Gamification as a Tool for Social Change: 
A Case of Gender-Based Violence in South Africa
Folasayo Enoch Olalere

ABSTRACT
Gender-Based Violence (GBV) is one of the most significant social issues affecting the world, and just as in many other countries, GBV is pervasive in South Africa, where cultural norms and gender-based customs and traditions serve to condone and reinforce abusive practices. According to Article 13 of the Istanbul Convention, a preventive intervention requires heightened awareness as a first step in changing attitudes and behaviour that perpetuate the different forms of GBV. Hence, this study explores how awareness-raising can be effectively used as a preventive strategy to induce change in attitudes and behaviour associated with gender-based violence (GBV). Firstly, a systematic literature review was conducted to identify, select, and critically appraise existing empirical studies on GBV in South Africa. The systematic review used PRISMA guidelines for literature selection and Joanna Briggs Institute (JBI) data extraction form to extract relevant data. The findings from the systematic review were described using a summary table, which reveals the different forms of GBV, the overarching causes and the contributing factors to GBV in South Africa. As this is a preliminary study expected to lead into future studies, relevant secondary data, including previous empirical studies, were reviewed to explore how gamification can be employed for awareness campaigns that challenge persistent myths, prejudices, and stereotypes and disrupt different pathways that lead to GBV. Finally, the study provides a structure for the future experimental study where an interactive awareness-raising game will be developed. This paper also stimulates new research directions on the potential of gamification for social change.

Keywords: Awareness-raising game, Gamification, Gender-based violence, Gender theory

INTRODUCTION
Gender-based violence (GBV) is the most extreme expression of unequal gender relations in society. The Inter-Agency Standing Committee (IASC) describes it as “any harmful act that is perpetrated against a person’s will, and that is based on socially ascribed (i.e. gender) differences between males and females.” Some harmful acts include physical, sexual, verbal, financial and emotional/physical violence.

psychological abuse. The study shows that GBV disproportionally affects women and girls. The most-reported health consequences are fatality (homicide or suicide), injuries, intended pregnancies, depression, post-traumatic stress and other anxiety disorders, substance use, and risky sexual behaviours. Besides the health consequences, GBV is also a significant obstacle to democratic development and a critical barrier to achieving economic growth, sustainable development and peace. According to KPMG Human and Social Services, GBV costs South Africa 1.3% of the GDP annually, and individuals and families continue to bear the most significant cost.

While it is true that human rights violations are committed against both men and women, the proportion and the impact often differ depending on the gender of the victims. In terms of gender-based violence (GBV), women are disproportionately affected due to the extreme manifestation of gender inequality resulting from subordinate social status in many societies. According to WHO, about 1 in 3 women is estimated to have been subjected to either physical and sexual intimate partner violence or non-partner sexual violence in their lifetime. Even though women are the most reported victims of gender-based violence, research shows that men too can be victims. An example is a study by Kolbe and Büttner, revealing prevalence rates of between 3.4% to 20.3% for domestic violence against men. GBV has been extensively studied to understand its concept and its causes. Several findings have indicated that gender inequality, discrimination based on gender or gender role, masculinity, and unequal power are the overarching causes of GBV. These findings confirm why violence against women is the most common form.

South Africa has been well documented as one of the countries with the highest rate of gender-based violence globally. Studies show that the prevalence of GBV in South Africa is a result of social norms, gender stereotypes and inequality etc. A study conducted by Genderlinks, which surveyed 5621 South Africans in four provinces, revealed that 77% of women in Limpopo, 51% of women in

5 Sida, Preventing and Responding to Gender-Based Violence: Expressions and Strategies.
Gauteng, 45% of women in the Western Cape and 36% of women in KwaZulu Natal report experiencing GBV; while 78% of the male participants in Gauteng agreed to have perpetrated violence against women. The Interim Steering Committee on Gender-Based Violence and Femicide (GBVF) in South Africa indicated that one of the critical interventions in response to GBVF is to change social norms and behaviour through high-level awareness-raising and prevention campaigns. This intervention is also supported by other authors, who agreed that heightened awareness is an essential element and a first step in preventing GBV.

While awareness-raising has been identified as an essential step toward GBV prevention, there are limited studies on how awareness campaigns can be effectively implemented to disrupt pathways to the perpetration of GBV. Therefore, the general research question underpinning this study is: How can a conscious awareness about GBV be created that induces attitudes and behaviour change? According to Michau and Naker, campaigns compete for the mental space of an audience that is bombarded with many other messages; hence, most messages are perceived without conscious awareness. Hence, this study aims to understand how a conscious awareness can be created about GBV by; firstly investigating the different forms of GBV, the overarching causes, and the contributing factors to GBV in South Africa—secondly, proposing how an interactive awareness-raising game can be used to engage people at a conscious level.

**METHODOLOGY**

A systematic literature review was conducted to identify the different forms of GBV, its concepts, causes, and factors leading to GBV in South Africa, where existing empirical studies were identified, selected, and critically appraised. The systematic review follows the PRISMA guidelines: Identification, Screening, and Included. The systematic review is restricted to the primary scientific studies conducted in South Africa and published between 2000 and 2021 because the extensive research on GBV began in Africa in the late 1990s to achieve the Millennium Development Goals.

Hence, studies conducted before 2020 or outside South Africa were excluded.

As shown in Figure 1, existing studies on GBV were identified by searching electronic databases such as Scopus, WoS, DOAJ, Google Scholar, APA PsycInfo and universities repositories. The selective literature search used keywords and filters such as “gender-based violence”, “violence against women”, “violence against men”, “domestic violence”, “sexual abuse”, and “intimate partner violence”. A total of 163 articles were identified from the various databases, and from this, 14 articles were initially removed as they were not empirical studies. From the remaining 149 articles, only 32 articles were retrieved and assessed for eligibility, while other articles were excluded as they did not meet the inclusion criteria stated above. Subsequently, the 32 articles were screened based on their relevance to this study’s objectives, and finally, a total of 20 articles (or studies) were included in the review.

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15 Michau, and Naker. Preventing Gender-Based Violence in the Horn, East and Southern Africa: A Regional Dialogue.


Subsequently, two independent reviewers were assigned to extract data from the selected studies (20 articles) using the Joanna Briggs Institute (JBI) data extraction form. The retrieved data were analysed thematically to identify the categories and sub-categories of factors contributing to GBV. Lastly, the studies were described using a cross-tabulated summary table, including the characteristics of the selected studies and the findings such as the forms of GBV, causes and contributing factors.

**Results/Findings**

The systematic review of twenty articles reveals four main forms of GBV (sexual, physical, psychological or emotional and socio-economic or financial violence). As shown in Table 1, sexual and physical violence are the most cited forms of GBV in the studies reviewed. Similarly, sexual and physical violence have been reported by the World Health Organisation as the most common forms of GBV.\(^{18}\) Even though sexual and physical violence is prevalent today, literature shows that socio-

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economic or financial violence and psychological or emotional violence are also common within South African communities.19

Table 1: Forms of Gender-based violence

<table>
<thead>
<tr>
<th>Forms of GBV</th>
<th>Examples</th>
<th>Literature</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Sexual Violence</td>
<td>Rape (including marital rape &amp; attempted rape); genital violence; forced sex; control over female sexual behaviours; female infanticide; early forced marriage; Emasculation; etc</td>
<td>(Abrahams et al.20; Campbell et al.21; Ciaschini &amp; Chelli22; Frieslaar &amp; Masango23; Lundgren &amp; Amin24; Meyer et al.25; Pat et al.26; Peacock &amp; Levack27; Russell28; Sawyer-Kurian et al.29; Singh &amp; Singh30; Sivakumaran;31 Stark &amp; Seff32;</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Causes/ Contributing Factors to GBV</th>
<th>Literature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personality/Behaviour</td>
<td></td>
</tr>
<tr>
<td>Abuse of Power</td>
<td>(Barber\textsuperscript{37}; Ciaschini &amp; Chelli\textsuperscript{38}; Patel et al.\textsuperscript{41}; Sivakumaran\textsuperscript{45})</td>
</tr>
<tr>
<td>Kindness</td>
<td>Barber\textsuperscript{37}</td>
</tr>
<tr>
<td>Women Intimidating men</td>
<td>Barber\textsuperscript{37}</td>
</tr>
<tr>
<td>Presence of mental illness</td>
<td>Stark &amp; Seff\textsuperscript{43}</td>
</tr>
<tr>
<td>Perception of abuse and violence as normal</td>
<td>(Campbell et al.\textsuperscript{46}; Meyer, Lasater, and García-Moreno\textsuperscript{40})</td>
</tr>
<tr>
<td>Blessers and Blesse relationships</td>
<td>Frieslaar and Masango\textsuperscript{39}</td>
</tr>
</tbody>
</table>


\textsuperscript{39} Frieslaar and Masango. “Blessings or Curses?”

\textsuperscript{40} Meyer, et.al., “Violence against Older Women: A Systematic Review of Qualitative Literature.” e0239560

\textsuperscript{41} Patel, et.al., “Gender-Based Violence and Suicidal Ideation among Indian Women from Slums: 694–702.


\textsuperscript{44} Uzobo and Ayinmoro, “Trapped Between Two Pandemics: 0272684X2110221.

\textsuperscript{45} Sivakumaran, “Sexual Violence Against Men in Armed Conflict.” 253–76.

<table>
<thead>
<tr>
<th>Drugs and alcohol abuse</th>
<th>(Lundgren and Amin(^{47}); Stark and Seff(^{43}); Sawyer-Kurian, Wechsberg, and Luseno(^{48}); Uzobo and Ayinmoro(^{49}))</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gambling</td>
<td>Uzobo and Ayinmoro(^{49})</td>
</tr>
<tr>
<td>Greed</td>
<td>Patel et al.(^{60})</td>
</tr>
<tr>
<td>Man having multiple partners</td>
<td>WHO 2012(^{50})</td>
</tr>
<tr>
<td>Personality disorders</td>
<td>WHO 2012(^{50})</td>
</tr>
<tr>
<td>Puberty</td>
<td>Lundgren and Amin(^{52})</td>
</tr>
<tr>
<td>Fear</td>
<td>Lundgren and Amin(^{52})</td>
</tr>
<tr>
<td>Education</td>
<td></td>
</tr>
<tr>
<td>Low level of education</td>
<td>Lundgren &amp; Amin(^{52})</td>
</tr>
<tr>
<td>Disparity in educational attainment</td>
<td>WHO(^{51})</td>
</tr>
<tr>
<td>Economy/ Financial Status</td>
<td></td>
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<tr>
<td>Unemployment</td>
<td>Lundgren and Amin(^{52}); Singh and Singh(^{53})</td>
</tr>
<tr>
<td>Lower earnings/ income</td>
<td>Ciaschini &amp; Chelli(^{54})</td>
</tr>
<tr>
<td>Economic stress (poverty) or dependence</td>
<td>(WHO 2012(^{50}); Singh and Singh(^{53}); Frieslaar and Masango(^{55}))</td>
</tr>
<tr>
<td>System &amp; Society (others)</td>
<td></td>
</tr>
<tr>
<td>Gun Ownership</td>
<td>(Abrahams, Jewkes, and Mathews (^{56}); Sivakumaran(^{57}); Russell(^{58}))</td>
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<tr>
<td>Homeless Youth</td>
<td>(Lundgren and Amin(^{52}))</td>
</tr>
<tr>
<td>Quarantine during pandemic (Lack of personal space)</td>
<td>(Uzobo and Ayinmoro (^{59}); Singh and Singh(^{53}))</td>
</tr>
<tr>
<td>Weak legal and community sanctions</td>
<td>(WHO 2012(^{50}))</td>
</tr>
<tr>
<td>Police deter official complaints</td>
<td>(Patel et al. 2021)(^{60})</td>
</tr>
<tr>
<td>Lack of protective systems (Shelter)</td>
<td>(Patel et al. 2021)(^{60})</td>
</tr>
<tr>
<td>Lack of behavioural accountability</td>
<td>(Sawyer-Kurian, Wechsberg, and Luseno 2009)(^{61})</td>
</tr>
<tr>
<td>Silence of church and theology towards violence</td>
<td>(Banda 2020)(^{62})</td>
</tr>
<tr>
<td>Forced marriage</td>
<td>(Patel et al. 2021(^{60}); Ciaschini and Chelli(^{54}))</td>
</tr>
</tbody>
</table>

\(^{49}\) Uzobo and Ayinmoro, “Trapped Between Two Pandemics,” 0272684X2110221.
\(^{50}\) WHO, “Understanding and Addressing Violence against Women.”
\(^{51}\) WHO, “Understanding and Addressing Violence against Women.”
\(^{54}\) Frieslaar and Masango, “Blessings or Curses?”
\(^{58}\) Uzobo and Ayinmoro, “Trapped Between Two Pandemics,” 0272684X2110221.
\(^{59}\) Patel, et.al., “Gender-Based Violence and Suicidal Ideation among Indian Women from Slums: An Examination of Direct and Indirect Effects of Depression, Anxiety, and PTSD Symptoms.” 694–702.
\(^{61}\) Banda, “A Survey on Gender-Based Violence.”
The data retrieved from the systematic review was also analysed using thematic analysis to identify the overarching cause or contributing factors to GBV. The thematic analysis revealed seven themes and thirty-nine sub-themes, as shown in Table 2. The seven significant contributors to GBV are personality/behaviour; educational background; economy/financial status; system & society; socio-cultural norms, beliefs and practices; past experiences; and vulnerability. From the 39 sub-themes/categories identified, the most cited pathway that leads to GBV in South Africa is gender inequalities (see Table 2). Besides this, gender roles/norms, drugs and alcohol abuse, and abuse of power were also reported to have a strong connection to GBV. It is also interesting to note the adverse effects of the pandemic, as reported by Singh and Singh and Uzobo and Ayinmoro, that the lack of personal space during the lockdown resulted in an increase in GBV in South Africa.

**Gamification as a Preventive Intervention**

The findings reported above are vital information needed in developing awareness campaigns that can challenge persistent myths, prejudices, and stereotypes and disrupt the pathways leading to GBV. However, achieving attitudes and behaviour change requires that the awareness campaign be introduced in a person’s consciousness; Michau and Naker suggested it could be achieved by using persuasion instead of placing blame, repeating exposure to new ideas, striving to provoke thinking and personal reflection. Studies show that a conscious awareness campaign can be created using gamification. According to Merriam-Webster, “gamification is adding games or elements of the

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68 Michau and Naker, Preventing Gender-Based Violence in the Horn, East and Southern Africa: A Regional Dialogue.
Gamification builds extrinsic motivation by offering rewards and achievements that bridge the value-action gap and enable behavioural changes. Some of the game elements include earning experiential or redeemable points, progress track or performance graphs, emotive or personalised avatars, and team features. These elements create a sense of self-competition, increase engagement and gamified experience, and foster collaboration.

Besides incorporating game elements, the impact of the awareness campaigns can also be strengthened by employing visual narrative/storytelling in creating the campaign content. Visual rhetoric, also known as the art of persuasion, is how visuals can be used to achieve effective communication that influences people's attitudes, opinions, or beliefs. Study shows that one of the most effective ways of creating awareness is through visual narrative/storytelling. According to Forbes Expert Panel, visual storytelling captures viewers’ eyes and imaginations. It builds narratives in their minds by introducing an idea into their consciousness and making them part of the narrative.

Therefore, gamification and visual storytelling approaches can significantly increase engagement and gamified experiences at the conscious level, and game developers have used these approaches in designing games for social change or social impact. Examples of awareness campaigns that used gamification and visual storytelling include “In Their Shoes”, designed by Chaos Theory, “RePlay: Finding Zoe”, developed by TAG and the Metropolitan Action Committee on Violence Against Women, and “Moraba” developed by Afroes in collaboration with the UN Women Southern Africa.

a) **In Their Shoes**: is an app developed to raise awareness about Inflammatory bowel disease (IBD) (See Figure 2). The app builds empathy for IBD sufferers by sending a series of intrusive, real-world challenges to simulate IBD symptoms. As shown in Figure 2, the app enhanced the gamified experience by incorporating an avatar-building feature that allows the personalisation of the experience.

![Figure 2: 'In Their Shoes' App developed by Chaos Theory](image)

**Sources:** King


b) **RePlay: Finding Zoe:** is an online game developed to challenge gender stereotypes and gender-based violence among children and teenagers. The game employed a narrative approach to tell the story of two friends searching for their friend Zoe, who seems to have been caught in an abusive dating relationship. RePlay: Finding Zoe starts with a survey feature that collects statistics of players’ responses while evoking a sense of community for the player. As shown in Figure 3, players are asked to answer survey questions relating to gender stereotypes and violence. The player’s response is matched with other players’ responses, and the game displays the percentage of similar reactions. This feature is one of the game elements (team feature) that foster collaboration and a sense of community. The game also allows personalisation by selecting and naming characters (see Figure 4). The game aims to promote healthy, equal and non-violent relationships among youth.

![Figure 3: RePlay: Finding Zoe survey feature](image1)

*Source: (Ruiz n.d.)*

![Figure 4: Character selection and naming](image2)

*Source: (Ruiz n.d.)*

c) **Moraba:** is a mobile game developed as part of the Africa Unite campaign to end violence against women and girls. The mobile game adapts the traditional Southern African board game (Morabaraba or Zulu Chess) and incorporates quiz elements that force users to answer questions about GBV. Answering the questions educates and empowers users about GBV, highlights gender inequality and gender rights, and establishes a sense of advocacy amongst users.

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DISCUSSION AND FUTURE STUDY
Even though these three games incorporate gamification and storytelling approaches, there are limitations in terms of the level of engagement and accessibility. ‘In Their Shoes’ app has limited interactivity, which might affect engagement. ‘RePlay: Finding Zoe’ is an online game that requires a computer with good internet connectivity, as it is not mobile-friendly. The storyline also centres around a third person, limiting the level of empathy evoked. As for Moraba mobile game, the quiz elements incorporated into the board game lack visual persuasion and emotive or personalised characters, limiting the level of conscious engagement.

Therefore, this study proposes further experimental study that builds on the strength of the three games discussed above and addresses the weakness to enhance the social impact and level of conscious engagement of the awareness-raising game. The proposed study will develop an interactive mobile game that adapts one of Southern Africa’s indigenous games Morabaraba and integrate critical thinking illustrations on GBV for players to earn points/coins/life. The game will use storytelling and persuasion (visual rhetoric) to provoke reflective thinking, just like the RePlay: Finding Zoe game. Players will have the opportunity to personalise the game by building their characters (avatars) and naming the character. The game will be structured from essential to advance levels, and players will need to start from the basics. At the basic level, the critical thinking illustrations/narratives will focus on sensitising players about the different forms of GBV. In contrast, the intermediate level will challenge the social norms and behaviours that lead to GBV. The advanced level will comprise activities that promote appropriate attitudes and behaviours that act against GBV, and this will include promoting the core social values of Ubuntu (solidarity, compassion, survival, respect, and dignity), also known as Mbigi’s five-finger theory. 77 The target users of the mobile game will be mid to late adolescents, ages 18 – 28 years, as this is a time of life when very little is normative. 78

CONCLUSION
This study contributes to theory, practice, and the South African community. Firstly, the study advances knowledge and literature on GBV by extensively revealing the various forms of GBV violence peculiar to South Africa, the overarching causes, and the contributing factors. 79 These findings will help policymakers, government and NGOs dealing with GBV develop appropriate interventions to address these issues. Secondly, the study proposed an intervention approach (gamification) that could actively address the root causes and factors contributing to GBV in South Africa. Thirdly, the study contributes toward advancing socio-economic growth and poverty reduction. According to United Nations, Olalere and Sida, GBV limit women’s and men’s ability to participate fully in the economic, social and political processes. 80 Hence, an attempt to tackle GBV help in reducing poverty and enhancing economic growth.

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