

# **Walden University ScholarWorks**

Walden Dissertations and Doctoral Studies

Walden Dissertations and Doctoral Studies Collection

2023

# Lockdowns During the COVID-19 Pandemic and Domestic **Violence Among Virginians**

Kenneth G. Gordon Walden University

Follow this and additional works at: https://scholarworks.waldenu.edu/dissertations



Part of the Medicine and Health Sciences Commons

# Walden University

College of Health Sciences and Public Policy

This is to certify that the doctoral study by

Kenneth Gordon

has been found to be complete and satisfactory in all respects, and that any and all revisions required by the review committee have been made.

Review Committee

Dr. German Gonzalez, Committee Chairperson, Public Health Faculty
Dr. Stacy-Ann Christian, Committee Member, Public Health Faculty
Dr. Jagdish Khubchandani, University Reviewer, Public Health Faculty

Chief Academic Officer and Provost

Sue Subocz, Ph.D.

Walden University 2023

## Abstract

Lockdowns During the COVID-19 Pandemic and Domestic Violence Among Virginians

by

Kenneth Gordon

Doctoral Study Submitted in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Public Health

Walden University

May 2023

#### Abstract

The domestic violence (DV) dilemma spans millennia and has devastated individuals, families, and societies. DV prevalence rose between 20% and 50% worldwide and over 5% among Virginians since early 2020 during COVID-19. Abuse victims' vulnerability increased during the lockdown periods due to the extended time spent with perpetrators. DV victims visited emergency departments for their nonfatal physical injuries. The purpose of the study was to examine COVID-19-related lockdown effects on DV prevalence, perpetrator characteristics, and hospitalizations among Virginians. Bronfenbrenner's socioecological model served as the theoretical foundation. Descriptive analyses showed that DV prevalence among Virginians rose from 37.5% in 2019 to 45.5% in 2020. The majority of DV perpetrators shifted from male partner (24.6% in 2019 and 13.2%, 2020) to other perpetrators, 25.8% during the 2020 lockdown period from 16.4% in 2019. DV-related emergency department visits rose from 46% in 2019 to 49.8% in 2020, and those requiring specialized hospital care jumped from 0.4% in 2019 to 3.1% in 2020. Pearson's chi-square test showed significant relationships between DV prevalence, perpetrator characteristics, and hospitalization to during the COVID-19 lockdowns. Implications for positive social change include providing evidence to policymakers that can help secure more proactive and targeted approaches to protect vulnerable populations including women, girls, people of color, those on Medicaid, and younger age groups from DV during public emergencies like pandemics.

## Lockdowns During the COVID-19 Pandemic and Domestic Violence Among Virginians

by

## Kenneth Gordon

Doctoral Study Submitted in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Public Health

Walden University

May 2023

#### Acknowledgments

Firstly, I would like to acknowledge the goodness, guidance, and wisdom of Jehovah, God almighty, without whom nothing I possible. It's with sincere heartfelt gratitude that I express thank you to my poignant Committee Chair and mentor, Dr. German Gonzalez, and Co-Chair, Dr. Stacy-Ann Christian, for their immeasurable stewardship in providing leadership and guidance in steering me along my dissertation path. I would be remiss if I failed to thank the other talented and competent professors and administrative and technical support teams who imparted their knowledge and experience to me through my journey. Additionally, I want to thank the program directors and their team for hosting the residencies that laid a framework to promote success.

I am genuinely grateful for the technical support and lived experiences shared by faculty and fellow students that offered insights for growth and development. Gratitude extends to the writing and analytic support services teams instrumental in pulling the pieces together. Thanks to all others for their contributions in helping me to arrive at this point of the journey. Thank you to the Virginia Department of Health (VDH) for supporting my request to use their dataset for this research project.

Lastly, I would be out of character if I failed to mention my family, particularly my spouse and children. My spouse was instrumental in pushing me towards the mark of this level, expressing all belief and confidence that truly motivated me during this journey. Thanks to my friends who encouraged and supported me. "Heights of great men reached and kept were not attained by sudden flight, but they, while their companions slept, toiled upwards through the night (Henry Wadsworth Longfellow Quotes, (n.d.)."

## **Table of Contents**

Lis	st of Tables	iv
Lis	st of Figures	v
Section 1: Foundation of the Study and Literature Review		
	Background	1
	Significance of the Study	9
	Statement of the Problem	10
	Purpose of the Study	12
	Research Questions and Hypothesis	12
	Theoretical Framework	14
	Nature of the Study	16
	Operational Definitions	17
	Scope and Delimitations	18
	Scope of the Study	18
	Delimitations	18
	Limitations	19
	Chapter Summary	20
	Literature Review	20
	Historical Context of Domestic Violence	21
	Prevalence of Domestic Violence (DV)	23
	Disasters and Their Roles in Domestic Violence	24
	Domestic Violence Prevalence During the COVID-19 Pandemic	25

The Media's Role in Domestic Violence Perpetuation	36
The Face of Domestic Violence and Abuse in the Era of a COVID-19	
Pandemic	41
Domestic Violence and Abuse in Virginia	47
Domestic Violence in Virginia During the COVID-19 Pandemic	51
Literature Review Summary	52
Section 2: Research Design and Data Collection	54
Nature of the Study	54
Statement of the Problem	54
Research Design	55
Purpose of the Study	55
Data, Data Collection Tools, and Sources	56
Data Points	56
Setting	56
Sampling	57
Data Analysis	58
Ethical Consideration	59
Research Questions and Hypotheses	59
Summary	60
Section 3: Presentation of Results and Findings	62
Purpose of the Study	62
Data Data Collection Tools and Sources	63

Analytical Findings63
Age (Categorized) Using the Raw Data File67
Adult Flag69
Bill Type Class70
Analysis Summary
Section 4: Application to Professional Practice and Implications for Social
Change75
Discussion
The SEM: Application To Domestic Violence Prevention and Control83
Social Change Impact89
Conclusions93
Recommendations
References 100

# List of Tables

Table 1. Demographics and DV Incidents Among Virginians in 2019, 2020, and 2021
(Raw Data)65
Table 2. Demographics and DV Incidents Among Virginians in 2019, 2020, and 2021
(Aggregated Data)66
Table 3. Age Distribution of DV Incidents Among Virginians Between 2019, 2020, and
2021 (Raw Data)68
Table 4. Age Distribution of DV Incidents Among Virginians between 2019, 2020, and
2021 (Aggregated Data)69
Table 5. Adult Flag Distribution of DV Incidents Among Virginians Between 2019,
2020, and 2021 (Raw Data)69
Table 6. Billing Type Class Distribution of DV Incidents Among Virginians Between
2019, 2020, and 2021 (Raw Data)70
Table 7. Perpetrator Characteristics During DV Incidents Among Virginians in 2019,
2020, and 2021 (Raw Data)71
Table 8. Perpetrator Characteristics During DV Incidents Among Virginians Between
2019, 2020, and 2021 (Aggregated Data)71
Table 9. Hospitalizations Due to DV Incidents among Virginians Between 2019, 2020,
and 2021

# List of Figures

Figure 1. Domestic Violence Incidence Rates Among Virginians Between 2019, 2020,	
and 202164	
Figure 2. Mean Age of DV Victims Among Virginians Between 2019, 2020, and 2021.67	
Figure 3. Hospitalization Due to DV Incidents Among Virginians Between 2019, 2020,	
and 2021	
Figure 4. The Social Ecological Model and Domestic Violence Perpetration and	
Prevention Pictogram Highlighting the Levels of Interactions	
Figure 5. The Social Ecological Model and Domestic Violence Perpetration and	
Prevention Pictogram Highlighting System Level Interactions	
Figure 6. Chronosystem: Sociohistorical Events Pictogram	
Figure 7. Overall Framework for the Determinants of Domestic Violence (Adapted from	
Gram et al., 2021)	

#### Section 1: Foundation of the Study and Literature Review

#### **Background**

Violence permeates every society and social stratum globally, and perpetration occurs at the hands of individuals who deploy extensive force resulting in injury, trauma, and, unfortunately, victims' deaths. An estimated global prevalence of 30% of everpartnered women and children are victims of physical or sexual intimate partner violence (IPV; McCarthy et al., 2018). One exposure risk for children is through the practice of children who are child domestic workers (Thi et al., 2021). Children in low- and middleincome countries aged 5 to 17 years who are child domestic workers report a 56.2% prevalence of domestic violence (DV) (Thi et al., 2021). Boys and girls mainly reported emotional abuse and sexual violence, with most identifying emotional abuse as more prevalent (Thi et al., 2021). The pervasive insidious problem of violence against women has existed since ancient times and is rooted in an interplay of individual, situational, and sociocultural factors (Savisky et al., 2021). McCarthy et al. (2018) reported that an alarming number of men stated that they perpetrated physical and sexual IPV against women and children. The perpetuation of domestic violence represents an existing pandemic embroiled in a pandemic that required lockdowns, further extenuating a current crisis that placed victims within more accessible reach of perpetrators.

The COVID-19 pandemic unleashed unprecedented distress and skewered people's lives globally (Calina et al., 2021). The traumatic effects ravaged the individual (all kinds of fears - of the unknown, illness, death, isolation, physical and financial insecurity), familial, societal (economic recession, educational and opportunities

limitations, job loss, rising inequities, and stigma, infodemia, coronaphobia), state and federal levels in similar ways (Calina et al., 2021). Gender-based violence, newly recognized as a social illness, continues to wreak havoc on women and girls at an alarming rate (Xavier Hall & Evans, 2020). At the core of the gender-based domestic violence dilemma is IPV (Xavier Hall & Evans, 2020). The pervading social inequities (adverse childhood experiences), community violence, and substance use-related violence further complicate the gender-based violence conundrum (Xavier Hall & Evans, 2020). As domestic violence continues to pose a significant social and public health burden, all avenues pursued at an interagency, interstate, and federal level collaborative effort will adequately mitigate the risk proponents of domestic violence, especially during adverse social events like the COVID-19 pandemic.

Research investigating potential associations between adverse social events and increased domestic violence presents very little, or no literature on the potential for an increase in acts of violence against women and children became highly possible during the pandemic (Pearson et al., 2021). The COVID-19 pandemic could likely result in increased stress attributable to economic instability, lockdowns, health and social services disruptions, and the change in the dynamics of working from home (Pearson et al., 2021). The COVID-19 guidelines and restrictions were intended to preserve the public's health (Evans, 2020). However, many unknowns remain about how the proposed measures contributed to perpetrated acts of violence against the most vulnerable (Evans, 2020). Throughout the pandemic's surge, increased suppositions emerged about the likelihood that the restrictive measures could contribute to violent acts (Evans, (2020). The globally

instituted measures to limit COVID-19 transmission aroused what some called "the perfect storm" situation because of an increased wave of DV (Usher et al., 2021). Amidst the speculations comes the need for thorough investigations to validate the assumptions.

The formulation of recommendations around clinical and policy guidelines, violence prevention and response, information dissemination, alerting essential service providers within the community to make them aware of violence warning signs, and expanded victim support, resulted from plausible assumptions regarding the probability of acts of violence against women and children (Pearson et al., 2021). Additionally, governments made provisions for victims of violence against women and children to secure access to care through safe passages from their homes and expanded hotline services, aided by strictly enforced policies around guns and drug use, contributing to violent acts perpetration (Pearson et al., 2021). Recommended actions to protect the vulnerable population against violence perpetration, especially during emergency response periods, remain a fundamental issue for governments.

In the limited research focused on violent perpetration during periods of social crises, researchers have agreed on developing and implementing measures to protect the most vulnerable populations who face increased risks of violence during emergencies, like pandemic events. Future research could make similar conclusions and recommendations to address the concerns. In addition to being prodded to implement the stated measures, governments must have mandates that compel them to review existing gaps in their VAWA programs and prioritize addressing them, to unearth the inequities facilitating violence against women and children (Pearson et al., 2021).

Conducting this research study was fundamental to establishing evidence-based recommendations to elicit greater accountability among government authorities in setting up safety nets to protect the most vulnerable populations during public health emergencies. A common conclusion from several post-pandemic studies suggests an increased proliferation of domestic violence. More investigations across localities will offer a sounder basis to support the hypothesis and its applicability to Virginians' experience. Other confounding factors may include potential reporting gaps attributed to the sheltering in place, adversely affecting African Americas. For Virginians, this detail is underreported, and studying the phenomenon will provide critical information to provide future recommendations for disaster response planning. As a member of the health service team in Virginia, I undertook this research project to support the public health effort in the state.

However, this research focused on an association between COVID-19-related lockdowns and domestic violence incidence, perpetrators or persons committing physical, sexual, or other abusive, violent acts, and domestic violence-associated hospitalization among Virginians between 2016 and 2020. On March 11, 2020, the World Health Organization (WHO) declared COVID-19 a pandemic. The declaration led to global widescale and strict infection control measures (Baffsky et al., 2022). The measures included physical distancing, remote working, self-isolation, quarantine, and border closures (Baffsky et al., 2022). The stringent restrictions resulted in business closures, causing jobs and income losses (Baffsky et al., 2022). School closures meant children learning remotely from home (Baffsky et al., 2022). The pandemic's restrictive measures

forced many people and families to spend prolonged time at home (Baffsky et al., 2022). The pervading circumstances perpetuated by the pandemic derived expectations of increased prevalence and severity of DFV globally based on similar trends attributed to crises like earthquakes, bushfires, and hurricanes (Baffsky et al., 2022).

Victims of domestic and family violence (DFV) may experience abusive behaviors, including physical, sexual, emotional, financial, and psychological abuse perpetrated by an intimate or former intimate partner or family member (Baffsky et al., 2022). Women reportedly encounter domestic violence more frequently than men (Baffsky et al., 2022). People subject to structural inequalities associated with racism, older people, children, young people, and disabled people are disproportionately affected by domestic violence (Baffsky et al., 2022). The instrumentality of the pandemic reportedly amplified DFV risk factors through increased anxieties and fears, increased unemployment, food shortages, school closures, public health shutdowns, economic insecurity, significant risk factors such as poverty, mental and physical health, and family conflict (Baffsky et al., 2022).

Interviews with practitioners caring for victims of domestic violence revealed increased demands for violence-related services during the early months of the pandemic (Baffsky et al., 2022). Further, interviews among practitioners from 69 countries by the United Nations (UN) suggested an increase in the prevalence and severity of domestic violence cases worldwide associated with COVID-19 restrictions (Baffsky et al., 2022). The restrictive measures adopted by the Italian government in response to the COVID-19 pandemic, like stay-at-home, could have significantly increased home-based violence

with potentially limited possibilities for victim complaints or defense (Barchielli et al., 2021). Most domestic violence outcomes are nonfatal physical injuries for which victims frequently visit urgent care centers or emergency departments (Di Franco et al., 2021). Medical center visits can provide relevant data to determine domestic violence prevalence and improve understanding of violence-specific periods like during emergencies. Abrasive measures like lockdowns and social isolation, known violent trauma risk factors, increased risk of convergence of the pandemic measures, and the pervading violence epidemic (Beiter et al., (2021).

Hospitals' emergency rooms represent the first point of contact for domestic violence and abuse (DVA) victims (Singhal et al., 2021). Contributory factors of DVA include economic crisis and social exclusion, both of which resulted during the onslaught of the COVID-19 pandemic (Singhal et al., 2021). Emergency room profiles of DVA victims indicate that any age can experience violent acts (Singhal et al., 2021). The groups most observed include child abuse and neglect, IPV, and elderly abuse and neglect (Singhal et al., 2021). The Centers for Disease Control and Prevention (CDC) defines *child abuse and neglect* events as "any act or series of acts of commission or omission by a parent or other caregiver resulting in harm, potential harm, or threat of harm to a child" (Singhal et al., 2021). The CDC defines *IPV* as "physical violence, sexual violence, stalking and psychological aggression (including coercive acts) by a current or former intimate partner" (Singhal et al., 2021). The CDC defines *elderly abuse and neglect* as "an intentional act, or failure to act, by a caregiver or another person in a relationship involving an expectation of trust that causes or creates a risk of harm to an

older adult (an older adult someone age 60 or older)" (Singhal et al., 2021). As the first point of contact, healthcare systems are pivotal to detecting and supporting DVA victims (Singhal et al., 2021). An analysis of DVA-related emergency department visits offers opportunities to determine trends and high-burdened areas (Singhal et al., 2021).

Domestic violence reporting showed significant variation during the imposition of the COVID-19 restrictive measures related to cohabitant and non cohabitant violence and reporting channels among several Latin American countries (Perez-Vincent & Carreras, 2022). Domestic violence hotlines experienced significantly increased call volumes compared to declines in emergency lines and the police (Perez-Vincent & Carreras, 2022). Perez-Vincent and Carreras (2022) suggested building domestic violence hotline capacities during public emergencies to ensure the continuity of vulnerable services to domestic violence victims owing to the altered demand for institutional help brought on by the pandemic. Given the multiplicity of the adverse effects of domestic violence on its victims and their families, there are potentially high social and economic costs (Perez-Vincent & Carreras, 2022). The prevalence of domestic violence and its associated consequences means policymakers should prioritize their efforts to understand its causes to develop effective strategies to address the problem (Perez-Vincent & Carreras, 2022). The abrupt changes to the social dynamics proliferated domestic violence environments (Perez-Vincent & Carreras, 2022). However, several challenges arise in assessing the pandemic's impact on domestic violence (Perez-Vincent & Carreras, 2022). Firstly, the pandemic's face varies by country, and domestic violence is complex and heterogenic, and there are variabilities between both complex issues (Perez-Vincent & Carreras,

2022). Secondly, data quality threatened the reliability of predicted measures due to underreporting of domestic violence events (Perez-Vincent & Carreras, 2022).

An established global fact is that women are the primary victims of domestic violence (Wake & Kandula, 2022). The pandemic heralded a significant public health dilemma associated with the alarming prevalence of domestic violence against women and children (Wake & Kandula, 2022). Even though women and children are victims of a cruel cycle of violent attacks globally, the pandemic-associated lockdowns exacerbated the issue (Wake & Kandula, 2022). Women and children must now contend with the "twin-demic" domestic violence and the COVID-19 pandemic (Wake & Kandula, 2022). While the pandemic measures were to slow viral spread, they also pervaded opportunities for violence against women and children (Wake & Kandula, 2022). In this research study, I focus on possible associations between the COVID-19 pandemic mitigation measures, including social isolation and lockdown, with domestic violence among Virginians.

Despite former and ongoing efforts, literary gaps still exist due to uncertainty surrounding previous actions in articulating the associations between adverse events and domestic violence prevalence. There were also gaps surrounding the development and implementation of the recommended measures. Their effectiveness in addressing domestic violence drives more studies because of the need for such measures to protect the most vulnerable populations who face increased risks during crises like pandemic events. Additionally, despite several post-pandemic studies alluding to possible associations between the pandemic's restrictive measures and increased domestic violence incidence in the United States and globally, there are not enough studies that

capture this detail in many places, including Virginia. It means that several gaps exist concerning the role of the pandemic in worsening the domestic violence situation among Virginians.

### Significance of the Study

The significance of this study aims to determine a trend change attributable to the COVID-19-related lockdowns and domestic violence (DV) perpetrations prevalence among Virginians, comparing the periods of March 2019 to March 2020 and March 2020 to March 2021. The results of this study could be advantageous to public health by providing evidence showing that public emergency measures such as lockdowns may directly or indirectly change outcomes frequencies, whether at a local, state, or federal level. An increase in the DV prevalence trends could highlight a correlation between public emergencies like pandemics and their associated measures like lockdowns could demonstrate an increased likelihood of exacerbating violence among Americans. Furthermore, the findings from this study could add improved insights that would guard against adverse outcomes associated with health crises like pandemics on social issues like domestic violence. Knowledge derived from the analysis to determine an observed correlation between the pandemic-related lockdowns and DV perpetrations provides opportunities to develop appropriate response mechanisms to avert worsening outcomes during public health emergencies. Although evidence suggests that many states implemented strategies to minimize violence against women and children, more action will further tackle personal violence (suicide), violence against other vulnerable groups, alcohol use, and the effect on mental healthcare services during crises of this magnitude.

Several gaps exist concerning the role of the pandemic in exacerbating increased violence and the subsequent effect on Virginians' health. The significance of this study aims to provide more in-depth and concise details outlining the role of the pandemic on domestic violence perpetrations and its overarching effect on Virginians. Conducting this study could benefit public health by providing evidence demonstrating the pandemic's role in exacerbating violence among Americans. Furthermore, the findings from this study could give improved insights that could guard against adverse outcomes associated with health crises like pandemics on social issues like domestic violence. The increased knowledge about the mechanisms of influence provides opportunities to develop appropriate response mechanisms to avert worsening outcomes during public health emergencies. The study's social change offers opportunities for the multidimensional stakeholders to develop proactive approaches to improve existing frameworks to mitigate adverse effects during public health emergencies. The strategies would reduce adverse health outcomes from the disease and minimize the worsening consequences of preexisting violence-related challenges that negatively affect people's health. Public health administrators could use the study's findings to establish more healthcare services and initiate campaigns to reach the most vulnerable populations to improve health outcomes that could spiral during an adverse health event like a global pandemic.

#### **Statement of the Problem**

Domestic violence and abuse (DVA) constitute a significant public health problem (Salinsky, 2017). An estimated 37%, or one in three, American women experience DVA throughout their life (Salinsky, 2017). Despite high levels of under-

detection, domestic violence and abuse (DVA), whether IPV, abuse of children, or vulnerable populations, remain highly prevalent in the United States (US Preventive Services Task Force, 2018). The COVID-19 pandemic presented unprecedented trauma to people's lives worldwide (Calina et al., 2021). The effects occurred at the level of the individual (all kinds of fears - of the unknown, illness, death, isolation, physical and financial insecurity), familial, societal (economic recession, educational and opportunities limitations, job loss, rising inequities, and stigma, infodemia, coronaphobia), state and federal levels in similar ways (Calina et al., 2021). The overarching effect of IPV is physical injuries and death of victims, in addition to other significant health consequences like mental health conditions development (depression, posttraumatic stress disorder, anxiety disorders, substance abuse, and suicidal behavior), sexually transmitted infections (STIs), unplanned pregnancy, chronic pains, and other disabilities (US Preventive Services Task Force, 2018). Older people exposed to DVA have an increased likelihood of nursing home placement, adverse psychological deficits, and death (US Preventive Services Task Force, 2018). Children subject to domestic violence suffer significant long and short-term consequences (Salinsky, 2017). The ongoing high social and economic burden establishes solid arguments for new studies to derive more holistic perspectives on the costs of DVA and how to address them better.

Women and girls continue to battle gender-based violence, a well-established social problem (Xavier Hall & Evans, 2020). IPV contributes significantly to the problem (Xavier Hall & Evans, 2020). Other factors contributing to the social situation of gender-based violence include social conditions (adverse childhood experiences), community

violence, and substance use-related violence (Xavier Hall & Evans, 2020). Domestic violence (DV) has been and continues to be a social and public health issue, and collaboration among all stakeholders could successfully mitigate the events, especially during adverse social situations. While several researchers widely suggested it, there were conclusive findings that the observed trends in DV perpetrations among Virginians resulted from the COVID-19 pandemic-influenced lockdowns.

## **Purpose of the Study**

In this study, I examined the differences between domestic violence (DV) prevalence and COVID-19-related lockdown activities compared to periods of no lockdowns adjusted for age, race, insurer, and localities among Virginians. Burkholder et al. (2020) referred to the purpose statement describing the study design, the theory, the study's intent, the variables under review, the participants, and the proposed study site. In addition, correlational analytics support the study's aim to determine variability.

Correlational studies establish relationships between existing variables (Burkholder et al., 2020). In correlation research, the objective is to predict outcomes using one or more predictor variables (Burkholder et al., 2020).

#### **Research Questions and Hypothesis**

The research entails several questions that guided the research process. A research hypothesis is an introductory statement for a research question that predicts a specific outcome (Enago Academy, 2021). It is a critical component of the scientific method that establishes the foundation for scientific experiments (Enago Academy, 2021). The research questions and associated hypotheses were as follows:

Research Question 1: Is there a difference between the COVID-19-related lockdowns and domestic violence prevalence among Virginians between March 2019 to March 2020 to March 2021, controlling for age, race, insurer, and locality?

 $H_01$ : There is no significant difference between the COVID-19-related lockdowns and the domestic violence prevalence during periods of lockdowns and no lockdowns.

 $H_a$ 1: There is a significant difference between the COVID-19-related lockdowns and the domestic violence prevalence during periods of lockdowns and no lockdowns.

Research Question 2: Is there a difference between the COVID-19-related lockdowns and the domestic violence perpetrators' characteristics amongst Virginians between March 2019 to March 2020 to March 2021, controlling for age, race, insurer, and locality?

 $H_02$ : There is no significant difference in domestic violence on perpetrators' characteristics among Virginians during the COVID-19 periods of lockdowns and no lockdowns.

 $H_a2$ : There is a significant difference in domestic violence on perpetrators' characteristics among Virginians during the COVID-19 periods of lockdowns and no lockdowns.

Research Question 3: Are there any characteristic differences among Virginians hospitalized for domestic Violence (DV) during the pandemic-related lockdowns and no

lockdowns between March 2019 to March 2020 to March 2021, controlling for age, race, insurer, and locality?

 $H_03$ : There is no significant difference in the characteristics among Virginians hospitalized for domestic violence during the COVID-19 periods of lockdowns and no lockdowns.

 $H_a$ 3: There is a significant difference in the characteristics among Virginians hospitalized for domestic violence during the COVID-19 periods of lockdowns and no lockdowns.

#### **Theoretical Framework**

The theory that grounds this study includes the social-ecological model (SEM), first introduced by Urie Bronfenbrenner in the 1970s, then formalized as a theory in the 1980s. The conceptual model aimed to understand human development (Kilanowski, 2017). The logical connection between the framework presented and the nature of my study is that the SEM is a well-established notion that there are direct associations between people's actions, the societies in which they live, and the environments that support the interactions (Poux, 2017). The SEM's development provided a framework for more significant insights into these interactions (Poux, 2017). The SEM's conceptualization and subsequent implementation in the 1970s by sociologists aimed to foster a more in-depth understanding of people's behaviors attributed to their individualized characteristics, communities, countries, and intervals between them (Poux, 2017). The careful assessment of the intervals and their interrelationships provides a platform from which public health administrators could pivot to develop strategies geared

at improving health and wellbeing globally (Poux, 2017). The SEM has a broad scope with overlapping intervals that inform how successful efforts will arise if they entail expanded perspectives (Poux, 2017). The levels of influence act as the core in applying the SEM in response to the dynamics of violence and the subsequent effect on people's health during the COVID-19 pandemic. Public health experts could effectively use the SEM to develop sustainable solutions for at-risk individuals and societies (Poux, 2017).

The SEM constitutes a multidimensional approach that determines violent risk behaviors and risk factors (Di Napoli et al., 2019). The SEM focuses on the individual, communal, organizational, and relational levels where individuals' actions can prevent domestic violence (Di Napoli et al., 2019). At the individual level, SEM will determine the role of biological, personal history, alcohol/drug use, and attitudes/beliefs that support violence factors that increase domestic violence risk and guide strategies to address them (Di Napoli et al., 2019). The SEM assumes that the communal level considers the cultural, legislative, and political characteristics and their roles in promoting or averting gender-based violence, providing avenues to address the contributing factors (Di Napoli et al., 2019). Factors influencing outcomes include the social representation and method used in forming intimate or social relationships (Di Napoli et al., 2019). The SEM predicts how the measures provided at the organizational level meet the preventive needs of victims to determine how this lack could increase the likelihood of domestic violence during adverse events (Di Napoli et al., 2019). The SEM offers insights to assess possible triggers and the roles and responsibilities of all involved parties, not just the victims, in determining violent outcomes to develop strategies to avert adverse outcomes (Di Napoli

et al., 2019). The multidimensional functionality of the SEM provides a robust means to determine associations between domestic violent events and the pandemic's lockdown activities.

#### **Nature of the Study**

I conducted a comprehensive data abstraction process via a nonsystematic search in the Walden Library, National Institute of Health (NIH), CDC, United States National Library of Medicine, National Center for Biotechnology Information, PMC, PubMed, Cochrane, Scopus, SciELO, and Google Scholar databases. Search strategies included COVID-19, SARS-CoV-2, lockdown, social distancing, isolation, quarantine, shelter-inplace orders, restrictions, intimate partner violence, behavior changes, domestic violence, and perpetrators of domestic violence. The search occurred between January and December 2022. The search emphasized recent articles, published case series, consensus statements, guidelines, meta-analyses, and systematic reviews that were then critically reviewed and selected to extract pertinent details related to the research topic not older than five years.

The data sources included the Virginia Health Information databases. The Virginia Health Information database is a state-wide hospital data management platform that captures hospital-reported domestic violence cases. The Virginia Health Information databases contain all the variables needed for the study, including COVID-19 lockdown, IPV, domestic violence perpetrators, and hospitalization. Upon gaining institutional review board (IRB) approval, I approached the Virginia Department of Health to request access to the Virginia Health Information databases. The selected data sources contain all

the variables needed for the study, including the COVID-19 lockdown, domestic violence, and perpetrators. Sociodemographic information will highlight incident localities, gender, race, and insurer type while controlling for age.

### **Operational Definitions**

The study uses *domestic violence and abuse* and *domestic violence* interchangeably. I hold the view that everyone has the potential to become a victim of domestic violence while a facilitating environment exists. A list of additional terms for use in the study is as follows:

Violence: The intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community that either results in or has a high likelihood of injury, death, psychological harm, maldevelopment, or deprivation.

Domestic violence: Includes physical, verbal, economic, and social abuse.

*Interpersonal violence*: Includes acts of violence and intimidation between family members, intimate partners, or individuals, whether known to one another and where the violence is not specifically to further the aims of any group or cause.

Sexual violence: Sexual violence incorporates non-consensual sexual contact and non-consensual non-contact acts of a sexual nature, such as voyeurism and sexual harassment, and can occur at an interpersonal or collective level.

Intimate partner violence (IPV): Refers to physical, sexual, or psychological harm by a current or former partner or spouse.

Family violence: Refers to child maltreatment, sibling violence, IPV, and elder abuse.

Child abuse or maltreatment: Includes all forms of physical or emotional, ill-treatment, sexual abuse, neglect or negligent treatment, or commercial or other exploitation, causing actual or potential harm to the child's health, survival, development, or dignity in the context of a relationship of responsibility, trust or power.

*Elder abuse*: May be an act of commission or omission and may be intentional or unintentional.

#### **Scope and Delimitations**

### **Scope of the Study**

Domestic violence remains a significant threat to every culture, gender, age group, and social stratum globally. Domestic violence and abuse (DVA), particularly IPV, is a significant public health dilemma globally (Sorensen et al., 2021). It remains a significant cause of physical and psychological harm and mortality. It is a substantial economic burden racking up billions in healthcare costs annually. Women have been the primary target of domestic violence from ancient times to this present age (Savitsky et al., 2021). While many programs are in place to tackle the DVA problem, it rages on with alarming statistics globally. Across the United States, 36.4% or 41.6 million women report some form of DV throughout their lifetime (Smith et al., 2018).

#### **Delimitations**

In this quantitative study, I gathered hospital-based domestic violence data reported between 2019 and 2021 to determine the association between domestic violence

prevalence and adverse public events like the global COVID-19 pandemic. I sought to determine whether the pandemic-related restrictions to contain the spread and limit the burden on the healthcare systems created environments that increased the risk of victimizing vulnerable populations. Did the reported domestic violence exposure during the stay-at-home orders support facilitating environments that perpetuated domestic violence? Were victims forced to remain with their abusers due to restrictive pandemic measures? The experiences may have multiple confounders that influenced outcomes, with the pandemic measures being an antecedent to the domestic violence experiences. Given the uniqueness of individuals' experiences, the assumption, as presented in other studies, may prevent this study's findings from applicability to the general population. The study's participants included individuals who visited Virginia hospital emergency departments between 2016 and 2020 and received a domestic violence assessment.

#### Limitations

Some of the limitations of this study include using secondary data, which may have missing data points for all the variables that may affect data analysis, and the timeline may not be up to date. The data sources display self-reports for domestic violence, which could bias the quality of the data supplied. Another limitation is that COVID-19 adversely affected data collection, which may limit the volume of available data. Due to coding errors, data gaps in established data sources could exist in routine reporting databases. Individuals reporting may falsify supplied information. One possible solution to overcome secondary data limitations is to research the data source before its

use to determine its suitability for the intended purpose. Another key is identifying alternative data sources that capture the same information, even if the structure differs.

### **Chapter Summary**

Section 1 introduced the study by providing a scope of domestic violence prevalence worldwide, highlighting victims and perpetrators. The section presented the study's questions and problem statement. Section 1 highlights the study's purpose and the theoretical framework that guides the study's construct. The details exhibited invites people to recognize that domestic violence remains a significant public health and economic threat, and they can participate in the fight to end domestic violence. The study intended to add to the existing body of information about the implications of domestic violence, particularly the role of extenuating circumstances like public health emergencies in exacerbating the situation.

#### **Literature Review**

A comprehensive data abstraction process via a nonsystematic search for current, 2017-2022, peer-reviewed articles on domestic violence in multiple sources, including the Walden online library, NIH, CDC, United States National Library of Medicine, National Center for Biotechnology Information, PMC, PubMed, Cochrane, Scopus, SciELO, and Google Scholar databases to gather domestic violence-related information. The search terms used to locate articles specific to this study included *COVID-19*, *SARS-CoV-2*, *lockdown*, *social distancing*, *isolation*, *quarantine*, *shelter-in-place orders*, *restrictions*, *intimate partner violence*, *behavior changes*, *domestic violence*, and

perpetrators of domestic violence. The search occurred between January and December 2022. Extensive search results required the use of variations of these terms.

The scourge of domestic violence has existed for millennia, casting a dark veil across every socioeconomic and sociodemographic region worldwide. Domestic violence's irreprehensible harm pervades our society's women, children, and other vulnerable cohorts. The deviant assaults occur significantly at the hands of familial associates and intimate partners. The assaults often lead to physical injury, trauma, and death. Approximately 30% of women and children experience physical or sexual IPV globally (McCarthy et al., 2018). The domestic violence concept is not novel and is a well-researched subject for which the consensus is the need for a multidimensional effort to mitigate this social scourge to offer improved outcomes to women and children who are worst affected by domestic violence and abuse. A vital feature of this literature review is providing a broad overview of the extent of and factors driving domestic violence.

#### **Historical Context of Domestic Violence**

The perpetuation of domestic violence (DV) occurs in the context of pervading environments facilitated by social inequities and inequalities or accepted as purely cultural (Abdi et al., 2021). During the fourth installment of the United Women's World Conference in 1995, suggestions were made that the perpetuation of violence against women stems from the proverbial unequal power relationship between men and women (Bhattacharya et al., 2020). The suburbanization phenomenon creates a conundrum of consequences like poverty, crime, and DV, particularly against women and children

(Abdi et al., 2021). According to the WHO, violence entails using mental or physical force to coerce, threaten, or harm someone, group, or community, causing physical or psychological harm, deprivation, or death (Abdi et al., 2021). DV constitutes acts of physical, sexual, or emotional abuse against household members (McLaughlin, 2017). DV refers to individuals' behavior displayed to gain or maintain control over intimate partners or other household members (Thiel et al., 2022). DV represents the most common gender-based violence, posing significant social and public health concerns (Abdi et al., 2021). As a subcategory of DV, IPV signifies abuse levied against a partner by another, barring marital status (McLaughlin, 2017). IPV was once an accepted norm in the United States, where husbands could physically abuse wives (McLaughlin, 2017). Evidence of this practice is present in the court ruling in the Mississippi case of *Bradlev* v. The State (1818), which condoned men beating their wives as a means of "moderate chastisement," providing the rod was no bigger than their thumb (McLaughlin, 2017). The practice became a criminal offense in the United States in the 1970s (McLaughlin, 2017).

Two thirds of an estimated 2 million people who experienced domestic violence (DV) in England and Wales in 2018 were women (Dheensa et al., 2020). The verity of women reporting domestic violence (DV) perpetrated by intimate partners ranges from 15% to 71% depending on the country, and many events go unregistered globally (Miranda & Lange, 2020). The community-based factors were responsible for spatial variability in the distribution of IPV (Seid et al., 2021). Predominantly communities housing African American women in the United States, communities situated around

entertainment centers in Canada, communities with low educational attainment, high levels of disorder, and those with a high population density of immigrants were likely to display higher IPV levels (Seid et al., 2021). Documented empirical evidence of DV and IPV focuses extensively on women (Thiel et al., 2022). However, increased public, empirical, and clinical attention on DV and IPV against men (Thiel et al., 2022). An estimated 25% of men experience domestic violence by an intimate partner throughout their life (Thiel et al., 2022). Precise measurements of DV prevalence are unattainable due to the many complexities, like the social stigma that forces victims to hide their abuse (Miranda & Lange, 2020). A robust collaborative effort, including the criminal justice, social, community, and healthcare systems, hold the antidote to tackle this dilemma (Miranda & Lange, 2020). There are many moving parts, and achieving successful coordination remains elusive (Miranda & Lange, 2020). One significant barrier to disclosure by DV victims remains fear of retaliation, embarrassment, humiliation, low self-esteem, and family devotion (Miranda & Lange, 2020). Additional barriers among healthcare professionals include limited interaction times, inadequate training to manage DV, personal embarrassment about DV, fear of aggravating victims, and a sense of incompetence in handling DV issues (Miranda & Lange, 2020). As these barriers linger, DV continues its destructive carnage globally.

#### **Prevalence of Domestic Violence (DV)**

Despite the tremendous personal, social, and economic costs attributed to domestic violence (DV), it is still grossly underreported and underrecognized (Al Kendi et al., 2021). One third of the world's women are victims of DV (Al Kendi et al., 2021).

More specifically, Lebanon, Jordon, Egypt, and Saudi Arabia reported 35%, 24%, 26%, and 34% DV prevalence, respectively (Al Kendi et al., 2021). Annually, at least 5 million DV events occur among women 18 years and older, and 3 million involve men (Huecker et al., 2022). Several DV events are minor, like grabbing, shoving, pushing, slapping, and hitting (Huecker et al., 2022). However, 1.5 million are serious, like rapes and physical assaults (Huecker et al., 2022). An estimated 800,000 men also report DV exposures (Huecker et al., 2022). The United States reports approximately 4.5 million DV events annually, of which 22% occur among women (Papageorge et al., 2021).

#### Disasters and Their Roles in Domestic Violence

With the increasing frequency and magnitude of natural disasters, researchers have been trying to understand the roles of these disasters in establishing vulnerabilities and the adverse effects on women, ethnic and racial minorities, and older adults (Gearhart et al., 2018). Research suggests a positive relationship between natural disasters or other extensive disturbances and domestic violence (DV) rates (Gearhart et al., 2018). The loss of the preexisting social support network due to significant adverse events causes a breakdown in social relationships (Gearhart et al., 2018). Disaster events complicate preexisting factors associated with DV through increased feelings of helplessness and hopelessness, which are well-established DV triggers (Gearhart et al., 2018). According to research, DV risk against women increased during postdisaster recovery in developing countries (Parkinson, 2019). Although evidence supporting the association between disasters and DV has remained sparse, the numbers are growing (Parkinson, 2019).

Increased DV acts against women and children have been evident during natural disasters like tsunamis, hurricanes, earthquakes, and floods (Parkinson, 2019).

A global review of about 100 gender and disaster studies, and others, shows an associated increase in DV incidents (Parkinson, 2019). There was a 50% increase in calls to the DV helpline after Hurricane Andrew in 1992 (Parkinson, 2019). Similarly, a review of 77 U.S. and Canadian domestic violence programs echoed similar sentiments (Parkinson, 2019). Following the 1997 earthquake in Dale County, Alabama, DV reports rose sharply by 6005 and court injunctions by 98% (Parkinson, 2019). There was a fourfold rise in IPV following hurricane Katrina in 2010 (Parkinson, 2019). Although not in these categories, the COVID-19 pandemic predisposed many vulnerable people by exacerbating their situations, giving rise to similar outcomes of increased incidence of DV.

#### **Domestic Violence Prevalence During the COVID-19 Pandemic**

The increased prevalence of family violence (including IPV, domestic violence, child abuse, and elder abuse) sparked by the COVID-19 pandemic gained the attention of many researchers. Similar trends existed during the Ebola and other epidemics (Xue et al., 2020). Scholars speculated on the likelihood of new forms of family violence due to the pandemic (Xue et al., 2020). DVA professionals expressed grave concerns about the institution of the pandemic's restrictive measures (van Gelder et al., 2021). According to UNICEF, school closures associated with the Ebola epidemic have led to increased rates of child abuse and neglect (Xue et al., 2020). The risk of co-occurring child abuse and domestic violence increases during home isolation (Xue et al., 2020). Increased demand

pandemic quarantine measures (Xue et al., 2020). The Guardian newspaper reported a steady surge in domestic violence (DV) cases globally (Bradbury-Jones & Isham, 2020). Brazil reported a 40.5% to 50% rise, and Spain and Cyprus highlighted a 20% and 30% increase in call volumes to violence helplines within the first week of pandemic measures (Bradbury-Jones & Isham, 2020). The United Kingdom also reported a 25% increase in calls to Refuge, the domestic violence helpline, and a 150% increase in website visits within the first week of the imposition of the pandemic measures. Additionally, domestic homicide rates have risen in many countries since the institution of the pandemic measures globally (Bradbury-Jones & Isham, 2020).

Extensive media reports suggest escalating domestic violence (DV) rates since the pandemic (Thiel et al., 2022). Initial empirical evidence demonstrates that social and geographical isolation could result in DV, guiding the DV incidence designs and severity throughout the pandemic, which underwent rigorous peer review before publication (Thiel et al., 2022). The suggested rise in DV against women throughout the pandemic raised alarms among researchers, policymakers, governments, and civil society (Nduna & Tshona, 2021). Globally, documentation has suggested that women are disproportionately affected during social crises, citing the Ebola epidemic (Nduna & Tshona, 2021). A rapid assessment by the International Rescue Committee reported multi-levels of violence against women and children hinged on the intersectionality of discrimination against women echoing the increased risk for gender-based victimization during crisis events like outbreaks (Nduna & Tshona, 2021). Extended household isolation could prove

problematic for women and children (Nduna & Tshona, 2021). Analysis of Google search data revealed 70% were for the search words "domestic violence shelters" (Nduna & Tshona, 2021). While there were notable increases in calls to domestic violence help centers in several regions, including parts of Asia, North and Latin America, and Europe, Italy reported reduced call rates (Nduna & Tshona, 2021). Still, SMS increased (Nduna & Tshona, 2021). For many women, social distancing became social disconnection, cutting off access to informal sources of support for domestic dispute resolutions (Nduna & Tshona, 2021). Despite the well-intentioned measures instituted by global governments, they facilitated violent events channeled against specific cohorts of individuals.

There is a geographically linked domestic violence (DV) occurrence of facilitated access to victims by perpetrators (Boserup et al., 2020). Local law enforcement departments near the epicenter of the COVID-19 outbreak in China's Hubei province reported dramatic increases in DV in February 2020 compared to February 2019 (Boserup et al., 2020). Similarly, the UN Women, a UN entity, reported a 30% rise in DV statements in France since the lockdown's initiation on March 17, 2020 (Boserup et al., 2020). Argentina reported a 25% in DV calls since their March 20, 2020, lockdown (Boserup et al., 2020). The UN cited reports of similar trends from other countries. From the U.S. perspective, only anecdotal evidence was available to support the notion of an increasing incidence of DV (Boserup et al., 2020). Local police data from Portland, Oregon, where school closure went into effect on March 16, 2020, and stay-at-home on March 23, 2020, recorded a 22% rise in DV-related arrests compared to previous weeks (Boserup et al., 2020). San Antonio, Texas, reported a similar experience, with an 18%

rise in family violence-related calls in March following the school closures and stay-at-home orders (Boserup et al., 2020). The Sheriff's office in Jefferson County, Alabama, reported a 27% rise in DV-related calls (Boserup et al., 2020). New York City Police Department responded to a 10% higher number of DV-related calls in March 2020 than in March 2019 following pandemic-associated school closures and stay-at-home orders (Boserup et al., 2020). Similar trends began evolving as other states instituted the pandemic's mitigation measures.

Although the terms domestic violence and intimate partner violence get used interchangeably, IPV incorporates additional forms of violence against other household members who are not intimate partners (Alshammari et al., 2018). DV and IPV adversely affect multiple domains of social life, causing financial recession and social relationship declines among friends, families, and victims (Alshammari et al., 2018). Despite the known higher risk implication of DV or IPV among females, women who engage in transactional sexual actives experience higher life span violence prevalence ranging from 41%–65% compared to 27%–32% among other women (Beksinska et al., 2018). DV significantly contributes to poor women's health worldwide (Bhattacharya et al., 2020). Victims experience psychological trauma, depression, injuries, STIs, suicides, and murders (Bhattacharya et al., 2020). Verbal and psychological violence ranks highest (91.2%), followed by physical violence 82.5%, and sexual violence 64.9% (Bhattacharya et al., 2020). For some victims, DV is a daily experience (Bhattacharya et al., 2020). Associated factors of domestic violence included older age, marriage at a young age, longer duration of marriages, low educational attainment of husband and wife, lower

family income, unemployment of husbands, and alcohol consumption by husband (Bhattacharya et al., 2020).

Approximately 10 million people in the United States report experiencing some form of family or domestic violence (DV) annually (Huecker et al., 2022). The United States averages one in 4 women and 1 in 9 men as victims of DV (Huecker et al., 2022). Categorically, family and domestic violence encompass economic, physical, sexual, emotional, and psychological abuse of children, adults, or elders (Huecker et al., 2022). Adverse effects of domestic violence produce decreased mental and physical health, poor quality of life, reduced productivity, and, unfortunately, death (Huecker et al., 2022). There is an increased risk for DV survivors to experience housing insecurity or homelessness (Klein et al., 2022). Victims of IPV have an increased risk of these outcomes (Fraga et al., 2022). Efforts to address this need for IPV victims require flexible and variable housing solutions (Fraga et al., 2022). Family and domestic violence present high costs that require adequate funding for victims' support programs.

The extent of the consequence of domestic violence extends beyond the boundaries of limiting private encounters to its broader societal and economic toll (Su et al., 2022). An analysis by U.S. states in 2014 estimated that female victims of DV racked up a lifetime cost of \$103,767 compared to \$23,414 per male victim (Su et al., 2022). When aligned with the 43 million victims in the United States, the economic toll amounted to over 3.5 billion dollars (Su et al., 2022). Current estimates suggest that family and domestic violence causes the United States economy approximately 12 billion dollars annually (Huecker et al., 2022). The overall population burden of domestic

violence was roughly \$3.6 trillion over the victims' life span (Peterson et al., 2018). Of the total figure, medical costs accounted for 2.1 trillion dollars or 59%, productivity time lost among victims 1.3 trillion dollars or 37%, and 73 billion dollars in criminal justice costs or 2% accounted for the bulk of the expenses (Peterson et al., 2018). Government entities cover the cost of 1.3 trillion, or 37% of the DV financial cost (Peterson et al., 2018).

In the United Kingdom, family and domestic violence incur £1.7 billion annually, with the bulk of the cost going to acute trusts and primary care (Lewis et al., 2019). The financial burden from domestic violence included attributable impaired health, lost productivity, and legal costs (Peterson et al., 2018). An evaluation of short-term productivity lost costs associated with IPV, sexual violence, or stalking resulted in lost school and workdays for victims amounted to \$1,063 (females) and \$357 (males) (Peterson et al., 2018). On average, 15.3% (n = 137,155) of IPV victimizations had a mean cost of \$1,181 per IPV event between 2006 and 2015 in the United States, according to the National Crime Victimization Survey (Peterson et al., 2018). Appropriate strategies to address the factors contributing to DV are crucial to reducing its financial burden on countries' economies.

The paucity of risk factors attributable to domestic and family violence exists at the individual, relationship, community, and societal levels (Huecker et al., 2022). Broader associations include educational status and a history of childhood abuse that could produce perpetrators of domestic violence (DV) (Huecker et al., 2022). DV causes over 1500 U.S. deaths annually (Huecker et al., 2022). Contributing factors associated

with IPV stem from combining individual, relational, community, and societal factors (CDC, 2021). Individual risk factors for IPV perpetration may include poor self-image, under- or uneducated, low-income level, alcohol, and drug abuse, aggressive behaviors, economic challenges, emotional instability, and insecurity (CDC, 2021). Relationshiprelated factors may include unresolved relationship conflicts, domineering, a history of abuse, an unstable home environment, and others (CDC, 2021). Community-level factors may incorporate poor socioeconomic problems, escalated crime, and violence rates, ease of access to drugs and alcohol, and apathy toward IPV (CDC, 2021). At the societal level, normative gender inequalities, acceptance of aggressive cultural norms, income disparity, weak policies and laws promoting health, education, and economic and social equity (CDC, 2021). The high socioeconomic inequalities in Brazil are a critical communitylevel factor that pushes for mandatory notification of all DV events to the Ministry of Health (Pereira & Gaspar, 2021). The existing social inequities in Brazil make it one of the most burdened countries with gender-based violence, particularly IPV (Xavier Hall & Evans, 2020). Brazil also faces the threat of high rates of nonfatal community violence (Xavier Hall & Evans, 2020). One critical factor that enables the continued perpetuation of domestic violence is the unwillingness of victims to report for insurmountable reasons.

People who often experience domestic violence (DV) victimization must report the incidence to support effective prevention and control efforts (Bifftu et al., 2019). Moreover, any DV prevention effort should seek to change pervasive traditional community gender norms, engage stakeholders, and empower women through the appropriate policies and legal framework (Semahegn et al., 2019). A systemic review of

twenty-one studies suggested that over a third of DV victims' survivors did not disclose their experiences (Bifftu et al., 2019). The COVID-19-associated restrictive measures made it difficult for DV survivors to disclose their status and access needed services (Panovska-Griffiths et al., 2022). In England and Wales, domestic violence and abuse (DVA) declined by 19% following the pandemic-related lockdown in 2020 (Panovska-Griffiths et al., 2022). Several barriers like DV perceptions (normative and nonserious), shame, embarrassment, and disclosure reprisal consequences constituted barriers to nonreporting (Bifftu et al., 2019). In addition to already cited barriers to reporting DV incidences, self-blame and lack of knowledge of services were also included (Shaheen et al., 2020). Despite frequent visitations to healthcare services, DV victims rarely disclose their abuse, which requires understanding the barriers limiting disclosure to healthcare providers (HCPs) (Heron & Eisma, 2021). Victims' stated barriers to reporting DV to HCPs included HCPs' attitudes, DV perception, and fear of reprisal by perpetrators (Heron & Eisma, 2021). Victims suggested that increased awareness of their reactions to disclosure would address the nondisclosure problem to HCPs (Heron & Eisma, 2021). In addition to being direct in questioning DV victims, HCPS needed to ensure a supportive and secure environment to alleviate the discomfort of victims that inhibits disclosure (Heron & Eisma, 2021). However, despite policies and guidelines implementation, nondisclosure is still a problem (Heron & Eisma, 2021). Attributable barriers to reporting DV occur at the individual, healthcare services, and societal levels (Shaheen et al., 2020). Palestinian women stated that in the primary care setting, greater emphasis was on physical issues, lack of privacy, confidentiality concerns, fear of mental health labeling,

and fear of losing access to their children represented significant barriers to disclosure (Shaheen et al., 2020).

Factors leading to the perpetuation of domestic violence (DV) stem from societal, community, and relationship factors related to the perpetrator and the victims (Kadiani et al., 2020). DV perpetrators aim to control, coerce, and threaten through violent or abusive means by intimate partners or family members aged 16 years or older without consideration for gender or sexuality (Kadiani et al., 2020). Controlling efforts by perpetrators seek to force victims into submission or dependency by limiting their access to support systems, exploiting their resources for selfish gains, imposing them into a state of dependence, and stipulating their daily behaviors (Kadiani et al., 2020). Cohesion speaks to efforts of assault, threatening, humiliating, and intimidating victims through personal harm, punishment, or scaring them (Kadiani et al., 2020). Based on the ecological models, these behaviors occur at several levels, including societal, community, and relational (Kadiani et al., 2020). Similarly, DV occurs at the primary, microsystem, exosystem, and macrosystem levels (Savisky et al., 2021). The primary or individual level represents the characteristic personality traits brought into the relationship (Savisky et al., 2021). The microsystem or family level represents the cohesion in the relationship (Savisky et al., 2021). The exosystem or community constitutes the formal and informal institutions that define the community's social network system (Savisky et al., 2021). The macrosystem or societal level comprises the societal norms (Savisky et al., 2021). The community factors facilitating the perpetuation of DV, especially IPV, include women's low socioeconomic status, weak punitive legal and community sanctions against DV, and

inequitable social-gender norms (Kadiani et al., 2020). Relational factors involve male dominance, marital conflicts and dissatisfaction, and financial stress (Kadiani et al., 2020). Then there are the individual factors associated with perpetrators and victims, like childhood adversity (violence exposure), witnessing IPV, and perpetrators' alcohol abuse (Kadiani et al., 2020).

Among barriers that inhibit domestic violence and abuse (DVA) among perpetrators in the healthcare setting include their negative emotions and remorse towards their abusive tendencies, fear of punishment, and distrust in the healthcare services' ability to manage DVA (Calcia et al., 2021). When victims experienced social consequences for their DVA, they felt they had a voice with the healthcare professionals who offered emotional and practical relationship support services that facilitated disclosure among perpetrators (Calcia et al., 2021). The range of DVA on victims' health is extensive, with 42% of women who experience IPV receiving injuries (Calcia et al., 2021). Additional consequences of DVA include chronic pain, gastrointestinal problems, gynecological problems, depression, anxiety, and other mental disorders (Calcia et al., 2021). Female victims of IPV have an increased risk of low-birth-weight babies, depression, and STI acquisition (Calcia et al., 2021). Presentation in healthcare settings provides a clear advantage in identifying DVA (Creedy et al., 2021). Unfortunately, approximately 70% of cases of DVA get missed by hospital healthcare professionals (Creedy et al., 2021).

While 33 1/3% of all assault-related hospitalization are because of domestic and family (DFV), forty percent (40%) of women murdered by their intimate partner had a

healthcare visit in the previous twelve months (Creedy et al., 2021). The healthcare system must capitalize on the opportunities to detect existing DFV risks and offer care, referral, and emergency planning for women (Creedy et al., 2021). Success in this regard is crucial because a significant gap exists in healthcare services access for DV victims (Richards et al., 2021). The inability of DV victims to access care may be particularly devastating for those who suffer head trauma (Richards et al., 2021). Staff and women favor routine domestic violence (DV) screening, but consistency across healthcare services, an ongoing training process, and available resources would promote successful outcomes (Creedy et al., 2021). In the province of Telangana, India, 70.5% of the study population reported DV is punishable by the law, of which 89% of the respondents were aware (Das et al., 2022). Yet only 9.5% of the victims sought help (Das et al., 2022). DV victims are frequent healthcare system users (Das et al., 2022). The primary care clinicians are the first point of contact for the victims (Das et al., 2022). Their roles involve identifying community victims, conducting safety assessments, providing clinical care, determining and addressing root causes, notifying cases, and bringing legal proceedings to prevent repeat offenses (Das et al., 2022). The primary care clinician also counsels and directs victims to the available support services (Das et al., 2022).

Female intimate partner and family violence victims visit urgent care and emergency departments due to their nonfatal physical injuries (Di Franco et al., 2020). Between 2012 and 2016, emergency departments in Ontario, Canada, saw 10,935 (81.2% females and 18.8% males) DVA-related cases, with an annual average of 25.5 per 100,000 female visits and 6.1 per 100,000 male visits (Singhal et al., 2021). Adequately

trained and receptive healthcare professionals offer a critical first step to domestic violence (DV) victims, providing a semblance of escaping their violent realities (Di Franco et al., 2020). One approach is offering universal screening to all women visiting health services or observing for apparent signs of DV is one approach (Di Franco et al., 2020). However, the WHO objects to this approach with no absolute validity for the recommendation and insists that further research is necessary to validate the process (Di Franco et al., 2020). The American College of Obstetricians and Gynecologists favors the universal screening approach (Di Franco et al., 2020).

## The Media's Role in Domestic Violence Perpetuation

Media houses, especially news media, are vital in shaping public views (Sutherland et al., 2019). Media houses' portrayals of people and events may influence personal, political, policy, and social justice responses to issues like DV (Sutherland et al., 2019). The broad access to media technologies and the diversification of media spaces significantly provide an avenue that underpins, constitutes, and cultivates people's social life shaping their attitudes and views (Walsh, 2020). According to research, the exposition of domestic violence (DV) against women via media influences a culture of DV against women (Gavin & Kruis, 2021). Bivariate analysis of data gathered from a representative sample of inmates suggested a strong association between exposure to pleasurable violence in media sources and IPV perpetuation (Gavin & Kruis, 2021). The strongest predictors of IPV perpetuation were Endorsement of domestic violence beliefs and victimization experience (Gavin & Kruis, 2021). Previous research debunks this based on news reports with the increased push about the significant role that media

platforms could play in DV prevention content (Sutherland et al., 2019). An example of the media's failure to emphasize violence prevention is their failure to edit male-perpetrated violence in newscasts to garner an improved understanding of the problem's social construction by simply acknowledging the associated societal and gender-based factors of DV (Sutherland et al., 2019). The tendency of media houses to provide coverage of selected DV incidents occurring at particular places and times, coined episodic framing, prompts the individual's attribution of responsibility instead of the society, which fails to portray that gender-based violence is a systemic social issue (Sutherland et al., 2019). Media plays a pivotal role as an indicator that determines whether shifting cultural and social norms are reinforcing or challenging violence against women in society (Sutherland et al., 2019).

Like news media, social media is a significant catalyst in facilitating violent activities (Mugari & Muzinda, 2021). In Zimbabwe, social media platforms play a central role in violent protest activities (Mugari & Muzinda, 2021). Social media platforms allegedly promote fake news that infuriates citizens leading to panic and fear (Mugari & Muzinda, 2021). Social media facilitates the rapid sharing of information (Walsh, 2020). The likelihood of social media favoring content that invokes powerful emotions and outrage may encourage division and hostility (Walsh, 2020). Social media has also been a reliable ally for DV victims in Great Britain (Aldridge (2021). Social media platforms offer significant opportunities to promote positive behavior change (Okedo-Alex et al., 2021). Many individuals resolved to use social media to share their DV experiences during the pandemic (usher et al., 2021). Over the past twenty years, media platforms

have been used extensively as an effective tool to broaden awareness of public health issues (Bhowmik & Biswas, 2022). Domestic violence is a significant public health problem, and media platforms represent an effective tool to control DV through awareness campaigns (Bhowmik & Biswas, 2022). Due to the extent of the reach of domestic violence against women, little effect from the different facilitators of DV focus on males.

Both women and men are prone to domestic violence (DV) and abuse (Huntley et al., 2020). Minimal research addresses male victims' experiences and support needs (Huntley et al., 2020). Data analysis from the German Federal Criminal Police Office stated that 23,362 men were DV victims in 2018 (Kolbe & Büttner, 2020). Further evidence indicated that 0.9% of surveyed men experienced physical partner violence in the previous 12 months (Kolbe & Büttner, 2020). Even though vastly outnumbered when compared to the prevalence of domestic violence abuse (DVA) experienced by women, heterosexuals, and men who have sex with men (MSM) encounter DVA at the hands of intimate partners or ex-partners, or adult family members (Huntley et al., 2020). Male victims of DVA usually struggle to disclose their experiences, driven by internal fear, shame, and denial (Huntley et al., 2020). Male victims of DVA also experience significant external pressures that engender extensive barriers related to disclosure to others (Huntley et al., 2020). Male victims of DVA were unwilling to disclose their issues to avoid other problems (Huntley et al., 2020). Despite the reality of male victims of DVA, minimal effort exists to support their services needs (Huntley et al., 2020). DVA occurs frequently, violates human rights, and may affect everyone (Huntley et al., 2020).

Several countries like Mozambique formed a coalition of governmental and nongovernmental agencies to improve the legislative framework and access to healthcare services for victims of domestic violence and abuse (DVA) (Jethá et al., 2021). However, Mozambique officials have not been able to implement these robust policies into action (Jethá et al., 2021). Like the rest of the world, Sub-Saharan Africa struggles with the DVA epidemic, a significant driver that prompted the government and its partners to prioritize the problem to reduce DVA cases and the subsequent associated poor quality of life (Jethá et al., 2021). Mozambique does not possess a centralized DVA database, but the issue has gotten the attention of critical stakeholders (Jethá et al., 2021). DVA data capture comes mainly through DVA reports ascertained through hospitals, the police, the courts, and ad hoc surveys (Karystianis et al., 2022). While there are efforts to integrate government resources to ensure an accurate picture of DVA in Australia, data sources tend to capture DVA perpetrated by males against their intimate partners (Karystianis et al., 2022). Availability and access to quality raw data on DVA offer opportunities for research, which can provide insights into DVA and foster policy recommendations and implementation strategies.

In addition to violating women's fundamental human rights, domestic violence and abuse (DVA) inhibit their potential to achieve excellence worldwide (Lasong et al., 2020). At present, the rate of DVA in Sub-Saharan countries exceeds the global average (30%) by 36% (Lasong et al., 2020). As far back as 1993, the UN declared war against DVA among signatories the result was the passage of anti-DVA legislation by 119 member states (Lasong et al., 2020). Regardless of this intervention, approximately 1.3

million make up DVA-related mortality annually, of which women are the primary victims (Lasong et al., 2020). Despite socioeconomic status, women account for 80% of DVA cases, particularly IPV (Lasong et al., 2020). While the scourge of DVA against women and girls happens in all socioeconomic and socio-demographic settings, urban dwellers receive more spotlight than their rural peers facing the same challenges (Arisukwu et al., 2021). Recognizing DVA is as critical as its occurrence within societies (Arisukwu et al., 2021). DVA occurrence often becomes masked in some cultures and religions due to victims' fear of betraying cultural, traditional, and religious norms (Arisukwu et al., 2021). Research highlights harmful gender norms, attitudes toward violence against women, and power inequities in relationships as crucial factors in gender-based violence (McCarthy et al., 2018). According to activists, researchers, and practitioners, IPV derives from and perpetuates a broader gender system (McCarthy et al., 2018). Constructed social ideologies that define masculinity and the associated expectation of what it means to be a man in many societies potentially influence male DVA perpetuation (McCarthy et al., 2018). These defined roles and qualities like strength, toughness, control, and sexual dominance get displayed through violence (McCarthy et al., 2018). Cultures and religions that conceal acts of violence against vulnerable populations inhibit interventions from eliminating the problem (Arisukwu et al., 2021).

Efforts to address the epidemic of domestic violence abuse (DVA), which extensively affects women and children, require collaboration among critical stakeholders, including domestic violence organizations (DVO) and child protection

services (CPS) (Nikolova et al., 2020). The current rate of DV among United States families estimates that approximately one in fifteen children get exposed to DVA in their homes (Nikolova et al., 2020). For children, exposure to DVA constitutes maltreatment and an increased risk for displaying internalizing and externalizing behaviors ranging from anxiety disorders, sleep apnea, nightmares, aggressive behaviors, and low educational attainment (Nikolova et al., 2020). The ongoing exposure of children to IPV increases their risk of experiencing maltreatment (McDonald et al., 2019). Adolescents who experienced prolonged DVA exposure experienced negative consequences in their adult lives (Pang & Thomas, 2019). Given the extensive reach of DVA, it means that children affected by VA are present in every school (Lloyd, 2018). Affected children experience immediate and long-term consequences like poor academic and developmental deficits (Lloyd, 2018). Several organizations and systems facilitate response in varying ways to children and families affected by DVA and other familyrelated emergencies (Nikolova et al., 2020). With the need for improved collaboration among organizations tasked with responding to family needs resulting from DVA, states are making necessary adjustments to support effective cooperation between the organizations (Nikolova et al., 2020).

### The Face of Domestic Violence and Abuse in the Era of a COVID-19 Pandemic

Documentation limitations inhibit adequate information about the health-seeking behaviors of people exposed to domestic violence and abuse (DVA) during the COVID-19 pandemic (Muldoon et al., 2021). In Belgium, national prevalence data on DVA is minimal and difficult to collate (Drieskens et al., 2022). The study aims to determine any

association between the COVID-19 pandemic and the perpetuation of DVA. Research suggests that emergencies and disasters resulting from social isolation and movement restrictions often lead to heightened stress levels, fear, and uncertainty (Muldoon et al., 2021). The WHO declared COVID-19 a global pandemic on March 11, 2020, resulting in several extensive institutional infection control measures, including physical distancing (Muldoon et al., 2021). The COVID-19 restrictive measures were to curtail disease spread while decreasing the healthcare system burden (Drieskens et al., 2022). Two weeks later, on March 27, 2020, the UN signaled that the current restrictive measures could result in a rise in DVA, appealing for government intervention to prevent the impending secondary disaster (Muldoon et al., 2021). Historically, economic insecurity, poverty-related stress, job loss or reduced working hours, quarantine, and social isolation are the familiar drivers of DVA, evident in previous pandemics or emergencies (Muldoon et al., 2021). The implementation of quarantine and isolation restrictions in the severe acute respiratory syndrome (SARS), influenza A virus subtype (H1N1) pandemics led to psychological distress, loneliness, depression, stress, post-traumatic stress disorder, anger, sleep disorders, and problematic substance use, are known risk factors for DVA (Muldoon et al., 2021).

During the early phase of the pandemic, between March 31, 2020, and April 27, 2020, there were mixed results in reported assault-based trauma to emergency departments (Muldoon et al., 2021). Lower numbers may be because victims avoided these settings inundated with COVID-19 cases out of fear of infections (Muldoon et al., 2021). The social isolation brought on by the pandemic's restrictive measures may

adversely affect health-seeking behaviors (Drieskens et al., 2022). Other violence prevention agencies reported clients requiring services (Muldoon et al., 2021). Despite the well-intentioned goal of the implemented COVID-19 measures to preserve the public's health through reduced disease transmission, the social distancing, isolation, quarantine, and shelter-in-place orders presented unexplained effects on relationship violence and abuse (Evans, 2020). The standard view was the potential dangers to individuals experiencing violence as the pandemic progressed (Evans, 2020). The financial crisis and uncertainties mediated by the pandemic that led to entire days at home constitute influential factors in DV prevalence (Leslie & Wilson, 2020). Data gleaned from 911 call records and mobile device location, people staying home increased sharply, and the time they spent as well (McCrary and Sanga, 2021). The duration of time spent during regular working hours almost doubled, moving from 45% to 85% (McCrary and Sanga, 2021). Correspondingly, DV rates jumped by 12%, with working hours recording a 20% increase (McCrary and Sanga, 2021). Several countries highlighted that the pandemic measures fueled IPV (Evans, 2020). Police in China attributed 90% of IPV reported during the pandemic to the pandemic (Evans, 2020). Domestic violence Calls in the United States grew by 7.5% between March 2020 and May 2020 (Leslie & Wilson, 2020). Sustained and increased DV activities occurred in the first five weeks following the implementation of the pandemic's restrictive measures (Leslie & Wilson, 2020). Given that a significant portion of pandemic-related IPV and violence information is assumptive, public health researchers must thoroughly investigate the association

between the pandemic's restrictive measures and domestic violence prevalence (Evans, 2020).

Several studies from countries worldwide point to substantial domestic violence (DV) increase (Henke & Hsu, 2022). Increased reports on DV following the onset of the pandemic came from police reports, online search trends, and DV hotline calls (Henke & Hsu, 2022). Calls for police services in five (New Orleans (LA), Cincinnati (OH), Seattle (WA), Salt Lake City (UT), Montgomery County (MD), and Phoenix (AZ)) showed an immediate and significant rise in DV-related service calls (Nix & Richards, 2021). A corresponding decline in calls for service followed the withdrawal of the restrictive measures in 2020 (Nix & Richards, 2021). Applying the exposure reduction theory, which looks at the opportunities to and the temptation to carry out an offense, highly depends on the perpetrators' exposure opportunities to victims (Henke & Hsu, 2022). Major media houses in the United States and Europe broadcast elevated reports to DV hotlines and abuse help websites during the pandemic (Leslie & Wilson, 2020). The pandemic's isolation and stay-at-home orders facilitated the cohabitation of the abuser and victim for entire days, which would have otherwise increased opportunities for perpetrators to commit violent acts (Henke & Hsu, 2022). The rate of first-time DV reporters increased by averaging 16% generally and 23% during working hours (McCrary and Sanga, 2021). To establish a likely channel for DV during the pandemic, researchers must ensure that they control all possible channels, given their existing relationship (Henke & Hsu, 2022).

India reported a similar experience of increased prevalence of domestic violence (DV) (Krishnakumar & Verma, 2021). India's National Commission for Women (NWC) reported a doubling of DV complaints following nationwide pandemic lockdown measures (Krishnakumar & Verma, 2021). Indian women who face domestic violence and abuse (DVA) register 2% to 99% psychological abuse, 2% to 99% physical abuse, and 0% to 75% sexual abuse (Sharma & Khokhar, 2021). Unlike other countries, India has well-documented DV studies (Krishnakumar & Verma, 2021). DV contributing factors in India include women's education, employment status, caste, and religion (Krishnakumar & Verma, 2021). Previous literary findings suggest that women experienced increased violence following disaster events (Krishnakumar & Verma, 2021). Increased DV against women occurs during emergencies (Sharma & Khokhar, 2021). IPV against Indian women is strongly associated with pre and post-2004 tsunami statistics, which showed a 48% increase in IPV between 2005 and 2015 (Krishnakumar & Verma, 2021). Sociodemographic factors are critical facilitators of IPV post-disaster (Krishnakumar & Verma, 2021). A similar study among Sri Lankan women found domestic violence increases among women in tsunami-affected areas (Krishnakumar & Verma, 2021). Forty-two percent (42%) of Australian clinicians reported increases in women reporting DV for the first time (Krishnakumar & Verma, 2021). Similarly, Europe had a 60% spike in violence-related calls, 48% in Peru, and a slue of tweets highlighting increased DV related to COVID-19 restrictions (Krishnakumar & Verma, 2021).

Documented evidence suggests that domestic violence (DV) shows increased tendencies during stressful situations, social isolation, and financial challenges, usually brought on by catastrophic events (Leigh et al., 2022). The insurgence of the COVID-19 pandemic led researchers and policymakers to conclude the inevitable increase in DV in the United States and worldwide (Leigh et al., 2022). The subsequent restrictive measure extensively increased women's violence victimization risks (Sorenson et al., 2021). On average, 36.4% or 41.6 million American women report having violent exposures during their lifetime (Sorenson et al., 2021). Limited knowledge of the novel coronavirus meant uncertainty about protecting oneself, and prolonged isolation presented psychological and social problems (Leigh et al., 2022). Both empirical research and current articles agree that DV is likely to increase during the COVID-19 pandemic in coherence with past disaster events (Leigh et al., 2022). Similar studies worldwide echo the same sentiments about a possible association between disaster events and increased incidence of DV (Leigh et al., 2022). Despite the empirical findings, more research will provide a better understanding of the nature and context of the increases (Leigh et al., 2022). As insights into the pandemic-related DV shifts becomes apparent, there are concerns about the variability in DV measures (i.e., domestic crimes, arrests for domestic crimes, calls to hotlines) and the reporters, namely service providers and law enforcement (Leigh et al., 2022). Not all DV professionals reported increased DVA and attributed it to possible under-detection because of victims' under-reporting during the pandemic (van Gelder et al., 2021).

# **Domestic Violence and Abuse in Virginia**

No one is exempt from the fear, uncertainty, and despair attended by domestic violence (DV) (Virginia Commonwealth University [VCU], 2021). Even domestic violence (DV) witnesses experience adverse effects of DV (VCU, 2021). Virginia Code § 16.1-228 defines domestic violence (DV) as family abuse, which is the actions of family or household members that incite violence, force, or threat resulting in physical injury, reasonable fear of death, sexual assault, or bodily harm (WomensLaw.Org, 2021). The stated actions involve but are not limited to any forceful detention, stalking, criminal sexual assault, or any criminal offense that results in bodily injury or places you in reasonable fear of death, sexual assault, or physical harm (WomensLaw.Org, 2021). Based on extrapolated data, more than 22,000 adults and 5,300 children required DV advocacy services in Virginia in 2019, 20% of whom had to relocate or experienced homelessness (VCU, 2021).

In Virginia, an estimated 33.6% of women and 28.6% of men are subject to intimate partner physical violence, intimate partner rape, or intimate partner stalking in their lifetimes. (National Coalition Against Domestic Violence [NCADV], 2021). Perpetuation of DV in Virginia in 2019 included 87% men and 13% women (VCU, 2021). In Virginia, 30% of homicides are due to DV (VCU, 2021). Firearms account for 56% of DV-related homicides in Virginia (VCU, 2021). Private homes account for 80% of the location of DV homicides in Virginia (VCU, 2021). Approximately 40% of DV homicides in Virginia occur during or following relationship breakups (VCU, 2021). A homicide-suicide occurs in 20% of the DV homicides in Virginia (VCU, 2021). While

women comprise 51% of Virginia's population, they account for 63% of intimate partner homicides from firearms (VCU, 2021)

One day during 2020, 84% of DV services attended to 1,334 DV victims and received 606 hotline calls (NCADV, 2021). A lack of resources inhibited 109 service requests on the same day (NCADV, 2021). Over 50% of the 541 homicides in Virginia in 2020 were at the hands of intimate partners (NCADV, 2021). Intimate partners were responsible for over 30% of violent crimes, including 11% of forcible sex offenses and 61% of abductions (NCADV, 2021). According to Virginia's police, at least 31,000 active protective orders are on file at any time (NCADV, 2021). At the end of December 2020, Virginia submitted 2,791 domestic violence (DV) misdemeanor convictions and one protective order to the National Instant Criminal Background Check System (NICS) Index (NCADV, 2021). The National Crime Information Center for Virginia had 15,254 active protection orders between 2006 and 2015 (NCADV, 2021). Virginia laws have prohibitions against firearms possession, purchasing, or transportation by individuals who are respondents to final domestic violence protective orders (NCADV, 2021).

Domestic Violence (DV) advocates' reports suggest increased injury severity at higher levels among DV victims visiting emergency departments in Central Virginia than before the pandemic (Bolster, 2021). The reports are like those submitted by law enforcement officers across Virginia and the United States (Bolster, 2021). At Bon Secours, the Forensic Nursing Team stated a 21% rise in DV victims who were strangled compared to the year before, raising concerns among advocates (Bolster, 2021). Job separations and home-schooling fueled current DV trends in Virginia (Bolster, 2021).

The attacks were increasing in intensity (Bolster, 2021). Victims remaining in volatile situations have an 800 times increased likelihood of dying from the attacks. During the pandemic in 2020, Henrico police reports indicated a 13%, Chesterfield 11%, and Richmond 13% increase in felonious DV assaults (Bolster, 2021). Law enforcement in Henrico County responded to 5,322 DV service calls compared to 5,653 in 2020 (Bolster, 2021). Advocates also expressed concerns about how DV affects children (Bolster, 2021). While reported child abuse incidents declined, more children reported strangulation (Bolster, 2021). People tend to shy away from sharing their experiences (Bolster, 2021). It is not always the intention of perpetrators to commit violent acts, but dramatic changes that create instabilities in their lives trigger the violent manifestations (Bolster, 2021).

Key points from the literature review are that the researchers, policymakers, and service professionals concluded that there was a high likelihood that domestic violence cases would rise following the restrictive measures to slow the spread of the COVID-19 virus. Of note was evidence from previous emergencies that saw similar trends.

Additionally, victims and perpetrators spent significantly more extended periods together throughout the days. The measures' uncertainties and financial strains brought on by led to stressful situations, constituting established risk factors for domestic violence.

Domestic violence and abuse (DVA), particularly IPV, is a significant public health dilemma globally (Sorensen et al., 2021). While many programs are in place to tackle the DVA problem, it rages on with alarming statistics globally. Across the United States, 36.4% or 41.6 million women report some form of DV throughout their lifetime (Smith et

al., 2018). Research indicated the pandemic had more significant psychological effects on women than men in Australia (Usher et al., 2021). The extent and magnitude of the impact of the instituted pandemic restrictive measures may vary across countries. Still, a common theme is that the measures affected DV prevalence in one form or another. The acknowledgment by policymakers that DV is a public health problem and poses a significant economic burden makes them accountable for doing more to protect to most vulnerable, especially in public emergencies. The prevalence of domestic violence and its associated consequences means policymakers should prioritize understanding its causes and develop effective strategies to address the problem (Perez-Vincent & Carreras, 2022).

The alarms related to the increased probability that domestic violence (DV) incidences would escalate due to the stay-at-home and shelter-in-place orders issued globally to mitigate CIVID-19 transmission prompted researchers to study the phenomenon. While mixed, the findings submitted by the researchers offered insights into possible associations between the pandemic's restrictive measures and increased DV incidence while recommending further research to expand existing results. Current and future efforts will aid in planning and implementing appropriate measures to mitigate any potential DV surge in public emergencies while combatting the current DV epidemic. Notedly, the current global body of information about DV and its occurrence constitutes a plethora of information available for future reference in reputable educational institutions worldwide. The body of DV information has allowed policymakers to develop and implement prevention measures against DV globally. DV continues to proliferate against

women, with 25% of hospitalized Israeli women suffering critical injuries (Savitsky et al., 2021). social inequities and inequalities are crucial drivers of DV in almost all societies (Savitsky et al., 2021). Policymakers can respond to the factors that stem the DV tide that will likely worsen in public emergencies.

## **Domestic Violence in Virginia During the COVID-19 Pandemic**

One day during 2020, 84% of Domestic Violence (DV) services attended to 1,334 DV victims and received 606 hotline calls (NCADV, 2021). A lack of resources inhibited 109 service requests on the same day (NCADV, 2021). Men account for 87% and all domestic violence incidents in Virginia (NCADV, 2021). Hospitals' emergency rooms represent the first point of contact for domestic violence and abuse (DVA) victims (Singhal et al., 2021). The secondary data source from which the research data will be a hospital-based dataset that captures all DV-related hospital visits for Virginia.

Domestic Violence (DV) advocates' reports suggest increased severity of injuries among DV victims visiting emergency departments in Central Virginia at higher levels than before the pandemic (Bolster, 2021). The reports are like those submitted by law enforcement officers across Virginia and the United States (Bolster, 2021). At Bon Secours, the Forensic Nursing Team stated a 21% rise in DV victims who were strangled compared to the year before, raising concerns among advocates (Bolster, 2021). Job separations and home-schooling fueled current DV trends in Virginia (Bolster, 2021). The attacks were increasing in intensity (Bolster, 2021). Victims remaining in the volatile situations were 800 times more likely to die from the attacks. During the pandemic in 2020, Henrico police reports indicated a 13%, Chesterfield 11%, and Richmond 13%

increase in felonious DV assaults (Bolster, 2021). Law enforcement in Henrico County responded to 5,322 DV service calls compared to 5,653 in 2020 (Bolster, 2021).

Advocates also expressed concerns about how DV affects children (Bolster, 2021). While reported child abuse incidents declined, more children reported strangulation (Bolster, 2021). People tend to shy away from sharing their experiences (Bolster, 2021). It is not always the intention of perpetrators to commit violent acts, but dramatic changes that create instabilities in their lives trigger the violent manifestations (Bolster, 2021).

### **Literature Review Summary**

The search terms used to locate articles specific to this study included "COVID-19," "SARS-CoV-2," "Lockdown," "social distancing," "isolation," "quarantine," "shelter-in-place orders," "restrictions," "Intimate Partner Violence," "behavior changes," "domestic violence," and "perpetrators of domestic violence." Broader associations include educational status and a history of childhood abuse that could produce perpetrators of domestic violence (DV) (Huecker et al., 2022). Victims suggested that increased awareness of their reactions to disclosure among HCPs would address the nondisclosure problem by victims (Heron & Eisma, 2021).

The community factors facilitating the perpetuation of DV, especially IPV, include women's low socioeconomic status, weak punitive legal and community sanctions against DV, and inequitable social-gender norms (Kadiani et al., 2021). While 33 1/3% of all assault-related hospitalization are because of domestic and family (DFV), forty percent (40%) of women murdered by their intimate partner had a healthcare visit in the previous twelve months (Creedy et al., 2021). At Bon Secours, the Forensic Nursing

Team stated a 21% rise in DV victims who were strangled compared to the year before, raising concerns among advocates (Bolster, 2021).

# Section 2: Research Design and Data Collection

### **Nature of the Study**

The researcher aimed to conduct a comprehensive data review process via a nonsystematic search in the Walden Library, NIH, CDC, United States National Library of Medicine, National Center for Biotechnology Information, PMC, PubMed, Cochrane, Scopus, SciELO, and Google Scholar databases to gather Domestic Violence-related information. The aim was to unearth existing details related to DVA, how predisposing factors like public emergencies affect their dynamics, and the subsequent after action plans lead to the prevention of adverse outcomes. The literature review would also highlight barriers to change and measures implemented to address these concerns. The search emphasized recent articles, published case series, consensus statements, guidelines, meta-analyses, and systematic reviews that provided insights that supported the research in expanding the body of data about the interplay between adverse social events and the challenges of DV.

### **Statement of the Problem**

The COVID-19 pandemic presented unprecedented trauma to people's lives worldwide (Calina et al., 2021). The effects occurred at the individual (all kinds of fears of the unknown, illness, death, isolation, physical and financial insecurity), familial, societal (economic recession, educational and opportunities limitations, job loss, rising inequities, and stigma, infodemia, coronaphobia), state and federal levels in similar ways (Calina et al., 2021). Women and girls continue to battle gender-based violence, a global social problem (Xavier Hall & Evans, 2020). IPV contributes significantly to the problem

(Xavier Hall & Evans, 2020). Other factors contributing to the social issue of gender-based violence include social conditions (adverse childhood experiences), community violence, and substance use-related violence (Xavier Hall & Evans, 2020). Domestic violence has been and continues to be a social and public health issue, and all avenues, through collaboration, are needed to mitigate the events, especially during adverse social circumstances. In contrast to several researchers' suggestions of possible associations, it is inconclusive whether there is an association between the COVID-19 pandemic-influenced lockdown and isolation and the reported increased prevalence of domestic violence among Virginians.

## **Research Design**

# **Purpose of the Study**

The study examines the association between domestic violence prevalence and COVID-19-related lockdown activities adjusted for gender, age, race, insurer, and locality among Virginians. Burkholder et al. (2020) referred to the purpose statement describing the study design, the theory, the study's intent, the variable under consideration, the participants, and the proposed study site. In addition, a correlational analysis will aid in determining associations. Correlational studies establish relationships between existing variables (Burkholder et al., 2020). In correlation research, the objective is to predict outcomes using one or more predictor variables (Burkholder et al., 2020).

A quantitative correlational statistical study facilitated the investigation of the differences between selected variables based on the research questions. The research assessed the relationships' strength and the type(s) of relationships between the selected

variables. The study aimed to determine the association between the COVID-19 pandemic's restrictive measures and domestic violence.

### **Data, Data Collection Tools, and Sources**

The data will be collected using search terms including *COVID-19*, *SARS-CoV-2*, *lockdown*, *social distancing*, *isolation*, *quarantine*, *shelter-in-place orders*, *restrictions*, *intimate partner violence*, *behavior changes*, and *domestic violence conduct*. The data sources included the Virginia Health Information database, a state-wide hospital data management platform that captures hospital-reported domestic violence cases. Data collection occurred during the Fall and Winter quarters of 2022.

#### **Data Points**

The Virginia Health Information databases contain all the variables needed for the study, including COVID-19 lockdown, IPV, domestic violence perpetrators, and hospitalization. Upon IRB approval, I approached the Virginia Department of Health to request access to the Virginia Health Information databases. The selected data sources contain all the variables needed to conduct the study, including COVID-19 lockdown periods, domestic violence, and perpetrators, while controlling sociodemographic information, gender, age, race, insurer, and locality.

### Setting

The study area included Virginia hospital emergency department visits for domestic violence from March 2019 to August 2021. The decision to choose the emergency department site hinged on previous research that suggested that domestic violence (DV) victims are highly likely to visit emergency departments for treatment for

injuries sustained during attacks. Female intimate partner and family violence victims visit urgent care and emergency departments due to their nonfatal physical injuries (Di Franco et al., 2020). Between 2012 and 2016, emergency departments in Ontario, Canada, saw 10,935 (81.2% females and 18.8% males) DVA-related cases, with an annual average of 25.5 per 100,000 female visits and 6.1 per 100,000 male visits (Singhal et al., 2021).

# Sampling

I acquired all relevant emergency department domestic violence (DV) related data through Virginia Health Information Database from March 2019 to March 2020 to March 2021 for analysis to achieve the study's objectives. I filtered the variables of interest for the research to ensure adequate data capture. The selected data sources contained all the variables needed for the study. Sociodemographic information includes gender, race, insurer, and locality while controlling for age. The sample size was computed using an accepted sample size formula in Microsoft Excel: [z2\*p(1-p)]/e2/1 + [z2\*p(1-p)]/e2\* N]. The minimum sample size derived from the computation was 384 participants.

- Confidence Level = 95%
- Standard Deviation (P) = 0.5
- Error ( $\in$ ) = 0.05
- Population Size = 8757467
- Alpha / 2 = 0.025
- Z-Score = 1.96
- Sample Size = 384.13

- Numerator = 384.15
- Denominator = 1.00

## **Data Analysis**

I used a secondary data source for this cross-sectional study. IBM SPSS Statistics software was used to conduct descriptive and inferential data analysis using bivariate and multivariate analyses. Given that the data variables are categorical, Pearson's chi-square correlation facilitated differences estimation over the defined periods based on the predicted variables. The output from the analysis produced a correlation coefficient referred to as the Pearson r score that signified whether significant differences exist between the groups. The score varies between +1 and -1, with +1 representing a perfect positive correlation and -1 a perfect negative correlation. If Pearson's r value equals 0, there is no linear correlation. The 2-tailed significance value determined whether the results were significant. The standard alpha value of 0.005 represents the benchmark to determine significance. Output values of 0.005 or less will signify statistical significance, which would result in rejecting the null hypotheses.

Analytical findings from studies suggest a rise in domestic violence attributed to the COVID-19 pandemic restrictive measures. Throughout the pandemic's surge, increased suppositions emerged about the likelihood that restrictive measures could contribute to violent acts (Evans, 2020). The globally instituted measures to limit COVID-19 transmission aroused what some called "the perfect storm" situation because of an increased wave of DV (Usher et al., 2021).

### **Ethical Consideration**

I did not require identifying information, nullifying the need for informed consent. Additionally, IRB approval is a requirement to conduct this research and was made available to the Virginia Department of Health, which granted access to the dataset. Joint IRB approval was sought from Walden University and the Virginia Department of Health.

# **Research Questions and Hypotheses**

The research entails several proposed questions that will guide the research process. A research hypothesis is an introductory statement for a research question that predicts a specific outcome (Enago Academy, 2021). It is a critical component of the scientific method that establishes the foundation for scientific experiments (Enago Academy, 2021). Research Question 1: Is there a difference between the COVID-19-related lockdowns and domestic violence prevalence among Virginians between March 2019 to March 2020 to March 2021, controlling for age, race, insurer, and locality?

 $H_01$ : There is no significant difference between the COVID-19-related lockdowns and the domestic violence prevalence during periods of lockdowns and no lockdowns.

 $H_a$ 1: There is a significant difference between the COVID-19-related lockdowns and the domestic violence prevalence during periods of lockdowns and no lockdowns.

Research Question 2: Is there a difference between the COVID-19-related lockdowns and the domestic violence perpetrators' characteristics amongst Virginians

between March 2019 to March 2020 to March 2021, controlling for age, race, insurer, and locality?

 $H_02$ : There is no significant difference in domestic violence on perpetrators' characteristics among Virginians during the COVID-19 periods of lockdowns and no lockdowns.

 $H_a2$ : There is a significant difference in domestic violence on perpetrators' characteristics among Virginians during the COVID-19 periods of lockdowns and no lockdowns.

Research Question 3: Are there any characteristic differences among Virginians hospitalized for domestic Violence (DV) during the pandemic-related lockdowns and no lockdowns between March 2019 to March 2020 to March 2021, controlling for age, race, insurer, and locality?

 $H_03$ : There is no significant difference in the characteristics among Virginians hospitalized for domestic violence during the COVID-19 periods of lockdowns and no lockdowns.

 $H_a$ 3: There is a significant difference in the characteristics among Virginians hospitalized for domestic violence during the COVID-19 periods of lockdowns and no lockdowns.

### Summary

The literature on domestic violence is extensive. It provides historical and current perspectives on domestic violence and the effect of public emergencies on their occurrence. While study findings suggest a possible association, ongoing research will

support the validity of these previous findings. Public health measures restricting movement and the instability they create set the stage for victims and perpetrators to spend lengthy times together, increasing the risk of violence initiation. There are still many questions about the association, which provide the impetus to pursue this study. The reports were mixed concerning domestic violence during the pandemic, fearing that the stay-at-home orders might have affected events reporting. Existing literature suggests that calls for domestic violence escalated on other occasions of public crises. A similar description was given, especially in the first few months of the institution of the restrictive measures. Understanding the relationship between emergencies and domestic violence will provide the opportunity to develop and implement appropriate measures to prevent or limit future occurrences.

## Section 3: Presentation of Results and Findings

## **Purpose of the Study**

The study was an examination of the association between domestic violence prevalence and COVID-19-related lockdown activities adjusted for gender, age, race, insurer, and locality among Virginians. In addition, a correlational analysis aided in determining associations. Correlational studies establish relationships between existing variables (Burkholder et al., 2020). In correlation research, the objective is to predict outcomes using one or more predictor variables (Burkholder et al., 2020). The research questions for this study were as follows:

- Research Question 1. Is there a difference between the COVID-19-related lockdowns and domestic violence prevalence among Virginians between March 2019 to March 2020 to March 2021, controlling for age, race, insurer, and locality?
- Research Question 2. Is there a difference between the COVID-19-related lockdowns and domestic violence prevalence perpetrators' characteristics or persons committing physical, sexual, or other abusive, violent acts against Virginians between March 2019 to March 2020 to March 2021, controlling age, race, insurer, and locality?
- Research Question 3. Is there an association between the COVID-19-related lockdowns and domestic violence-associated hospitalizations among
   Virginians between March 2019 to March 2020 to March 2021, controlling for age, race, insurer, and locality?

# **Data, Data Collection Tools, and Sources**

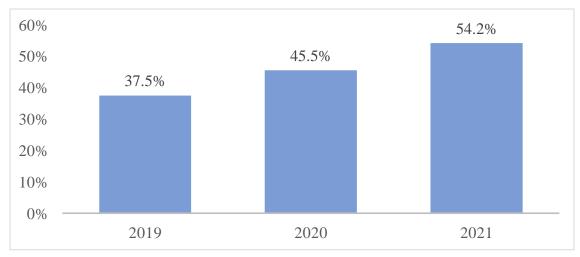
The data were collected using search terms including *COVID-19*, *SARS-CoV-2*, *lockdown*, *social distancing*, *isolation*, *quarantine*, *shelter-in-place orders*, *restrictions*, *intimate partner violence*, *behavior changes*, and *domestic violence conduct*. The data sources included the Virginia Health Information databases, a state-wide hospital data management platform that captures hospital-reported domestic violence cases. Data collection occurred during the Fall and Winter quarters of 2022.

# **Analytical Findings**

The incidence rate of DV was computed for the three measurement periods: 2019, 2020, and 2021. In 2019, there were 3018 encounters, of which 1132 were coded as DV. For 2020, there were 1425 DV instances among 3130 total encounters, and in 2021 there were data available for YTD August showing 940 DV instances among 1735 encounters. A chi-square test showed a statistically significant increase in DV incidence from 2019 (37.5%) to 2020 (45.5%). A significant increase occurred from 2020 to 2021 (54.2%),  $X^2(1, N = 7883) = 126.89, p < .001$ . Figure 1 displays the DV rates for 2019, 2020, and 2021.

Figure 1

Domestic Violence Incidence Rates Among Virginians Between 2019, 2020, and 2021



*Note. p* < .001 for 2019 to 2020 and 2020 to 2021.

To address Research Question 1, "Is there a difference between the COVID-19-related lockdowns and domestic violence prevalence among Virginians between March 2019 to March 2020 to March 2021, controlling for gender, age, race, insurer, and locality?", chi-square tests were conducted. Results are displayed in Table 1. The findings showed the demographic variables were associated with DV incidence measurement periods. Regarding region, data showed the most common locality of occurrence was central Virginia, with 33.9% in 2019. This region remained the most often reported region during the 2020 lockdown incidents at 30.5%, and then the Eastern region was the most frequently reported in 2021 at 27.8%. White individuals reported the highest DV prevalence over the three measurement periods. White victims comprised 37.8% of 2019 occurrences, 44.7% of 2020 occurrences, and 49.1% of 2021 occurrences. Female victims were the majority across all three-time points, 83.5% in 2019, 78.8% in 2020, and 83.3% in 2021. However, during the COVID-19 lockdowns, male victims

increased significantly from 2019 at 15.1% to 20.8% in 2020, then declined to 16.7% in 2021. Victims with Medicaid as a payer type represented the population with the highest rate of DV occurrences across all measurement periods (over 75%).

Table 1

Demographics and DV Incidents Among Virginians in 2019, 2020, and 2021 (Raw Data)

	20	19	20	20	20	)21		
Variable	n	%	n	%	n	%	$X^2$	p
Gender							32.44	< .001
Female	945	83.5	1123	78.8	783	83.3		
Male	171	15.1	296	20.8	157	16.7		
Unspecified	16	1.4	6	0.4	0	0.0		
Race							163.90	< .001
American	43	3.8	21	1.5	12	1.3		
Indian/Alaska Native								
Asian	0	0.0	53	3.7	0	0.0		
Black/African	14	1.2	61	4.3	17	1.8		
American		0.4				0.0		
Native Hawaiian or	1	0.1	0	0.0	0	0.0		
Other Pacific Islander	274	24.2	220	160	102	20.4		
Other	274	24.2	239	16.8	192	20.4		
White	428	37.8	637	44.7	462	49.1		
Region							82.35	< .001
Northwest	208	18.4	362	25.4	211	22.4		
Northern	95	8.4	137	9.6	101	10.7		
Southwest	184	16.3	236	16.6	159	16.9		
Central	384	33.9	435	30.5	208	22.1		
Eastern	254	22.4	255	17.9	261	27.8		
Unspecified	7	0.6	0	0.0	0	0.0		
Payer Type							88.69	< .001
Commercial	214	18.9	163	11.4	96	10.2		
Medicaid	849	75.0	1138	79.9	824	87.7		
Medicare	57	5.0	103	7.2	20	2.1		
Unspecified	12	1.1	21	1.5	0	0.0		

The chi-square test results showed the same pattern for gender, race, region, and payer type as the raw data file compared to the aggregated data (see Table 2).

Table 2

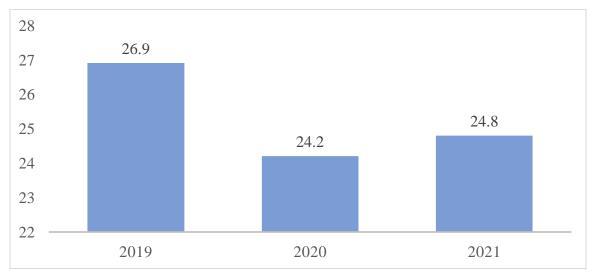
Demographics and DV Incidents Among Virginians in 2019, 2020, and 2021 (Aggregated Data)

	20	2019		20	20	)21		
Variable	$\frac{20}{n}$	%	$\frac{20}{n}$	%	$\frac{-2}{n}$	%	$X^2$	p
Gender							6.83	.033
Female	962	33.6	1118	39.1	781	27.3		
Male	217	32.4	296	44.2	157	23.4		
Unspecified								
Race							143.09	< .001
American Indian/Alaska	0	0.0	53	3.8	0	0.0		
Native								
Asian	14	1.3	61	4.3	17	1.8		
Black/African	372	34.2	414	29.5	257	27.7		
American		0.1		0.0				
Native Hawaiian or	1	0.1	0	0.0	0	0.0		
Other Pacific Islander Other	274	25.2	239	17.0	192	20.7		
White	428	39.3	637	45.4	462	49.8	60.70	. 001
Region	200	10.5	2.52	27.1	211	22.4	68.72	< .001
Northwest	208	18.5	362	25.1	211	22.4		
Northern	95	8.4	152	10.6	101	10.7		
Southwest	184	16.4	236	16.4	159	16.9		
Central	384	34.1	435	30.2	208	22.1		
Eastern	254	22.6	255	17.7	261	27.8		
Unspecified								
Payer Type							86.16	< .001
Commercial	214	18.9	163	11.5	96	10.2		
Medicaid	849	75.0	1138	80.1	824	87.7		
Medicare	57	5.0	103	7.2	20	2.1		
Unspecified	12	1.1	17	1.2	0	0.0		

For the age of victims, a one-way Welch's F test was conducted based on the heterogeneity of variance of ages across the three time periods. The overall Welch's F test was significant, F(2, 2215.29) = 3.15, p = .043. Follow-up pairwise comparisons using Games-Howell tests showed significant differences in the average age of the victims between 2019 and 2021 (p = .040). The mean age in 2019 was 26.9 (SD = 30.9), and the mean in 2021 was 24.2 (SD = 15.4). The 2020 time period did not have an average age difference from either of the other periods, with a mean of 24.8 (SD = 22.4). Figure 2 displays the mean age of victims at each measurement period.

Figure 2

Mean Age of DV Victims Among Virginians Between 2019, 2020, and 2021



*Note.* p = .040 for 2019 v 2020.

# Age (Categorized) Using the Raw Data File

As displayed in Table 3, for ages 0–4, DV incidence in 2019 was significantly lower than in 2020 and 2021. Rates of DV against children ages 5–12 decreased substantially from 2019 to 2020 and 2020 to 2021. For ages 30–44, the 2021 period had a

significantly higher percentage than for 2020 and 2021, and the same occurred for ages 55–64. Ages 65 and over saw an appreciable decline in DV from 2019 to 2020 and 2020 to 2021.

Table 3

Age Distribution of DV Incidents Among Virginians Between 2019, 2020, and 2021 (Raw Data)

	20	19	20	020	2021			
	(n =	1132)	( <i>n</i> =	(n = 1425)		(n = 940)		
Age group (years)	n	%	n	%	n	%	$X^{2(14)}$	p
0–4	43	3.8	151	10.6	93	9.9	134.25	< .001
5–12	190	16.8	179	12.6	84	8.9		
13–17	252	22.3	277	19.4	198	21.1		
18–29	297	26.2	371	26.0	233	24.8		
30–44	246	21.7	299	21.0	250	26.6		
45–54	27	2.4	59	4.1	18	1.9		
55–64	23	2.0	51	3.6	55	5.9		
65+	54	4.8	38	2.7	9	1.0		

Using aggregated data (see Table 4), which used age categories instead of the actual age, results showed the most common age group for victims was 18 to 29 in 2019 and during the lockdown in 2020. In 2021, the most common age group was slightly older (30-44), although 18- to 29-year-olds also comprised a relatively large percentage of victims. The findings show that the mean age of DV victims in 2019, 2020, and 2021 was in the mid-20s for all three measurement periods.

**Table 4**Age Distribution of DV Incidents Among Virginians between 2019, 2020, and 2021 (Aggregated Data)

	20	2019		2020		2021		
	(n =	(n = 1132)		(n = 1425)		(n = 936)		
Age Group (years)	n	%	n	%	n	%	$X^{2(14)}$	p
0–4	43	3.8	151	10.6	93	9.9	138.16	< .001
5–12	190	16.8	179	12.6	84	9.0		
13–17	252	22.2	277	19.4	198	21.2		
18–29	297	26.2	371	26.0	233	24.9		
30–44	246	21.7	299	21.0	250	26.7		
45–54	27	2.4	59	4.1	14	1.5		
55–64	23	2.0	51	3.6	55	5.9		
65+	54	4.8	38	2.7	9	1.0		

# **Adult Flag**

The "Yes" responses were significantly higher in 2021 (60.1%) than in 2020 and 2019(see Table 5).

Table 5

Adult Flag Distribution of DV Incidents Among Virginians Between 2019, 2020, and 2021 (Raw Data)

	2019		20	2020		2021		
	(n =	1132)	(n = 1425)		(n = 940)			
Adult flag	n	%	n	%	n	%	$X^{2}(4)$	p
Yes	602	53.2	727	51.0	565	60.1	67.27	< .001
No	487	43.0	611	42.9	375	39.9		
Unknown	43	3.8	87	6.1	0	0.0		

# **Bill Type Class**

There was no change across the years for critical access hospital percentages (see Table 6). There was a significant decline in inpatients from 2019 to 2020 and then again from 2020 to 2021. Outpatients significantly increased from 2020 to 2021.

Table 6

Billing Type Class Distribution of DV Incidents Among Virginians Between 2019, 2020, and 2021 (Raw Data)

	2019 ( $n = 1132$ )		2020 ( $n = 1425$ )		2021 ( $n = 940$ )			
Bill type class	n	%	n	%	n	%	$X^{2(6)}$	p
Critical access hospital	0	0.0	2	0.1	0	0.0	50.73	<.001
Inpatient	80	7.1	60	4.2	14	1.5		
Outpatient	551	48.7	636	44.6	480	51.1		
Unknown	501	44.3	727	51.0	446	47.4		

For Research Question 2, "Is there a difference between the COVID-19-related lockdowns and domestic violence prevalence perpetrators' characteristics or persons committing physical, sexual, or other abusive, violent acts against Virginians between March 2019 to March 2020 to March 2021, controlling for gender, age, race, insurer, and locality?", a chi-square test was conducted to compare perpetrator characteristics among the DV instances in each measurement period. Results are displayed in Table 7. When omitting the "unspecified" category, in 2019 the most common characteristic was a male partner as the perpetrator, with 24.6% of occurrences. In 2020 during lockdowns, this changed to "Other" type of perpetrator and remained the most common perpetrator group in 2021 at 24.6%.

**Table 7**Perpetrator Characteristics During DV Incidents Among Virginians in 2019, 2020, and 2021 (Raw Data)

	2019		20	2020		)21		
	(n =	(n = 846)		(n = 659)		418)	_	
Perpetrator type	n	%	n	%	n	%	$X^{2(14)}$	p
Female partner	7	0.8	4	0.6	4	1.0	161.80	< .001
Male family friend	1	0.1	0	0.0	18	4.3		
Male partner	208	24.6	87	13.2	70	16.7		
Other family member	93	11.0	101	15.3	46	11.0		
Other perp	139	16.4	170	25.8	103	24.6		
Parent	85	10.0	71	10.8	87	20.8		
Sibling	12	1.4	13	2.0	4	1.0		
Unspecified perp	301	35.6	213	32.3	86	20.6		

The aggregated data showed similar findings (see Table 8). The male partner was the most common perpetrator type in 2019, and "Other" was the most common in 2020 and 2021, when omitting unspecified from the analysis.

**Table 8**Perpetrator Characteristics During DV Incidents Among Virginians Between 2019, 2020, and 2021 (Aggregated Data)

	2019		20	2020		2021		
	(n =	827)	(n =	(n = 704)		(n = 405)		
Perpetrator type	n	%	n	%	n	%	$X^{2(14)}$	p
Female partner	5	0.6	4	0.6	4	1.0	164.08	< .001
Male family friend	1	0.1	0	0.0	18	4.4		
Male partner	204	24.7	86	12.2	70	17.3		
Other family member	93	11.2	101	14.3	46	11.4		
Other perp	139	16.8	168	23.9	102	25.2		
Parent	85	10.3	121	17.2	87	21.5		
Sibling	12	1.5	13	1.8	4	1.0		
Unspecified perp	288	34.8	211	30.0	74	18.3		

For Research question 3. Is there a difference between the COVID-19-related lockdowns and domestic violence-associated hospitalizations among Virginians between March 2019 to March 2020 to March 2021, controlling for gender, age, race, insurer, and locality? A chi-square test compared hospitalization rates among DV encounters for the three measurement periods. The results showed Hospitalization rates were compared across the three measurement periods using a Chi-square test. The results are displayed in Table 7. Outpatient discharges occurred for over half of the DV occurrences in 2021. Professional inpatient rates increased significantly during the 2020 lockdown period, then declined in 2021 and were similar to the baseline 2019 rate. Total hospital admission rates, which included inpatient and professional inpatient stays, were equivalent in the 2019 and 2020 measurement periods. The 2019 hospital inpatient rate was 6.9%, and professional inpatient stays 0.4%, equaling 7.3%. Similarly, the 2020 measurement period showed a hospital inpatient rate of 4.2%, which was less than in 2019, and professional inpatient was 3.1% compared to 0.4% in 2019) totaling 7.3%) and further in 2021 down to 2.1%, with hospital inpatient being 1.5% and professional inpatient stays of 0.6%.

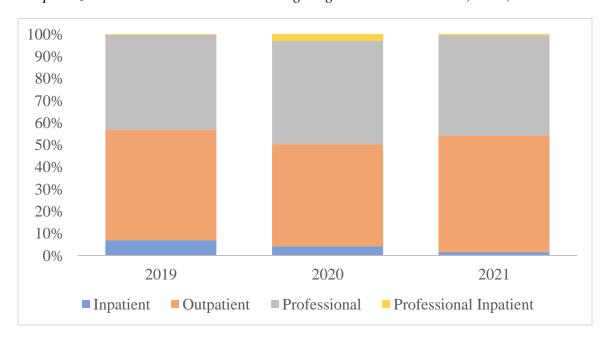
**Table 9**Hospitalizations Due to DV Incidents among Virginians Between 2019, 2020, and 2021

	2019		2020		2021			
	(n = 1132)		(n = 1425)		(n = 940)			
Discharge setting	n	<del>1132)</del> %	$\frac{n}{n}$	<del>1423)</del> %	$\frac{n}{n}$	<del>/10/</del>	$X^{2}(6)$	n
Inpatient	78	6.9	60	4.2	14	1.5	79.18	<.001
Outpatient	564	49.8	656	46.0	495	52.7	,,,,	
Professional	486	42.9	665	46.7	425	45.2		
Professional inpatient	4	0.4	44	3.1	6	0.6		

*Note.* Inpatient declined significantly from 2019 to 2020, although Professional Inpatient increased substantially from 2019 to 2020.

Figure 3

Hospitalization Due to DV Incidents Among Virginians Between 2019, 2020, and 2021



# **Analysis Summary**

In general, the findings show that DV instances have increased significantly during the COVID-19 lockdown period and continued to increase following the gradual

lifting of the restrictions. Females were the most common victims across the three measuring periods, although the proportion of male victims increased during the 2020 lockdowns. Those in lower income brackets with Medicaid are the majority of victims, and hospitalizations increased during the 2020 lockdown period when considering inpatient and professional inpatient categories. White victims compose the large majority of victims regardless of the measurement period. The Central and Eastern Regions recorded the highest rates of DV incidents, with the Central Region recording the highest prevalence in 2019 and 2020. The Eastern Region had the levels in the 2021 measurement period (YTD August).

# Section 4: Application to Professional Practice and Implications for Social Change Discussion

The COVID-19 pandemic has had a profound effect on all aspects of life all over the world, including domestic violence (DV). Based on the research findings, it is highly suggestive that the COVID-19-associated lockdowns adversely influenced DV activities among Virginians. The likelihood of increased DV incidents due to the global health event increased given the extended time that victims were in close contact with their abusers during the lockdown period, which exposed them to possible further physical, emotional, or psychological abuse. In 2020, 84% of DV services attended to 1,334 DV victims and received 606 hotline calls in just one day in Virginia (NCADV, 2021). Furthermore, resource gaps prevented response to 109 requests on the same day (NCADV, 2021). Virginia's DV debacle expanded during the COVID-19-related lockdown.

The scourge of domestic violence in every stratum of society ebbs and flows based on environmental factors, which facilitate perpetrators who commit acts of violence through excessive force, often resulting in injury and trauma to victims (Arisukwu et al., 2021). The findings showed that physical or sexual abuse from intimate partners (IPV) affects 30% of ever-partnered women and children. Children who are child domestic workers are at risk of exposure to dangerous conditions. DV prevalence is 56.2% among child domestic workers aged 5 to 17 years in low- and middle-income countries (Thi et al., 2021). Most reported emotional abuse over sexual violence, with emotional abuse more prevalent than sexual violence. Since ancient times, violence

against women has existed, rooted in an interaction between individual, situational, and sociocultural factors (McCarthy et al. (2018). According to previous studies, the perpetuation of physical and sexual IPV against women and children is alarming (Savisky et al., 2021).

A current crisis affecting victims of domestic violence worsened in a pandemic that necessitated lockdowns, which further exposed victims to perpetrators of these malicious misdeeds. Gender-based violence that continues to harm women and girls at an alarming rate joins social dilemmas recognized as a social illness. Despite the apparent gender inequity associated with IPV, broader social imbalances (adverse childhood experiences), community violence, and substance use-related violence further compound gender-based violence. With the continued significant domestic violence onslaught on social and public health, all avenues of collaboration at the interagency, interstate, and federal levels are necessary to reduce the risk of domestic violence, especially during adverse social events such as the pandemic of COVID-19. Moreover, women and girls worldwide continue to battle gender-based violence, a global social problem that the COVID-19 pandemic exacerbated. Lockdowns due to the rapid viral spread produced environments of fear and uncertainty, with individuals confined in their homes, potentially facing violence and abuse from their partners, family members, or other perpetrators.

In Virginia, lockdowns due to the COVID-19 pandemic significantly affected domestic violence incidents (Gavin & Kruis, 2021). Virginia State Police records showed an increase in domestic violence reports during the first months of the pandemic

compared to the previous year (NBC, 2020). Women and girls globally faced a heightened risk of gender-based violence during the COVID-19 pandemic (Wake & Kandula, 2022). While deemed essential to curtail infection spread, lockdowns have created a threatening environment for those living with abusive partners or family members (Muldoon et al., 2021). Lockdowns due to the virus have created an atmosphere of fear and uncertainty due to individuals' confinement in their homes, potentially facing violence or abuse from their partners or family members.

IPV is a foremost contributor to the problem of domestic violence during lockdowns. Like most U.S. states, Virginia declared a state of emergency due to the pandemic, which triggered sweeping and necessary changes in everyday life for its citizens. While Virginia implemented its lockdowns to protect its citizens, it likely inadvertently increased domestic violence (DV) risk caused by increased stress levels and lack of access to resources. Previous studies on lockdowns instituted in public emergencies set up situations in which victims of IPV may feel more isolated and unable to escape their abusers. Lockdowns during the COVID-19 pandemic may have profoundly affected victims of IPV in Virginia (Gavin & Kruis, 2021). Lockdowns limit contact with outside help, such as friends and family, who can often be a source of refuge for those suffering from domestic violence. The heightened risk of IPV during lockdowns resulted from abusers' increased control over their victims. Abusers often use fear, intimidation, and threats to control their victims financially, psychologically, and physically. Without access to support systems outside of lockdown restrictions, victims remain trapped with their abuser with no way out.

According to the results of Research Question 1, in 2019, Central Virginia had the highest rate of occurrence at 33.9%. The Central Region, while seeing a decline in prevalence, reported most domestic violence (DV) events during the 2020 lockdown period at 30.5%. The Eastern Region reported the highest prevalence of DV in 2021, at 27.8%. Whites represented the dominant race for all three measurement periods, with White victims accounting for 37.8% in 2019, 44.7%, and 49.1% in 2020 and 2021, respectively. Over the three time points, female victims were the majority, accounting for 83.5% in 2019, 78.8% in 2020, and 83.3% in 2021. However, male victims increased in 2020 (during the lockdown period) from 15.1% in 2019 to 20.8%, then declined to 16.7% in 2021. Over 75% of victims listed Medicaid as their insurance. The implications are that people of lower socioeconomic and demographic strata were more likely to be victims and perpetrators of DV. Socioeconomic status inversely affected the high rate of women (80%) who were victims of DVA, particularly IPV (Lasong et al., 2020). While the scourge of DVA against women and girls happens in all socioeconomic and sociodemographic settings, urban women and girls experience more adverse effects than their rural peers facing the same challenges (Arisukwu et al., 2021).

The research found statistical differences between the prevalence of domestic violence and COVID-19-related lockdown activities adjusted for gender, age, race, payer type, and locality among Virginians. The correlation between domestic violence prevalence and the COVID-19-related lockdown activities implemented in Virginia likely compounded the domestic violence (DV) problem associated with isolating victims from family, friends, and resources. The situational dynamics meant victims were least likely

to receive the needed help and support. Devoid of the support system provided by family and friends, Virginia's DV victims faced debacles when attempting to escape a dangerous home environment or receive help. Lockdowns implemented across the state due to the COVID-19 pandemic have further intensified this plight, leaving many individuals feeling isolated and without access to resources that could have helped them.

The results of Research Question 2 indicate that if the "unspecified" category is excluded, the most common characteristic of domestic violence (DV) perpetrators in 2019 was a male partner, with 24.6% of cases. When lockdowns occurred in 2020, this group changed to "Other," with 23.9%, and remains the most common perpetrator group today at 25.2% in 2021. While not specified, one could logically hypothesize that there was an observed change in the characteristics of DV perpetrators during the lockdown period in Virginia. The pandemic lockdown measures adversely affected domestic violence prevalence among Virginians. The need for pre-action reviews to mitigate the potential detrimental effect on vulnerable populations associated with strict procedures to lessen adverse outcomes in public emergencies has become more urgent to prevent recurrences of this nature and magnitude.

The research findings also revealed differences between the COVID-19-related lockdowns and an increase in domestic violence prevalence to the characteristics of perpetrators committing sexual acts against victims in Virginia. From March 2019 to February 2020 (before the lockdowns), the prevalence of domestic violence (DV) was 37.5%. During the lockdown period from March 2020 to February 2021, DV prevalence rose to 45.5%. The upward trend continued after the lockdown period from March 2021

to Aug 2021 (YTD). Statistical evidence suggests that DV perpetration increased among Virginians during and after the COVID-19 lockdown period as the pandemic's proliferation continued with multiple surges since its initial onslaught.

The Chi-square test for statistical significance compared hospitalization rates across three measurement periods in Research Question 3. Total hospital admission rates were equivalent in the 2019 measurement period (hospital inpatient 6.9% and professional inpatient stays 0.4% equal 7.3%) and the 2020 measurement period (hospital inpatient 4.2% and professional inpatient stays 3.1% equal 7.3%). Over the three measuring periods, approximately 79% of DV patients were seen and discharged. The seen and release rate was lowest during the lockdown measurement of 2020, 46%, compared to the before period, 49.8%, and 52.7% during the after-lockdown period from outpatient facilities. At the same time, estimates show the percentage of professional inpatient cases increased significantly during the 2020 lockdown period from 0.4% in 2019 to 3.1% in 2020 and declined to 0.6% in 2021. Analytical findings support the alternative hypothesis that COVID-19-related lockdowns did show a difference in hospitalization rates, especially among professional inpatient stays. The pervading circumstances perpetuated by the pandemic conjured fears of expectations of increased prevalence and severity of domestic and family violence (DFV) globally based on similar trends attributed to crises like earthquakes, bushfires, and hurricanes hospitalization. Indeed, there is an increasing concern that the effects of social isolation, economic vulnerability, and increased stressors associated with the pandemic's restrictive measures

likely fueled a spike in domestic violence reports and subsequent hospitalizations among Virginians.

The COVID-19 pandemic profoundly affected individuals' daily lives, driven by the implementation of voluntary and mandatory restrictive measures across the globe (Leigh et al., 2022). However, this has also had likely consequences of increased domestic violence (DV) incidents, as noted by other researchers. The combination of social isolation, lack of access to essential resources, healthcare, and other support services, coupled with the stress of job losses and financial insecurity, have established an environment that often is a catalyst for DV. In some cases, victims of domestic violence experienced additional isolation from their families and friends due to the pandemic's restrictions. The existing conditions subjected victims to increased vulnerability to abuse and exploitation as they lacked support networks, resources, or information on where to seek help. Victims of domestic violence may be unable to access other essential services such as education, healthcare, or financial support when their abuser controls all the resources (Lloyd, 2018). The pandemic's restrictive measures forced many people and families to spend prolonged time at home (Baffsky et al., 2022).

The pandemic-imposed restrictions worsened the situation, preventing victims from seeking help outside their homes and leaving them feeling trapped and powerless. In addition, many families are facing additional strains due to the disruptive nature of the COVID-19 pandemic. Loss of employment or reduced working hours has resulted in financial hardship for many households, with some unable to provide necessities such as food and shelter. The instrumentality of the pandemic reportedly amplified domestic and

family violence (DFV) risk factors through increased anxieties and fears, increased unemployment, food shortages, school closures, public health shutdowns, economic insecurity, significant risk factors such as poverty, mental and physical health, and family conflict (Baffsky et al., 2022). The average age of DV victims in Virginia dropped from 26.9 in 2019 to 24.2 in 2020 during the lockdown, rising slightly to 24.8 in 2021.

The finding emphasizes that younger victims spent more time with perpetrators as schools were under restrictions to prevent infections. The most significant and concerning change occurred within the 0–4 age group, which jumped from 3.8% in 2019 to 10.6% during the COVID-19 lockdown in 2020. The rate remained high at 9.9% in 2021. The 45–64 age group also recorded a noticeable increase in DV rates (45–54, 2.4% in 2019 and 4.1% in 2020; decline to 1.9 in 202; 55–64, 2.2% in 2019 to 3.6% in 2020 but increased further in 2021 to 5.9%). However, the increase rates were well below those of the 0–4 age group. The financial strain created by the COVID-19 pandemic can exacerbate existing tensions within households, creating an environment that facilitates DV.

The COVID-19 pandemic and its restrictive measures imposed on societies worldwide have had far-reaching consequences, including a marked increase in domestic violence (DV). Virginia Health Information databases track hospital visitation for multiple reasons, including domestic violence (DV). Since March 2020, Virginia has recorded an 8% surge in DV cases. The prevalence continued its upward trend in the post-lockdown period recording an 8.7% increase in DV incidents among Virginians. Moreover, Virginia saw an average of 37% increase in emergency department visits

related to DV since the pandemic's start, with domestic violence (DV) visits rates going from 37.5% in 2019 to 45.5% in 2020 and 54.2% in 2021. These statistics underscore the true gravity of Virginia's DV crisis. Beyond these hospitalizations and emergency department visits, women and girls remain at the highest risk of becoming DV victims in Virginia. Before the pandemic, over 80% (83.5%) of DV victims in Virginia were females across all age bands. During the 2020 Lockdown, rates declined slightly to 78.8% but rose above 80% (83.3%) in 2021. These findings concur with previous research findings that women and girls constitute the significant victims of DV at alarming rates (Xavier Hall & Evans, 2020).

# The SEM: Application To Domestic Violence Prevention and Control

Multiple socioecological factors contribute to the perpetuation of Domestic violence (DV) (Gashaw et al., 2018). The SEM is the most broadly used model to understand violence perpetration (Gashaw et al., 2018). Despite identifying many individual and family risk factors contributing to IPV, little research delved into the community and social-ecological factors' roles in DV perpetration (Gashaw et al., 2018). Community and societal factors constantly weigh heavily on IPV perpetration (Gashaw et al., 2018). All the SEM indicators play a role in DV perpetration. The COVID-19 pandemic response measures combine with socioecological risk factors to promote domestic violence (DV) perpetration.

Figure 4

The Social Ecological Model and Domestic Violence Perpetration and Prevention Pictogram Highlighting the Levels of Interactions

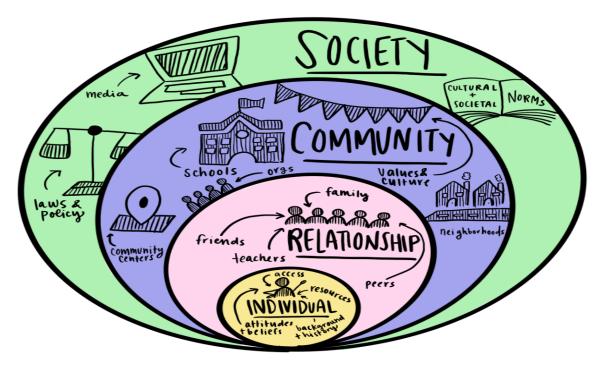


Figure 5

The Social Ecological Model and Domestic Violence Perpetration and Prevention Pictogram Highlighting System Level Interactions

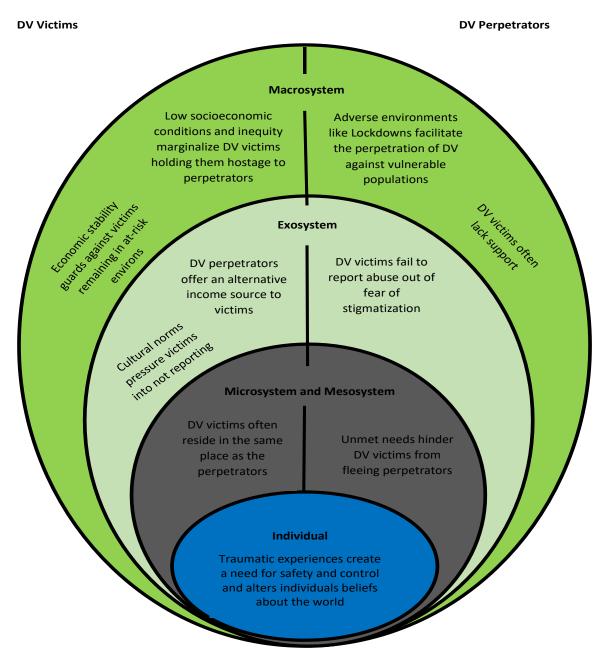


Figure 6

Chronosystem: Sociohistorical Events Pictogram

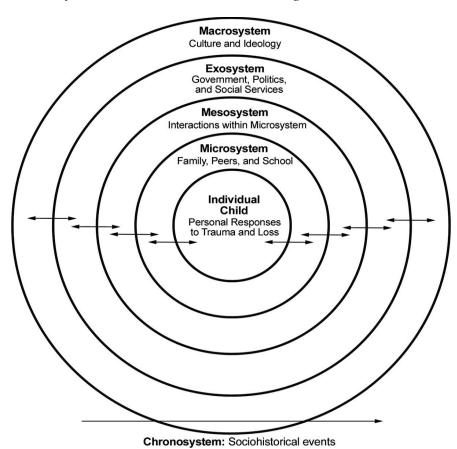
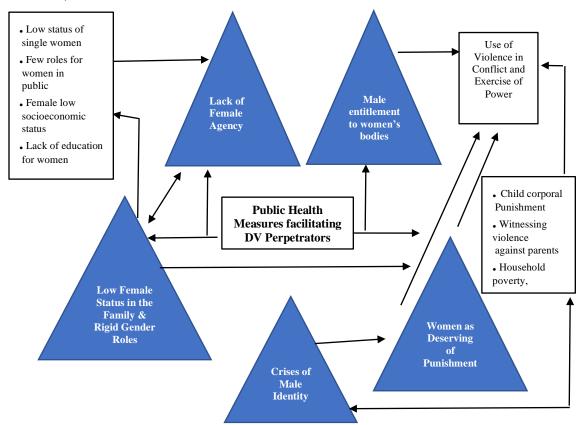


Figure 7

Overall Framework for the Determinants of Domestic Violence (Adapted from Gram et al., 2021)



The SEM highlights the complex nature of Domestic Violence (DV) perpetration. Still more effort is needed to unearth how societal ideologies manifest at the personal level and the reproduction of the ideologies by the individual's subsequent actions (Gram et al., 2021). The study's findings revealed that over 80% of DV victims were women. Two significant observations during the lockdown period (Mar 2020 to Feb 2021), the female DV rate decreased, coinciding with the increase male victim rate. The rate of female perpetrators also rose during the same period. Research findings list neglect in performing household duties, withholding sex, and arguments represent chief reasons for violence perpetration against females (Gram et al., 2021). Additionally, survey-based studies cited wife beating as a highly acceptable societal norm (Gram et al., 2021).

To strengthen Domestic Violence (DV) prevention at the policy level, during the 117<sup>th</sup> Congress, the H. R. 5762 Bill was tabled (The United State Congress Committee on Education and Labor, 2021). The Bill aimed to develop a Federal DV Action Plan to expand, intensify, and DV prevention efforts at the Federal, State, Local, and Tribal Government levels in conjunction with relevant nongovernment and community stakeholders (The United State Congress Committee on Education and Labor, 2021). The Virginia Sexual & Domestic Violence Action Alliance, supported by state legislation, drives the advocacy for Virginians in the fight against DV.

Mindfulness of the importance of primary prevention propels the Virginia Sexual & Domestic Violence Action Alliance to assist local communities in developing strategies that encapsulate building awareness while mobilizing communities for proactive prevention to establish safe, stable, and nurturing communities (The Virginia

Sexual & Domestic Violence Action Alliance, 2023). Addressing the scourge of gender-based violence requires intervention at all levels of the SEM, individual, relationship, community, and societal.

Behavior change interventions at the individual level aim to equip men and women with the knowledge, skills, and resources to navigate relational violence (Gram et al., 2021). Social norms that accept certain behaviors may derail the success of these interventions (Gram et al., 2021). Efforts to address violence-acceptance social norms may include community mobilization. Such efforts involve engaging the police, judiciary, shelter homes, medical and psychological health services, and other community members (Gram et al., 2021). Increased understanding of the interrelationships at all levels of the SEM will strengthen future efforts to develop more robust violence prevention strategies considering the unusual dynamics attributable to public health emergency intervention measures.

# **Social Change Impact**

Social change refers to modifications that change the Modus Operandi of particular groups' social structure within societies or the societies themselves (Akujobi & Jackson, 2017). Social change describes the effects of social change on individuals, groups, and communities and may be visible in multiple contexts. A social paradigm usually changes people's thoughts about politics, economics, and culture (Poux, 2017). Public health emergencies can potentially cause devastating adverse outcomes, ranging from short- to long-term disabilities, loss of life, and long-term economic ramifications. Mitigating these potential risks and protecting the health and well-being of citizens

requires essential frameworks to be in place with rapid and effective adaptation during emergent situations. The threat posed by public emergencies to all faucets of societal life, including physical, psychological, and economic stability, which may predispose to Domestic Violence (DV) outcomes, requires intentional and robust efforts by governments and policymakers to limit adverse effects.

The absence of a well-laid-out framework to respond quickly and effectively during emergent situations leaves citizens vulnerable to the primary risks attributable to the event and the secondary consequences facilitated by restrictive measures like Lockdowns. Creating and implementing such frameworks requires the involvement of multiple stakeholders, from federal to local government officials, public health professionals, private sector interests, and nongovernmental representatives. Collectively they must work together to develop proactive strategies guided by scientific research to protect public health and safety, especially the most vulnerable.

The study's findings add valuable details to the existing body of data on Domestic Violence (DV) that stakeholders can use as they collaborate to develop the appropriate framework to promote social change. The coordinated efforts will mitigate the potential adverse outcomes of restrictive measures during public health emergencies. Social changes have been instrumental in the growth of women's, civil, and LGBTQ rights throughout history (Kilanowski, 2017). DV consequences among Virginians during the pandemic-related Lockdown eroded the social fabric for many citizens due to the increased prevalence of DV, with women and children the worst affected. DV's psychological and physical effects can devastate victims, their families, and society. DV

victims can suffer serious physical injuries, such as bruises, cuts, broken bones, and even death. In addition to the physical pain and suffering experienced by domestic violence victims, they may also suffer severe mental anguish, including depression and post-traumatic stress disorder (PTSD).

Social change can happen by employing multiple strategies based on community needs assessments, which provide insights into the factors driving the DV challenge within diverse communities. Previously used strategies like community mobilization interventions represent practical avenues that have been under the radar of policymakers and practitioners to tackle problematic social and environmental-associated health barriers to improve communities' health and well-being (Gram et al., 2021. The interventions allow local individuals to collaborate with external partners to identify, prioritize, and tackle causes of ill health using a bottom-up leadership and empowerment approach (Gram et al., 2021). Social change can also come about through technological advances that support new ways of thinking and acting. The advancement in internet services in the 1990s considerably facilitated sharing of ideas and data globally.

The COVID-19-related Lockdown that included social distancing contributed to Virginia's Domestic violence (DV) victims being in isolation with their abusers, worsening an existing social dilemma. Carefully thought-out and crafted social intervention strategies would avert similar crises in future public health emergency events. Despite the seemingly impossible undertaking to prevent DV, several approaches have successfully curtailed DV events (Brehaut, 2019). Similar strategies in Virginia could spawn social change to arrest the DV monster. The CDC proposed several

approaches to foster social change and avert IPV (Brehaut, 2019). The methods include educating individuals on how to build safe and healthy relationships, engaging influential people, interrupting violence developmental paths, establishing protective environments, bolstering families' economic support networks, and providing support systems to advance safety while reducing harm to DV survivors (Brehaut, 2019). The Prevention Institute has also suggested that efforts to create health equity and robust relational community environments are critical approaches to address the DV dilemma (Brehaut, 2019). Collectively, these proposed, along with others, if aggressively pursued and tailored to meet the needs of the implicated populations, could advance social change while decreasing DV prevalence at all levels.

Social media has become increasingly important in recent years as a tool for creating awareness and promoting social change. Social media platforms such as Twitter, Facebook, and Instagram have become powerful tools for promoting social change (Walsh, 2020). They allow users to share information and mobilize support around causes that align with their passions and beliefs. Moreover, social change impact has become increasingly important in building domestic violence and abuse awareness through social justice movements due to technological advancements (Poux, 2017). Increased information access via social media networks and a greater understanding of the lasting effects of domestic violence are advancing social change efforts (Poux, 2017). Social media platforms such as Twitter, Facebook, and Instagram allow people from all backgrounds to share stories often unheard through mainstream media. Through conversations on these platforms about domestic abuse, individuals can learn more about

its effects on victims and their communities while engendering empathy for domestic violence survivors.

By leveraging technology and using it as a tool for positive social change around Domestic Violence (DV), we can create a better future to mitigate adverse outcomes during public health emergencies. Through collaboration and shared commitment, stakeholders can work together to develop more effective and robust solutions to tackle unfavorable challenges associated with public health emergency measures like Lockdowns. Equipping multisector stakeholders with resources that support informed decision-making to enhance risk forecasting related to public health emergencies lends itself to a more proactive approach to preventing and mitigating adverse outcomes. For instance, predictive analytics tools can forecast epidemiological trends and provide stakeholders with timely data-driven decision support for preventative actions. By uncovering these patterns, multidimensional stakeholders can develop strategies to mitigate the potential impact of public health emergencies. These strategies can include improving access to healthcare services for at-risk populations, bolstering economic and social support systems for vulnerable individuals, and strengthening existing infrastructure.

#### Conclusions

Domestic violence (DV) has a long and dark history that spans millennia across multiple people and cultures. In 2019, Central Virginia recorded the highest prevalence of 33.9% of DV. The Eastern Region reported the most DV incidents during the 2020 COVID-19 Lockdown incidents at 30.5%, followed by the Western Region with 27.8%.

Whites accounted for the majority of DV victims at 37.8%, 44.7%, and 49.1% of cases in 2019, 2020, and 2021, respectively. In 2019, female victims accounted for 83.5%, but this declined to 77.8.8% in 2020 and rose above 80% in 2021 (83.3%). The number of male victims jumped from 15.1% in 2019 to 20.8% in 2020 but fell back to 16.7% in 2021. Patients with Medicaid as a payer type accounted for more than 75% of the victims. The Medicaid payer type group (24.6%) was most likely to perpetrate DV. DV victims requiring specialized care (Professional inpatient) cases rose from 4 or 0.4% in 2019 to 44 or 3.1% 2020 COVID-19 Lockdown. Overall, hospital visits increased by 26% during the COVID-19 lockdown period.

Calls to Domestic Violence services sored during the pandemic globally (Wake & Kandula, 2022). Data from Virginia suggests similar trends. For example, Toronto reported a 22% rise in DV, Tunisia, 14.4%, and the Eastern Mediterranean region, 37% (Wake & Kandula, 2022). Researchers concluded that governments' restrictive measures to curtail COVID-19 infections expanded the DV risk for vulnerable populations (Wake & Kandula, 2022). Study findings showed that one in three females experienced DV worldwide during the pandemic (Wake & Kandula, 2022). The conclusions of this study concur with previous studies that the restrictive COVID-19-related measures escalated the perpetration of DV among Virginians.

Historical context provides critical insight into the current state of Domestic Violence (DV) worldwide. While efforts to weed out this social dilemma even at the federal level, a greater level of collaboration among government policymakers, law enforcement agencies, nonprofit organizations, and community stakeholders to create

stable and safe environments for the most vulnerable population. More than 75% of the victims used Medicaid as their insurer, which suggests that people in the lower socioeconomic strata are more likely to become victims or perpetrators of DV. Critical strategies to increase the artillery in the fight against DV include educating individuals to aid them in developing practical life skills to combat DV. As with the 2021 bill brought before Congress, policies need to be more reformative, rather than punitive, to strengthen existing legislation to combat DV. Lockdowns during the COVID-19 pandemic restricted access to resources and isolated victims with perpetrators for prolonged periods, which increased their vulnerabilities. Proactive efforts by policy should ensure accessibility to resources such as counseling services, legal aid, and safe housing in the wake of public health emergencies (Wake & Kandula, 2022).

Furthermore, we must continue raising awareness about this vital issue to reduce the stigma associated with reporting Domestic Violence cases and encourage victims who may be afraid or ashamed to seek help. More research is needed to understand better the relationship between lockdowns and DV perpetration, which would inform intervention strategies to prevent DV events (van Gelder et al., 2021). A concerted effort from stakeholders can provide the catalysis that Virginia chisel away at this social scourge. Effectively applying SEM offers an ideal platform to tackle the DV problem. The SEM examines the individual, relationship, community, and societal factors, their interplay in facilitating DV, and how targeted interventions could reverse the outcomes to prevent DV. The model considers external environmental factors contributing to domestic abuse, such as poverty, social isolation, or gender roles. The SEM also examines the internal

dynamics between two people in any relationship (Alfes et al., 2019). It looks at how a person's beliefs, attitudes, and behaviors can influence the other person's behavior and how this can eventually lead to an abusive pattern in the relationship (Alfes et al., 2019). The model focuses on all the intrinsic and extrinsic factors and their synthesis in propagating DV. Manipulating these variables could spawn positive outcomes.

The research revealed that Domestic Violence is a complex and often misunderstood problem with severe implications for individuals, families, and societies. Social change is a powerful concept that describes how social change affects individuals, families, and communities. Society responds to DV through increased education and prevention efforts, stronger laws and regulations to protect victims, and effective interventions. Carefully crafted strategies to meet the targeted population's needs will ensure the best outcome. Targeted interventions will identify vulnerable populations and at-risk communities that may be disproportionately affected during public health emergencies. Increased public awareness campaigns are shedding light on this dier issue by helping people understand the magnitude of the problem and providing avenues to victims. Strengthening existing financial aid programs or safe housing initiatives for DV victims offers new opportunities for those affected.

The lockdown, social distancing, isolation, shelter-in-place, and other measures to prevent the spread of the COVID-19 pandemic, led to spiraling domestic Violence cases worldwide, including in Virginia. According to data from the Virginia Domestic and Sexual Violence Action Alliance, domestic violence calls to the police in Virginia increased by over 12% in March 2020 compared to 2019, a trend that continued through

April 2020 (Seid et al., 2021). Data from this and other studies offer policymakers, and DV advocates can proactively plan for the next public health emergency in a structured manner that will mitigate the adversities attributed to DV faced by the most vulnerable during the COVID19 Lockdown.

### Recommendations

Virginians were adversely affected by Domestic Violence during the COVID-19 Lockdown. Averting future scenarios like this is imperative to prevent the preventive measures from catalyzing DV, and the following recommendations are proposed.

- Conduct future research that better demonstrates the interaction between adverse events and DV activities to develop more targeted approaches to prevent these adverse outcomes during public health emergencies
- 2. Conduct future research that addresses reporting limitations during public emergencies to improve data capture and quality
- Conduct research into the records management system in hospitals to determine if medical coders have received adequate training and the rate of coding errors to limit its occurrence when capturing data
- 4. Implement measures to reduce domestic abuse within government and private institutions
- 5. Prioritize improved access to critical services and resources for survivors of domestic violence (Shaheen et al., 2020). Included is increased support from police departments, social service providers, mental health professionals, and shelters to ensure victims receive the help they need.

- 6. Increase awareness of resources and services available to vulnerable populations, especially during emergencies that increase their vulnerability to violent encounters. Policymakers must publicize Domestic Violence legislation details to raise awareness (Smith et al., 2018).
- 7. Governments ensure the provision and accessibility of services and resources to aid survivors of domestic violence when they need it (WomensLaw.Org., 2021). These measures should include providing enhanced shelter funding for legal aid, and education about domestic violence (Sorenson, Sinko, & Berk, 2021).
- 8. Victims of DV must have access to specialized mental health services, such as trauma-informed care to combat PTSD (Kadiani et al., 2021).
- 9. Develop and implement robust health education campaigns across Virginia to reduce DV (Singhal et al., 2021). Collaborative partnerships will increase the likelihood of successful initiatives to support DV victims (Beiter et al., 2021).
- 10. Community partnerships can create safe spaces for victims and survivors of DV and comprehensive education initiatives for victims and perpetrators of domestic abuse (Huecker et al., 2022).
- 11. Maximize the advantage of social media as a powerful tool for spreading awareness about domestic abuse and creating social change. Platforms such as Twitter, Facebook, and Instagram have allowed people to share stories that often go unheard in the mainstream media (Barker-Plummer & Barker-Plummer, 2017).

12. Offer support systems by giving DV victims a platform to speak out. These platforms can help mobilize positive societal changes. Social media has raised awareness and promoted social change around domestic abuse. By providing a platform for stories that often go unheard in mainstream media, these campaigns have helped to spread a message of understanding and empathy for domestic violence victims (Cravens, Whiting, & Aamar, 2015). Individuals can use their platforms on social media to create awareness around domestic abuse and its effects on society. By sharing stories, statistics, or experiences related to domestic abuse, individuals can open a dialogue about domestic violence and spread awareness of the issue (Clark, 2016).

## References

- Abdi, F., Mahmoodi, Z., Afsahi, F., Shaterian, N., & Rahnemaei, F. A. (2021). Social determinants of domestic violence against suburban women in developing countries: a systematic review. *Obstetrics & Gynecology Science*, 64(2), 131–142. <a href="https://doi.org/10.5468/ogs.20211">https://doi.org/10.5468/ogs.20211</a>
- Akujobi, T., & Jackson, J. (2017). Social change and social problems. In E. M.

  Abasiekong, E. A. Sibiri, & N. S. Ekpenyong (Eds.). Mase Perfect Prints.

  <a href="https://www.researchgate.net/publication/319422831\_SOCIAL\_CHANGE\_AND\_SOCIAL\_PROBLEMS">https://www.researchgate.net/publication/319422831\_SOCIAL\_CHANGE\_AND\_SOCIAL\_PROBLEMS</a>
- Aldridge J. (2021). "Not an either/or situation": The minimization of violence against women in United Kingdom "domestic abuse" policy. *Violence Against Women*, 27(11), 1823–1839. <a href="https://doi.org/10.1177/1077801220927079">https://doi.org/10.1177/1077801220927079</a>
- Alfes, K., Shantz, A. D., Bailey, C., Conway, E., Monks, K., & Fu, N. (2019). Perceived human resource system strength and employee reactions toward change:
  Revisiting human resource's remit as change agent. *Human Resource Management*, 58(3), 239-252. <a href="https://doi.org/10.1002/hrm.21948">https://doi.org/10.1002/hrm.21948</a>
- Al Kendi, A., Al Shidhani, N., & Al Kiyumi, M. (2021). Domestic violence among

  Omani women: prevalence, risk factors and help-seeking behaviour. *Eastern Mediterranean Health Journal*, 27(3), 242–249.

  <a href="https://doi.org/10.26719/2021.27.3.242">https://doi.org/10.26719/2021.27.3.242</a>
- Alshammari, K. F., McGarry, J., & Higginbottom, G. (2018). Nurse education and understanding related to domestic violence and abuse against women: An

- integrative review of the literature. *Nursing Open*, *5*(3), 237–253. https://doi.org/10.1002/nop2.133
- Arisukwu, O., Igbolekwu, C., Adebisi, T., & Akindele, F. (2021). Perception of domestic violence among rural women in Kuje. *Heliyon*, 7(2), Article e06303. https://doi.org/10.1016/j.heliyon.2021.e06303
- Baffsky, R., Beek, K., Wayland, S., Shanthosh, J., Henry, A., & Cullen, P. (2022). "The real pandemic's been there forever": qualitative perspectives of domestic and family violence workforce in Australia during COVID-19. *BMC Health Services Research*, 22(1), 337. https://doi.org/10.1186/s12913-022-07708-w
- Barchielli, B., Baldi, M., Paoli, E., Roma, P., Ferracuti, S., Napoli, C., Giannini, A. M., & Lausi, G. (2021). When "Stay at home" can be dangerous: Data on domestic violence in Italy during COVID-19 lockdown. *International Journal of Environmental Research and Public Health*, 18(17). https://doi.org/10.3390/ijerph18178948
- Barker-Plummer, B., & Barker-Plummer, D. (2017). Twitter as a feminist resource:#

  YesAllWomen, digital platforms, and discursive social change. In J. Earl & D. A.

  Rohlinger (Eds.). *Social movements and media*. Emerald Publishing Limited.
- Beiter, K., Hayden, E., Phillippi, S., Conrad, E., & Hunt, J. (2021). Violent trauma as an indirect impact of the COVID-19 pandemic: A systematic review of hospital reported trauma. *American Journal of Surgery*, 222(5), 922–932. https://doi.org/10.1016/j.amjsurg.2021.05.004

- Beksinska, A., Prakash, R., Isac, S., Mohan, H. L., Platt, L., Blanchard, J., Moses, S., & Beattie, T. S. (2018). Violence experience by perpetrator and associations with HIV/STI risk and infection: a cross-sectional study among female sex workers in Karnataka, south India. *BMJ Open*, 8(9), Article e021389. https://doi.org/10.1136/bmjopen-2017-021389
- Bhattacharya, A., Yasmin, S., Bhattacharya, A., Baur, B., & Madhwani, K. P. (2020).

  Domestic violence against women: A hidden and deeply rooted health issue in India. *Journal of Family Medicine and Primary Care*, 9(10), 5229–5235.

  <a href="https://doi.org/10.4103/jfmpc.jfmpc\_506\_20">https://doi.org/10.4103/jfmpc.jfmpc\_506\_20</a>
- Bhowmik, J., & Biswas, R. K. (2022). Married women's attitude toward intimate partner violence is influenced by exposure to media: A population-based spatial study in Bangladesh. *International Journal of Environmental Research and Public Health*, 19(6), 3447. <a href="https://doi.org/10.3390/ijerph19063447">https://doi.org/10.3390/ijerph19063447</a>
- Bifftu, B. B., Dachew, B. A., Tiruneh, B. T., Gezie, L. D., & Guracho, Y. D. (2019).

  Domestic violence related disclosure among women and girls in Ethiopia: a systematic review and meta-analysis. *Reproductive Health*, *16*(1), 184.

  <a href="https://doi.org/10.1186/s12978-019-0845-z">https://doi.org/10.1186/s12978-019-0845-z</a>
- Bolster, K. (2021). Emergency rooms seeing more severe injuries for domestic violence victims. NCB12. <a href="https://www.nbc12.com/2021/04/23/emergency-rooms-seeing-more-severe-injuries-domestic-violence-victims/">https://www.nbc12.com/2021/04/23/emergency-rooms-seeing-more-severe-injuries-domestic-violence-victims/</a>

- Boserup, B., McKenney, M., & Elkbuli, A. (2020). Alarming trends in US domestic violence during the COVID-19 pandemic. *The American Journal of Emergency Medicine*, 38(12), 2753-2755. https://doi.org/10.1016/j.ajem.2020.04.077
- Bradbury-Jones, C., & Isham, L. (2020). The pandemic paradox: The consequences of COVID-19 on domestic violence. *Journal of Clinical Nursing*, 29(13-14), 2047–2049. <a href="https://doi.org/10.1111/jocn.15296">https://doi.org/10.1111/jocn.15296</a>
- Brehaut, K. (2019). *The dangers of domestic violence and the importance of prevention*. https://ihpl.llu.edu/blog/dangers-domestic-violence-and-importance-prevention
- Burkholder, G. J., Cox, K. A., Crawford, L. M., & Hitchcock, J. H. (Eds.). (2020).

  \*Research designs and methods: An applied guide for the scholar-practitioner.

  Sage.
- Calcia, M. A., Bedi, S., Howard, L. M., Lempp, H., & Oram, S. (2021). Healthcare experiences of perpetrators of domestic violence and abuse: a systematic review and meta-synthesis. *BMJ Open, 11*(5), Article e043183.

  <a href="https://doi.org/10.1136/bmjopen-2020-043183">https://doi.org/10.1136/bmjopen-2020-043183</a>
- Calina, D., Hartung, T., Mardare, I., Mitroi, M., Poulas, K., Tsatsakis, A., Rogoveanu, I., & Docea, A. O. (2021). COVID-19 pandemic and alcohol consumption: Effects and interconnections. *Toxicology Reports*, 8, 529–535.
  <a href="https://doi.org/10.1016/j.toxrep.2021.03.005">https://doi.org/10.1016/j.toxrep.2021.03.005</a>
- Cardeli, E., Bloom, M., Gillespie, S., Zayed, T., & Ellis, B. H. (2022). Exploring the social-ecological factors that mobilize children into violence. *Terrorism and*

- Political Violence, 34(2), 318-340. https://doi.org/10.1080/09546553.2019.1701444
- Centers for Disease Control and Prevention. (2021). Risk and protective factors for perpetration. U. S. Department of Health and Human Services.

  <a href="https://www.cdc.gov/violenceprevention/intimatepartnerviolence/riskprotectivefactors.html">https://www.cdc.gov/violenceprevention/intimatepartnerviolence/riskprotectivefactors.html</a>
- Clark, R. (2016). "Hope in a hashtag": The discursive activism of why I stayed. *Feminist Media Studies*, 16(5), 788-804. https://doi.org/10.1080/14680777.2016.1138235
- Cravens, J. D., Whiting, J. B., & Aamar, R. O. (2015). Why I stayed/left: An analysis of voices of intimate partner violence on social media. *Contemporary Family*Therapy, 37(4), 372-385. https://doi.org/10.1007/s10591-015-9360-8
- Creedy, D. K., Baird, K., Gillespie, K., & Branjerdporn, G. (2021). Australian hospital staff perceptions of barriers and enablers of domestic and family violence screening and response. *BMC Health Services Research*, 21(1), 1121. <a href="https://doi.org/10.1186/s12913-021-07083-y">https://doi.org/10.1186/s12913-021-07083-y</a>
- Das, B., Mohandas, A., & Killi, B. (2022). Prevalence and associated factors of domestic violence among married women in an urban slum in South India. *Journal of Family Medicine & Primary Care*, 11(3), 1006-1011.

  <a href="https://doi.org/10.4103/jfmpc.jfmpc\_1133\_21">https://doi.org/10.4103/jfmpc.jfmpc\_1133\_21</a>
- Dheensa, S., Halliwell, G., Daw, J., Jones, S. K., & Feder, G. (2020). "From taboo to routine": a qualitative evaluation of a hospital-based advocacy intervention for

- domestic violence and abuse. *BMC Health Services Research*, 20(1), 129. https://doi.org/10.1186/s12913-020-4924-1
- Di Franco, M., Martines, G. F., Carpinteri, G., Trovato, G., & Catalano, D. (2021).

  Domestic violence detection amid the COVID-19 pandemic: The value of the WHO questionnaire in emergency medicine. *QJM: monthly journal of the Association of Physicians*, 114(9), 637–641.

  https://doi.org/10.1093/qjmed/hcaa333
- Di Napoli, I., Procentese, F., Carnevale, S., Esposito, C., & Arcidiacono, C. (2019).

  Ending intimate partner violence (IPV) and locating men at stake: An ecological approach. *International Journal of Environmental Research and Public Health*, 16(9), 1652. <a href="https://doi.org/10.3390/ijerph16091652">https://doi.org/10.3390/ijerph16091652</a>
- Drieskens, S., Braekman, E., Ridder, K., Gisle, L., Charafeddine, R., Hermans, L., & Demarest, S. (2022). Domestic violence during the COVID-19 confinement: Do victims feel more socially isolated?. *Archives of public health = Archives belges de sante publique*, 80(1), 39. <a href="https://doi.org/10.1186/s13690-021-00765-3">https://doi.org/10.1186/s13690-021-00765-3</a>
- Enago Academy. (2021). *How to develop a good research hypothesis*.

  <a href="https://www.enago.com/academy/how-to-develop-a-good-research-hypothesis/">https://www.enago.com/academy/how-to-develop-a-good-research-hypothesis/</a>
- Evans, D. P. (2020). COVID-19 and violence: a research call to action. *BMC Women's Health*, 20(249). <a href="https://doi.org/10.1186/s12905-020-01115-1">https://doi.org/10.1186/s12905-020-01115-1</a>
- Evans, M. L., Lindauer, M., & Farrell, M. E. (2020). A Pandemic within a pandemic Intimate partner violence during Covid-19. *N Engl J Med*, *383*, 2302-2304. https://doi: 0.1056/NEJMp2024046

- Fraga Rizo, C., Klein, L. B., Chesworth, B., Macy, R. J., & Dooley, R. (2022). Intimate partner violence survivors' housing needs and preferences: A brief report. *Journal of interpersonal violence*, *37*(1-2), 958–972. https://doi.org/10.1177/0886260519897330
- Gashaw, B. T., Schei, B., & Magnus, J. H. (2018). Social ecological factors and intimate partner violence in pregnancy. *PloS one*, *13*(3), Article e0194681. https://doi.org/10.1371/journal.pone.0194681
- Gavin, S. M., & Kruis, N. E. (2021). The influence of media violence on intimate partner violence perpetration: An examination of inmates' domestic violence Convictions and self-reported perpetration. *Gender issues*, 1–21. Advance online publication. https://doi.org/10.1007/s12147-021-09284-5
- Gearhart, S., Perez-Patron, M., Hammond, T. A., Goldberg, D. W., Klein, A., & Horney, J. A. (2018). The impact of natural disasters on domestic violence: An analysis of reports of simple assault in Florida (1999–2007). *Violence and gender*, *5*(2), 87-92.
- Gram, L., Granados, R., Krockow, E. M., Druwalla, N. & Osrin, D. (2021). Modelling collective action to change social norms around domestic violence: Social dilemmas and the role of altruism. *Humanit Soc Sci Commun* 8(53). <a href="https://doi.org/10.1057/s41599-021-00730-z">https://doi.org/10.1057/s41599-021-00730-z</a>
- Henke, A., & Hsu, L. (2022). COVID-19 and Domestic Violence: Economics or isolation?. *Journal of Family and Economic Issues*, 1–14. Advance online publication. https://doi.org/10.1007/s10834-022-09829-0

- Henry Wadsworth Longfellow Quotes. (n.d.). BrainyQuote.com.

  https://www.brainyquote.com/quotes/henry\_wadsworth\_longfello\_129800
- Heron, R. L., & Eisma, M. C. (2021). Barriers and facilitators of disclosing domestic violence to the healthcare service: A systematic review of qualitative research. Health & Social Care in the Community, 29(3), 612–630.
  <a href="https://doi.org/10.1111/hsc.13282">https://doi.org/10.1111/hsc.13282</a>
- Huecker, M. R., King, K. C., Jordan, G. A., & Smock, W. (2022). *Domestic Violence*.
  [Updated 2022 Mar 7]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls
  Publishing; 2022 Jan-. <a href="https://www.ncbi.nlm.nih.gov/books/NBK499891/">https://www.ncbi.nlm.nih.gov/books/NBK499891/</a>
- Huntley, A. L., Szilassy, E., Potter, L., Malpass, A., Williamson, E., & Feder, G. (2020).
   Help seeking by male victims of domestic violence and abuse: an example of an integrated mixed methods synthesis of systematic review evidence defining methodological terms. *BMC health services research*, 20(1), 1085.
   <a href="https://doi.org/10.1186/s12913-020-05931-x">https://doi.org/10.1186/s12913-020-05931-x</a>
- Jethá, E., Keygnaert, I., Martins, E., Sidat, M., Roelens, K. (2021). Domestic violence in Mozambique: from policy to practice. *BMC Public Health*, 21(1):772.
  <a href="https://doi.org10.1186/s12889-021-10820-x">https://doi.org10.1186/s12889-021-10820-x</a>
- Kadiani, A., Chaudhury, S., Saldanha, D., Pande, N., & Menon, P. (2020). Psychosocial profile of male perpetrators of domestic violence: A population-based study. *Industrial Psychiatry Journal*, 29(1), 134–148.
  <a href="https://doi.org/10.4103/ipj.ipj\_78\_18">https://doi.org/10.4103/ipj.ipj\_78\_18</a>

- Karystianis, G., Adily, A., Schofield, P. W., Wand, H., Lukmanjaya, W., Buchan, I., Nenadic, G., & Butler, T. (2022). Surveillance of domestic violence using text mining outputs from Australian police records. *Frontiers in psychiatry*, 12, 787792. https://doi.org/10.3389/fpsyt.2021.787792
- Kilanowski, J. F. (2017) Breadth of the Socio-Ecological Model. *Journal of Agromedicine*, 22(4), 295-297, https://doi: 0.1080/1059924X.2017.1358971
- Klein, L. B., Chesworth, B. R., Howland-Myers, J. R., Rizo, C. F., & Macy, R. J. (2021).
  Housing Interventions for Intimate Partner Violence Survivors: A Systematic
  Review. *Trauma, Violence & Abuse*, 22(2), 249–264.
  <a href="https://doi.org/10.1177/1524838019836284">https://doi.org/10.1177/1524838019836284</a>
- Kolbe, V., & Büttner, A. (2020). Domestic Violence Against Men-Prevalence and Risk Factors. *Deutsches Arzteblatt International*, 117(31-32), 534–541. https://doi.org/10.3238/arztebl.2020.0534
- Krishnakumar, A., & Verma, S. (2021). Understanding Domestic Violence in India

  During COVID-19: a Routine Activity Approach. *Asian Journal of Criminology*,

  16(1), 19–35. https://doi.org/10.1007/s11417-020-09340-1
- Lasong, J., Zhang, Y., Muyayalo, K. P., Njiri, O. A., Gebremedhin, S. A., Abaidoo, C. S.,
  Liu, C. Y., Zhang, H., & Zhao, K. (2020). Domestic violence among married
  women of reproductive age in Zimbabwe: a cross sectional study. *BMC Public Health*, 20(1), 354. <a href="https://doi.org/10.1186/s12889-020-8447-9">https://doi.org/10.1186/s12889-020-8447-9</a>
- Leigh, J. K., Peña, L. D., Anurudran, A., & Pai, A. (2022). "Are you safe to talk?":

  Perspectives of service providers on experiences of domestic violence during the

- COVID-19 pandemic. *Journal of Family Violence*, 1–11. Advance online publication. https://doi.org/10.1007/s10896-022-00359-9
- Leslie, E., & Wilson, R. (2020). Sheltering in place and domestic violence: Evidence from calls for service during COVID-19. *Journal of Public Economics*, 189, 104241. <a href="https://doi.org/10.1016/j.jpubeco.2020.104241">https://doi.org/10.1016/j.jpubeco.2020.104241</a>
- Lewis, N. V., Dowrick, A., Sohal, A., Feder, G., & Griffiths, C. (2019). Implementation of the Identification and Referral to Improve Safety programme for patients with experience of domestic violence and abuse: A theory-based mixed-method process evaluation. *Health & Social Care in the Community*, 27(4), Article e298–e312. https://doi.org/10.1111/hsc.12733
- Lloyd, M. (2018). Domestic violence and education: Examining the impact of domestic violence on young children, children, and young people and the potential role of schools. *Frontiers in Psychology*, *9*, 2094. https://doi.org/10.3389/fpsyg.2018.02094
- McCarthy, K. J., Mehta, R., & Haberland, N. A. (2018). Gender, power, and violence: A systematic review of measures and their association with male perpetration of IPV. *PloS one*, *13*(11), Article e0207091.

  https://doi.org/10.1371/journal.pone.0207091
- McCrary, J., & Sanga, S. (2021). The impact of the coronavirus lockdown on domestic violence. *American Law and Economics Review, ahab003*.

  <a href="https://doi.org/10.1093/aler/ahab003">https://doi.org/10.1093/aler/ahab003</a>

- McDonald, S. E., Collins, E. A., Maternick, A., Nicotera, N., Graham-Bermann, S., Ascione, F. R., & Williams, J. H. (2019). Intimate partner violence survivors' reports of their children's exposure to companion animal maltreatment: a qualitative study. *Journal of Interpersonal Violence*, *34*(13), 2627–2652. https://doi.org/10.1177/0886260516689775
- McLaughlin, K. D. (2017). Ethical considerations for clinicians treating victims and perpetrators of intimate partner violence. *Ethics & Behavior*, 27(1), 43–52. https://doi.org/10.1080/10508422.2016.1185012
- Miranda, R. B., & Lange, S. (2020). Domestic violence and social norms in Norway and Brazil: A preliminary, qualitative study of attitudes and practices of health workers and criminal justice professionals. *PloS one*, *15*(12), Article e0243352. https://doi.org/10.1371/journal.pone.0243352
- Mugari, I. & Muzinda, C. (2021), "Social media: the double-edged sword for perpetuating and preventing criminal activities in Zimbabwe". *Safer Communities*, 20(4), 225-236. https://doi.org/10.1108/SC-02-2021-0004
- Muldoon, K. A., Denize, K. M., Talarico, R., Fell, D. B., Sobiesiak, A., Heimerl, M., & Sampsel, K. (2021). COVID-19 pandemic and violence: Rising risks and decreasing urgent care-seeking for sexual assault and domestic violence survivors.

  \*\*BMC Medicine\*, 19(1), 20. https://doi.org/10.1186/s12916-020-01897-z\*
- National Coalition Against Domestic Violence. (2021). *Domestic violence in Virginia*. <a href="https://assets.speakcdn.com/assets/2497/virginia-2021101912193527.pdf">https://assets.speakcdn.com/assets/2497/virginia-2021101912193527.pdf</a>

- NBC12. (2020). City police say domestic violence calls on the rise amidst pandemic.

  <a href="https://www.nbc12.com/2020/04/23/city-police-say-domestic-violence-calls-rise-amidst-pandemic/">https://www.nbc12.com/2020/04/23/city-police-say-domestic-violence-calls-rise-amidst-pandemic/</a>
- Nduna, M., & Tshona, S. O. (2021). Domesticated poly-violence against women during the 2020 COVID-19 lockdown in South Africa. *Psychological Studies*, 66(3), 347–353. <a href="https://doi.org/10.1007/s12646-021-00616-9">https://doi.org/10.1007/s12646-021-00616-9</a>
- Nikolova, K., Postmus, J. L., Buttner, C., & Bosk, E. A. (2020). Working together to protect women and children from domestic violence: factors influencing willingness to collaborate between organizations. *Children And Youth Services Review*, 118, 105503.
- Nix, J., & Richards, T. N. (2021). The immediate and long-term effects of COVID-19 stay-at-home orders on domestic violence calls for service across six US jurisdictions. *Police Practice and Research*, 22(4), 1443-1451.

  https://doi.org/10.1080/15614263.2021.1883018
- Okedo-Alex, I. N., Akamike, I. C., Uneke, C. J., & Abateneh, D. D. (2021). Community attitudes towards violence against women, and lived experiences of family violence and abuse during childhood in rural eastern Nigeria: Implications for policy and programming. *Risk Management and Healthcare Policy*, *14*, 4983–4990. https://doi.org/10.2147/RMHP.S342584
- Panovska-Griffiths, J., Szilassy, E., Johnson, M., Dixon, S., De Simoni, A., Wileman, V., Dowrick, A., Emsley, E., Griffiths, C., Barbosa, E. C., & Feder, G. (2022). Impact

- of the first national COVID-19 lockdown on referral of women experiencing domestic violence and abuse in England and Wales. *BMC Public Health*, 22(1), 504. https://doi.org/10.1186/s12889-022-12825-6
- Pang, L., & Thomas, S. J. (2019). Exposure to domestic violence during adolescence: coping strategies and attachment styles as early moderators and their relationship to functioning during adulthood. *Journal of Child & Adolescent Trauma*, 13(2), 185–198. <a href="https://doi.org/10.1007/s40653-019-00279-9">https://doi.org/10.1007/s40653-019-00279-9</a>
- Papageorge, N. W., Pauley, G. C., Cohen, M., Wilson, T. E., Hamilton, B. H., & Pollak, R. A. (2021). Health, human capital and domestic violence. *The Journal Of Human Resources*, *56*(4), 997–1030. <a href="https://doi.org/10.3368/jhr.56.4.1115-7543r5">https://doi.org/10.3368/jhr.56.4.1115-7543r5</a>
- Parkinson, D. (2019). Investigating the increase in domestic violence post disaster: An Australian case study. *Journal of Interpersonal Violence*, *34*(11), 2333–2362. https://doi.org/10.1177/0886260517696876
- Pearson, I., Butler, N., Yelgezekova, Z., Nihlén, Å., Yordi Aguirre, I., Quigg, Z., & Stöckl, H. (2021). Emerging responses implemented to prevent and respond to violence against women and children in WHO European member states during the COVID-19 pandemic: a scoping review of online media reports. *BMJ Open*, 11(4), Article e045872. https://doi.org/10.1136/bmjopen-2020-045872
- Pereira, M., & Gaspar, R. S. (2021). Socioeconomic factors associated with reports of domestic violence in large Brazilian cities. *Frontiers In Public Health*, *9*, 623185. https://doi.org/10.3389/fpubh.2021.623185

- Perez-Vincent, S. M., & Carreras, E. (2022). Domestic violence reporting during the COVID-19 pandemic: evidence from Latin America. Review of economics of the household, 1–32. *Advance Online Publication*. <a href="https://doi.org/10.1007/s11150-022-09607-9">https://doi.org/10.1007/s11150-022-09607-9</a>
- Peterson, C., Kearns, M. C., McIntosh, W. L., Estefan, L. F., Nicolaidis, C., McCollister, K. E., Gordon, A., & Florence, C. (2018). Lifetime economic burden of intimate partner violence among U.S. adults. *American Journal of Preventive Medicine*, 55(4), 433–444. <a href="https://doi.org/10.1016/j.amepre.2018.04.049">https://doi.org/10.1016/j.amepre.2018.04.049</a>
- Poux, S. (2017). Social-ecological model offers new approach to public health. *The Borgen Project*. <a href="https://borgenproject.org/social-ecological-model/">https://borgenproject.org/social-ecological-model/</a>
- Richards, J., Smithson, J., Moberly, N. J., & Smith, A. (2021). "If it goes horribly wrong the whole world descends on you": The influence of fear, vulnerability, and powerlessness on police officers' response to victims of head injury in domestic violence. *International Journal of Environmental Research and Public Health*, 18(13). https://doi.org/10.3390/ijerph18137070
- Sardinha, L., Maheu-Giroux, M., Stöckl, H., Meyer, S. R., & García-Moreno, C. (2022). Global, regional, and national prevalence estimates of physical or sexual, or both, intimate partner violence against women in 2018. *The Lancet*, *399*(10327), P803-813. <a href="https://doi.org/10.1016/S0140-6736(21)02664-7">https://doi.org/10.1016/S0140-6736(21)02664-7</a>
- Savitsky, B., Radomislensky, I., Goldman, S., Kaim, A., I. T. G. (Israel Trauma Group), & Bodas, M. (2021). The surfacing portion of the iceberg of the domestic violence phenomenon-data from the Israeli National Trauma Registry. *Israel*

- Journal Of Health Policy Research, 10(1), 69. <a href="https://doi.org/10.1186/s13584-021-00499-1">https://doi.org/10.1186/s13584-021-00499-1</a>
- Sorenson, S. B., Sinko, L., & Berk, R. A. (2021). The endemic amid the pandemic: seeking help for violence against women in the initial phases of COVID-19.

  \*\*Journal Of Interpersonal Violence, 36(9-10), 4899–4915.\*\*

  https://doi.org/10.1177/0886260521997946
- Schlager, E. (2019). A comparison of frameworks, theories, and models of policy processes. In *Theories of the Policy Process* (pp. 293-319). Routledge.
- Seid, E., Melese, T., & Alemu, K. (2021). Spatial distribution and predictors of domestic violence against women: evidence from analysis of Ethiopian demographic health survey 2016. *BMC Women's Health*, 21(1), 334. <a href="https://doi.org/10.1186/s12905-021-01465-4">https://doi.org/10.1186/s12905-021-01465-4</a>
- Semahegn, A., Torpey, K., Manu, A., Assefa, N., Tesfaye, G., & Ankomah, A. (2019).

  Are interventions focused on gender-norms effective in preventing domestic violence against women in low and lower-middle income countries? A systematic review and meta-analysis. *Reproductive Health*, 16(1), 93.

  <a href="https://doi.org/10.1186/s12978-019-0726-5">https://doi.org/10.1186/s12978-019-0726-5</a>
- Shaheen, A., Ashkar, S., Alkaiyat, A. Bacchus, L., Colombini, M., Feder, G., & Evans, M. (2020). Barriers to women's disclosure of domestic violence in health services in Palestine: qualitative interview-based study. *BMC Public Health*, 20 (1795). <a href="https://doi.org/10.1186/s12889-020-09907-8">https://doi.org/10.1186/s12889-020-09907-8</a>

- Sharma, P., & Khokhar, A. (2021). Domestic violence and coping strategies among married adults during lockdown due to coronavirus disease (COVID-19) pandemic in India: A cross-sectional study. Disaster medicine and public health preparedness, 1–8. *Advance Online Publication*.

  https://doi.org/10.1017/dmp.2021.59
- Singhal, S., Orr, S., Singh, H., Shanmuganantha, M., & Manson, H. (2021). Domestic violence and abuse related emergency room visits in Ontario, Canada. *BMC*Public Health, 21(1), 461. https://doi.org/10.1186/s12889-021-10501-9
- Smith, S. G., Zhang, X., Basile, K. C., Merrick, M. T., Wang, J., Kresnow, M., Chen, J. (2018). The national intimate partner and sexual violence survey: 2015 data brief—updated release. *National Center for Injury Prevention and Control, Centers for Disease Control and Prevention*.

  https://www.cdc.gov/violenceprevention/pdf/2015data-brief508.pdf
- Sorenson, S. B., Sinko, L., & Berk, R. A. (2021). The endemic amid the pandemic:

  Seeking help for violence against women in the initial phases of COVID-19. *Journal Of Interpersonal Violence*, 36(9-10), 4899–4915.

  <a href="https://doi.org/10.1177/0886260521997946">https://doi.org/10.1177/0886260521997946</a>
- Storer, H. L., & Rodriguez, M. (2020). # Mapping a movement: social media, feminist hashtags, and movement building in the digital age. *Journal of Community*Practice, 28(2), 160-176.

- Su, Z., McDonnell, D., Cheshmehzangi, A., Ahmad, J., Chen, H., Šegalo, S., & Cai, Y. (2022). What "Family Affair?" Domestic violence awareness in China. Frontiers in Public Health, 10, 795841. https://doi.org/10.3389/fpubh.2022.795841
- Sutherland, G., Easteal, P., Holland, K., & Vaughn, C. (2019). Mediated representations of violence against women in the mainstream news in Australia. *BMC Public Health*, 19(502). <a href="https://doi.org/10.1186/s12889-019-6793-2">https://doi.org/10.1186/s12889-019-6793-2</a>
- The United State Congress Committee on Education and Labor. (2021). "National Domestic Violence Prevention Action Plan Act of 2021".

  https://www.congress.gov/bill/117th-congress/house-bill/5762/text
- The Virginia Sexual & Domestic Violence Action Alliance. (2023). *Prevention in Virginia*. https://vsdvalliance.org/change-culture/prevention-in-virgnia/
- Thi, A. M., Zimmerman, C., Pocock, N. S., Chan, C. W., & Ranganathan, M. (2021).
  Child domestic work, violence, and health outcomes: A rapid systematic review.
  International Journal of Environmental Research and Public Health, 19(1).
  https://doi.org/10.3390/ijerph19010427
- Thiel, F., Büechl, V., Rehberg, F., Mojahed, A., Daniels, J. K., Schellong, J., & Garthus-Niegel, S. (2022). Changes in prevalence and severity of domestic violence during the covid-19 pandemic: A systematic review. *Frontiers in Psychiatry*, *13*, 874183. https://doi.org/10.3389/fpsyt.2022.874183
- Usher, K., Durkin, J., Martin, S., Vanderslott, S., Vindrola-Padros, C., Usher, L., & Jackson, D. (2021). Public sentiment and discourse on domestic violence during

- the COVID-19 pandemic in Australia: Analysis of Social Media Posts. *Journal of Medical Internet Research*, 23(10), Article e29025. https://doi.org/10.2196/29025
- US Preventive Services Task Force. (2018). Screening for intimate partner violence, elder abuse, and abuse of vulnerable adults: US preventive services task force final recommendation statement. *JAMA*. *320*(16):1678–1687. https://doi.org/10.1001/jama.2018.14741
- van Gelder, N. E., van Haalen, D. L., Ekker, K., Ligthart, S. A., & Oertelt-Prigione, S. (2021). Professionals' views on working in the field of domestic violence and abuse during the first wave of COVID-19: a qualitative study in the Netherlands. *BMC Health Services Research*, 21(1), 624. <a href="https://doi:10.1186/s12913-021-06674-z">https://doi:10.1186/s12913-021-06674-z</a>
- Virginia Commonwealth University. (2021). *Domestic violence in Virginia: Statistics*and resources. https://onlinesocialwork.vcu.edu/blog/domestic-violence-virginia/
- Wake, A. D., & Kandula, U. R. (2022). The global prevalence and its associated factors toward domestic violence against women and children during COVID-19 pandemic-"The shadow pandemic": A review of cross-sectional studies. *Women's Health (London, England)*, 18, 17455057221095536.

  https://doi.org/10.1177/17455057221095536
- Walsh J. P. (2020). Social media and moral panics: Assessing the effects of technological change on societal reaction. *International Journal of Cultural Studies*, 1367877920912257. <a href="https://doi.org/10.1177/1367877920912257">https://doi.org/10.1177/1367877920912257</a>

- WomensLaw.Org. (2021). Legal information: Virginia. What is the legal definition of domestic violence in Virginia? <a href="https://www.womenslaw.org/laws/va/restraining-orders/protective-orders-family-abuse/basic-information/what-legal-definition">https://www.womenslaw.org/laws/va/restraining-orders/protective-orders-family-abuse/basic-information/what-legal-definition</a>
- Xavier Hall, C. D., & Evans, D. P. (2020). Social comorbidities? A qualitative study mapping syndemic theory onto gender-based violence and co-occurring social phenomena among Brazilian women. *BMC Public Health*, 20(1), [1260]. <a href="https://doi.org/10.1186/s12889-020-09352-7">https://doi.org/10.1186/s12889-020-09352-7</a>
- Xue, J., Chen, J., Chen, C., Hu, R., & Zhu, T. (2020). The hidden pandemic of family violence during COVID-19: Unsupervised learning of Tweets. *Journal of Medical Internet Research*, 22(11), Article e24361. https://doi.org/10.2196/24361