quantitative non-experimental research design to examine the relationship between gun-related juvenile homicides and the independent variables: high crime rate, poverty, and gangs in the southern region of Georgia. This design was appropriate because it allowed the observation and measurement of conditions as naturally occurred, without manipulation of the variables. Relying on secondary statistical data, the analysis remained objectively and grounded, enabling a comprehensive evaluation of the factors associated with the increases in gun-related juvenile homicides (Nickerson, 2023).

Quantitative non-experimental research is commonly used in criminology when the variables cannot be ethically or practically manipulated. In this study, the independent variables poverty, violent crime, and gang affiliation, exist naturally within the selected counties in South Georgia and cannot be altered by the researcher. For this reason, the study relied on secondary data to identify statistical relationships. This approach aligns with criminological research practices, which often use official records and archived data to examine crime trends and contributing factors.

The use of secondary data allowed the analysis of multiple variables over several years, providing an understanding of the social and environmental conditions influencing juvenile gun-related homicides. The data was collected by government agencies using standard reporting procedures; therefore, the information was suitable for statistical analysis. This design also minimized biases, since the data was not influenced by involvement or intervention.

The chi-square tests and cross-tabulation analysis were used to examine the relationship between the independent variables and the dependent variable. These statistical procedures are appropriate for categorical data and allow the identification of significant relationships between variables. These tests provided an organized method for identifying patterns and determining their significance to the observed variables. Through this investigative approach, the study generated insights into factors contributing to the increase in gun-related juvenile homicides.

Population

The target population for this study consisted of gun-related juvenile homicide cases and secondary data from counties in the southern region of Georgia from 2019 through 2021. The data was collected from official records, which included Child Fatality Review reports, Georgia Bureau of Investigation statistics, and the United States Census Bureau datasets.

Initial counties included in this study were Brooks, Candler, Chatham, Coffee, Decatur, Dougherty, Glynn, Grady, Laurens, Liberty, Lowndes, McIntosh, Muscogee,

Tift, Toombs, and Ware. These locations were selected based on their location within the southern region of Georgia's significance in gun-related juvenile homicide rates.

Sampling and Sampling Procedures

I used a purposive sampling approach in analyzing gun-related juvenile homicides that occurred in South Georgia between 2019 and 2021. The samples included all reported gun-related juvenile homicide cases within the identified counties in the southern region of Georgia during the specified time. The sample selection process relied on data from the CFR annual reports from 2019 to 2021, which provided the total number of reported gun-related homicides for the identified counties in Georgia. The data from variables such as race, gender, age, location, family income, and gang affiliation were collected and analyzed to establish a relationship with the increase in gun-related juvenile homicides. This sampling approach ensured a comprehensive assessment of patterns and contributing factors influencing the increase in gun-related juvenile homicides in South Georgia.

Data Collection

Secondary data served as the primary source of information for this study. With institutional approval, IRB #09-03-23-112593, the secondary data was obtained from Georgia Bureau of Investigation's Child Fatality Review (CFR) reports, Georgia Bureau of Investigation's publicly accessible statistics, and the United States Census Bureau datasets. Access to the CFR data required submitting a Data User Agreement for to the Georgia Bureau of Investigations (GBI) requesting specific information related to

juvenile gun-related homicides. Once approved, the Georgia Bureau of Investigations provided the requested data in a table format. The data requested included tables containing: the number of gun-related homicides of juveniles aged 13 – 17 from 2019 through 2023 by county; demographic and incident information, including age, gender, race, date of incident, and location; and demographic and incident related variables, including family household income (low, medium, and high), parent employment status, and gang affiliation.

These tables were provided directly from the Georgia Bureau of Investigations Child Fatality Review Unit. Additional information on poverty levels and violent crime rates was obtained from the United States Census Bureau and the Georgia Bureau of Investigations public statistical website. These datasets were publicly accessible and did not require consent or authorization. The publicly available data was used to support the independent variables of poverty and violent crime.

The study originally focused on juveniles aged 15 – 17 across 16 counties in South Georgia from 2019 through 2021. However, the study was expanded to include juveniles aged 13 – 17 across 66 counties from 2019 through 2023. This expansion would ensure a comprehensive analysis of juvenile gun-related homicides in the southern region of Georgia.

The variables obtained from the secondary sources included race, gender, age, location of incidents (community high-crime area), family income (low, medium, or high), and gang involvement. This data was extracted from the data sources for an

analysis of factors that contributed to the increase in juvenile homicides. All data were organized into non-identifiable categories for statistical analysis and the protection of privacy.

Using secondary data was cost-effective, organized, and appropriate for examining multiple years of juvenile gun-related homicides. However, secondary data may have limitations such as relevance and accuracy, these governmental sources are recognized for their reliability and reporting procedures, which ensures the integrity of the study's findings.

Data Analysis Plan

This study examined gun-related juvenile homicides in South Georgia using secondary data obtained from the Georgia Bureau of Investigation's Child Fatality Review reports, Georgia Bureau of Investigation's statistics, and the United States Census Bureau datasets. The expanded dataset included juveniles aged 13 – 17 across 66 counties from 2019 through 2023. The purpose of this study was to determine correlations between gun-related juvenile homicides and the independent variables of high crime rates, poverty, and gang involvement.

To examine these relationships, the chi-square test and cross-tabulation analysis were applied. The Chi-square test was conducted using Copilot to calculate statistical equations to determine the significant relationship between the dependent and independent variables.

The chi-square test examined the following hypotheses:

1. Gun-related juvenile homicides and high crime rates – The chi-square test measured whether a significant relationship existed between gun-related juvenile homicides and areas with an increased crime rate in South Georgia.
2. Gun-related juvenile homicides and poverty – The second test measured whether a significant relationship existed between gun-related juvenile homicides and poverty levels in South Georgia.
3. Gun-related juvenile homicides and gangs – The third test measured whether a significant relationship existed between gun-related juvenile homicides and gangs in South Georgia.

The chi-square test was appropriate for this research, it identified a correlation among variables to determine their significance (Ewing & Park, 2020). Additionally, the cross-tabulation analysis was used to analyze the relationship among variables, further by providing structure to identify correlations between gun-related juvenile homicides and the increase in crime rates, poverty, and gangs. Cross-tabulation was also suitable for this study, it generated detailed data tables to assist in identifying patterns among variables (Alberti, 2024). Moreover, cross-tabulation improved this research by providing organization and understanding, ensuring an accurate analysis of the independent variables and their relationship to gun-related juvenile homicides.

Threats to Validity

In this study, threats to validity were considered to guarantee the findings' accuracy, whether internal or external. Internal validity concerns included selecting bias

and confounding variables. Since secondary statistical data was used, there was a possibility that prior differences in counties could affect the correlation between the variables (Campbell & Stanley, 2015). Data was collected from multiple counties in South Georgia to alleviate biases.

Additionally, confounding variables are influenced by multiple outside factors, such as education, law enforcement, and communities, which may influence juvenile homicides but are not factored into this study. This study focused on increased crime rates, poverty, and gangs; however, identifying these additional factors was essential for understanding the findings. However, external validity concerns such as generalization and data reliability were a factored threat. This study was limited to the counties in the southern Georgia region. The results provided an understanding of patterns for the southern region; it did not apply to broader locations in other states or nations (Shadish et al., 2002). The accuracy of secondary data was contingent on reporting methods or data collection. However, only verified data was used to improve reliability. By recognizing these threats to validity, measures were applied to reinforce the integrity of the study and its findings while ensuring transparency.

Ethical Procedures

The ethical procedures for this study focused on the proper use, accuracy, and reliability of the secondary data collected. Institutional Review Board approval was obtained prior to data collection, IRB #09-03-23-112593. This approval confirmed that

the study met ethical standards for research involving secondary, non-identifiable data that did not involve human participants.

Access to the Georgia Bureau of Investigation's Child Fatality Review reports required the submission of a Data User Agreement to the Georgia Bureau of Investigations. The agreement summarized the specific data requested and confirmation that the information would be used for research purposes. Once approved, the Georgia Bureau of Investigations provided the Child Fatality Review data in a non-identifiable format, which ensured that no personal or identifying information was accessible.

Additional data used in the study, including poverty levels and violent crime rates were obtained from the United States Census Bureau and the Georgia Bureau of Investigation's public access website. These datasets were available to the public and did not require consent or authorization. All data were collected according to legal and ethical standards.

Additionally, ethical integrity was maintained by ensuring that no personal or identifying information of the participants was accessible, which ensured their rights and privacy. Adhering to these guidelines preserved the integrity of the study while ensuring compliance with ethical standards and procedures.

Conclusion

This chapter presented the methodology used to examine the factors contributing to gun-related juvenile homicides in South Georgia. A quantitative non-experimental design was used for the systematic observation of naturally occurring conditions without

manipulating variables. This approach provided an objective framework for analyzing the relationships among high crime rates, poverty, gang affiliation, and juvenile gun-related homicides involving adolescents aged 15 to 17.

The study relied on secondary data collected from multiple South Georgia counties from 2019 to 2021. Data from the Georgia Bureau of Investigation's *Child Fatality Review* reports, Georgia Bureau of Investigations statistics, and the United States Census Bureau datasets provided credible demographic and socioeconomic information. Variables such as race, gender, age, incident location, family income, and gang involvement were essential in conducting an analysis of the conditions surrounding juvenile gun-related homicides. Focusing on adolescents aged 15 to 17 was necessary due to the increase in gun-related homicides during the study period.

The methodological approach outlined in this chapter ensured that the research questions were systematically examined using reliable data and appropriate statistical methods. Chi-square tests and cross tabulation analysis organized the data and identified significant relationships between the variables, therefore providing an understanding of factors contributing to the increase in juvenile gun-related homicides in South Georgia.

Although the study was limited to a specific age group and geographic area, the methodology supported the findings which can inform policy development, community interventions and future research. The insights gained from this analysis offer valuable direction for stakeholders seeking to reduce juvenile gun violence in South Georgia.

Chapter 4: Results

In this study, I examined the relationship between juvenile gun-related homicides and poverty, violent crimes, and gang affiliations in 66 counties located in South Georgia from 2019 to 2023. This analysis was prompted by the increase in juvenile gun-related homicides in the southern region of Georgia, as outlined in Chapters 1 and 2, which has raised concerns for community members, law enforcement officials, and community stakeholders. To evaluate these factors and determine their significance, a quantitative analysis was performed using secondary data collected from the 66 counties over 5 years. Microsoft Copilot was used to perform chi-square tests and cross-tabulations to measure statistical significance.

My goal is to contribute to the existing literature by identifying statistically significant relationships between gun-related juvenile homicides and poverty, violent crimes, and gang affiliations of the counties located in South Georgia. The following research questions were used to guide this study:

RQ1: Is there a statistically significant relationship between gun-related juvenile homicides and violent crime in the Southern Region of Georgia?

H_a1 : There is a statistically significant relationship between gun-related juvenile homicides and violent crime rate in the Southern Region of Georgia.

H_01 : There is no statistically significant relationship between gun-related juvenile homicides and violent crime rate in the Southern Region of Georgia.

RQ 2: Is there a statistically significant relationship between gun-related juvenile homicides and poverty in the Southern Region of Georgia?

H_{a2} : There is a statistically significant relationship between gun-related juvenile homicides and poverty in the Southern Region of Georgia.

H_{02} : There is no statistically significant relationship between gun-related juvenile homicides and poverty in the Southern Region of Georgia.

RQ3: Is there a statistically significant relationship between gun-related juvenile homicides and gangs in the Southern Region of Georgia?

H_{a3} : There is a statistically significant relationship between gun-related juvenile homicides and gangs in the Southern Region of Georgia.

H_{03} : There is no statistically significant relationship between gun-related juvenile homicides and gangs in the Southern Region of Georgia.

Descriptive Statistics

This section provided a summary of the research findings of the data collected from publicly accessible secondary sources, including the Georgia Bureau of Investigation's CFR, the Georgia Bureau of Investigations (GBI), and the United States Census Bureau. The initial efforts to obtain data from law enforcement agencies were unsuccessful; therefore, alternative data sources were used to ensure the validity of the dataset. With institutional approval, IRB #09-03-23-112593, the scope increased from 16 to 66 counties in South Georgia.

The Georgia CFR dataset provided detailed demographic and related information for each juvenile gun-related homicide case, containing age, gender, ethnicity, date and location of the incident, household income, parental employment status and a narrative detailing the circumstances surrounding the fatality. Gang involvement was listed when applicable. The GBI Uniform Crime Reporting Program provided statistical data on violent crimes, categorized by type, while the United States Census Bureau provided the annual poverty rates for each county.

Collectively, the dataset resulted in a comprehensive analysis of demographic patterns and indicators relevant to juvenile gun-related homicides in the southern region of Georgia during 2019 through 2023. The findings are organized by gender, ethnicity, age, poverty rates, violent crime rates, and gang affiliation to measure their statistically significance relationship between juvenile gun-related homicides in South Georgia.

Additional data was also collected from the United States Census Bureau datasets which is accessible to the public. Statistical data was obtained from the United States Census Bureau, and from the Georgia Bureau of Investigations for each of the sixty-six counties from 2019 to 2023. Once the data was collected, the findings were organized according to demographical patterns.

Demographic Patterns

Gender

An analysis of the Georgia CFR data revealed significant gender differences among the victims of juvenile gun-related homicides in South Georgia from 2019 through

2023. There was a total of 88 homicide victims with 72 males and 16 females, equating to an alarming 83.33% for male victims. The highest number of male victims occurred in 2020 and 2021, with 19 juvenile homicides for each year. An increase was detected from 2019 to 2020, with a slight decrease in 2022 followed by another increase in 2023. However, female victims had a much lower rate of 16.69% with the highest counts occurring in 2020 and 2023 with four each year and the lowest count of two occurring in 2022. The findings highlight the significantly higher impact of gun-related juvenile homicides on male juveniles compared to female juvenile victims (see Table 1).

Ethnicity

Ethnic disparities were also identified from the Georgia CFR data. African American juveniles accounted for 72 of the gun-related juvenile homicides, depicting an 81.82% during the study period. However, Hispanics and Caucasians accounted for 1.14% and 17.05% resulting in an alarming differential among gun violence deaths. Data indicated that 2020 and 2021 recorded the highest annual total of 18 African American gun-related juvenile homicides, followed by 2023, with 17 total juvenile homicides. These findings identify noticeable disparities among juvenile gun-related homicides, with African American juveniles disproportionately affected in South Georgia from 2019 through 2023 (see Table 1).

Age

Further analysis of the data received from the Georgia CFR identified the juvenile homicide victims age as a demographical indicator during the study period. The data

revealed that seventeen-year-olds suffered the highest number of deaths from 2019 through 2023, accounting for 39 of the homicide cases. The sixteen and fifteen-year-old juveniles accounted for a total of 17 and 15 homicides cases. However, the 13- and 14-year-old juveniles were significantly lower, with each having eight and nine homicide cases, respectively. These findings, totaling for 2019 through 2023 (see Table 1).

Table 1

Demographics of Victims in the 2019-2023 Study Period

	2019	2020	2021	2022	2023	Total
Gender						
Male	6	19	19	12	16	72
Female	3	4	3	2	4	16
Race						
Hispanic	0	0	0	0	1	1
Black	6	18	18	13	17	72
White	3	5	4	1	2	15
Age						
13	2	3	2	0	1	8
14	0	2	3	1	3	9
15	0	2	3	6	4	15
16	1	5	5	2	4	17
17	6	11	9	5	8	39

Note. Data Source: (GBI DFS, 2019 - 2023).

Poverty Rates

Data collected from the United States Census Bureau (2025) revealed an alarming level of poverty in many counties in South Georgia. According to reports, the poverty

rate in Georgia is reported at 14.0%, revealing that the average median poverty rate for the 66 counties in South Georgia included in this study was considerably higher at 22.50% over the 5 -year period (Copilot, 2025). The annual median poverty rates ranged from a high of 23.25% in 2019 to a low median poverty rate of 21.55% in 2023, indicating a downward trend during the study period (see Table 2).

Several counties exceeded the median poverty level. For instance, Clay and Clinch Counties both reported poverty rates of 39.5% and 40.2% in 2019, whereas counties such as Effingham and Lee reported poverty rates of 7.3% and 7%, which were significantly lower. The analysis identified 18 counties that consistently maintained high poverty levels from 2019 through 2023, which included Atkinson, Ben Hill, Calhoun, Clay, Clinch, Colquitt, Crisp, Dougherty, Laurens, Randolph, Stewart, Sumter, Telfair, Terrell, Treutlen, Turner, Ware, and Wilcox. The findings emphasize the significant high level of poverty in many counties in South Georgia and reveals that poverty remains a prevalent issue, although it was not statistically significant to gun-related juvenile homicides in South Georgia.

Table 2

Median Poverty Rate in the 2019-2020 Study Period

Year	Median poverty rate (%)
2019	23.25
2020	22.65
2021	22.65

2022	21.85
2023	21.55

Violent Crimes

Violent crime data collected by the GBI provided vital data on the violent crimes occurring in the 66 counties included in this study. The GBI Uniform Crime Reporting Program includes a summary report of the Index crimes, which consist of murder, rape, robbery, and aggravated assault which were combined to give a total analysis of the occurrence of violent crimes in South Georgia from 2019 through 2023.

According to the GBI, a total of 28,107 violent crimes were reported from 2019 to 2023 within the 66 counties. The highest total occurred in 2019 with 6,336 whereas the lowest total of violent crimes occurred in 2021 with 5,092 (see Table 3). The average violent crime rate ranged from 153.48 in 2021 to 203.7 in 2023, signifying a rising trend in violent crime (see Table 4).

The analysis identified Muscogee, Chatham, Dougherty, Lowndes, and Glynn as the top five counties consistently reporting the highest total of violent crimes. Furthermore, Muscogee County reported the highest number of violent crimes in 2019, 2022, and 2023 (see Table 5). However, several counties reported minimal to no violent crimes during the study period. For instance, Baker, Montgomery, Quitman, Randolph, Telfair, Webster, and Wheeler reported zero violent crimes in 2019. Similar patterns were

detected in the following years with Echols and Calhoun counties reporting two violent crimes in 2022 and 2023.

These findings indicate that violent crime is significantly high in specific counties and low in others, its existence continues to have a statistically significant relationship between gun-related juvenile homicides in South Georgia. Additionally, it also reveals how violent crimes have been on an upward trend since 2021 in South Georgia (Figure 3).

Table 3

Violent Crime Total by Year

Year	Violent crime total by year
2019	6336
2020	5110
2021	5092
2022	5439
2023	6130

Table 4

Average Violet Crime Total by Year

Year	Average violent crime total by year
2019	190.91
2020	154.18
2021	153.48
2022	183.30
2023	203.07

Generated by Copilot.com

Table 5

Top Five Counties and Total with the Highest Violent Crime by Year

2019	2020	2021	2022	2023
Muscogee – 1413	Dougherty - 1296	Dougherty – 1161	Muscogee – 1339	Muscogee – 1478
Chatham – 1198	Lowndes - 386	Lowndes – 351	Lowndes – 367	Dougherty – 737
Dougherty - 713	Glynn – 285	Muscogee – 319	Dougherty – 257	Lowndes – 385
Lowndes – 356	Muscogee – 263	Glynn – 285	Chatham – 231	Glynn – 240
Glynn - 260	Chatham - 216	Chatham - 231	Liberty – 221	Sumter – 218

Gangs

Data collected from the Georgia CFR contained descriptive narratives identifying gang involvement, if applicable. During the analysis of the 88 gun-related juvenile homicides from 2019 to 2023, there were eight cases identified as having gang affiliations, which represented 7.6% of the cases. Further analysis revealed these cases were focused in five counties: Chatham - 2019, Dougherty - 2020, Wayne - 2020, Muscogee 2021 and 2022, and Glynn - 2023. Muscogee County reported the highest number of gang-related homicides, with two occurring in both 2021 and 2022 (see Table 6).

Although, the total number of gang-related juvenile homicides is small, their impact is significant in comparison to the counties in the southern region of Georgia. In this study, counties with gang-related juvenile homicides represented 21.7% of counties reporting, while 65.2% represented the counties reported no homicides, and 27.3%

reported gun-related juvenile homicides without gang affiliation. These findings propose that gang association may be a contributing factor to gun-related juvenile homicides in South Georgia.

Table 6

Counties with Gang Related Homicides

Year	County	Gang related homicides
2019	Chatham	1
2020	Dougherty	1
2020	Wayne	1
2021/2022	Muscogee	4
2023	Glynn	1

Note. Data Source: (GBI DFS, 2019 - 2023).

Results

RQ1: Is there a statistically significant relationship between gun-related juvenile homicides and violent crime in the Southern Region of Georgia?

H_a1 : There is a statistically significant relationship between gun-related juvenile homicides and violent crime rate in the Southern Region of Georgia.

H_01 : There is no statistically significant relationship between gun-related juvenile homicides and violent crime rate in the Southern Region of Georgia.

A Pearson chi-square test was performed to determine if there was a statistically significant relationship between violent crimes and gun-related juvenile homicides in South Georgia (see Table 7). The analysis revealed that there was a statistically significant relationship between violent crimes and juvenile gun-related homicides, $\chi^2 (1, N = 66) = 16.21, p = < .001$, indicating that that counties with a higher violent crime rate

were significantly more likely to experience gun-related juvenile homicides (Copilot, 2025). These findings corroborate the alternative hypothesis (H_a1) and propose that violent crime is a significant factor in the occurrence of juvenile gun-related homicides in the Southern Region of Georgia.

Table 7

Gun Homicide Versus Violent Crime Level

Crime level	Gun homicide: No	Gun homicide: Yes
High crime	12	20
Low crime	30	4

Test Statistics:

- Chi-square (χ^2) = 16.21
- Degrees of freedom (df) = 1
- p -value = $<.001$

RQ2: Is there a statistically significant relationship between gun-related juvenile homicides and poverty in the Southern Region of Georgia?

H_a2 : There is a statistically significant relationship between gun-related juvenile homicides and poverty in the Southern Region of Georgia.

H_02 : There is no statistically significant relationship between gun-related juvenile homicides and poverty in the Southern Region of Georgia.

A chi-square test was performed to determine whether there is a statistically significant relationship between gun-related juvenile homicides and poverty in South Georgia using a median split to categorize the counties into high and low poverty groups.

The results indicate there is no significant relationship between poverty and gun-related juvenile homicides, $\chi^2 (1, N = 66) = 3.41, p = .065$ (see Table 8). Although there are many counties that are experiencing a high percentage of poverty, it does not indicate an association that is statistically significant to juvenile gun-related homicides (Copilot, 2025). Therefore, the null hypothesis (H_02) could not be rejected. However, the results indicate that poverty is not statistically significant at the .05 level but is approaching significance. It is on an upward trend whereas it does not indicate a statistically significant relationship between poverty and juvenile gun-related homicides in the Southern Region of Georgia (Copilot, 2025).

Table 8

Gun Homicide Versus Poverty Level

Poverty Level	Gun Homicide: No	Gun Homicide: Yes
High Poverty	27	9
Low Poverty	15	15

Test Statistics:

- Chi-square (χ^2) = 3.41
- Degrees of freedom (df) = 1
- p-value = .065

RQ3: Is there a statistically significant relationship between gun-related juvenile homicides and gangs in the Southern Region of Georgia?

H_{a3} : There is a statistically significant relationship between gun-related juvenile homicides and gangs in the Southern Region of Georgia.

H_{03} : There is no statistically significant relationship between gun-related juvenile homicides and gangs in the Southern Region of Georgia.

A chi-square test was also performed to measure the relationship between gun-related juvenile homicide and gangs in South Georgia (see Table 9). Although there were a small number of juvenile gun-related homicides that were gang related, the analysis determined statistically significant relationship between gangs and juvenile gun-related homicides, $\chi^2 (1, N = 66) = 3.85, p = 0.0498$ (CoPilot, 2025). The results revealed that counties that have a gang presence are more likely to be associated with gun-related juvenile homicides (Copilot, 2025). These findings corroborate the alternative H_{a3} and propose that gang affiliation is a contributing factor in juvenile gun-related homicides in the Southern Region of Georgia.

Table 9

Gun Homicide Versus Gang Presence

County Classification	Homicide Present	No Homicide	Total
Gang-Related Counties	5	0	5
Non-Gang-Related Counties	18	43	61
Total	23	43	66

Test Statistics:

- Chi-square (χ^2) = 3.85
- Degrees of freedom (df) = 1
- p-value = 0.0498

A cross-tabulation analysis was also carried out on the outlined dataset to provide further information on the counties examined. The analysis categorized the 66 counties based upon the collected data to provide a more comprehensive view of the data.

Table 10*Cross Tabulation 1: Gun Homicide x Violent Crime Level*

Crime Level	Gun Homicide: Yes	Gun Homicide: No	Total
High Crime	20	13	33
Low Crime	4	29	33
Total	24	42	66

Table 11*Cross Tabulation 2: Gun Homicide x Poverty*

Poverty Level	Gun Homicide: Yes	Gun Homicide: No	Total
High Poverty	9	24	33
Low Poverty	15	18	33
Total	24	42	66

Table 12*Cross Tabulation 3: County Level Gang Involvement and Homicide Presence*

	Homicide Present	No Homicide	Total
Gang Related County	5	0	5
Non-Gang Related County	18	43	61
Total	23	43	66

Conclusion

This chapter presented the main findings of a quantitative analysis examining the relationship between juvenile gun-related homicides in poverty, violent crimes, and gangs in South Georgia from 2019 to 2023. Data obtained from the Georgia Bureau of Investigation's *Child Fatality Review*, the United States Census Bureau, and the Georgia Bureau of Investigations were analyzed using chi-square test and cross-tabulations to determine whether statistically significant relationships existed among the variables.

The demographic analysis revealed African American males aged 17 were disproportionately affected, representing more than 80% of the juvenile gun-related homicide victims during the study period. A total of 88 juvenile gun-related homicides were documented, with the highest annual total occurring in 2020 with 22 homicides and 2021 with 23 homicides, reflecting a concerning escalation during those years.

Findings related to the first research demonstrated a statistically significant relationship between violent crime and juvenile gun-related homicides. Counties with higher violent crime rates were more likely to report juvenile gun-related deaths, supporting the hypothesis that violent crime is a contributing factor in the Southern Region of Georgia.

The second research question, which examined poverty, failed to show a statistically significant relationship with juvenile gun-related homicides. Although poverty levels were elevated across many counties in South Georgia, the analysis did not identify poverty as a statistically significant direct predictor. However, the findings revealed a trend approaching significance, suggesting that poverty may have an indirect influence through related structural factors such as educational disparities, minimal community resources, and neighborhood disadvantages.

The third research question revealed a statistically significant relationship between gang affiliation and juvenile gun-related homicides. While gang-related cases represented only 7.6% of the total homicides, they account for 21.7% of the counties

reporting juvenile homicides, indicating that gang presence has an impact on juvenile homicide patterns in South Georgia.

Collectively, these findings provide a foundation for further discussion presented in the next chapter, where implications and recommendations for future research are explored. The findings emphasize the importance of targeted interventions in communities affected by violent crime and gang activities, including the need for continued investigation into additional socioeconomic and environmental factors that may contribute to the increase in juvenile gun-related homicides in South Georgia.

Figure 1

County Poverty Classification by Year

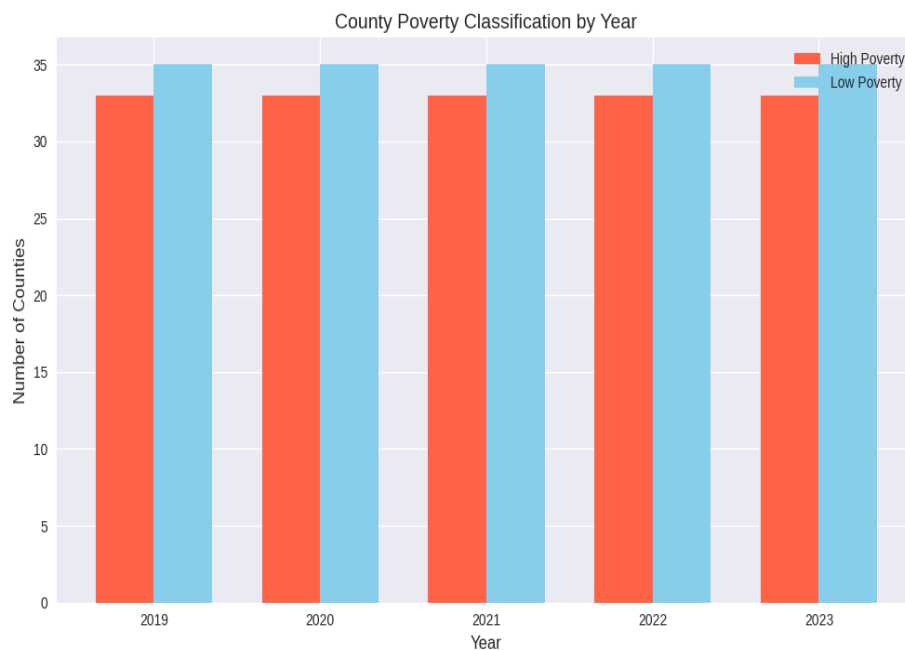


Figure 2

Median Poverty Rate by Year (2019-2023)

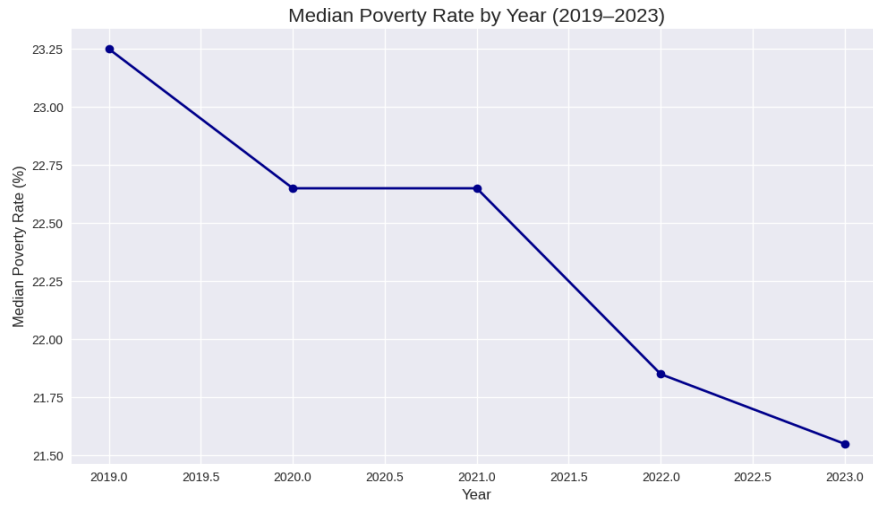


Figure 3

Average Violent Crime Totals per County (2019-2023)

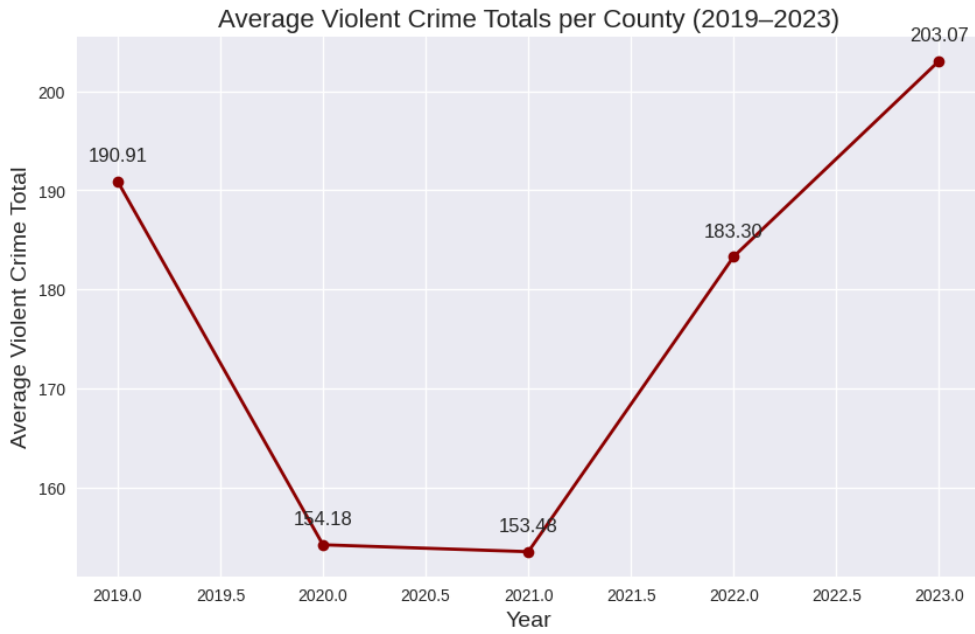
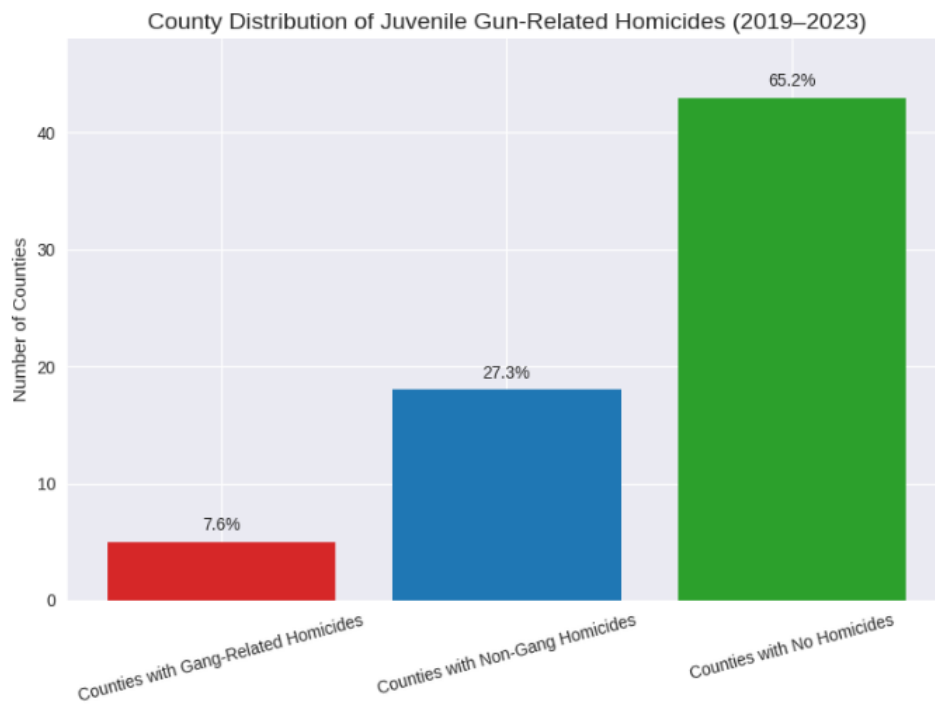


Figure 4

County Distribution of Juvenile Gun-Related Homicide (2019-2023)



Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

This chapter presents the findings, interpretations, and conclusions from this quantitative study, which examined factors contributing to the rise in juvenile gun-related homicides in South Georgia. The study focused on juveniles aged 13 to 17 to examine whether violent crime, poverty, and gang affiliation contributed to the increase in juvenile gun-related homicides during the study period. The findings provide insight into social and environmental conditions that influence juvenile gun-related homicides in South Georgia.

This chapter includes the analysis of the key findings, an interpretation of results in relation to existing literature and sociological positivism framework, and the limitations and delimitations of the study. Recommendations for future research and implications for positive social change are presented. Together, these components provide an understanding of the factors that contributed to the rise in juvenile gun-related homicides and support efforts to develop strategies aimed at reducing juvenile violence in affected communities.

Interpretation of Findings

Gun violence affects communities, especially the southern region of Georgia, which had an upsurge in juvenile homicides throughout the study period (GBI DFS, 2021). However, the literature examining specific factors contributing to this increase remains limited. I concentrated on poverty, violent crime, and gang affiliation as potential

factors, providing stakeholders with critical insights to information that can guide prevention and intervention efforts in the future.

Demographic Analysis

Demographic analysis further revealed disparities in the characteristics of victims. Of the 88 juvenile homicide victims, 81.82% were African American, and 83.33% were male. The 17-year-olds reported the highest number of homicides, with a total of 39, followed by 15 and 16-year-olds, with a total of 32, while the 13 and 14-year-olds reported the smallest group, totaling 17. These findings indicate that African American males were disproportionately affected (CDC, 2021; Sheats et al., 2018; Wilson et al., 2020).

Poverty

In contrast, poverty rates, though high across many counties, did not reveal a statistically significant relationship with juvenile gun-related homicides during the study period. Several counties exceeded the average poverty rate, while others fell below it; however, high poverty rates did not consistently correspond with juvenile gun-related homicides. Some counties with increased poverty rates did not report any juvenile gun-related homicides.

These findings deviate from prior literature, which has regularly linked poverty to gun violence and gun-related deaths (Tracy et al., 2019; Wong et al., 2020). Prior literature indicated that poverty contributes to gun violence through disproportioned

neighborhood and increased exposure to guns. However, in South Georgia, the data indicates otherwise: counties with high poverty rates did not necessarily experience juvenile gun-related homicides.

While poverty remains a critical social issue and requires continued monitoring, it was not a significant factor in juvenile gun-related homicides during this period. Future research should examine additional factors such as access to education, community relationships, or community policing strategies to better understand potential correlations between gun-related juvenile homicides in the southern region of Georgia.

Violent Crime

The findings revealed that violent crime was statistically significantly associated with juvenile gun-related homicides. Counties with increased violent crime rates were more likely to report juvenile homicides. Within the southern region of Georgia, several counties experienced remarkable increase in violent crime. Particularly, Chatham, Dougherty, Glynn, Lowndes, and Muscogee reported the highest total violent crime rates between 2019 to 2023, and they also reported the highest totals of juvenile gun-related homicides during the same period. Additionally, counties reporting minimal or no violent crime also reported minimal or no juvenile gun-related homicides.

These findings corroborate prior research indicating a direct correlation between neighborhood violence and possession of weapons by juveniles, which contributes to the increase in juvenile gun-related homicide rates (Turner et al., 2019; Zimmerman & Messner, 2013). Violent crimes disproportionately affect African American communities

with limited resources and income (Ahlin et al., 2020). Addressing this issue requires coordinated efforts from stakeholders, community leaders, and policy makers to disrupt the cycle of violence by implementing programs that target social and economic issues, while improving education, employment, healthcare, and strengthening community relationships.

Gang Affiliation

Although gang-related incidents accounted for a smaller quantity of total cases, they were focused on 21.7% of the counties reporting juvenile homicides, indicating a statistically significant correlation. Gang-related cases during the study were reported in five counties: Chatham, Dougherty, Glynn, Muscogee, and Wayne. Muscogee County reported the highest number of gang-related juvenile homicides. Remarkably, four of the five counties reporting gang-related juvenile homicides also ranked among those with the highest violent crimes rates between 2019 to 2023.

Gangs negatively impact communities by increasing violence and instilling fear. They often target juveniles by offering a false sense of security, belonging, and support, especially when family structure is weak or absent (De Vito, 2020). The increase in gang activity contributes directly to juvenile gun violence (Hernandez et al., 2020; Sanchez et al., 2021). Existing literature associates' gangs with guns, drugs, public surroundings, and victim-offender acquaintances. Addressing gang-related violence requires immediate and widespread prevention and intervention strategies developed through partnerships among

communities, parents, law enforcement and schools to provide resources to deter youth from gang involvement.

Theoretical Interpretations of Findings

Following the principles of sociological positivism, I used statistical data to examine juvenile gun-related homicides, recognizing that social behaviors often follow identifiable patterns and uncovering these patterns often lead to significant change (Nickerson, 2023). Specifically, I explored the relationship among poverty, violent crime, and gang affiliation to develop an understanding of the factors contributing to juvenile gun-related violence in South Georgia.

Statistical analysis, including chi-square tests and cross-tabulation methods, revealed a significant relationship between violent crime and gang affiliation and the occurrence of juvenile gun-related homicides. These findings support their exposure to violence and gang affiliation which can influence juveniles' behavior and increase their risk of victimization. Although poverty did not develop as a statistically significant factor in this study, its prevalence and potential may still play an indirect role and remain a vital factor for future theoretical exploration.

This study contributes to the broader theoretical discussion by highlighting the importance of local research. While general research has outlined broad trends and disparities in juvenile homicide (Lee et al., 2022; Wilson et al., 2022), I focused more on South Georgia. The identification of significant and trending factors provides a

foundation for future research and policies aimed at reducing juvenile gun-related violence.

Delimitations and Limitations of the Study

To preserve the study's focus and significance, specific delimitations were applied. The analysis was concentrated on juvenile homicide victims aged 13 to 17 across 66 counties in South Georgia between 2019 and 2023. Initially, the study was limited to victims aged 13 to 15 in 16 counties from 2019 to 2021; however, the scope was later expanded to improve the analysis and address limitations in data availability. The geographic and demographic limitations were intentionally selected to provide a representation of the juvenile homicide trends in South Georgia.

Despite these measures, I encountered limitations, particularly regarding access to detailed case data. Law enforcement agencies did not respond to consent requests, which restricted the availability of information. To address these gaps, alternative data sources were incorporated, including Georgia CFR reports, GBI statistics, and U.S. Census Bureau datasets. However, several cases lacked critical variables, such as gang affiliation, parental income, and employment status, which may have limited the depth of the analysis.

Additionally, the scope of this study was limited to 66 designated counties in South Georgia, which may limit the details of the findings to other areas within Georgia or across the United States. While I employed rigorous statistical methods, the absence of certain factors, such as school involvement, substance abuse, and mental health, suggests

that future research should incorporate a broader range of factors to fully understand the complexities of juvenile gun-related homicides.

Recommendations for Future Research

Based on the findings, several recommendations are proposed to guide future research directions and an understanding of juvenile gun-related homicides in South Georgia. Although poverty did not demonstrate a statistically significant relationship during the study period, its prevalence across the region suggests that it remains a trending factor worthy of continued monitoring. Future studies should examine whether shifts in the economy, unemployment rates, or housing instability influence juvenile violence over time.

Additionally, researchers are encouraged to expand the scope of inquiry to include factors such as educational completion, school dropout rates, and substance abuse. Prior research has identified connections between drug use to gun violence among youth (Pontes & Pontes, 2021), and the school-to-prison pipeline has been shown to disproportionately affect low-income African American students (Keefer, 2023). These systemic factors may interact with community variables to aggravate juvenile exposure to gun-related homicides.

Expanding the scope to include additional factors would assist in understanding structural and behavioral contributors to gun-related juvenile homicides. Factors such as school environments, disciplinary policies, and access to mental health services may be

recognized as preventive areas. Additionally, examining juvenile patterns of drug use and distribution could reveal correlations to gang involvement and firearm possession.

Future studies should also consider age-specific trends beyond the 13–17 range. This study found that 17-year-olds represented the highest proportion of juvenile homicide victims, while 13-year-olds accounted for the fewest. Investigating younger age groups may reveal early indicators, which leads to the development of effective interventions.

Finally, longitudinal studies tracking changes in violent crime, poverty, and gang activity over time would provide valuable insights into the evolving nature of juvenile gun violence in South Georgia. This research could support the development of policies and community-based programs designed to reduce juvenile gun-related homicides.

Implications for Positive Social Change

The findings of this study have significant implications for positive social change, particularly in communities affected by juvenile gun violence. The significant association between violent crimes and gang affiliation emphasizes the urgent need for targeted strategies that promote neighborhood safety, youth engagement, and community cohesion.

For community leaders and stakeholders, the demographic profile of victims, predominately African American males between the ages of 15 and 17, emphasizes the urgency in creating safe and supportive environments for youth. Initiatives such as

mentorship, recreational programs, and academic support offer alternatives to gang involvement and reduce exposure to violence.

For stakeholders, law enforcement, and policymakers, the study's findings highlight the need for comprehensive strategies comprised of public health, education, and criminal justice perspectives. Improving community policing, encouraging positive relationships between youth and law enforcement, and adopting strict gun laws are important in reducing juvenile gun-related homicides in South Georgia. Additionally, addressing structural inequalities through economic development, job training, and affordable housing can also address underlying structural inequalities that contribute to juvenile exposure to violence.

The modification of individual behaviors and institutional practices drives social change. By raising awareness of the factors contributing to juvenile gun-related homicides, this study emphasizes the need for continued research and collaboration. The objective is building communities that are resilient and juveniles are safe, empowered, and supported.

Conclusion

This study examined the relationship between poverty, violent crime, and gang affiliation and the increase in gun-related juvenile homicides across 66 counties in South Georgia from 2019 to 2023. Using quantitative analysis of secondary data, containing Georgia CFR reports, GBI statistics, and U.S. Census Bureau datasets, the study identified violent crime and gang affiliation as statistically significant contributors to

gun-related juvenile homicides in the southern region of Georgia. Although poverty was prevalent, it did not demonstrate a statistically significant relationship during the study period.

Demographic analysis revealed that African American males aged 17 were disproportionately impacted, representing the highest number of victims. These findings are consistent with national trends showing elevated homicide rates among African American adolescents and emphasize the need for targeted interventions in at-risk communities.

Theoretically, the study is grounded in sociological positivism, which values non-experimental data as a tool for understanding and addressing social problems. Through the identification of key patterns and contributing factors, this research provides a foundation for policy reform, community involvement, and future research.

Although the study faced limitations related to data access and scope, the findings provide awareness into the social structures and behavioral patterns that contribute to juvenile gun-related homicides in South Georgia. The study highlights the importance of local research and calls for continued investigation into additional factors such as education, substance use, and systemic inequalities that may have an influence on juveniles' outcomes.

Finally, this research contributes to the broader discussion on juvenile violence and supports efforts to reduce juvenile gun-related homicides through evidence-based strategies. By informing stakeholders, law enforcement agencies, and community leaders,

the study aims to foster positive social change and promote safer environments for youths across South Georgia.

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Appendix A

Use of AI Tools in Data Analysis

A. Purpose of AI Assistance

Microsoft Copilot was used as a tool to assist with the statistical analysis conducted in this study. Copilot assisted with performing chi-square tests, generating cross-tabulation tables, and producing graphs based on the datasets that I provided. These functions were used to increase proficiency and accuracy in organizing and calculating the data. I made all interpretations, methodological decisions, and conclusions and Copilot only served as a computation and formatting assistant.

B. Prompts Used

The following prompts were provided to Copilot during the analysis process. Prompt 1 instructed Copilot to run a chi-square test on the data. Prompt 2 requested the creation of a cross-tabulation table for the variables. Prompt 3 asked Copilot to generate graphs showing the specified data.

C. AI Outputs

Copilot generated statistical tables, cross-tabulations, and visual charts based on the datasets that I provided. All outputs were reviewed and interpreted before inclusion in the dissertation. The chi-square analysis outputs included comparisons of gun homicide

and violent crime level, gun homicide and poverty level, and gun homicide and gang presence. The cross-tabulation outputs included tables comparing gun violence and violent crime level, gun violence and poverty level, and county-level gang involvement and homicide presence. Tables included in Chapter 4 consist of the Median Poverty Rate in the 2019–2023 study period and the Average Violent Crime Total by Year. Figures included in Chapter 4 consist of the County Poverty Classification by Year, the Median Poverty Rate by Year (2019–2023), the Average Violent Crime Totals per County (2019–2023), and the County Distribution of Juvenile Gun-Related Homicide (2019–2023).

D. Ethical and Integrity Statement

The use of Microsoft Copilot in this study adhered to ethical research standards. Copilot did not generate or alter original data or draw conclusions. It was used solely to assist with calculations, table formatting, and data visualization. I maintained full responsibility for interpreting results and ensuring the integrity of all analytical procedures. The inclusion of AI-assisted tools is disclosed transparently to uphold academic honesty and methodological clarity.