

Examine the Spatial Distribution of Domestic Violence against Women in Planned and Unplanned Neighborhoods of Port Harcourt Municipality

JOHNBULL, Simeipiri Wenike¹; IKIRIKO, Tamunoikuronibo Dawaye²

^{1,2}Department of Urban and Regional Planning, Rivers State University, Port Harcourt, Nigeria

Corresponding Author: Email: simeipiri.johnbull2@ust.edu.ng

Abstract— Domestic violence against women is a pervasive and destructive phenomenon that transcends cultural, socio-economic, and geographic boundaries. This study examines the spatial distribution of domestic violence against women in planned and unplanned neighborhoods of Port Harcourt Municipality, Nigeria. Utilizing a mixed-method approach, the study draws upon data from field investigations, literature, and the International Federation of Women Lawyers (FIDA). Descriptive statistics and spatial analysis are employed to compare the prevalence of reported domestic violence incidents in different neighborhood types. The findings reveal a significant disparity in domestic violence rates between planned and unplanned neighborhoods. Within planned neighborhoods, emotional violence is the most prevalent type, particularly in Orominike (72.1%). In contrast, unplanned neighborhoods exhibit significantly higher rates of reported domestic violence (72.50%) compared to planned neighborhoods (27.50%), with physical violence emerging as the most prevalent form, particularly in Ochiri (64.3%). This disparity is likely attributed to a range of factors, including socio-economic status, access to resources, and social support. To address this pressing issue, a comprehensive approach as advocated by the WHO is recommended, encompassing prevention, intervention, and support mechanisms.

Keywords— Domestic Violence, Planned Neighborhoods, Unplanned Neighborhoods, Spatial Distribution, Violence against Women.

I. INTRODUCTION

One of the pressing challenges in contemporary planning involves addressing the prevalence of domestic violence, particularly concerning spatial design. Specific types of crimes tend to manifest more frequently in particular spaces, necessitating a nuanced approach to tackling domestic violence. There exists no universally agreed-upon definition of violence against women, leading to varied interpretations among human rights activists. Some advocate for an expansive definition that encompasses 'structural violence', such as poverty and disparities in access to healthcare and education. Conversely, others propose a more concise definition to uphold the term's descriptive power. Nonetheless, the necessity for precise operational definitions has been acknowledged to facilitate more specific and cross-culturally applicable research and monitoring methodologies.

The United Nations Declaration on the Elimination of Violence against Women (1993) presents a definition characterizing violence against women as 'any act of gender-based violence resulting in or likely to result in physical, sexual, or psychological harm or suffering to women.' This definition highlights the gender-based nature of violence, acknowledging its role in subjugating women relative to men. It expands the scope of violence by encompassing both physical and psychological harm against women in public and private settings. Furthermore, the Declaration identifies three spheres of violence against women: familial, community-based, and those condoned or perpetrated by the State, although this is not an exhaustive categorization.

Again, the United Nations, in the Beijing Declaration and the Platform for Action (BFA) of 1995, reinforces their definition of violence against women as any gender-based act leading to physical, sexual, or psychological harm or suffering.

This includes threats, coercion, or arbitrary denial of liberty, whether in public or private settings (Medical Women's Association of Nigeria, Rivers State Branch, 2023). Within our environment, prevalent forms of violence against women and girls encompass physical violence, sexual offences (such as rape and harassment), harmful practices in widowhood, spouse abandonment, kidnapping, female genital cutting, among others.

Globally, violence against women and girls has emerged as a significant public health concern, with statistics indicating that one in three women (33%) experiences some form of violence in their lifetime (Medical Women's Association of Nigeria, Rivers State Branch, 2023). In Nigeria, the statistics are alarming, with one in every four women reported to have experienced domestic violence (Benebo, Schumann & Vaezghasemi, 2018). Yet, the actual extent remains elusive due to under-reporting. The ramifications of such violence are profound, affecting women's health, economic stability, and overall well-being. The impact transcends individual lives, permeating society by impeding economic growth and perpetuating gender inequality (Adebayo, 2014; Kimuna, 2013).

Recognizing the severity of this issue, global initiatives such as the Sustainable Development Goals (SDGs) have included specific targets to eliminate violence against women and foster gender equality (Gupta & Vegelin, 2016). Port Harcourt, Nigeria's oil and gas capital, has witnessed substantial growth, attracting people and businesses and expanding spatially and demographically. This growth inevitably influences crime rates, including incidents of domestic violence against women. Understanding that crime often occurs in specific spatial contexts, there might exist a correlation between crime types and neighborhood designs. Therefore, this study aims to investigate the spatial distribution of domestic violence against

women within the neighborhoods of Port Harcourt Municipality, specifically examining disparities between planned and unplanned areas.

Problem Statement

Port Harcourt, the capital of Rivers State in southern Nigeria, is a bustling metropolis characterized by a complex interplay of planned and unplanned neighborhoods. This urban tapestry reflects a history of uneven development, resulting in stark disparities in socio-demographic composition, access to essential services, and community dynamics (Ikechukwu, 2015; Wizor, 2014).

Domestic violence, a pervasive and multifaceted issue, often remains under-reported and inadequately addressed, particularly in urban settings (Malhotra, 2018; Kaur, 2022). Amidst this intricate urban landscape of Port Harcourt characterised by planned and unplanned neighborhoods, a critical issue demands attention: the prevalence and spatial distribution of domestic violence against women.

Study Area

Nestled approximately 66 kilometers from the Atlantic Ocean, Port Harcourt lies between 4°5' 11" and 5°15' 45" north of the equator and 6°22' 25" and 8° 05' 12" east of the Greenwich meridian (Ajie and Dienya, 2014). The city's patriarchal structure often relegates women to subordinate roles, reinforcing male authority and control, which contributes to the normalization and perpetuation of domestic violence (Bamiwuye, Okechukwu, & Adeyemi, 2020). Cultural practices like dowry or bride price systems further entrench violence against women in marital relationships (Okenwa & Adinma, 2019).

Port Harcourt's population has witnessed significant growth over the years, fueled by urbanization and economic opportunities. In 2016, the city's population was estimated at approximately 1.86 million people (World Population Review, 2023). Port Harcourt is home to a diverse populace representing various ethnic groups in Nigeria, including the Ijaw, Ikwerre, Ogoni, Efik, and Igbo, among others (Wolpe, 2022).

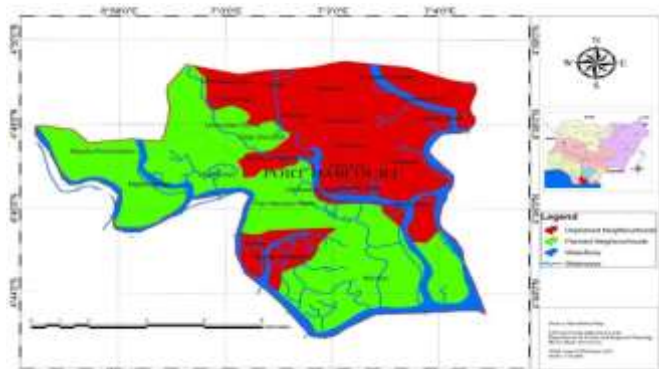


Fig. 1: Map of Port Harcourt Municipality showing the Planned and Unplanned Neighbourhoods.

(Source: Rivers State University, Department of Urban and Regional Planning GIS Lab, 2023)

The study area experiences a tropical climate characterized by high temperatures and year-round precipitation. The average

annual temperature is 26.0 °C (78.8 °F), and the average annual precipitation is 2,719 mm (107.0 inches) (Climate Data, 2023). The area has two distinct seasons: the wet and dry seasons. Approximately 70% of the annual rainfall falls between April and August, with the remaining 22% distributed over the three months from September to November.

Situated on a low-lying plane, the study area is subject to tidal fluctuations that affect its rivers, creeks, and swamps. The Atlantic Ocean serves as the sole drainage system. The land surface slope is gentle, ranging from 30 meters to 50 meters in the average NW-SE direction. The topography is characterized by low-lying planes that are less than 20 meters above sea level (Wizor & Mpigi, 2020).

II. LITERATURE REVIEW- A CONCEPTUAL OVERVIEW

2.1 Theoretical Explanations of Domestic Violence in Spatial Contexts

Several theories have been proposed to explain the spatial dynamics of domestic violence, offering insights into the interplay between neighborhood characteristics and the prevalence of violence. Three of such theories and how they relates to this study will be discussed.

2.1.1 Feminist Theory

According to feminist theory, wife abuse directly links to the patriarchal structure of society, evident in behavioral patterns and attitudes toward women (Dobash, & Dobash, 1979; Dobash, & Dobash, 1998). Masculinity often embodies control and authority over women in this view. It emphasizes gender inequality as a pivotal factor in male-female violence, viewing violence and abuse as tools men use to dominate and control their female partners, particularly when feeling powerless (Hoffman & Edwards, 2004; Kurz,1989)). Past toleration of physical violence against women by significant social institutions perpetuates this culture of abuse within families.

2.1.2 Social Disorganization Theory

The roots of social disorganization theory trace back to the early 1900s. In 1929, researchers Clifford Shaw and Henry McKay from the University of Chicago initiated a series of studies using official records. Their findings highlighted stark variations in delinquency, criminality, and commitments to correctional institutions across different areas within the city of Chicago. Specifically, they observed elevated rates in slum areas near the city center, which gradually decreased with distance from the central district. However, they noted exceptions in industrial and commercial zones just outside the central district, which exhibited some of the highest rates.

Furthermore, Shaw and McKay uncovered a strikingly consistent and enduring pattern in crime and delinquency rates over several decades (Shaw & McKay, 1942). Even as the ethnic composition of inner-city populations changed significantly over time, the spatial distribution of these rates remained remarkably stable. This led them to conclude that crime and delinquency were not solely linked to the personal characteristics of neighborhood residents but were intricately tied to the neighborhoods themselves.

Social disorganization theory therefore posits that neighborhoods or communities with certain structural and

cultural characteristics are more likely to experience higher rates of violence and crime (Bellair, 2017). These characteristics include poverty, ethnic diversity, low socioeconomic status, and a lack of social cohesion (Kubrin, 2009).

The theory suggests that these factors contribute to a breakdown of social control and informal mechanisms for conflict resolution, creating an environment more conducive to violence.

2.1.3 Social Learning Theory

Bandura and Walters' social learning theory (1963) emphasizes the role of observation and imitation in shaping behavior (Akers, 2011). The theory suggests that individuals learn behavioral patterns, including violent ones, from their environment and the people in it.

In the context of domestic violence, this theory suggests that witnessing or experiencing violence during childhood can increase the likelihood of engaging in violent behaviour later in life. This phenomenon is often referred to as the 'cycle of violence' or 'intergenerational transmission hypothesis'.

2.2 Conceptual Explanations

2.2.1 Planned Neighborhoods

A planned community, planned city, planned town, planned neighbourhood or planned settlement is any community that was carefully planned from its inception and is typically constructed on previously undeveloped land. This contrasts with settlements that evolve organically (Wikipedia). This means that is a community that has been carefully designed and developed according to a comprehensive master plan.

This master plan typically outlines the overall layout of the neighborhood, including the placement of homes, businesses, parks, and other amenities. This aligns with the National Association of Realtors (NAR) (2023) definition which says that a planned community is 'a housing development where the homes, roads, stores and other features are carefully designed and orchestrated to make living there as convenient and enjoyable as can be'. Planned neighborhoods are often characterized by their orderly design, well-connected streets, and abundance of green spaces.

According to NAR (2023), planned neighborhoods exhibit several key characteristics. These include an orderly design featuring a grid-like street layout and a blend of residential, commercial, and recreational spaces. This design facilitates easy navigation for residents and ensures convenient access to essential amenities. Additionally, planned neighborhoods boast well-connected streets equipped with sidewalks, bike lanes, and pedestrian-friendly pathways, promoting active modes of transportation such as walking and biking.

Furthermore, planned neighborhoods often encompass an abundance of green spaces, including parks, playgrounds, and recreational areas. These green spaces not only offer residents opportunities for leisure and relaxation but also contribute to the overall aesthetic appeal of the community. Residents of planned neighborhoods experience various benefits, including heightened safety and security. The organized design, well-lit streets, and active community associations prevalent in planned neighborhoods contribute to lower crime rates compared to

unplanned counterparts. Moreover, the smaller size and shared amenities in planned neighborhoods foster a strong sense of community, leading to increased social interaction and a profound sense of belonging among residents. Ultimately, the diverse amenities and recreational opportunities within planned neighborhoods contribute to an enhanced quality of life for their residents.

2.2.2 Unplanned Neighborhoods

Unplanned neighbourhoods or settlements is used interchangeably with 'squatter and illegal settlements', denoting areas characterized by high population densities and irregular construction. These settlements often violate land ownership regulations or building and planning laws by either acquiring and developing land outside the sanctioned land transfer process (Joseph, 2015).

Unlike planned neighborhoods, unplanned neighborhoods lack a structured layout and may exhibit a haphazard arrangement of streets, houses, and other structures (Kloss, Khalil & Lotfata, 2022). This organic development can lead to a number of challenges such as infrastructure deficiencies, crowding and overcrowding, land tenure issues and social exclusions (Joseph, 2015); Useni, Mpibwe Yona, N'Tambwe, Malaisse & Bogaert, 2022).

Unplanned settlements exhibit varying characteristics, often marked by issues such as accessibility problems, inappropriate land use, substandard housing, overcrowding, inadequate waste management, urban decay, and prevalent poverty and unemployment rates (WHO/UNICEF, 2003). These areas are commonly viewed as breeding grounds for social challenges including crime, drug addiction, alcoholism, and elevated rates of mental health issues and suicides. Developing countries, particularly, grapple with high disease prevalence due to unsanitary conditions, malnutrition, and limited access to basic healthcare (Adinna, 2001).

According to a United Nations experts group, unplanned areas are defined by a set of criteria: poor housing structure quality, limited access to clean water and sanitation, inadequate infrastructure, overcrowding, and insecure residential status. Despite the perception that unplanned settlements foster crime, available reports indicate that dwellers in these areas are often more victims than perpetrators of criminal acts (Mike, 2006).

In developing nations like Nigeria, life in unplanned settlements entails enduring intolerable housing conditions, often residing in overcrowded and insecure neighborhoods while facing constant eviction threats (Joseph, 2015). Moreover, residents grapple with waterborne diseases such as cholera and typhoid, along with opportunistic infections associated with HIV/AIDS (Floris, 2007). The consequences of residing in unplanned settlements manifest in significant psychological and social burdens, leading to fractured households and social exclusion (Robert, 2006). Despite these challenges, unplanned neighborhoods often exhibit a strong sense of community and resilience. Residents develop informal networks of support and resource sharing, and they adapt to their surroundings to create a sense of home (WHO/UNICEF, 2003).

2.2.3 Spatial Dynamics of Domestic Violence

Domestic violence, a pervasive and destructive phenomenon, manifests itself not only within homes but also within the broader spatial contexts in which these homes are situated. The spatial dynamics of domestic violence encompass the interplay between the physical environment, social factors, and patterns of power and control that contribute to or mitigate the risk of violence.

2.2.4 *The Home as a Physical Space*

Despite being perceived as a haven of safety and comfort, the home can paradoxically transform into a site of violence and oppression for victims of domestic abuse (Tyner, 2012). Factors such as the physical layout of the home, its proximity to neighbors or support networks, and the availability of safe spaces all play a role in influencing the dynamics of domestic violence (Niolon, P. H., & Centers for Disease Control and Prevention, 2017). Key attributes identified include limited escape routes, as homes with few doors or windows can trap victims, impeding their ability to seek help or escape abusive situations. Additionally, homes with open layouts or shared living spaces may lack privacy, reducing opportunities for victims to disclose abuse or seek support. Moreover, homes located in isolated areas or far from support networks can intensify the isolation and vulnerability of victims, making it more challenging for them to access help.

2.2.5 *Social Factors and Neighborhood Dynamics*

The social context surrounding the home plays a crucial role in shaping the risk and consequences of domestic violence, with neighborhood characteristics, social norms, and access to resources influencing the support victims receive and the likelihood of intervention (Morenoff & Sampson, 1997). Morenoff and Sampson highlight key factors: neighborhood cohesion, where strong ties and a sense of community can offer victims a support network and potential allies for intervention; social norms and attitudes, wherein neighborhoods with prevailing patriarchal views or a culture of silence may hinder victims from seeking help or escaping abusive relationships; and access to resources, where proximity to support services like shelters, counselling centers, or legal aid can provide victims with essential resources and pathways to safety.

2.2.6 *The Role of Urban Planning and Design*

Urban planning and design principles hold a pivotal role in mitigating the risks associated with domestic violence, contributing to the creation of secure, accessible, and supportive environments. These approaches encompass various strategies:

Utilizing Crime Prevention Through Environmental Design (CPTED) principles, like natural surveillance, territorial reinforcement, and target hardening, within neighborhood design to minimize crime opportunities and bolster safety (Nwokaeze & Ikiriko, 2020; Nwokaeze, Ikiriko & Johnbull, 2022).

Incorporating gender-inclusive planning strategies into urban planning, addressing the distinct needs and vulnerabilities of women, thereby crafting spaces that are safe, accessible, and empowering (Whitzman, Legacy, Andrew, Klodawsky, Shaw & Viswanath, 2013; Swain, & Mohanty, 2015).

Adopting community-driven design approaches by involving residents in the planning and design phases, tailoring neighborhoods to meet community-specific needs and concerns. This fosters a sense of ownership and collective responsibility for safety (Wilson, 2018; Sanoff, 1999).

The spatial dynamics of domestic violence underscore how physical environments, social factors, and power structures intertwine, significantly influencing the risk and consequences of abuse (Hardesty & Ogolsky, 2020). These multi-faceted approaches highlight the interconnectedness essential in addressing domestic violence through urban planning and design.

2.3 *Domestic Violence Against Women*

Violence, in its broadest sense, encompasses any act of force, verbal, written, physical, psychological, or sexual, inflicted by one individual or group upon another with the intent to harm, injure, or oppress them. This spectrum of violence can manifest as assaults on a person's integrity, physical or mental well-being, rights, or property (Jackman, 2002). Within this broader context, domestic violence against women emerges as a specific form of violence that targets women within intimate relationships.

Domestic violence against women is characterized by the use of abusive behaviors to exert power and control over a victim, resulting in physical, psychological, or sexual harm. It is a pervasive and multifaceted issue that transcends cultural, socio-economic, and geographic boundaries. The World Health Organization (WHO) estimates that one in three women worldwide has experienced physical or sexual violence, often by an intimate partner (WHO, 2021).

The perception of violence against women can vary depending on the context and the relationship between the victim and the perpetrator. A study by Mouzos and Makkai (2004) found that women were more likely to perceive an attack by a stranger as violent compared to an assault by someone they knew. This suggests that the familiarity between the victim and the perpetrator can influence how victims perceive and label violent acts.

Despite these variations in perception, violence against women remains a violent act, regardless of the perpetrator's identity.

2.4 *The Violence Against Persons Prohibition Act (VAPP Act)*

The Violence Against Persons Prohibition Act (VAPP Act) stands as a landmark legislation enacted in Nigeria in 2015 to combat and eradicate various forms of violence, particularly against women and vulnerable groups. This comprehensive legal framework aims to prevent, prohibit, and provide redress to victims of violence, marking a significant step forward in safeguarding the rights of citizens and promoting gender equality.

The VAPP Act's genesis can be traced to years of tireless advocacy and lobbying by civil society organizations, human rights groups, and women's rights activists in Nigeria. Their unwavering dedication culminated in the signing of the Act into law by former President Goodluck Jonathan on May 25, 2015.

The VAPP Act encompasses a broad spectrum of violence, including domestic violence, sexual assault, female genital

...mutilation, harmful traditional practices, and related offenses. It provides a detailed framework for addressing these issues, outlining specific offenses, penalties, and mechanisms for victim protection and support.

The Act's significance lies in its comprehensive approach to combating violence, encompassing prevention, protection, and rehabilitation. It recognizes the multifaceted nature of violence and the need for a holistic approach to address its root causes and mitigate its impact.

While the VAPP Act represents a critical step forward, its effectiveness hinges on robust implementation and enforcement. Ensuring that the Act's provisions are translated into tangible action and that victims have access to justice and support remains paramount.

2.5 Actors in Curbing Violence Against Women

2.5.1 Foundation for Partnership Initiatives in the Niger Delta

The Foundation for Partnership Initiatives in the Niger Delta (PIND) is a non-profit organization dedicated to fostering peace, equitable economic growth, and development in the Niger Delta region of Nigeria. PIND collaborates with various stakeholders, including government, businesses, civil society, and communities, to implement programs that promote sustainable development, entrepreneurship, agriculture, and capacity building. Their initiatives aim to alleviate poverty, enhance livelihoods, and create opportunities for the people of the Niger Delta.

PIND in partnership with Fund for Peace (FFP) in 2018 published an article titled 'Domestic Violence in Rivers State: A Threat to Social and Family Stability'.

It discusses the challenges faced by law enforcement officials in handling domestic violence complaints, and the limited access to formal justice systems for rural women. The article provides data on key trends in Violence Affecting Women and Girls (VAWG) incidents in the Niger Delta region during Q1 2018, which were driven mainly by domestic violence, criminality, herder/farmer clashes, and other violence affecting women and girls (See Fig 2). PIND (2018) emphasizes the need for sensitization and training of front line service providers, the use of social media for awareness and advocacy, and breaking the culture of silence surrounding domestic violence.

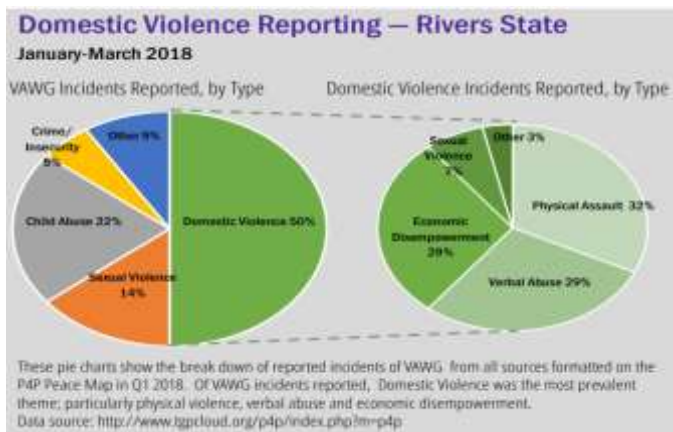


Fig. 2: Domestic Violence Incidence Report
Source: PIND, 2018

2.5.2 International Federation of Women Lawyers (FIDA) and Violence Against Women

Dennis (2020) published an article in punchng.com titled '700 cases of violence against women received within two months in Rivers – FIDA'. In his article, he said that the Rivers State chapter of the International Federation of Women Lawyers (FIDA) reported an alarming surge in violence against women, registering over 700 cases in just two months. According to him, that revelation came from FIDA Vice Chairman Nnenna Ibokwe during discussions at an event in Port Harcourt marking the elimination of violence against women. He went further to report that based on concern over this escalating trend, Ibokwe urged the public to be vigilant and report any instances of violence against women. She emphasized the importance of collective action involving families, religious institutions, educational facilities, law enforcement, government bodies, NGOs, and individuals to combat this pervasive issue; stressing that responding promptly to acts of violence is crucial in preventing further harm, emphasizing also FIDA's commitment to standing up for the rights of women, children, and other vulnerable groups to eradicate violence from society.

2.6 Empirical Review of Related Literatures

Domestic violence against women is a pervasive and widespread issue that transcends cultural, socio-economic, and geographic boundaries. Understanding the spatial distribution of domestic violence is crucial for developing effective prevention and intervention strategies. Studies have shown that domestic violence is not evenly distributed across geographical regions.

Alhabib, Nur and Jones (2010) conducted a comprehensive systematic review aiming to evaluate the global prevalence of domestic violence against women. Their study focused on assessing study quality and addressing variations in prevalence rates from 1995 to 2006. They conducted extensive literature searches across six databases—Medline, Embase, Cinahl, ASSIA, ISI, and the International Bibliography of the Social Sciences—to identify 134 English studies featuring primary empirical research data on domestic violence against women aged 18 to 65. Studies specifically excluding women with certain disabilities or diseases were considered.

Their evaluation involved scoring the selected studies based on eight predefined criteria and stratifying them according to their total quality scores. The majority of studies were concentrated in North America (41%) and Europe (20%), with variations in study settings—56% were population-based, and 17% were conducted in primary or community healthcare settings. The review highlighted considerable heterogeneity across geographical locations, healthcare settings, and study quality. Lifetime prevalence rates of domestic violence ranged widely, from 1.9% in Washington, US, to 70% among Hispanic Latinas in Southeast US.

Their assessment revealed that only 12% of the studies achieved the maximum score of 8, while approximately 27% scored 7 and 17% scored 6. Notably, studies conducted in psychiatric and obstetric/gynecology clinics reported the highest mean lifetime prevalence of all types of violence. The

study findings underscored the significant challenge in accurately measuring the prevalence of domestic violence, emphasizing the need for culturally sensitive research to craft more effective preventive policies and programs.

Aksoy and Sudas (2020) analyzed media news reports of sexual violence in Turkey from 2008 to 2019 and found that sexual violence was more prevalent in certain regions, particularly South-eastern Anatolia. Additionally, the study revealed that sexual violence was more likely to occur in rural areas than in urban areas.

Angaw et al. (2021) conducted a spatial analysis of intimate partner violence among reproductive-aged women in Ethiopia. Their findings indicated a significant spatial clustering of domestic violence in the country, with the highest clusters observed in the Oromia, Somali, and SNNPR regions.

IRIN (2007) revealed figures in Senegal, where 25% of women in Dakar and Kaolack reportedly face physical violence from their partners. Notably, only a fraction admit to being abused, and familial advice often encourages silence, complicating the reporting and resolution of such cases while in Ghana, spousal assaults rank high in domestic violence cases (IRIN, 2007).

Meanwhile Nigeria's situation is characterized as "shockingly high" (Afrol News, 2007). Amnesty International's report unveils distressing statistics, suggesting that a substantial percentage of women endure physical, sexual, and psychological violence, primarily from husbands, partners, or fathers. These situations include forced early marriages and potential penalties for attempting to escape abusive relationships. Cultural influences contribute significantly to underreporting and the absence of documentation regarding domestic violence incidents (Afrolnews, 2007).

UNICEF (2001) highlights the cultural acceptance of spousal and child abuse as discipline in Nigeria. Cases of severe violence, including killings and injuries inflicted by husbands on their wives, have been reported extensively by *This Day* (2011) newspaper. Shockingly, approximately 50% of women have endured abuse, with a higher percentage among educated women, but a vast majority are reluctant to report incidents due to a lack of confidence in legal protection.

Project Alert (2001) conducted interviews revealing high percentages of violence against women in Lagos state, Nigeria, with reports implicating the federal and state governments for inadequate actions to address this issue. Similar interviews in Oyo state and other regions supported these alarming findings. Studies conducted by Obi and Ozumba (2007) and Agbo & Choji (2014) further corroborate the prevalence of abuse in Nigeria, with a majority of victims being female partners.

Tunde et al. (2021) surveyed 399 women in rural Ido-Osi Local Government Area of Ekiti State and found that domestic violence was a prevalent issue, particularly in rural settings. Sexual assault (36.2%), physical assault (34.1%), and emotional abuse (33.1%) were the most common forms of domestic violence experienced by women. Husbands were the primary perpetrators (75.9%), followed by boyfriends (13.1%) and other male relatives (11%). Intolerance (35.2%), alcohol abuse (29.1%), and poverty (21.2%) were identified as the main contributing factors to domestic violence in the study area.

The types of abuse reported in Nigeria include verbal abuse, slapping, pushing, and more severe forms such as acid attacks and rape. Many women, however, may not recognize abusive behaviors due to their normalization. The fear of reprisals from abusers or the belief that law enforcement and the judicial system won't provide adequate help deters victims from reporting incidents, as indicated in several media reports. Agbo & Choji (2014) also documented specific instances of severe abuse, including a case where a woman lost pregnancies due to her husband's brutality and another instance where a woman's face required 26 stitches following an attack for breaking her fast.

The CLEEN Foundation's National Crime Victimization Survey in 2013 revealed a worrying trend of increasing domestic violence in Nigeria, with one in three respondents admitting to being victims of such abuse.

The aforementioned studies highlight the importance of considering the spatial distribution of domestic violence when developing prevention and intervention strategies. Tailored approaches that address the specific needs and risk factors of different regions and populations are essential for effectively combating domestic violence.

Despite the prevalence of domestic violence against women in and around Port Harcourt, there appears to be a paucity of research specifically examining the type and spatial distribution of domestic violence in the region. This lack of data represents a significant gap in our understanding of the issue and hinders the development of targeted interventions.

III. METHODS AND MATERIALS

3.1 Data Collection and Sampling Methodology

The study employed a mixed-methods approach, combining both primary and secondary data sources. The primary data collection method was a cross-sectional survey utilizing a stratified; simple, random sampling technique. This approach ensured that the sample accurately represented the diverse demographic composition of Port Harcourt.

Port Harcourt is divided into 25 communities, which were categorized into planned and unplanned neighborhoods. To ensure adequate representation from each stratum, 30% of the communities in each stratum were selected for the study. The selection of the actual communities within each stratum was performed purposely, considering factors such as accessibility, population density, and socio-economic diversity.

To further ensure the full participation of women in the study, 60% (239) of the questionnaires were distributed to women aged 18 years and above. The remaining 40% (160) questionnaires were distributed to men aged 18 years and above, allowing for a comparative analysis of perspectives on domestic violence (See Table 1). The distribution of questionnaires was proportional to the number of households in each community.

Geographic Information System (GIS) Analysis was also done. GIS tools were used to analyze and visualize the spatial distribution of reported domestic violence incidents against women in planned and unplanned neighborhoods.

Comparative Analysis was also done. The spatial distribution patterns of domestic violence incidents between

planned and unplanned neighborhoods was compared. The differences and similarities were analysed in the prevalence and intensity of reported cases.

A secondary data from FIDA was also used to corroborate the findings of the study.

Sample Size Determination

The study population was estimated at 1,410,383, based on an exponential projection from the 2006 National Population Commission census data using a 6.5% annual growth rate. A sample size of 399 respondents for nine (9) neighbourhoods in Port Harcourt metropolis. The neighborhoods were selected to represent the diversity of the city, including both planned and

unplanned neighborhoods. The sample size was determined using Yamane's formula, ensuring a statistically representative sample while considering logistical constraints (See Table 1).

The data in Table 1 can be used to understand the distribution of domestic violence in Port Harcourt. For example, the table shows that the highest number of respondents came from Nkpolu-Oroworukwo (Mile 3), which is also the most populous neighborhood.

Overall, Table 1 provides valuable information about the sampling methodology used in the study and the characteristics of the sampled neighborhoods.

TABLE 1: Sampled Neighbourhoods

S/N	Neighbourhoods	Population (1991)	Projected Population (2022) (6.5)	No. of House hold (6)	No of Respondents	Respondents (Female) 60%	Respondents (Male) 40%
1	Nkpolu- Oroworukwo (Mile 3)	52,613	370,395	61,732	105	63	42
2	Orominike D/Line	21,377	150,494	25,082	43	26	17
3	Nkpolu Orogbum	3,423	24,097	4,016	7	4	3
4	Elekahia	15,302	107,726	17,954	30	18	12
5	Ogbunabali	15,014	105,698	17,616	30	18	12
6	Nkpogu	20,402	143,630	23,938	41	25	16
7	Abuloma	10,454	73,596	12,266	20	12	8
8	Mgbubdukwu (Mile 2)	55,682	392,001	65,333	111	69	42
9	Ochiri	6,072	42,746	7,124	12	7	5
	Total	200,339	1,410,383	235,061	399	239	160

Source: Researcher's Survey, 2023

Data Presentation

The results of the study are presented using tables to enhance understanding and facilitate data interpretation. Tables provide a clear and concise summary of the collected data, allowing for easy identification of patterns, trends, and key findings.

Findings and their Discussions

Table 2 presents the distribution of the most common types of domestic violence against women in planned and unplanned neighborhoods in Port Harcourt. The findings reveal that emotional violence is the most prevalent form, accounting for 41.5% of all reported domestic violence incidents. Physical violence follows closely with 31.3%, while economic violence and psychological violence constitute 22.2% and 4.7%, respectively.

Domestic Violence in Planned Neighborhoods

Within planned neighborhoods, emotional violence is the most prevalent type, particularly in Orominike (72.1%), followed by Nkpolu-Oroworukwo (39%) and Mile 2 (37.2%). Physical violence is also common in Nkpolu-Oroworukwo (31%), followed by Mile 2 (28.9%) and Orominike (11.6%). Economic violence shows a slightly different pattern, with Mile 2 having the highest prevalence (28.9%), followed by Nkpolu-Oroworukwo (22%) and Orominike (14%).

Domestic Violence in Unplanned Neighborhoods

In unplanned neighborhoods, physical violence emerges as the most prevalent form, particularly in Ochiri (64.3%), followed by Elekahia (50%), Nkpolu-Orogbum (50%), Nkpogu (46.6%), Ogbunabali (35.3%), and Abuloma (33.3%). The distribution of emotional violence also varies within unplanned

neighborhoods. Ogbunabali has the highest prevalence (35.5%), followed by Elekahia (32.4%), Abuloma (29.2%), Nkpogu (26.7%), Nkpolu-Orogbum (20%), and Ochiri (14.3%). Economic violence is most prevalent in Abuloma (33.3%), followed by Ogbunabali (23.5%), Nkpolu-Orogbum (20%), Nkpogu (15.6%), Elekahia (14.7%), and Ochiri (14.3%).

Type of Domestic Violence Against Women in Planned and Unplanned Neighborhoods

Table 2 presents a detailed breakdown of the types of domestic violence experienced by women in both planned and unplanned neighborhoods in Port Harcourt. The table highlights the disparities in the prevalence of different forms of violence between the two neighborhood types.

Planned Neighborhoods

In planned neighborhoods, emotional violence emerges as the dominant form, accounting for 37.3% of reported cases in Mile 2, 72.1% in Orominike, and 39% in Nkpolu-Oroworukwo. Physical violence follows with 28.9% in Mile 2, 11.6% in Orominike, and 31% in Nkpolu-Oroworukwo. Economic violence is also present, with 28.9% in Mile 2, 14% in Orominike, and 22% in Nkpolu-Oroworukwo. Psychological violence is relatively low, ranging from 4.9% in Mile 2 to 2.3% in Orominike to 8% in Nkpolu-Oroworukwo.

Unplanned Neighborhoods

In unplanned neighborhoods, physical violence takes the lead, with 50% in Nkpolu-Orogbum, 33.3% in Abuloma, 50% in Elekahia, 35.3% in Ogbunabali, 46.6% in Nkpogu, and 64.3% in Ochiri. Emotional violence is also prevalent, ranging from 20% in Nkpolu-Orogbum to 35.3% in Ogbunabali to 50%

in Elekahia. Economic violence is present but at lower levels, ranging from 14.7% in Elekahia to 33.3% in Abuloma. Psychological violence is the least common, with 10% in

Nkpolu-Orogbum, 4.2% in Abuloma, 2.9% in Elekahia, 5.9% in Ogbunabali, 11.1% in Nkpogu, and 7.1% in Ochiri.

TABLE 2: Type of domestic violence against women in planned neighbourhoods and unplanned neighbourhoods.

		Planned Neighbourhoods											
		Mile 2		Orominike		Nkpolu-Oroworukwo							
S/N	Type of Violence	F	%	F	%	F	%						
1	Emotional Violence	31	37.3	31	72.1	39	39						
2	Physical Violence	24	28.9	5	11.6	31	31						
3	Economic Violence	24	28.9	6	14	22	22						
4	Psychological Violence	4	4.9	1	2.3	8	8						
Total		83	100	43	100	100	100						
		Unplanned Neighbourhoods											
		Nkpolu-Orogbum		Abuloma		Elekahia		Ogbunabali		Nkpogu		Ochiri	
S/N	Type of Violence	F	%	F	%	F	%	F	%	F	%	F	%
1	Physical Violence	5	50	8	33.3	17	50	12	35.3	21	46.6	9	64.3
2	Emotional Violence	2	20	7	29.2	11	32.4	12	35.3	12	26.7	2	14.3
3	Economic Violence	2	20	8	33.3	5	14.7	8	23.5	7	15.6	2	14.3
4	Psychological Violence	1	10	1	4.2	1	2.9	2	5.9	5	11.1	1	7.1
Total		10	100	24	100	34	100	34	100	45	100	14	100

Source: Researcher’s Survey, 2023.

Comparative Analysis

The findings reveal a clear distinction in the patterns of domestic violence between planned and unplanned neighborhoods. Planned neighborhoods exhibit a higher prevalence of emotional violence, while unplanned neighborhoods experience more physical violence. This difference can be attributed to several factors, including socio-economic status, cultural norms, and access to resources.

Women in planned neighborhoods generally have higher socio-economic status, education levels, and employment opportunities. These factors may contribute to a higher awareness of emotional abuse and a greater willingness to report it. Additionally, women in these neighborhoods may have better access to resources and support systems, enabling them to seek help and escape abusive situations.

Conversely, women in unplanned neighborhoods often face lower socio-economic conditions, lower levels of education, and limited employment opportunities. These factors may increase their vulnerability to physical violence and make it more difficult for them to report abuse or seek help. Additionally, the lack of resources and support systems in unplanned neighborhoods can further exacerbate the effects of domestic violence.

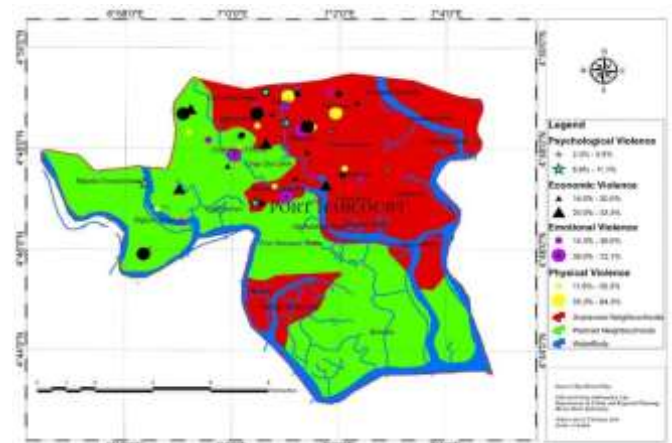


Fig. 3: The Prevalent type of Domestic Violence Against Women
Source: Researcher field work, (2023)

Spatial Distribution of Domestic Violence in Port Harcourt: Evidence from FIDA Data

To corroborate the findings of the present study, data on reported cases of domestic violence against women collected

by the International Federation of Women Lawyers (FIDA), Rivers State branch, was also analyzed (Table 3).

The table provides data on the reported incidents of domestic violence against women in both planned and unplanned neighborhoods in Port Harcourt. Their data shows that unplanned neighborhoods have a significantly higher prevalence of domestic violence than planned neighborhoods.

Planned Neighbourhoods

In the planned neighbourhoods, a total of 31 reported cases were documented. Notably, Borikiri had the highest number of reported incidents, accounting for 8 cases (9.3%). Mgbundukwu and Port Harcourt Town followed closely with 7 (8.1%) and 6 cases (7.0%) respectively. Other planned neighbourhoods, such as Nkpolu-Oroworukwo, Otumuonyo,

and Orije Old GRA, reported a lower number of incidents ranging from 1 to 5 cases.

Unplanned Neighbourhoods

The data from unplanned neighbourhoods revealed a more alarming scenario, with a total of 55 reported cases of domestic violence against women. Nembe Waterside stood out with the highest number of reported incidents, documenting 12 cases (14.0%). Following closely was Bundu with 10 cases (11.6%), indicating a significant prevalence of such incidents in these areas. Other neighbourhoods, like Oromerezimbu, Elekahia, and Amadi-Ama, reported between 2 to 4 cases. (See Fig 4 for the Spatial Distribution of Reported Cases of Domestic Violence Against Women from 2022 to present).

TABLE 3: Reported Cases of Domestic Violence against Women in Planned and Unplanned Neighbourhoods of Port Harcourt Municipality from 2022 - 2023.

S/N	Planned Neighbourhoods			Unplanned Neighbourhoods		
	Neighbourhoods	Reported incidents of domestic violence against women	%	Neighbourhoods	Reported incidents of domestic violence against women	%
1	Nkpolu-Oroworukwo	3	3.5	Oromerezimbu	4	4.7
2	Mgbundukwu	7	8.1	Rumuopareli	3	3.5
3	Otumuonyo	5	5.8	Nkpolu-Orogbum	1	1.2
4	Orominike	1	1.2	Ochiri	1	1.2
5	Orije Old GRA	1	1.2	Elekahia	3	3.5
6	Port Harcourt Town	6	7.0	Ogbunabali	2	2.3
7	Borikiri	8	9.3	Bundu	10	11.6
8	0	0	0	Nembe Waterside	12	14.0
9	0	0	0	Nkpogu	3	3.5
10	0	0	0	Amadi-Ama	4	4.7
11	0	0	0	Ukukalama	2	2.3
12	0	0	0	Somiari-Ama	1	1.2
13	0	0	0	Fimie-Ama	1	1.2
14	0	0	0	Ozuboko	2	2.3
15	0	0	0	Ishmael Orupabo	1	1.2
16	0	0	0	Abuloma	2	2.3
17	0	0	0	Okuru-Ama	1	1.2
18	0	0	0	Azuabia-Ama	2	2.3
		31			55	

Source: FIDA, Rivers State Chapter (2023)

Comparison of Planned and Unplanned Neighborhoods according to FIDA Data

The comparison between planned and unplanned neighbourhoods shows a concerning trend. The data clearly shows that unplanned neighborhoods witnessed a significantly higher frequency of reported cases of domestic violence than planned neighborhoods. This is likely due to a number of factors, including socio-economic status, access to resources, social support and community awareness programs.

Women in unplanned neighborhoods are often more likely to be living in poverty and to have limited access to education, employment, and healthcare. They may also have less social support and be more isolated from their communities. These factors can all make women more vulnerable to domestic violence.

In contrast, women in planned neighborhoods are often more likely to be living in higher socioeconomic conditions and to have better access to resources and support. They may also have stronger social networks and be more connected to their

communities. These factors can help to protect women from domestic violence.

These findings align with the observations made in the present study, highlighting the socio-economic disparities and neighborhood characteristics that influence the prevalence and patterns of domestic violence. Unplanned and low-income areas often lack adequate resources, support systems, and access to legal aid, making women more vulnerable to domestic violence and less likely to seek help.

The stark contrast between the reported domestic violence rates in unplanned and planned neighborhoods underscores the need for targeted interventions that will address the specific needs and risk factors of women in different neighborhood contexts. Enhancing socio-economic conditions, improving access to resources and support systems, and strengthening legal aid services are crucial steps towards mitigating domestic violence in vulnerable communities.

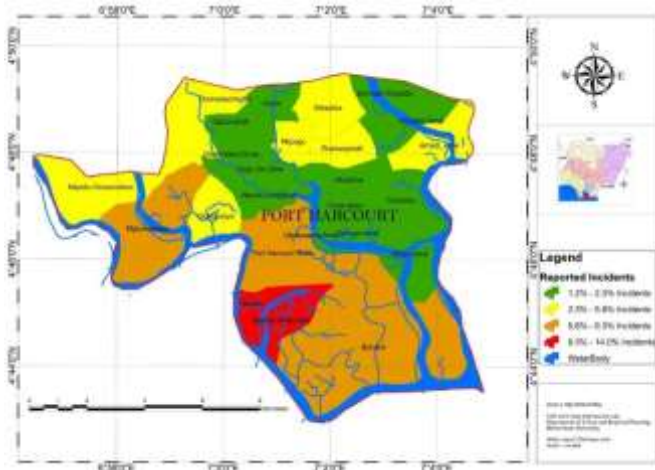


Fig. 4: Spatial Distribution of Reported Cases of Domestic Violence Against Women from FIDA Data.

Source: Authors, 2023

IV. CONCLUSION AND RECOMMENDATION

Conclusion

Domestic violence against women is a pervasive and destructive phenomenon that transcends cultural, socioeconomic, and geographic boundaries (Garcia-Moreno, 2005; Krug et al., 2002). This grave issue affects women from all walks of life, leaving a trail of emotional, physical, and psychological trauma (Krug et al., 2002). Rooted in deeply ingrained power imbalances and harmful gender norms (Krug et al., 2002), domestic violence not only violates women's fundamental human rights (United Nations, 1994) but also impedes their social participation and economic empowerment (World Health Organization, 2002). The adverse effects of domestic violence extend far beyond the individual, impacting families, communities, and even national economies (World Health Organization, 2002).

In the context of Nigerian society, domestic violence poses a significant threat to the well-being of women and children (Adebayo, 2014). It jeopardizes children's healthy psychological development, exposing them to a toxic environment that can have lasting consequences (Evans et al., 2008). Moreover, domestic violence reinforces patriarchal mindsets and cultural practices that perpetuate gender inequality and hinder women's full participation in society (Adisa, 2019).

The World Health Organization (WHO) has recognized domestic violence as a global pandemic, highlighting its far-reaching consequences (World Health Organization, 2002). This pervasive issue not only inflicts emotional trauma and physical harm on countless women but also imposes a substantial economic burden on nations (World Health Organization, 2002). By lowering female labor participation and increasing disability and medical costs (Kimuna, 2013), domestic violence hinders economic growth and perpetuates poverty.

To address this pressing issue, a comprehensive approach as put forward by WHO is required that encompasses prevention, intervention, and support (World Health Organization, 2002).

Prevention

1. Enact and enforce strong legislation: Implement comprehensive laws that protect victims of domestic violence, hold perpetrators accountable, and provide clear legal recourse for victims.
2. Formulate and implement gender equality policies: Develop and implement policies that promote gender equality, challenge harmful gender norms, and empower women in all spheres of society.
3. Raise awareness: Conduct community education campaigns to raise awareness about domestic violence, its signs, and the available resources for victims.
4. Empower women: Provide women with access to education, skills training, and employment opportunities to enhance their economic independence and reduce their vulnerability to violence.

Intervention

1. Establish support services: Fund and establish comprehensive support services for victims of domestic violence, including counseling, legal aid, and safe shelters.
 2. Provide crisis intervention: Develop and implement effective crisis intervention strategies to assist victims in immediate danger.
 3. Address perpetrator accountability: Implement programs and interventions that address the root causes of domestic violence and promote accountability for perpetrators.
- Furthermore, addressing the patriarchal system and entrenched gender stereotypes is critical to fostering a society where women are valued and respected (World Health Organization, 2002). Engaging men in gender sensitivity training and promoting positive role models can help shift mindsets and challenge harmful attitudes (World Health Organization, 2002). In the realm of urban planning, incorporating gender-inclusive principles into neighborhood design can contribute to reducing the prevalence of domestic violence (UN-Habitat, 2019). This involves creating safe and accessible public spaces, promoting social interaction and cohesion among residents, and ensuring adequate lighting and security measures (UN-Habitat, 2019).

Safety Guidelines

1. Create safe public spaces: Ensure that public spaces are well-lit, accessible, and free from potential hazards.
2. Promote social interaction and cohesion: Design neighborhoods that foster social interaction and cohesion among residents, reducing isolation and increasing community support.
3. Implement effective security measures: Implement effective security measures, such as surveillance cameras and security personnel, in areas with a high prevalence of domestic violence.

Incorporating Safety Guidelines

By incorporating safety guidelines into the design of neighborhoods and public spaces, we can create environments that are less conducive to domestic violence. This includes:

1. Natural surveillance: Designing spaces that allow for easy observation from natural vantage points, such as windows, balconies, and street-level walkways.

2. Social sustainability: Promoting social interaction and cohesion by creating spaces that encourage people to gather and socialize, such as parks, plazas, and community centers.
3. Gender-inclusive planning: Considering the needs and preferences of women and girls in the planning process, ensuring that spaces are safe, accessible, and welcoming.

By adopting a multi-pronged approach that addresses the legal, social, and environmental factors contributing to domestic violence, we can work towards creating a society where women can live free from fear and violence, empowered to achieve their full potential (World Health Organization, 2002). Domestic violence is a pervasive and complex issue that has significant consequences for individuals, families, and society as a whole. It is a violation of human rights, inflicting physical, emotional, and psychological harm on victims. Rooted in unequal power dynamics and harmful gender norms, domestic violence perpetuates a cycle of trauma and disempowerment, hindering women's social, economic, and personal development.

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