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Mothers' Physical and Mental Health Status After the Homicide of Their Adult Children in the Small Island State of Trinidad and Tobago

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Mothers of adult children killed by homicide experience traumatic grief that is unique to this population. Yet, there is limited research on their experience and its impact on mothers' physical and mental health status. A total of 20 mothers were interviewed about their physical and mental health status after the homicide of their adult children in the small Caribbean island state of Trinidad and Tobago. This phenomenological study utilized a thematic narrative analysis method to interpret the data. Findings revealed that 17 mothers experienced mental and physical health deterioration and attributed this to the death of their child. In all, 11 mothers were actively utilizing mental health services, and 5 mothers continued to exhibit depressive symptoms but were not seeking mental health services. The study revealed that the mothers attributed adverse mental and physical health outcomes to the death of their child by homicide. The findings highlighted avenues for assessment and for creating services for this grieving population.

Keywords: homicide, bereavement, mental illness, physical health, Caribbean

Mothers of adult children that were killed by homicide are a unique population who have suffered from the absolute worst experience of someone taking their child's life. The homicide of a loved one is sudden and traumatic, with devastating, long-lasting consequences on the surviving family members and friends. On average, 10 people are directly affected by one homicide (Redmond, 1989; Sharpe & Boyas, 2011). Mothers, in particular, are affected, as they were often the primary or sole caregiver of the child since birth. Survivors often suffer the immediate psychological effects, which include anger, disbelief, confusion, and fear (Armour, 2002a), as well as longer term psychological effects such as posttraumatic stress disorder (PTSD; Zinzow, Rheingold, Byczkiewicz, Saunders, & Kilpatrick, 2011). The survivors also experience physical effects such as hypertension (Armour, 2002b; Casey, 2011). This phenomenological study delves into 20 mothers' understanding of their psychological and physical status, which was attributed to the death of their adult child by homicide on the Caribbean island of Trinidad. It highlights a correlation between the death of the child by homicide and health outcomes in this sample. This finding adds to the existing research on the psychological and physical impact of homicide on surviving family members (Sharpe & Boyas, 2011; Sharpe, Osteen, Frey, & Michalopoulos, 2014). It gives voice to the pain that mothers must endure owing to this tragedy.

Homicide in the Caribbean

The Caribbean consists of 13 sovereign states located in the Caribbean Sea, with a combined population of approximately 46 million people (World Population Review, 2020). In the last 20 years, there has been an increase in homicides in the Latin and Caribbean islands region. Caribbean islands such as Jamaica ranked third, The Bahamas ranked fifth, and Trinidad and Tobago ranked sixth in the region for its prevalence of homicides (Jaitman & Torre, 2017). Although the Caribbean comprises only 0.56% of the world population (World Population Review, 2020), there has been a disproportionate amount of homicides and violence in the region (Jaitman & Torre, 2017). In Trinidad and Tobago in 2001, the homicide rate was 151 annually. Since 2008, there has been a steady increase of homicides by 400% to 500% annually. In Trinidad and Tobago, with a population of approximately 1.3 million, there were 30.2 per 100,000 persons killed by homicide (Jaitman & Torre, 2017). In 2019, there were 538 homicides, the second highest rate in the history of the country (Trinidad and Tobago Ministry of National Security, 2020).

For a small ethnically diverse country with 35.43% African, 34.22% East Indian, 7.66% mixed—African and East Indian–and 15.16% other (World Population Review, 2020), the majority of those killed by homicide are Black men between the ages of 17 and 45 years (Jaitman & Torre, 2017). Most of these homicides occurred in low-income communities. The outbreak of violence and the uptick of homicides coincides with elevated street gang–related activity (e.g., drug and human trafficking) and an increased conflict between gangs (Bissessar, 2014).

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For Trinidad, the cost of homicide is 0.24% of the gross domestic product, costing the country millions annually (Jaitman & Torre, 2017). One homicide can encompass the medical care cost of the victim and/or perpetrator, loss of future earnings of the victim, and possible property damage (DeLisi et al., 2010). For family members of homicide victims, the aftermath causes elevated social, psychological, and economic costs. This is exacerbated by the loss of earnings for family members, a protracted cost of interacting with the criminal justice system, as well as a surge in medical care costs. For family members with limited resources who are more reliant on public services such as housing, welfare benefits, free health care, and criminal injury compensation, this can be detrimental (Casey, 2011; DeLisi et al., 2010; Horne, 2003).

Survivors of Homicide Victims

Survivors of homicide victims experience grief that is often stained by the violence of the death. This encompasses the suddenness of the event, involvement with the criminal justice system, the stigma and shame, and, in some cases, the exposure of the media. It makes it difficult for relatives to grasp the reality of it all. The unexpectedness of the event takes away the ability of the loved one to say goodbye. It violates assumptions about the way things are ordered, and it alters the personal belief of invulnerability as well as the perception of the world as meaningful and comprehensible (Asaro, 2001). Survivors of homicide victims are worried about the violent way in which their loved ones died and the extent to which the victims suffered (Asaro, 2001). The homicide of the loved one can create a barrier between the bereaved person and those close to them (Casey, 2011), leading to a sense of isolation and loss of connection and trust around them. After a sudden and violent death, the body may be mutilated, which may make it difficult for the survivors to view. The violent nature of the loss can promote a complex interplay of grief and posttraumatic stress reactions (Kristensen, Weisæth, & Heir, 2012). This leaves survivors of homicide victims at an increased risk of developing severe and prolonged psychological and physical difficulties (Alves-Costa, Hamilton-Giachritsis, & Halligan, 2018; Bailey, Hannays-King, Clarke, Lester, & Velasco, 2013). In fact, it may impact survivors of homicide victims across their life span.

There are a wide array of mental health problems that can be attributed to the homicide of a loved one such as major depression, PTSD, alcohol and drug abuse/dependence, and suicidal ideation (Brent, Melhem, Donohoe, & Walker, 2009; Melhem, Walker, Moritz, & Brent, 2008; Murphy, Johnson, Chung, & Beaton, 2003;). There was also evidence of symptoms of mental illness without a clear diagnosis such as shock, numbness, reexperiencing or mental imagery of the death, sleep problems, and ruminations about the cause of death and how it could have been prevented (Casey, 2011).

Physical health and the ability to work, maintain relationships, care for children, and manage new financial burdens are significant problems for survivors of homicide victims. Many survivors of homicide victims experience a major deterioration in their physical health following the homicide (Casey, 2011). Ill health was the hardest aspect of the bereavement apart from the emotional impact. Heart disease, hypertension, cancer, and cerebral vascular diseases are not medical conditions that can be scientifically linked to a homicide of a loved one, but survivors of homicide victims have cited these medical problems were created or were exacerbated post the death of a loved one (Boelen, van Denderen, & de Keijser, 2016).

It is difficult for mothers of homicide victims to properly grieve and move on with their lives on small island states where poorer communities are cramped, desolate of adequate resources, and densely populated. Mothers of the victims and the perpetrators may live in proximity of each other. A mother may be encountering the perpetrators' family or the crime scene daily. Therefore, mothers are constantly reminded of the demise of their child and may suffer tremendous difficulties. There is scarce research on the psychological and physical health of mothers who are survivors of a homicide victim.

Method

Aim of the Study

This study interviewed 20 mothers to explore their physical and mental health status after the homicide of their adult children in the small island state of Trinidad and Tobago. The study used a phenomenlogical approach to understand the mother's experience and utilzed Narrative thematic inquiry approach to analyze the data.

Research Design

Meaning making is a phenomenological approach to explore not only the participants' experience but also the situations and conditions surrounding the experiences (Padgett, 2017). This study used the interpretative phenomenology approach, which offers insights into how the participant makes sense of their major life event. This study took a qualitative exploratory approach to make sense of the mothers' experience. This inquiry approach assists to highlight themes, as there is a lack of research or an explanatory theoretical framework.

The narrative thematic inquiry approach used to analyze the data focuses on the events and experiences that shape a person's self-understanding (Butina, 2015; Creswell, 2013; Padgett, 2017). Narrative analysis considers the realm of the participants' experience and their subjective meaning of these experiences, and it also helps the participant make sense of the account (Bamberg, 2012). The narrators (e.g., the participants) attempt to make sense of themselves by telling personal experiences they underwent in person. The analysis is meant to extrapolate and better understand experiences (Bamberg, 2012).

Researchers' Experience

One of the authors had previous knowledge in qualitative research methods and has expertise in grief trauma work and therapeutic care in hospice settings from their previous work experience and their doctoral program. Another author received postgraduate narrative research methods training. One of the authors worked trauma response settings (i.e., emergency room) including the American Red Cross during 9/11 in New York City. All the authors have a minimum of 3 years' experience working with families after the homicide of their child. Mothers of these

adult children suffer in silence and are not given much empathy by others based on the circumstances of their children's demise.

Ethical Consideration

Ethical approval for this study was given by the University of the West Indies at St. Augustine Ethics Committee on human subjects. Each participant signed a written consent form after receiving oral and written information about the study. All identifiable characteristics are excluded from the presentation of data to ensure the anonymity of all individuals.

Recruitment

Mothers of children killed by homicide are a hard-to-reach population. Mothers who were already known to the Trinidad and Tobago Police Service Victim and Witness unit were difficult to access owing to confidentiality issues. Recruitment was through fliers and group referrals at local churches. Recruitment was also done by word of mouth from other bereaved mothers. Most of the sample were referrals from pastors at local churches and other bereaved mothers. Mothers were recruited from all areas in Trinidad, and about 10 participants came from the capital of Trinidad, Port of Spain, and from the southern part of the country. All of the mothers lived in either the densely populated urban communities or the semirural communities.

Inclusion criteria for participants included being at least 18 years or older and having an adult child killed by homicide between a year and the last 10 years. The mothers stated that they had had no medical issues before their child's death. The participant had to be a willing participant in the study. Researchers also checked on the mother's post interview for emotional support and offered or referred the participants to free counseling if they (participants) were interested after conclusion of the interview. Researchers met the mothers at their home, workplace, or anyplace that was convenient to the participant. The place had to be quiet, safe, and ensure confidentiality of the participants' information. It was important to meet at the mothers' convenience, to build trust, as this was a sensitive subject. The mothers were all interviewed alone without other friends or family members present to allow for openness of discussion and emotional expression.

Sample

Participants were recruited to get a theoretical sampling until saturation. For this study, 20 mothers were recruited and interviewed. Interview participants were selected with the inclusion criteria of being over the age of 18 and having lost an adult child within the timeframe of 2008 to 2018. A purposeful sampling strategy promoted maximum variation (Butina, 2015). Maximum variation sampling allowed for documentation of the range of variation in the narratives and individuals and for determination of whether common themes or patterns were present (Butina, 2015).

Participants

The ages of the mothers were between 40 and >60 years. Fifteen mothers were employed in various fields, including, some as a seamstress, housekeeper, police officer, cashier, and cook, and two mothers were retired. Two mothers held a master's degree and are working as a teacher and social worker. The only mother that was unemployed provided hairstyling from home and worked for a welfare subsidy (e.g., cleaning the streets). Eighteen participants were of African descent, one was East Indian, and the other one was mixed. All mothers stated that they did not have any health problems before their child's death.

Of the 20 mothers, 13 had at least three or more children including the deceased child. Fifteen mothers had other men as children. Eighteen mothers were single mothers, and the fathers did not assist in child rearing. Two mothers were married to the father of the children, and one mother was widowed. Eighteen mothers had their children during their teenage years, between the age of 16 and 18. Shockingly, one mother lost two sons to homicide, 3 years apart, when they were both 20 years old. See Table 1 for the age of the mothers, gender of the deceased child, age of the child when they died, and the years since the death.

Data Collection

The study utilized a general interview guide approach to solicit narratives to keep the consistency and structure in the interview process. The interview guide was done in a storytelling format with open ended questions framed in everyday language that was broad enough to allow respondents to provide detailed stories, asking questions worded to elicit narratives that was complemented with probing questions (Butina, 2015; Riessman, 2008). The interview guide was created based on the biopsychosocial model to understanding health (Engel, 1977). This model focuses on a combination of three important factors: biological (i.e., physical), social (i.e., social supports and environmental factors), and psychological (i.e., mental status). This model provided three broad concepts to understand health and the issues of the person. The interview guide consisted of seven broad questions, with multiple probing questions listed under each primary question.

Interviews were done for 1 year from 2018 to 2019. Participants were interviewed during two separate interview sessions that usually took 45 to 50 min. The first interview was to complete the

Table 1
The Age of the Mothers, Gender of the Deceased Child, Age of the Child When They Died, and the Years Since Their Death (n = 20)

Background characteristic	Number (%)
Age of mothers	
40–50 years	1 (1)
50–60 years	14 (74)
>60 years	5 (25)
Gender of the deceased child	
Female	1(1)
Male	19 (99)
Age when the child died	
18–19 years	4 (20)
20–25 years	5 (25)
25–30 years	6 (30)
> 30 years	5 (25)
Years since death of the child	
1 to 3 years	10 (50)
4 to 6 years	4 (20)
7 to 10 years	6 (30)

interview guide, and the second interview provided the opportunity to reflect on the first interview and to build upon and explore the participants' responses. All interviews were audio-taped and conducted by authors. While transcribing the tapes from the interviews, patterns or themes were noted in the transcript margins. The two transcripts for each participant were compiled into one document and nonnarrative lines were deleted. To safeguard each participants' confidentiality, no identifying information was included in the interview material and tapes, and a numeric code was assigned to each participant upon completion of the interview.

Data Analysis

The narrative thematic analysis process used five stages to analyze the data: organization and preparation of the data, obtaining the general sense of the information, the coding process, categories and themes, and interpretation of data. The organization and preparation of the data stage began with transcribing audio tapes immediately or shortly after the interview. While transcribing the tapes from the interviews, any rudimentary patterns or themes were noted by all of the authors. The text of the interviews was examined through inductive analysis; that is, categories of meaning were derived from the data as opposed to imposing a defined coding system. All authors did the coding separately and then compared for similarities. These categories were analyzed further and were amalgamated or subdivided to form the central themes of the study (Creswell, 2013). The data were indexed, and analytic categories were created. The coding process consists of rereading the transcripts and identifying recurring works, ideas, or patterns generated from the data by all three researchers. Categories reflect the themes that have become apparent. The last stage of narrative thematic analysis was interpretation of the data or simply meaning making from the data. The coding process was done by all authors and coded manually. The coding was initially subdivided into the components of the biopsychosocial model and its three components: biological (i.e., physical), social (i.e., social supports, coping skills and environmental factors), and psychological (i.e., mental status). See Figure 1 of the biopsychosocial model for data analysis.

Results

This study focused on the mothers' physical and mental health experiences subsequent to the homicide of their adult children. For this study, the codes were condensed into three categories: physical health (Biological), emotions/stress (Psychological), and family/friends health (Social). See Table 2 data analysis of the interviews.

The biopsychosocial model for understanding health (Engel, 1977) was utilized in the analysis of the study. The subcategory Biological explored the participants' understanding of their physical health, drug effects, and genetics.

The theme/code for biological factors is physical health. Mothers attributed heart disease, cancer, and other acute physical illnesses to the stress of dealing with the murder of their adult child. Mothers spoke of the serious medical diagnoses as a result of the homicide of their child. Six participants reported a physical ailment including hypertension, cataract, chronic leg pain, and anemia.

> When my son was shot and murdered, I just had a baby, 3 months old. I start to hemorrhage, from June to December, now I'm anemic. And the baby wouldn't breast feed. (Participant 8)

Participant 8 attributed her medical issues of hemorrhaging and her newborn baby not wanting to be breast-fed to her murder of her son.

> The stress brought on a cataract suddenly. I didn't realize that it was pressure. I couldn't see out of my right eye. (Participant 12)

Participant 12 felt that the stress she was experiencing caused the development of cataracts, although there is no scientific connection. The participant's misunderstanding about hypertension and eye problems can affect access to health care.

> I was so stressed, and 2 months after the death, I was diagnosed with cancer. (Participant 1)

Participant 1 felt that the stress she was experiencing developed cancer, although there is no scientific connection. The participant's

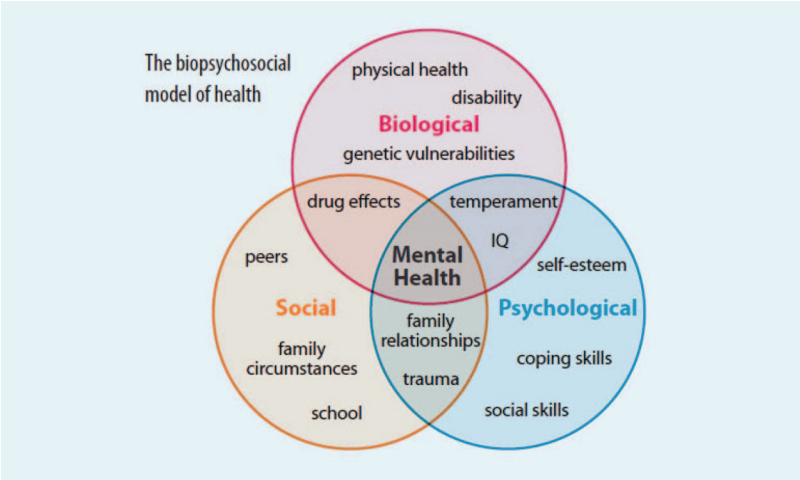

Figure 1. Engel (1977) Biopsychosocial model.

Table 2
Data Analysis of the Interviews

Subcategory	Code	Meaning unit
Biological	Mothers attributed heart disease, cancer, and other acute physical illnesses to the stress of dealing with the murder of their adult child	Participant 9: "I have hypertension and the weekend waiting for confirmation of his death, I couldn't see out of one of my eyes, everyone telling me my pressure too high, not to worry. But is your child that get killed. Now I have cataracts, but it costs 15,000. I don't have that kinda money."
	(physical health)	Participant 1: "I was so stressed and 2 months after the death, I was diagnosed with cancer."
Psychological	The stress following a homicide may persist for years and often takes an emotional/psychological toll on the survivors, at times resulting in mental health diagnoses (emotions/stress).	Participant 19: "I had a nervous breakdown. I always shaky, shaky you know, I don't be like meh normal self."
		Participant 10: "It took me about a month to 6 weeks to function again like I used to. I was just eating because I had to eat . . . eventually after 6 weeks, I went to the doctor, and he put me on Valium to sleep."
Social	Family members and friends were also directly or indirectly health affected.	Participant 14: "My other sons took the death so hard. The elder one end up in the hospital and was catatonic. Doctor say he was in shock. The younger one, he still struggling to this day, I talk to a nurse friend of mine, and she say he might have some PTD thing [PTSD]."
	(family/friends health)	

Note. It includes the categories of the biopsychosocial model, corresponding code/theme, and the transcript passage. PTSD = posttraumatic stress disorder.

belief as to why she developed cancer may cause barriers to accessing health care.

> All I was doing was eating. I couldn't stop eating. People brought food, I wasn't sleeping, and so all night, all day, I'm eating. This went on for months, and I gained so much weight. . . . It's been 2 years since the death, and I am diabetic. (Participant 13)

Participant 13 attributed weight gain and ultimately diabetes to her experiencing insomnia and excessively eating.

> I have to have surgery to take out the fibroids, I don't want to take out my whole womb, and they say it might be a simple procedure, but I am fearful of leaving my other children so soon after my son's death. (Participant 2)

Participant 2 stated her health-care decisions and hesitation to access care, for example, to have a necessary surgery, were based on the death of her child.

> I suffer with chronic leg pain now. I don't know where it came from or what caused it. I only know it started after my child was killed. (Participant 4)

Participants adamantly felt the current physical ailments were correlated to the death of their child. Many survivors of homicide victims experience a major deterioration in their physical health following the homicide (Casey, 2011).

The second subcategory from the biopsychosocial model is the psychological health challenges aspect, which included coping skills, social skills, self-esteem, and mental health. The theme/code is emotions/stress. The stress following a homicide may persist for years and often takes an emotional/psychological toll on the survivors, at times resulting in mental health diagnoses. There are a wide array of mental health problems that have been contributed to the homicide of a loved one, such as major depression, PTSD, alcohol and drug abuse/dependence, and suicidal ideation (Brent et al., 2009; Melhem et al., 2008; Murphy, Johnson, Chung, et., 2003). Eleven participants experienced some kind of psychological impact and were diagnosed with a depressive disorder, an adjustment disorder, and a schizoaffective disorder. Mothers described the symptoms.

> I had a nervous breakdown. I always shaky, shaky you know, I don't be like meh normal self. (Participant 19)

Participant 19 attributed a nervous breakdown, which is not a specific diagnosis, to the death of her adult child.

> Every day I was struggling and just trying to get through the day . . . until I crashed. I was in the hospital for a few days. The doctor tell me I need to stop stressing and talk to someone. I took the meds he give me for a week . . . (Participant 11)

> I was given antidepressants for 3 days and a follow-up. I wasn't sleeping or eating. (Participant 7)

> Although I take medication, it ain't working, cause it's a joy that was taken from me, it will never come back. (Participant 18)

> After 6 months, I started taking meds for anxiety and I see a psychiatrist often. (Participant 15)

> It took me about a month to 6 weeks to function again like I used to. I was just eating because I had to eat . . . eventually after 6 weeks, I went to the doctor and he put me on Valium to sleep. (Participant 10)

> I stayed in the bed for 6 months, I might shower and eat, and go right back to bed, because there was nothing that made me want to get up or do anything. There is no closure for me, I still don't know why

> someone poisoned my child, that is why I am in psych now. (Participant 17)

> I felt like I was literally losing my mind. As a matter of fact, there was an incident that took place, I didn't know where I was, the people around me, was total confusion. The ambulance took me to the hospital, and they recommended that I seek counseling. (Participant 14)

Participants discussed the need to go to the hospital and taking prescribed medication for mental health issues but stopping taking the medication. Participants discussed being aware of the struggles, but they were forced to adequately address the issues owing to lack of functioning.

> One thing I notice is I does get real vex, you know how much things I mash up in my house? . . . Now I turn off the lights and go in the pantry and be in there all day, I feel safer in the dark . . . the doctor said I have signs of depression and it's a thin line between sanity and insanity . . . (Participant 16)

Participant 16 discussed her uncontrollable anger and feeling like she has lost control of her emotions.

The third subcategory is the social component, which include peers, family relationships, and family circumstances. Mothers were very concerned about the victims' siblings', grandparents' and friends' ability to deal with the death. The theme/code was family members' and friends' health directly or indirectly affected. Six participants spoke about their concern about various family members and their coping with the tragedy.

> The death has made my husband worse, he was crying by the time I reach home . . . he has a motor neuron disease, and now, if we out too long—me, my daughter, his granddaughter, he would start panicking and would be calling, which makes his nerves worse and he gets really ill. Remember he see wuh happened to my son when he left to go to work, and never came back. (Participant 6)

> My mom (his grandmother) got real sick after his death . . . she wasn't really talking and she slow down a lot. She saw how sick I was too and she take on everything because she knows what that pain feel like . . . she bury three of her children. (Participant 8)

> My other sons took the death so hard. The elder one end up in the hospital and was catatonic. Doctor say he was in shock. The younger one, he still struggling to this day, I talk to a nurse friend of mine, and she say he might have some PTD thing [PTSD]. (Participant 14)

> My son friend who send me the video of him smiling and laughing? He gone mental too. I see him here at clinic, he and my son was real close. (Participant 15)

Participants discussed the impact of the child's death on family members and the deterioration of their functioning.

> The little boy, my grandson, he was getting on real bad, because he was taking it out on me and getting into a rage, I had to take him to the Child Protection unit up in our area to get them to talk to him about his mother's death. (Participant 17)

Participant discussed the impact of the child's death on the behavior changes of the remaining family members. In the aftermath of murder, family members experienced what some referred to as "collateral damage." Psychological harms in turn can lead to physical health challenges for homicide covictims. Covictims who suffer from prolonged grief are at increased risk for serious health issues, including heart problems, high blood pressure, and other chronic illnesses. Although some of these illnesses may have existed before the homicide of the adult child, the trauma and stress of the subsequent grief and mourning may have aggravated the symptoms.

Discussion

Alexis (2013) reported that the Caribbean region experienced a histrionic upsurge in murder rates from 14.3 murders per 100,000 inhabitants in 2000 to 28.1 murders per 100,000 inhabitants in 2010. Rates have continued to rise dramatically each year. Most of the Caribbean consists of small, tight-knit communities, so the impact of homicide may affect many more people. Victims of violent crime reported lower levels of perceived health and physical well-being (Mastrocinque et al., 2015). Such victims also include the persons that remain and are grieving the crime. Violent crimes, for example, homicides, affect every aspect of the bereaved families, specifically, the mother's life and health. This population, specifically in the Caribbean, require more assistance to manage their multiple unknown needs to possibly identify and decrease their health effects. Their needs may be unknown, as not much information is known or sought, but there are also very little services available to them. The income level of the participants may have also affected the type of care they had access to, the residential neighborhoods as well as other inequalities (Lachaud et al., 2017).

Although there remains a dearth of literature surrounding the health impact on mothers following a homicide, the limited studies published are clear on the results (Armour, 2002a; Britt, 2001). The resulting physical, psychological, and social injuries may affect their ability to function "normally" and may require treatment to address the multiple issues cause by the violent acts of another (Asaro, 2001). In addition to the emotional shock after the homicide, various health problems were reported by the covictims: the multiple health symptoms, such as hypertension, diabetes, obesity, insomnia, memory loss, and stress, which were similar to the participants in this study (Mastrocinque et al., 2015). Thus, it is affirmed that there is an effect on quality of life of those close to the victims, mainly the mothers, of homicide. The impacts of violence compromise the physical and emotional health of families and contribute to increased maladaptive behaviors and social isolation while exacerbating feelings of revolt, revenge, and pessimism. In the Caribbean, people live in close quarters, and mothers may be exposed to seeing the perpetrators' family daily.

Covictims of homicide may develop PTSD, which will need professional psychiatric or psychological help. Literature also exists that states that homicide survivors are at risk for other psychiatric symptoms (Murphy, Johnson, Wu, Fan, & Lohan, 2003). Rheingold and Williams' (2015) study concluded that there was an association between homicide and the onset of psychological complications. The mental health of bereaved persons would be at risk in the aftermath. The participants in this study either utilized or might have benefited from mental health treatment or support. Unmistakably, criminal victimization adversely affects health. In the Caribbean, most of the homicides occur in low-to-middle income areas known as "hot spots," where gang activity occurs (Bissessar, 2014), and most homicides go unsolved. In developed countries, homicides usually have one of the highest rates of

solved cases (Hatton, 2003), but for small, developing countries with the lack of forensic resources such as DNA-testing machines to adequately solve crimes, the rates of unsolved murders increase. Mothers often feel betrayed by the law enforcement and the criminal justice system (Armour, 2002a).

Strengths and Limitations

The importance of this research study lies in the willingness of admission of bereaved mothers to share their stories and pain in order for others to understand the impact and result of homicide. The participants sharing their stories allowed for an exploration of a topic that is not a mainstream storyline, and someone listening to them and acknowledging their trauma was a welcome addition from ignoring their pain or lack of support from others.

One major strength of this study was the time allowed for confidentiality and ethical considerations with the participants that permitted them to be comfortable during the interview. For the Caribbean, especially those islands with high murder rates, making sense of mothers' physical and mental health after homicide would allow service providers to identify needs and services that should be provided to such a population. Thus, the major strength was to provide an understanding of the generalized lifelong struggle that remains, but, more specifically, the highlighting of ill health—physical, emotional and social—in mothers of a homicide victim.

Although there are multiple strengths from this type of study, there were two limitations of this study. The first one was the sample size; with over 580 homicides in 2019 and recruiting20 participants, results may have been different if a larger sample size was utilized. The second limitation was the timing of the study. Some participants were further in their grief process; thus, their recollection of their grief and health journey may have been affected compared to the mothers who were still experiencing the effects.

Conclusion

There are serious short- and long-term health effects from exposure to crime and violence in one's community. Repeated exposure to crime and violence may be linked to an increase in negative health outcomes and challenges. The large incidence of homicide continues to warrant an examination of the impact of a homicide on a victim's family and the implications for the health and well-being of all involved, especially the mothers of homicide victims. Homicide survivors experience negative physical, psychological, and social effects that often result in lowering of the quality of life for mothers after the death of their adult child. More research is necessary to explore the frequency at which covictims experience physical and psychological harms owing to a loved one's homicide as well as the resulting consequences of homicide on the health of loved one. This may also be of value to social workers, therapists, and other professionals when providing care and support to bereaved covictims.

References

Alexis, S. (2013). A gang leader through the eyes of his mother. In R. Seepersad & A. Bissessar (Eds.), *Gangs in the Caribbean* (pp. 175–195). Cambridge, United Kingdom: Cambridge Scholars Publishing.

Alves-Costa, F., Hamilton-Giachritsis, C., Christie, H., & Halligan, S. L. (2018). Self-perception of adaptation among homicidally bereaved individuals following a psychoeducational intervention: A U. K. longitudinal qualitative study. *BMJ Open, 8,* e020443. http://dx.doi.org/10.1136/bmjopen-2017-020443

Armour, M. P. (2002a). Experiences of co-victims of homicide: Implications for research and practice. *Trauma, Violence and Abuse, 3,* 109–124. http://dx.doi.org/10.1177/15248380020032002

Armour, M. P. (2002b). Journey of family members of homicide victims: A qualitative study of their posthomicide experience. *American Journal of Orthopsychiatry, 72,* 372–382. http://dx.doi.org/10.1037/0002-9432.72.3.372

Asaro, M. R. (2001). Working with adult homicide survivors, part I: Impact and sequelae of murder. *Perspectives in Psychiatric Care, 37,* 95–101. http://dx.doi.org/10.1111/j.1744-6163.2001.tb00633.x

Bailey, A., Hannays-King, C., Clarke, J., Lester, E., & Velasco, D. (2013). Black mothers' cognitive process of finding meaning and building resilience after loss of a child to gun violence. *British Journal of Social Work, 43,* 336–354. http://dx.doi.org/10.1093/bjsw/bct027

Bamberg, M. (2012). Narrative analysis. In H. Cooper (Ed.), *American psychological association handbook of research methods in psychology* (Vol. 2, pp. 71–93). Washington, DC: American Psychological Association.

Bissessar, A. (2014). The Nexus between structural adjustment and the emergence of gangs: The case of Trinidad and Tobago. In R. Seepersad & A. Bissessar (Eds.), *Gangs in the Caribbean* (pp. 131–149). Cambridge, United Kingdom: Cambridge Scholars Publishing.

Boelen, P. A., van Denderen, M., & de Keijser, J. (2016). Prolonged grief, posttraumatic stress, anger, and revenge phenomena following homicidal loss: The role of negative cognitions and avoidance behaviors. *Homicide Studies, 20,* 177–195. http://dx.doi.org/10.1177/1088767915580674

Brent, D., Melhem, N., Donohoe, M. B., & Walker, M. (2009). The incidence and course of depression in bereaved youth 21 months after the loss of a parent to suicide, accident, or sudden natural death. *The American Journal of Psychiatry, 166,* 786–794. http://dx.doi.org/10.1176/appi.ajp.2009.08081244

Britt, C. L. (2001). Health consequences of criminal victimization. *International Review of Victimology, 8,* 63–73. http://dx.doi.org/10.1177/026975800100800104

Butina, M. (2015). Focus: Conducting qualitative research. *Clinical Laboratory Science, 28,* 190–200. http://dx.doi.org/10.29074/ascls.28.3.190

Casey, L. (2011). *Review into the needs of families bereaved by homicide*. Retrieved from https://www.justice.gov.uk/downloads/news/press-releases/victims-com/review-needs-of-families-bereaved-by-homicide.pdf

Creswell, J. (2013). *Qualitative inquiry and research design: Choosing among five approaches* (3rd ed.). Thousand Oaks, CA: Sage.

DeLisi, M., Kosloski, A., Sween, M., Hachmeister, E., Moore, M., & Drury, A. (2010). Murder by numbers: Monetary costs imposed by a sample of homicide offenders. *Journal of Forensic Psychiatry and Psychology, 21,* 501–513. http://dx.doi.org/10.1080/14789940903564388

Engel, G. (1977). The need for a new medical model: A challenge for biomedicine. *Science, 196,* 129–136. http://dx.doi.org/10.1126/science.847460

Hatton, R. (2003). Homicide bereavement counseling: A survey of providers. *Death Studies, 27,* 427–448. http://dx.doi.org/10.1080/07481180302878

Horne, C. (2003). Families of homicide victims: Service utilization patterns of extra and intra familial homicide survivors. *Journal of Family Violence, 18,* 75–82. http://dx.doi.org/10.1023/A:1022831530134

Jaitman, L., & Torre, I. (2017). The direct cost of homicides. In L. Jaitman (Ed.), *Estimation of the direct cost of crime and violence: New evidence and insights in Latin American and the Caribbean* (pp. 30–37). Washington, DC: Inter-American Development Bank.

Kristensen, P., Weisæth, L., & Heir, T. (2012). Bereavement and mental health after sudden and violent losses: A review. *Psychiatry: Interpersonal and Biological Processes, 75,* 76–97. http://dx.doi.org/10.1521/psyc.2012.75.1.76

Lachaud, J., Donnelly, P. D., Henry, D., Kornas, K., Calzavara, A., Bornbaum, C., & Rosella, L. (2017). A population-based study of homicide deaths in Ontario, Canada using linked death records. *International Journal for Equity in Health, 16,* 133. http://dx.doi.org/10.1186/s12939-017-0632-9

Mastrocinque, J. M., Metzger, J. W., Madeira, J., Lang, K., Pruss, H., Navratil, P. K., . . . Cerulli, C. (2015). I'm still left here with the pain: Exploring the health consequences of homicide on families and friends. *Homicide Studies, 19,* 326–349. http://dx.doi.org/10.1177/1088767914537494

Melhem, N. M., Walker, M., Moritz, G., & Brent, D. A. (2008). Antecedents and sequelae of sudden parental death in offspring and surviving caregivers. *Archives of Pediatrics and Adolescent Medicine, 162,* 403–410. http://dx.doi.org/10.1001/archpedi.162.5.403

Murphy, S. A., Johnson, L. C., Chung, I. J., & Beaton, R. D. (2003). The prevalence of PTSD following the violent death of a child and predictors of change 5 years later. *Journal of Traumatic Stress, 16,* 17–25. http://dx.doi.org/10.1023/A:1022003126168

Murphy, S. A., Johnson, L. C., Wu, L., Fan, J. J., & Lohan, J. (2003). Bereaved parents' outcomes 4 to 60 months after their children's deaths by accident, suicide, or homicide: A comparative study demonstrating differences. *Death Studies, 27,* 39–61. http://dx.doi.org/10.1080/07481180302871

Padgett, D. (2017). *Qualitative methods in social work research*. Los Angeles, CA: Sage.

Redmond, L. M. (1989). *Surviving: When someone you know was murdered*. Clearwater, FL: Psychological Consultations and education Services Ltd.

Rheingold, A. A., & Williams, J. L. (2015). Survivors of Homicide: Mental health outcomes, social support, and service use among a community-based sample. *Violence and Victims, 30,* 870–883. http://dx.doi.org/10.1891/0886-6708.VV-D-14-00026

Riessman, C. K. (2008). *Narrative methods for the human sciences*. Los Angeles, CA: Sage.

Sharpe, T. L., & Boyas, J. (2011). We fall down: The African American experience of coping with the homicide of a loved one. *Journal of Black Studies, 42,* 855–873. http://dx.doi.org/10.1177/0021934710377613

Sharpe, T. L., Osteen, P., Frey, J. J., & Michalopoulos, L. M. (2014). Coping with grief responses among African American family members of homicide victims. *Violence and Victims, 29,* 332–347. http://dx.doi.org/10.1891/0886-6708.VV-D-12-00083R1

Trinidad and Tobago Ministry of National Security. (2020). *Crime and problem analysis*. Trinidad and Tobago, Caribbean: SALISES Publications.

World Population Review. 2020. *World Population Review.com// countries/Trinidad & Tobago population*. Retrieved from https://worldpopulationreview.com/

Zinzow, H. M., Rheingold, A. A., Byczkiewicz, M., Saunders, B. E., & Kilpatrick, D. G. (2011). Examining posttraumatic stress symptoms in a national sample of homicide survivors: Prevalence and comparison to other violence victims. *Journal of Traumatic Stress, 24,* 743–746. http://dx.doi.org/10.1002/jts.20692

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