Chapter

Gender-Based Violence is a Never to be Forgotten Social Determinant of Health: A Narrative Literature Review

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Abstract

Gender-based violence (GBV) has been internationally recognized as a serious and pervasive phenomenon affecting women's lives and health. The World Health Organization (WHO) reports that about 30% of women have experienced worldwide some form of violence. GBV (in addition to clearly visible immediate effects) induces long-term effects, including an increased incidence of many noncommunicable diseases such as diabetes or cancer. In the last few years, it has also been demonstrated that the signs of violence interfere with genome plasticity and gene expression through epigenetic mechanisms. The underestimation of the problem does not allow us to put in place preventive health mechanisms that could cushion the damage (prevent post-traumatic stress disorders—PTSDs—and the evaluation of epigenetic changes) to avoid the onset of the diseases. Appropriate interventions could reduce many of these long-term health effects while failure to intervene could be a significant source of health inequalities. The aim of this narrative review is to summarize the available evidence on the relationship between GBV, its long-term effects on health, and as victims' living conditions, and socioeconomic position of determining both.

Keywords: equal rights, health disparities, social determinants of health, gender-based violence, intimate partner violence

1. Introduction

Gender-based violence (GBV) refers to harmful acts directed against a person based on their gender, sexual orientation, or gender identity. GBV is a severe violation of human rights and a life-threatening health that include physical, sexual, psychological, and socioeconomic violence, including sexual harassment and stalking [1].

Both women and men, as well as people who do not fit within the narrow parameters of the assigned societal gender-based roles, may experience GBV but worldwide the majority of victims of GBV are women and girls. Even in the case of lesbian, gay,

bisexual, and transgender (LGBT) people, violence is predominantly suffered by women (LGBT women and transgender men), who the assailants perceive as a challenge to socially constructed norms. For this reason, although this is incorrect, GBV and violence against women and girls (VAWG) are used interchangeably [1]. Both VAWG and GBV are based on hierarchical and unequal structural power relations that are rooted in norms, roles, and relationships between socioeconomic groups as well as in socially constructed characteristics of women and men, which in turn influence violence and abuse [2, 3]. In the last few decades, GBV has increasingly been recognized as a public health problem affecting almost all health outcomes throughout life (including mental health and noncommunicable diseases such as diabetes or cancer). In many countries, violence against LGBT women and its health effects are not adequately investigated and are certainly underreported, so the available data for LGBT women are further much more limited than those for non-LGBT women. In this chapter we focused on the health effects produced by violence against non-LGBT women, assuming that they are similar for LGBT women (hereinafter both referred to as women).

Our aim is to summarize the available evidence on the relationship between GBV and its long-term health effects, arguing that many of these health effects could be avoided by helping victims of violence with recovery interventions. We would also like to point out that women living in environments with limited social, educational, and economic opportunities (in addition to being at increased risk of multiple forms of violence) have fewer opportunities to access GBV recovery interventions. GBV turns out to be a key indicator of health inequalities and we suggest that it should start to be considered a social determinant of health.

2. Materials and methods

A narrative literature review was conducted to seek to examine a collection of qualitative and quantitative studies. A narrative literature review is particularly useful as a means of linking together studies from different fields and methodologies in order to develop a more comprehensive, intersecting, and overarching synthesis. There are some possible limitations in this analysis and some articles that talk about GBV may not be covered in this narrative review.

For the purpose of this study, we used a search on the following online databases: PubMed/MEDLINE and Google Scholar. In PubMed/MEDLINE, we used the Boolean operators, "AND" and OR, to link keywords and MeSH headers as shown below: i) (Gender-based violence OR intimate partner violence OR domestic violence) AND (post-traumatic stress disorder OR psychological stress OR stress-related disorders OR mental health OR trauma, nervous system OR disease OR illness); ii) (Gender-based violence OR intimate partner violence OR domestic violence) AND (health veterans OR women veterans OR veterans OR military sexual trauma); iii) (Gender-based violence OR intimate partner violence OR domestic violence) AND (epigenomics OR epigenesis, Genetic OR epigenetic); iv) (Gender-based Violence OR intimate partner violence OR domestic violence) AND (health service accessibility OR health personnel OR health personnel education); v) (gender-based violence OR intimate partner violence OR domestic violence) AND (social determinant of health OR health disparities OR health equity). In Google Scholar we searched articles not indexed in PubMed/MEDLINE. The terms used and their combinations were similar to those utilized in the PubMed/MEDLINE research. We focused all searches from January 2000 to January 2023. Some references were

not identified using the online databases but were obtained through reference lists of other articles. Reports from World Health Organization (WHO) and United Nations were downloaded from the official websites, and web addresses have been reported in the references. The criteria for inclusion in the research are the following: scientific articles and/or papers written in English and/or Italian and with human subjects. We excluded expert opinions, case reports, studies on abused children, and studies addressing the effects of violence on LGBT communities. Two authors were involved in the search and screening process of scientific articles and/or papers.

3. Patriarchal culture and international conventions to tackle gender-based violence

GBV is not a private matter, but it concerns the whole of society. It is a phenomenon that has deep roots entrenched in a social context that feeds on prejudice and stereotypes and is not limited to the dramatic cases of femicide. Secular patriarchal structures and attitudes make lasting progress difficult. Most societies have been shaped by religious doctrine whereby attitudes and systems that promote male dominance have become the norm. This doctrine has distorted sacred scriptures by selecting texts where women are subordinate and inferior to men. Alongside these patriarchal systems, violence in society has also been normalized, and factors of social poverty have amplified violence. GBV is accepted in many spheres of social life [4].

According to WHO, sex-gender inequalities are deeply rooted in society [5] and are both cause and consequence of violence, so social prevention measures aim to achieve cultural change in attitudes and behaviors of men and women and eradicate prejudices, attitudes, and habits based on negative gender stereotypes [6].

Over the past decades, international institutions and organizations have focused on promoting women's rights, complaining, and warring against GBV. As a result, essential declarations and resolutions have been issued, and the most significant ones are listed below in chronological order:

- The international Convention on the Elimination of All Forms of Discrimination against Women (CEDAW), adopted in 1979 by the United Nations General Assembly, defines discrimination against women as.

  "...any distinction, exclusion or restriction made based on sex which has the effect or purpose of impairing or nullifying the recognition, enjoyment or exercise by women, irrespective of their marital status, based on equality between men and women, of human rights and fundamental freedoms in the political, economic, social, cultural, civil or any other field" [7].

- The Council of Europe Convention is the first international treaty that specifically addresses violence from a gender perspective. "Preventing and combating violence against women and domestic violence (also known as The Istanbul Convention) "*.... any act of violence based on sex, or the threat of such acts, which produces or is likely to produce physical, sexual, or psychological harm or suffering, coercion or arbitrary deprivation of liberty, whether in the public or private lives of women*" [6];

- The Beijing World Conference on Women and its Platform for Action specify that "*... violence against women is the manifestation of the historical difference in*

power within gender relations such inequality has resulted and results in systematic discrimination against them, we call upon, therefore, governments to make greater efforts regarding the quantification and evaluation of its consequences on women's health" [8];

- The World Health Organization (WHO) report on violence is defined as "*a huge, global health problem*" *and urges health services to make more significant efforts "to provide comfort to women who experience acts of physical violence and sexual abuse*" [9];

- The WHO World Report on Violence and Health presents the first comprehensive global-scale analysis of the problem of violence [10].

Prevention of GBV has been included as a target in the 2030 United Nations Agenda for Sustainable Development (Goal 5), and many countries are working in this direction. However, we all still have a long way to go [11].

Human rights conventions and declarations obligate countries that have ratified them to treat GBV as a human rights violation and to define laws and actions to tackle the phenomenon. Regrettably, much more often than desired, this applicability has been undermined by social conditioning and structural and organizational barriers in many countries. The tradition of a patriarchal culture that still feeds the practice of possession in the affective relationship prevents one from reading the imbalance of man/woman relationships that is at the root of violence. It is, therefore, important to recognize the signs of mistreatment and abuse in its various forms: psychological, physical, economic, social, and cultural.

4. Different forms of gender-based violence

Although violence disproportionately affects women living in low- and lower-middle-income countries, GBV runs across all cultures, social classes, and ethnicities everywhere in the world.

As previously described, it is an expression of unequal power relations, underpinned by social norms and beliefs linked to dominance, power, and abuse of authority, and formalized through social institutions' laws, policies, and regulations [12, 13]. GBV can take many forms, including physical, psychological, and sexual violence; social violence, which cuts survivors off from their communities or social groups, and economic violence, which results in economic deprivation [1].

Depending on the types of relationship between the victim and the perpetrator of violence (e.g., known versus unknown, intimate versus acquaintance), women have experienced intimate partner violence (IPV) and non-intimate partner violence (NPV). The Centers for Disease Control and Prevention (CDC) defines IPV as physical violence or psychological aggression perpetrated by a current or former partner [14]. At the same time, NPV is violence perpetrated by a person with whom the victim has only a passing acquaintance. As many studies show, IPV fits into a broader spectrum of possible violence that occurs within the home and involves not only spouses or partners but also the father with respect to the daughter or other relatives and family members who may perpetrate acts of violence on female relatives [15].

The World Health Organization (WHO) reports that about 30% of women worldwide (1 in 3 women) have experienced some form of physical and sexual violence by an intimate partner or non-partner sexual violence or both, with severe consequences on physical and psychological health [16]. Data are even more alarming in poorer countries where women who have experienced physical and/or sexual violence in their lifetime account for around 37%, with some of these countries having a prevalence of up to one in two. In addition, the information regarding violence is often not collected or under-reported due to the women's reluctance to declare violence, given that the victims are often blamed for what happened to them and the phenomenon is undoubtedly underestimated worldwide. In many countries, the situation is even worse concerning violence against LGBT women, which is not adequately investigated and is certainly under-reported.

Differently from what one is prepared to believe, the World Health Organization (WHO) reports that globally IPV is the most common type of GBV, as on average 27% of women worldwide have experienced physical and/or sexual violence from their intimate partner [16]. The prevalence estimates of intimate partner violence range from 20% in the Western Pacific, 22% in high-income countries and Europe, 25% in the WHO regions of the Americas to 33% in the WHO African region, 31% in the WHO Eastern Mediterranean region, and 33% in the WHO South-East Asia region [16]. The variations in prevalence can be explained by the fact that different multilevel factors (including individual, relational, community, and social aspects) may interact with each other to increase or reduce the risk of being a victim of IPV [12, 13, 17]. IPV is also characterized by systematic underreporting due to the tendency of victims not to verbalize or report the abuse they have suffered, which makes it extremely difficult to estimate the burden of disease associated with incidents of IPV.

An understudied and underestimated phenomenon is also violence in pregnancy. Widespread is the stereotype that pregnancy has a protective function with respect to violence [18–20]. The data, however, contradict this reality. According to the WHO, worldwide one in four women has been victim of some form of violence during pregnancy [10]. The underestimation is probably due to women's reluctance to report violence suffered by their partners during the period of expecting a son/daughter. Nevertheless, several studies highlight how episodes of violence and sexual abuse suffered in the past and not sufficiently and psychologically treated are reactualized in pregnancy or during childbirth, a phenomenon so-called "surviving women," that is still little studied [21]. Domestic partner violence during pregnancy is associated with adverse health outcomes—fatal and nonfatal—for the pregnant woman and her baby because of direct physical trauma as well as the physiological effects of current or past abuse-related stress on the growth and development of the fetus [22, 23].

Data show that every type of emergency and crisis may exacerbate existing violence against women. This also happened during the COVID-19 pandemic where the lockdown and its social and economic impacts have increased the exposure of women to abusive partners and known risk factors [24, 25]. Before the pandemic, the Human Development Office for the United Nations Development Program (UNDP) reported that only 107 of 195 countries had data available on IPV [26]. Today, despite the huge efforts made to monitor the increase of IPV due to the pandemic, research has yet to establish exactly the estimates of IPV during the lockdown and in periods other than the pandemic outbreak.

5. Gender-based violence has long-term as well as immediate health effects

GBV has immediate and long-term health effects and different levels of severity, where fatal outcomes such as femicide are the most severe form. Among victims of violence, many women often report immediate physical injuries such as bruises, lacerations, and burns to the head, neck, or face but also fractures and broken bones or teeth. Until a few years ago, the connection between long-term health effects and GBV was often lost and only in the last few years, attention has been paid to this aspect. Among the long-term effects, in addition to those concerning sexual and reproductive spheres (sexual infections and gynecological problems, pregnancy complications, and unintended pregnancy), we would like to emphasize that victims of violence are at high risk of many physical diseases, such as asthma, irritable bowel syndrome, frequent headaches, chronic pain, diabetes, and mental health problems [16, 27]. Among mental health consequences, victims can manifest chronic mental illness, post-traumatic stress disorder (PTSD), depression, and anxiety [28, 29]. PTSD symptoms may include severe anxiety, flashbacks, nightmares, symptoms of increased arousal, such as irritability or anger, or symptoms of persistent avoidance of trauma-related situations [30]. Sexual abuse and victimization from multiple forms of violence have also been associated with greater odds of cervical cancer diagnoses, as victims have an increased risk of acquiring a sexually transmitted infection such as human papilloma virus [31, 32]. Experiencing violence has also been associated with harmful use of alcohol and drug abuse, smoking, and eating disorders, which in turn predispose individuals to a higher risk of noncommunicable diseases [33].

5.1 The body's adaptive response to trauma

The human body can cope or maintain stability during changes and excessive exposure to stress and/or traumatic events such as GBV. This body's adaptive response can occur through complex neuronal, neuroendocrine, and immune responses [see [34] for a comprehensive review]. It is nonspecific as, whatever the nature of the stressor, the mechanism triggered is always the same. Although discussing the body's adaptive response mechanisms is not the focus of this chapter, some notions can be briefly summarized. The threat evokes a physical and emotional reaction (also known as fight or flight); the sympathetic nervous system (SNS), the hypothalamic–pituitary–adrenal (HPA) axis, and the cardiovascular system are activated and these, in turn, affect the immune system [29]. When the danger is perceived as overcome, the parasympathetic nervous system (PSNS) acts to return to a state of normal basal equilibrium. Prolonged exposure to trauma, such as violence or painful memories, can prevent the body's adaptive response from switching off.

When the trauma pain is deep and its impact persists, increased production of stress hormones can wear down the body, keeping it in an unstable or weakened state. When this happens, the body is more susceptible to adverse health conditions such as cardiovascular disease, chronic pain, pregnancy complications, PTSD, and anxiety. The inability to minimize or stop adaptive response activity can lead to serious long-term health consequences. This is well known and it is recommended to assist trauma survivors (e.g. due to natural disasters such as tornadoes, hurricanes, fires, and floods or abused children, holocaust survivors, or stressors faced by members of military service in war, etc...) in an ongoing process of healing and recovery.

5.2 Gender-based violence, post-traumatic stress disorders, and epigenetic modifications

Several studies have shown that violent experiences affect genome regulation and expression by epigenetic modification as response to trauma [35–37].

Over the past two decades, a body of research has expanded rapidly and provided good evidence about the underlying biological mechanisms regulating the relationship between the risk of developing PTSD and epigenetic modifications consistent with perturbations with the HPA axis [38]. Epigenetics refers to changes in gene expression (active versus inactive genes) that do not involve changes to the underlying DNA sequence. Epigenetic changes include DNA methylation, modifications of histone proteins, and small RNA-mediated gene silencing (miRNAs), affecting gene expression. Epigenetics is an important part of biology as it regulates development and adaptations during the life of an organism as the epigenome dynamically responds to the environmental influences. In the last few years, several studies have demonstrated that stressors, incorrect lifestyles, and/or adverse psychosocial environments may influence epigenetic mechanisms by altering the epigenetic pattern of DNA methylation and/or chromatin structure. As previously mentioned, the remarkable growth in understanding epigenetic mechanisms and the impact of epigenetics on contemporary biology has added insight into the molecular processes that connect the brain with behavior, neuroendocrine responsiveness, and immune outcome [39]. Scientific studies have also highlighted the relationship between PTSD and the presence of epigenetic marks in genes regulating the HPA axis [37, 40, 41]. A starting point for understanding better the correlation between GBV, epigenetics, and PTSD was the finding that abused women veterans' health is poorer than that of their active duty military and non-abused civilian counterparts. In some countries, great attention has been given to the GBV suffered by the women veterans and this has created a critical priority for clinicians, researchers, and policymakers to better understand the impact of violence on women's health. Studies on war veterans have widely demonstrated that violence can impact women's health by inducing molecular modifications at the epigenetic level, which in turn can contribute to the onset of mental, physical, and chronic diseases [42, 43]. Until now, few studies have examined the relationship between PTSD, epigenetic changes, and GBV in nonveteran women.

Although few studies have examined the relationship between PTSD, epigenetic changes, and GBV beyond those on veteran women, nevertheless some exciting considerations can be drawn. Studies on nonveteran women have confirmed correlations between PTSD symptoms and epigenetic signatures (differential hyper-methylation) of trauma/stress-related genes [37]. Past and present violence and trauma can remain imprinted in the genome through epigenetic modifications, increasing the risk to women's health [35, 36]. Epigenetic changes due to parental experience of violence can be transferred to offspring through prenatal and postnatal epigenetic modifications indicating that epigenetic changes, although theoretically reversible, are heritable [35, 36, 44]. Importantly, the potentially reversible nature of epigenetic modifications suggests that trauma-induced epigenetic effects could be not necessarily permanent and that specific interventions could reduce the high prevalence of poor health among victims of violence and their children.

Nevertheless, this field of research is relatively young and there are still many questions that need to be elucidated concerning violence-induced epigenetic effects and their impact on women's health and/or health of their offspring. Currently, it is hard to find longitudinal studies or research studies for any of the health associations with GBV and epigenetic modifications in civilian women.

6. The social context and social determinant of health

Currently, many countries show reluctance to define specific recovery interventions for GBV victims or interventions to prevent GBV. People who grow up and live in environments with limited social, educational, and economic opportunities, in addition to being at greater risk of multiple forms of violence, have fewer opportunities to access the process of healing and recovery [45]. Evidence-based research shows that PTSD onset appears to be influenced by the type, duration, and severity of violence and the processes put in place to recover and heal the kind of trauma suffered [38, 45]. GBV has immediate and long-term health effects, but socioeconomic factors can influence (and in some cases worsen) the health outcomes of specific groups of people based on their social position. Social and economic factors between countries and within the same country, in addition to put women at greater risk of multiple forms of violence, can determine the unequal treatment of women victims of violence where women belonging to less advantaged people may not have adequate psychological and health support for the recovery and/or treatment of trauma. Health is the result of multiple factors or determinants of health that significantly influence health, whether positive or negative. In addition to biological characteristics, social factors are just as important to health outcomes and the likelihood of generating diseases. WHO defines social determinants of health (SDH) as "the conditions in which people are born, grow, live, work, and age [46]. SDH perspective is based on all factors that can make people healthy or not healthy, including education, income, labor market position, ethnicity, and gender bias.

Extensive research has shown that people who are less advantaged in terms of socioeconomic position have worse health (and shorter lives) than those who are more advantaged. Disparities in social, educational, and economic opportunities are the fundamental cause of health inequalities [46]. Health inequalities are widely recognized as a public health problem as they determine a significant share of potentially avoidable mortality and morbidity. The 2008 report of the WHO Commission on Social Determinants of Health (CSDH) "*Closing the gap in a generation*" provided a comprehensive synthesis of knowledge and evidence on health inequalities and a set of recommendations to develop comprehensive and integrated policies to contrast them [47].

The Service for Sexual and Domestic violence (when present) has long denounced this. Women who are less advantaged in terms of socioeconomic position and/or living in contexts where GBV victims are not supported by recovery interventions often face GBV trauma by using drugs, drinking alcohol, smoking, or overeating, further worsening their health condition. Research studies show that about 90% of women with substance use disorders have experienced physical or sexual violence [48]. The effects of violence on health have been underestimated and there is still a reluctance to consider violence as a problem to be addressed at a social, economic, and health level. In other words, it is a problem to consider GBV as a social determinant of health.

7. Network approach to cope with health effects of gender-based violence

The prevention of, and response to GBV, requires coordinated action across multiple sectors, including psychologists, social workers, lawyers, territorial associations, and other professionals but in this subsection, we focus our attention on healthcare professionals.

The WHO encourages the development of prevention and awareness programs to help reduce the prevalence of GBV, as well as establishing health services for GBV victims' care (particularly on mental health) and educating communities to take advantage of available care. In 2013, to address the issue of women's reluctance to declare violence, WHO published the clinical and policy guidelines "Responding to Intimate Partner Violence and Sexual Violence against Women" [49]. Guidelines recommended that healthcare professionals should ask about GBV, whenever there is an identified risk or health condition that GBV may have caused. Healthcare professionals play a unique role in coping health effects of GBV as they are often the first contact for abused women in healthcare services [50]. Victims of violence approach service providers in different institutional settings, with varying levels of awareness. Victims often do not find the words to tell what is happening to them, or they can be in hospital for other needs, and operators should be able to decode narratives and understand latent needs, which in turn have linked to the identification of GBV survivors. Healthcare professionals are ideally placed to identify and provide support to GBV victims and help prevent the long-term health consequences associated with violence. As evidenced by several studies worldwide, many barriers can prevent healthcare professionals from identifying and responding adequately to women who suffer violence. The first of all is the lack of adequate training, which makes healthcare professionals insecure in taking any initiative to ask for information about GBV [51, 52]. Healthcare professionals with insufficient training to respond to the victim of GBV may be miscommunicating and cause harm, such as arguing that women should leave an abusive relationship without providing survivors with a safety plan or considering the survivor's point of view [51, 52]. Other common barriers are lack of time, privacy, and resources. Some healthcare professionals had reported fear of offending women when they asked about violence. Another essential aspect of breaking down these barriers is creating a multidisciplinary network, including lawyers, psychologists, social workers, territorial associations, and other professionals to identify and support victims of GBV correctly [53].

8. Conclusion

GBV is based on prejudices and stereotypes handed down over centuries that require slow and very long times to be changed and geographically diversified interventions (both socioeconomic and cultural). Thus, GBV prevention can be promoted by considering individual, relationship, community, and societal risk and protective factors. In the last few years, sociocultural interventions have increased awareness of the various forms of violence that can occur (physical, sexual, psychological, and socioeconomic) and have activated processes of critical reflection on gender bias and stereotypes still rooted in society. Unfortunately, this is still not enough and an equity lens should be applied to all processes to prevent GBV and to remove all systemic barriers that prevent people from accessing adequate health care (after violence) due to their social, economic, gender, or cultural characteristics. The prevention of, and response to GBV, requires coordinated action across multiple sectors, in which health is one of the most relevant. All women who have been exposed to violence have increased risks of getting sick, indicating that violence can be considered a social determinant of health. All women who have been exposed to violence should be able to obtain comprehensive and gender-sensitive health services. All women should be able to address the physical and mental health consequences of their experience

and all women should be helped in their recovery from the traumatic event. GBV is a multicausal problem influenced by social, economic, cultural, psychological, legal, and biological factors. Particular attention should be given to interventions for the assistance of GBV victims within each country to avoid that the unequal distribution of economic, social, and environmental conditions could penalize less advantaged women in society.

At the same time, we know that cases of GBV are significantly underreported, and new strategies should be evaluated to help GBV victims make reporting easier, safer, and more confidential. In this context, interesting results have been obtained by providing specific training to healthcare professionals.

Finally, they are essential for both the existence of international protocols and guidelines with clear procedures and the creation of a network of experts involved in the issue of violence both locally and nationally for bringing out the phenomenon—mostly underreported and underestimated—and guaranteeing support, listening, acceptance, and protection to women. GBV is widespread worldwide, and its resulting health problems are preventable issues that must pose serious challenges to public health and policy.

Conflict of interest

The authors declare no conflict of interest.

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