Digital Violence Against Women in the Kingdom of Saudi Arabia

Oct
2023

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Acknowledgements

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This work was carried out by members of the Salam@ team. With support from the SecDev Foundation, they promote digital resilience across the Middle East and North Africa (MENA), especially among women and girls.

This study is also available in Arabic here.

The SecDev Foundation

The SecDev Foundation supported this research as part of a series of 20+ studies on the psychosocial and legal dimensions of digital violence against women across the MENA region. Responsibility for any views expressed in this study rests with the research team. Since 2011, this Canada-based NGO has worked globally to promote digital resilience among vulnerable populations—especially women, youth and at-risk civil society organizations.

International Development Research Centre

This work was carried out with the aid of a grant from the International Development Research Centre, Ottawa, Canada. Views expressed herein do not necessarily represent those of IDRC or its Board of Governors. IDRC invests in high-quality research in developing countries, shares knowledge with researchers and policymakers for greater uptake and use and mobilizes global alliances to build a more sustainable and inclusive world.

Abstract

The Kingdom of Saudi Arabia has undergone dramatic transformations in recent years, especially in light of the 2030 strategic plan. Many of these changes provided women with more rights in the public domain and more freedoms than ever before. However, their freedom in the digital world remains constrained as an outcome of the Saudi social norms, coupled with increased presence for both men and women online. This study explores Digital Violence Against Women (DVAW) in the country, identifying the context, prevalence, impacts, reactions, available tools, and recommended solutions to combat DVAW in Saudi Arabia. It is one of the few specialized studies of its kind that aims to contribute to a better understanding of this phenomenon through the voices of the women themselves.

Contents

Executive Summary

Violence Against Women (VAW) is a universal pandemic[1] that is prevalent both offline and online. With reference to the nature, scale, and impact of online violence or Digital Violence Against Women (DVAW), the occurrence of such violence in conservative communities has increased along with the rise in smartphone use.[2] Women in Saudi Arabia (SA) are said to be vulnerable to all forms of violence because of strict social norms and traditions;[3] however, the extent and impact of this are yet to be sufficiently explored, especially qualitatively, through the experiences of the women who live in SA themselves, hence this study.

This study aims to explore the prevalence, dimensions, reaction, harm, institutional and social support mechanisms, and potential solutions for DVAW in SA. A review of the existing literature was carried out and triangulated with primary data generated by deploying a mixed method approach, including quantitative surveys and in-depth qualitative interviews. To this end, 140 survey responses were collected, and five stakeholders were interviewed, including victims of DVAW as case studies. The expertise of the research team, as subject matter experts, was also deployed to make sense of the findings and provide analysis and recommendations.

The findings show that WhatsApp and Instagram are the most frequently used platforms. Snapchat and Twitter ranked second, followed by TikTok and Telegram, respectively. The most frequently experienced DVAW incidents were on Instagram and Twitter, followed by Snapchat and YouTube.

Interestingly, according to the data from this study, DVAW is not as prevalent in the research population (females who are 18 years and older living in SA) as presented in other quantitative research,[4] as around a quarter of the sampled women said they faced some form of digital violence, 44% of whom expressed fear or unwillingness to talk about their experiences.

The low percentage is expected considering the number of men and women using mobile communication in SA within the targeted age group for multiple reasons. First, women in SA – or men for that matter –prefer not to challenge the sociocultural or political norms dictated by the governing system and religious institutions in general. This means that, although the spaces for women have opened up significantly in recent years, especially in terms of public and leadership activities, such as driving, travelling, and occupying positions in the government and private sectors, cultural restrictions remain. Women, for the most part, do not subject themselves to the backlash caused by defying social norms in political activism or pushing social boundaries. Another reason that explains this percentage is that women older than 18 years are relatively more confident and able to fend for themselves compared to younger girls, who are likely to be more vulnerable to sexual and gender-based harassment online.

Finally, and as this study shows, SA has an advanced digitized system for citizens and expats alike, where most processes have become automated, and it becomes quite easy for concerned authorities to track online activities and identify the ones behind it once reported to them. This comes within the government's wider policy of antiterrorism and antifraud measures to ensure the cyber security of SA citizens, residents, and institutions.

[1] UN Women. (2020). COVID-19 And Ending Violence Against Women and Girls.

[2] Qahtani, E. A., Shehab, M., & Aljohani, A. (2018). The Effectiveness of Fear Appeals in Increasing Smartphone Locking Behavior among Saudi Arabians. Fourteenth Symposium on Usable Privacy and Security (SOUPS 2018), 31–46.

[3] Afifi, Z. E., Al-Muhaideb, N. S., Hadish, N. F., Ismail, F. I., & Al-Qeamy, F. M. (2011). Domestic violence and its impact on married women's health in Eastern Saudi Arabia. *Saudi Med Journal*, 32(6), 612–20.

[4] For example, IDRC 2021 research show that 41% of women in KSA say they were subject to violence online because of their gender https://www.cigionline.org/static/documents/Supporting-a-Safer-Internet_SaudiArabia-Findings.pdf

That said, having the tools to track offenders does not necessarily go hand in hand with deploying them to make the virtual world safer for women. It becomes a personal choice for both the women as victims to complain to the relevant authorities, and the authorities to take the complaint seriously and do something about it.

As it is, many of the respondents who were subject to DVAW decided to ignore the incidents and refrain from escalating matters out of fear of a scandal, as the study shows. Furthermore, the findings show that the more serious the violence, the less frequent it was experienced. For example, physical threats, malicious links, and defamation were among the infrequent types of threats. The least frequent types were hacking accounts and publicizing personal contact information. On the other end of the spectrum, verbal abuse, stalking, receiving indecent pictures, and creating fake profiles using respondents' names were among the most common types of DVAW that the respondents experienced.

In terms of the victims' reactions, the study found that there is a positive correlation between the severity of violence and a serious reaction. Only if the harm extends to the family or reputation, the women report it or take strict measures; otherwise as mentioned above, they prefer to ignore.

In addition, a significant 40% of the participants indicated that DVAW transferred to or came from the real world, showcasing the online-offline cycle of violence. For example, one participant said that her work colleagues stalk her online.

In terms of the impact of violence, a startling one third of the respondents who said they experienced digital violence reported suicidal thoughts. A few also said that they suffered from a lack of confidence and started modifying their posts, using nicknames, or abandoning social media altogether.

Other significant harms affected 20% of the participants, who suffered from depression, isolation, health issues, sleeplessness, panic attacks, and being blamed by family members. Another 10% blamed themselves for the violence that had happened to them and felt ashamed. The lives of 10% of the respondents were seriously affected, as they had to change their homes or jobs because of violence. One respondent who experienced DVAW indicated that she had to stop actively posting online for a long time and travel abroad, hoping that things would subside before she returned home. She acknowledged that she still has confidence issues, stutters when she talks, and fears expressing her true feelings.

In general, the majority of the respondents (70%) who experienced DVAW said that they have become more careful when using social media. A third of which said that they changed the way they expressed themselves online or unfollowed the aggressors while only 10% became more argumentative online.

Regarding their knowledge of readily available support and services and their use of these services, more than half (67%) of those who experienced digital violence said they knew about their rights in terms of the law although only 22% used this knowledge in real life. Another 66% knew about the official routes to report DVAW, but only 11% actually used it. As the study will describe in later sections, there are official support systems such as the *General Presidency of the Commission for the Promotion of Virtue and Prevention of Vice*[5] and the Police *Declaration* (or the *Kollona Amn* app).

[5] General Presidency of the Commission for the Promotion of Virtue and Prevention of Vice.

A little more than one third knew of civil society organizations that provide legal and technical support, even though they did not use it, whereas just over 10% knew of psychosocial support services with only one respondent using it. It was interesting to note that only a third knew of the reporting mechanisms on social media platforms.

In terms of utility, only 22% thought that social media platform solutions are useful whereas 11% thought that government solutions are useful, and similar percentages indicated that psychologists, cybersecurity specialists, and legal systems are useful. Nevertheless, 22% of the participants who experienced digital violence were quite pessimistic, as they believed no solution would prevent DVAW or protect its victims. Another 33% believed that social media platforms need to change the manner in which they manage complaints to prevent women's exposure to DVAW.

The surveys and interviews agree that the prevalent patriarchal thinking, which denies women their rights and freedoms to express themselves, is the root cause of digital violence. Even if the online practices by women are not overly challenging, and despite the progressive vision by the country's leadership, the conservative culture has not caught up and remains dominant. In fact, expert interviewees indicate that DVAW by men may be their way of reclaiming their power over women, a power they see diminishing due to the dual effect of political vision at the top level, and women's empowerment at the grassroots level.

Findings from this study propose a number of recommendations to combat DVAW in SA and reduce its harms, specifically:

1. Active implementation of digital laws through a gendered lens and establishing programs to provide assorted services, including, but not limited to, cybersecurity, psychological, social, and legal support services directly to women.
2. Establishment of a department concerned with documenting different forms of VAW, including digital cases, to provide accurate numbers and statistics of such cases to concerned stakeholders.
3. Provision of expert advice and support for free by government entities to women in a discreet manner.
4. Organization of educational programs in schools, mosques, and the media on the importance of women's online presence, digital rights, and privacy issues.
5. Deployment of social media platforms of more technical tools and educational campaigns to their users on staying safe during their use of the platforms.
6. Governmental pressure on social media platforms, especially Instagram and Twitter, where most violence occurs, to detect and respond more seriously and promptly to DVAW on their platforms and hold offenders accountable.
7. Creation of more spaces for civil society or individual initiatives, including researchers and experts, to participate in the eradication of DVAW by actively engaging in spreading awareness about DVAW, doing research, assisting victims, and promoting positive policy change.

In conclusion, the study shows that women's online presence, as digital citizens, is compromised by DVAW. This is evident in the fact that they have become conscious of what they write and have to modify their posts, use usernames, and sometimes abandon social media. More needs to be done to make the Internet safer for women in Saudi Arabia.

Introduction: Digital Violence Against Women

Violence is any act committed with the aim or apparent intention of causing physical pain or injury to another person.[6] It is also defined as an action against a person that threatens, attempts, or causes bodily harm.[7] When violence is gender-based, which is the most prevalent type of violence according to the *United Nations*,[8] the exploitation of unequal power relationships and society-given privileges becomes more evident. The notion of violence against women (VAW) refers to various acts, such as emotional abuse, physical and sexual assault, harassment, stalking, and rape.[9] More broadly, it is defined as any violent action that disproportionately and negatively affects women. Young women are most affected by such violence.[10] Approximately 736 million women worldwide—1 in 3 women— experienced at least one type of violence.[11] Generally speaking, VAW is a universal pandemic and a human rights' violation that has serious impacts not only on victims but also on their families and communities.[12]

It has been argued that, in domestic violence recovery cases, technology has provided both economic and social support; however, it has also allowed for different forms of control, stalking, harassment, and violence.[13] That is, as technology connects people together and enables them to support each other, share information, seek help, and raise awareness with reference to a number of issues, including violence and human rights, it exposes people, particularly women, to new forms of violence and abuse, namely, technology-facilitated gender-based violence or Digital Violence Against Women (DVAW). Disproportionately, recent studies show that, globally, women are more victimized by DVAW in comparison to men, i.e., 73% of women have experienced violence and 61% of the attackers were men.[14]

DVAW includes any unwanted or inappropriate contact, such as sending intimate images, doxing, and trolling. According to the *UN Women*, it can also include threatening hate speech directed towards women to suppress or demonize them.[15] The *Centre for International Governance Innovation* (2023) (CIGI) explains that because online and offline realities are more integrated than ever, their consequences and impacts can overlap. Along with physical aggression, digital technologies can be seriously harmful as they have made it possible for new types of abuse to be perpetrated, such as the production of pornographic content without consent using artificial intelligence, for instance deepfake videos.[16] Therefore, online and offline VAW are on a multifaceted and interconnected continuum, which can be deeply rooted in a broader context of gender bias and discrimination.[17]

Because the impact of online violence is similar to that of offline violence, many women self-censor what they post and share online, limit their activities, and sometimes move completely offline. In addition, its harm can be psychological and mental, discouraging them from participating online politically, socially, and

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[6] Gelles, R.J., and M.A. Straus (1979). Determinants of violence in the family: Toward a theoretical integration. In W. R. Burr, F. I. Nye, S. K. Steinmetz, & M. Wilkinson (Eds.), *Contemporary Theories About the Family* (pp. 549-581). New York: Free Press.

[7] Reiss, A. J., Jr., & Roth, J. A. (Eds.) (1993). Understanding and Preventing Violence. Panel on the Understanding and Control of Violent Behavior, Committee on Law and Justice, National Research Council. Washington, D.C.: National Academy Press.

[8] United Nations Population Fund (2021, November).

[9] Crowell, N. A. & Burgess, A. W. (Ed) (1996). *Understanding Violence Against Women*. National Academy Press.

[10] WHO (World Health Organization), 2021. Global, Regional and National Estimates for Intimate Partner Violence Against Women and Global and Regional Estimates for Non-partner Sexual Violence Against Women.

[11] Ibid.

[12] Online and ICT* facilitated violence against women and girls during COVID-19. (2020).

[13] Rabaan, H., Young, L. A., & Dombrowski, L. (2020, December). Daughters of Men: Saudi Women's Sociotechnical Agency Practices in Addressing Domestic Abuse. Proc. ACM Hum.-Comput. Interact. 4, CSCW3, Article 224. https://doi.org/10.1145/3432923

[14] Morales, K. N. V. (n.d.). Online Gender Based Violence Against Women and Girls: Guide of Basic Concepts.

[15] UN Women (n.d.). Frequently asked questions: Tech-facilitated gender-based violence

[16] CIGI (2023). What Is Technology-Facilitated Violence?

[17] UN Women (n.d.). Frequently asked questions: Tech-facilitated gender-based violence

culturally.[18] It has been acknowledged that there is a lack of understanding of the gravity of the harm caused by online violence, which many view as unreal because it is virtual.[19] *Amnesty International* mentions that DVAW is prevalent on Twitter; unfortunately, in its report, Twitter failed to protect women users' rights by effectively investigating and responding to such incidents.[20] In the MENA region, the *UN Women* reported that, in 2021, 60% of female Internet users experienced DVAW, and 44% of them moved offline.[21]

In the Arabian Peninsula, the Kingdom of Saudi Arabia (SA) is the largest country. It has a population of 34.1 million people, including 41% non-Saudis.[22] As of July 2023, according to the *World Bank*'s collection of development indicators derived from officially recognized sources, the male population accounts for 57.76% of the total population while the female population accounts for 42.38%,[23] with a median age of 29 years. In 2015, the youth literacy rate was 99%, with no notable difference between genders. In the 1970s, female literacy was barely at 2% in the 1970s,[24] but in 2021, the literacy rate increased to 99%.[25]

According to the *World Health Organization (WHO)*, in 2021, at least 37% of Saudi women have experienced some form of violence in their lives.[26] As a result of the largely male-dominated culture, men can exercise control over women.[27] Violence, especially domestic violence, is under-reported for many social reasons such as "*shame, self-blame, or fear of further violence*."[28] There is a lack of data and many inconsistencies with reference to measuring 'intimate partner violence.'[29] This could be due to cultural and religious traditions and taboos since women are considered responsible for protecting their families' honor; hence, they would avoid reporting any form of violence or asking for help. Their fear of being punished or lack of trust in others could be other reasons. Kisa et al. (2023) found 79 studies that investigated women's responses to domestic violence in MENA, the highest proportion of women with no response was reported in SA (40–50%).[30]

The Global Competitiveness Report of Digital Skills, published at the 2020 *World Economic Forum*, indicates that SA is among the top ten countries worldwide in digital literacy.[31, 32] The *International Telecommunication Union* (ITU) data for 2021 showed that 89% of Saudis have basic ICT skills whereas at least 76% enjoy standard ICT skills, and only 25% of Saudis have advanced ICT skills. It also shows that 100% of Saudis (both males and females) own mobile phones and have access to the Internet at home.[33] Most importantly, SA won the *ITU* award for its 'Women Empowerment Program in Technology.'

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[18] Council of Europe. (n.d.). Cyberviolence Against Women.

[19] Morales, K. N. V. (n.d.). Online Gender Based Violence Against Women and Girls: Guide of Basic Concepts.

[20] Amnesty International. (n.d.). Toxic Twitter – A Toxic Place for Women.

[21] UN Women. Accelerating Efforts to Tackle Online and Technology Facilitated Violence against Women and Girls (Vawg).

[22] General Authority for Statistics. (2022). Saudi Census 2022..

[23] Saudi Arabia - Population, Female (% Of Total) - 2023 Data 2024 Forecast 1960-2022 Historical (tradingeconomics.com)

[24] Nielsen, Hollie. (2019). Literacy in Saudi Arabia: Striving for Excellence.

[25] Digital Empowerment and Inclusion in the Kingdom of Saudi Arabia (my.gov.sa) (2021).

[26] Alharbi, F. F., Alkheraiji, M. A., Aljumah, A. A., Al-Eissa, M., Qasim, S. S., & Alaqeel, M. K. (2021). Domestic Violence Against Married Women During the COVID-19 Quarantine in Saudi Arabia. *Cureus*, *13*(5), e15231. https://doi.org/10.7759/cureus.15231.

[27] Wali, R., Khalil, A., Alattas, R., Foudah, R., Meftah, I., & Sarhan, S. (2020). Prevalence and risk factors of domestic violence in women attending the National Guard Primary Health Care Centers in the Western Region, Saudi Arabia, 2018. *BMC Public Health* 20, 239.

[28] AlDosary, A. H. (2016). Health Impact of Domestic Violence against Saudi Women: Cross Sectional Study. *International Journal of Health Sciences*, *10*(2), 165–173.

[29] Alhalal, E., Ta'an, W. a. F., & Alhalal, H. (2019). Intimate partner violence in Saudi Arabia: A systematic review. *Trauma, Violence & Abuse*.

[30] Kisa, S., Gungor, R., & Kisa, A. (2023). Domestic Violence Against Women in North African and Middle Eastern Countries: A Scoping Review. *Trauma, Violence, & Abuse*, *24*(2), 549–575.

[31] Schwab, K., & Zahidi, S. (2020). The Global Competitiveness Report: How Countries are Performing on the Road to Recovery. World Economic Forum.

[32] *Arab News*. (2020, December). Saudi Arabia among Top 19 Countries in Digital Literacy: WEF Report.

[33] International Telecommunication Union (ITU). (2023). Digital Development Dashboard: An Overview of the state of the digital development around the world based on IYU data (Saudi Arabia).

SA's new target is to increase the number of those with basic ICT skills to 90% by 2024.[34] *King Abdullah bin Abdulaziz Project for General Education Development* (*Tatweer Project 2007-2023*) is one of the current initiatives that seek to "*achieve higher integration of ICT in the Saudi curriculum*" that is supported by a number of strategies included in the *Saudi 2030 Vision*. With reference to social media platforms, the number of Saudi users has been growing, and it is globally ranked among the top countries.[35] BBC (2015) reported, "*Saudi Arabia has the highest per-capita YouTube use of any country in the world*."[36] In addition, Saudis are the top in the use of Twitter,[37] the 7th in the number of accounts for each user, the 8th in the use of Snapchat, and the 14th in the use of WhatsApp.[38]

To understand DVAW in SA, it needs to be contextualized historically, culturally, and economically, as well as the steps taken by the country to change the reality of women by protecting and empowering them. Since SA's establishment in 1932, with mostly a tribal population, it has been constantly changing, particularly after oil production. The change was slow but continuous, (re)shaping its culture. As one of the countries in the MENA region, conservative social norms and gendered roles culturally define it. Accordingly, in SA, gender relations are defined in terms of locations, obligations, rights, and roles.[39] Consequently, patriarchal culture assigns women to the domestic sphere and men to the public sphere. It allows men to play (and in some cases pretend to play) the socially positive role of protectors or guardians of women; on the other hand, women are expected to protect their honor by abiding by the social rules of virtue.[40,41,42] The dominant patriarchal culture is a result of a strict version of Islam that SA has endorsed since its establishment.[43] Nevertheless, some believe that patriarchy is rooted, not in religion, but rather in the Arabian Peninsula's culture, which needs to be uprooted through social change and reform.[44,45]

In such conservative communities as SA, the occurrence of cyberattacks and crimes has increased along with the rise in smartphone use. Providing unprecedented access to women and girls, several of these attacks have targeted them in particular.[46] Many women in SA consider digital space unsafe and unwelcoming as a result of sexist ideologies and gender-based violence against them.[47] Their concern about privacy exacerbates the discriminatory practices they face in daily life, amplifies family, community, and state surveillance, and makes them feel more uncomfortable.[48] Women in general, and Saudi women in particular, are more vulnerable to all forms of violence due to these strict social norms and traditions since they are expected by the community to adhere to and protect social norms, unlike non-Saudi women living in SA who are required to respect the culture but not adhere to it as strictly. For example, there was a case of an online video of a woman wearing a miniskirt that led to calls for her to be arrested for posting this video online because she is a Saudi woman.

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[34] International Telecommunication Union (ITU). (2023). Digital Development Dashboard: An Overview of the state of the digital development around the world based on IYU data (Saudi Arabia).

[35] Unified National Platform.(n.d.). Saudi Arabia Wins World Women Empowerment Award.

[36] BBC News. (2015). Saudi Arabia profile - Media.

[37] The Social Clinic (2013). Saudi Arabia Ranks First on Twitter Worldwide.

[38] Arab News (2015). Saudi Social Media Users Ranked 7th in World.

[39] Linjawi, A. (2005). Exploring Reproductive Roles and Attitudes in Saudi Arabia [Unpublished doctoral dissertation]. Florida State University.

[40] Al-Fassi, Hatoon. 2010. Saudi Women: Modernity and Change. In Industrialization in the Gulf: A Socioeconomic Revolution. Edited by Jean-Francois Seznec and Mimi Kirk. Oxon: Routledge, pp. 157–70.

[41] Dodd, P. C. (1973). Family Honor and the Forces of Change in Arab Society. *International Journal of Middle East Studies*, *4*(1), 40–54.

[42] Hilal, J. (1971). The Management of Male Dominance in Traditional Arab Culture: A tentative Model. *Civilisations*, *21*(1), 85–95.

[43] Hodges, J. (2017) 'Cracking the walls of leadership: women in Saudi Arabia', Gender in management: an international journal, 32(1), 34-46.

[44] Al-Ahmadi, H. (2011). Challenges facing women leaders in Saudi Arabia. Hum. *Resour. Dev. Int*. 14, 149–166.

[45] Effendi, A. (2003). Enable Workers: An Introduction to the Improvement and Continuous Development (IPA), The Arab Organization for Administrative Development: Riyadh, Saudi Arabia.

[46] Qahtani, E. A., Shehab, M., & Aljohani, A. (2018). The Effectiveness of Fear Appeals in Increasing Smartphone Locking Behavior among Saudi Arabians. Fourteenth Symposium on Usable Privacy and Security (SOUPS 2018), 31–46.

[47] Dunn, S., Vaillancourt, T., & Brittain, H. (2023). Supporting Safer Digital Spaces. Centre for International Governance Innovation.

[48] Fogel, J., & Nehmad, E. (2009). Internet social network communities: Risk taking, trust, and privacy concerns. *Comput. Hum. Behav.*, 25(1), 153-160.

The digital environment, as a public area, mimics patriarchal social norms that legitimize violence and shield the abuser; therefore, it poses other dangers due to the anonymity it affords to perpetrators. Women's use of social media platforms and their challenging of social norms frequently result in different forms of violence and harassment, both online and offline.[49] In other words, the digital space reflects and intensifies offline social structures and forms of discrimination, including gender biases, and women everywhere, especially in the Gulf countries, are among the likely victims of such digital violence.

A study on digital violence conducted by the *CIGI* showed that 32% and 28% of women and men in SA, respectively, think that it is a very big problem. Married and more educated people believe that DVAW is 'a very big problem' in SA, slightly more than single people with lower education do, 26% and 23%, respectively. Unsurprisingly, younger participants agree that DVAW is a very big problem compared to adult participants, i.e., 31% of the participants (students) compared to 11% who were identified as retirees. This gap is expected because it reflects the generation gap within the Saudi community in age and digital literacy. It was concluded that 70% of women in SA indicated that they had experienced some type of digital violence, 41% believed that they were targeted due to their gender identity, and 59% felt that their mental health was negatively impacted by digital violence. Nevertheless, 23% deleted their social media accounts as a result of this violence.[50]

The *Supporting Safer Digital Spaces Report* surveyed individuals' online experiences in the Global South, covering 18,000 participants of all genders in 18 countries, including SA.[51] This report explains that, overall, women reported a somewhat higher occurrence of all forms of online harm than men (59% vs. 57%). Gender identity was a pivotal reason for being attacked online; that is, 30% of women reported that they were targeted because of their gender, compared to 16% of men. With reference to frequent unwanted contact and unsolicited sexual images, women were substantially more targeted (39.4% and 28.9%, respectively) than were men (31.3% and 22.8%, respectively). Nevertheless, in most of these forms of digital harm men were the most frequent offenders, especially when the victim is a woman. With reference to the impact of such harm, a slightly higher percentage of women reported they were negatively impacted than did men. That is, almost 30% of women reported a negative impact on their mental health compared to nearly 22% of men and on their ability to engage online freely without feeling threatened (25% vs. 17%), that it caused them to feel physically unsafe while online (21% vs. 16%), have the desire to die (16% vs. 14%), and that it affected their sexual autonomy (17% vs. 15%). Similar studies have shown that men experience digital violence just like women; however, the impact of such an experience on women is distressing). [52, 53, 54]

[49] Oxfam International. (2020). Claiming and Reclaiming the Digital World as a Public Space Experiences and insights from feminists in the Middle East and North Africa.

[50] Ipsos survey research report for CIGI and IDRC's Project (Supporting a safer Internet), Saudi Arabia Findings. (2021). https://www.cigionline.org/static/documents/Supporting-a-Safer-Internet_SaudiArabia-Findings.pdf

[51] Dunn, S., Vaillancourt, T., & Brittain, H. (2023). Supporting Safer Digital Spaces. Centre for International Governance Innovation.

[52] Ibid

[53] Vogels, E. A. (2021). The State of Online Harassment. Pew Research Center.

[54] Henry, N., McGlynn, C., Flynn, A., Johnson, K., Powell, A., & Scott, A. J. (2020). *Image-based Sexual Abuse: A Study on the Causes and Consequences of Non-consensual Nude or Sexual Imagery*. New York, NY: Routledge.

Research Questions

Situating the study in the literature, this study aims to gain insight into the prevalence, dimensions, effects, and solutions to DVAW in SA through women's voices. In particular, this study aims to answer the following research questions:

1. To what extent are women in SA exposed to DVAW?
2. What are the most commonly experienced forms of DVAW in SA?
3. What are the driving forces behind this phenomenon?
4. What are the reactions of women to incidents of DVAW?
5. What impacts does DVAW have on women, and what support systems are available to them?
6. What solutions are accessible to women to limit DVAW and protect them?
7. What practical and policy recommendations are needed to foster a safe online environment for women and girls?

Methodology

In addition to a thorough literature review of existing work on the subject matter, the primary data of this study was collected through a mixed method approach: a quantitative survey and semi-structured qualitative interviews. The survey comprised 27 items, many of which were multiple-choice questions and some open-ended questions. It was divided into two sections. The first section collected data related to the characteristics of the participants (8 items), the frequently used social media platforms and types of their online activities (3 items), the last of which was a determining question to either proceed with the second section of the survey or exit the survey, as it inquired about whether the participant experienced DVAW. If the answer was 'Yes,' the second section (17 items) was comprehensive, including questions about the experienced DVAW: its forms, frequency, causes, reactions to it, its impacts, and potential solutions to combat it, with several opportunities for open-ended responses to allow the women to comment on to their DVAW experiences.

The survey was conducted from June 9 to July 10, 2023, and targeted women who are residing in SA (both Saudis and non-Saudis). To maximize recruitment, personal contacts, social media, and snowballing were utilized to collect data from 60 (non)Saudi female participants randomly and voluntarily. However, the snowball sampling strategy recruited 140 participants. It is worth noting that it seemed that the question inquiring about whether they faced DVAW was the question where 18 participants decided to drop out of the survey. In addition, two thirds of those who acknowledged experiencing it did not answer the following questions detailing the incident(s). Furthermore, many non-Saudi participants were unwilling to participate in this study. The research team attempted to contact some of them through expat forums and personal contact, but most invitations were turned down.

To ensure the survey was valid and error-free, two experts read and reviewed the questions and provided valuable comments, which were taken into consideration when the questionnaire was revised before conducting the pilot study. The pilot study was conducted to ensure the validity and clarity of the survey questions by recruiting 10 participants, and it indicated that the survey was generally clear, and all its items were relevant although some items had to be modified according to the pilot study participants' feedback. For example, the question concerning participants' employment status was updated to include freelancers, the question regarding requesting help when facing DVAW had to be updated to be optional, and a question inquiring about the social media profile picture and name was added.

The second data collection tool included semi-structured interviews with experts and victims and focused on validating the questionnaire findings and expanding them by obtaining their experiences and opinions for a more comprehensive view of DVAW in SA. Unfortunately, the survey respondents were unwilling to participate in the interview, except for three respondents. This might show how women are unwilling to discuss such experiences for many cultural reasons. With similar questions as the survey, five participants (a victim, an influencer who experienced DVAW, a social expert, a digital marketing expert, and a DVAW expert) agreed to virtually conduct an in-depth interview through Zoom and WhatsApp to offer a better understanding of their experience and uncover the potential reasons, harms, and solutions to address DVAW. The interview participants were encouraged to share their experiences, stories of social media users they know, and their perspectives. To protect their identity, participants' names were kept anonymous; hence, in this study they are referred to as A1, A2, A3, A4, and A5 (A stands for anonymous). Three of them signed consent forms, and two decided to give only their verbal consent for participation in this study, which points to the effects of the strict laws and institutional censorship in the country.

Results

Legal and Institutional Context of Saudi Arabia

Despite the fast-evolving landscape towards change, women in Saudi society still suffer from some discriminatory practices and customs of unwritten family laws, especially those related to marriage, divorce, and child custody, leading to normalized prejudices.[55] Accordingly, SA progressively took measures to protect women and girls.

In 2013, the Protection from Abuse Act was introduced to criminalize all forms of domestic violence, such as negligence and physical, sexual, or psychological abuse.[56] Furthermore, with the aim of prioritizing people's safety, the Saudi Ministry of Human Resources and Social Development established the Domestic Violence Reporting Service[57] to "*provide citizens and residents with access to help if they or someone else is abused, by reporting abuse either by submitting a report or contacting the Domestic Violence Center (1919)*." This service "*deals with all reports of domestic violence within the family, whether from citizens or residents, and serves women of all age groups within the family, children* under *the age of eighteen, inside and outside the family, the elderly from sixty years and over within the family, and people with disabilities*."[58]

The Saudi government has taken many steps to address this discrimination issue by including women on a number of gender-mixed boards, such as the *Royal Consultative Council*, Municipalities, and *the Chambers of Commerce*, and offering women scholarships in male-dominated fields, such as law and engineering.[59] In 2013, 30 women were appointed at the *Shura Council*, which is the highest advisory council in SA. In addition, in 2015, for the first time, women were allowed to participate (vote and run as candidates) in municipal council elections.[60]

More recently, the country's leadership established what is known as *Saudi Vision 2030*, which aims to transform Saudi society. This Vision has helped women overcome various taboos and empowered them to

[55] Alhabdan, S. (2015). Domestic Violence in Saudi Arabia [Unpublished doctoral dissertation]. Indiana University.
[56] ibid
[57] Reporting domestic violence | Ministry of Human Resources and Social Development (hrsd.gov.sa)
[58] ibid
[59] Thompson, M. C. (2015). Saudi women leaders: challenges and opportunities. *Journal of Arabian Studies*, 5, 15-36. doi:10.1080/21534764.2015.1050880
[60] Human Rights Watch (2017). Saudi Arabia: End Male Guardianship.

take leadership positions and make life decisions on their own.[61, 62] Despite an average annual improvement of its Gender Gap Index (CGI) at around 0.92% since 2007,[63] the country ranked 131st among 146 countries globally, making it the 15th worst country for women.[64] However, this indicator is somewhat misleading as it is an aggregate of four parities: educational, economic, health, and politics. In terms of education and health, women in SA have nearly the same rights as men at 99% and 96% respectively. In terms of the economy, women enjoy half the status of men in various economic spheres, which is slightly below the world's average. However, when it comes to Saudi women's political rights the gender parity is almost 100%, meaning that women hardly have any political rights compared to men, and this is what is bringing the country's GGI position to the bottom of the world's list.

Consequently, the *Saudi Vision 2030*, has been deployed to turn the country into a more moderate version of Islam that can address modern time challenges. It has aggressively implemented many of the plan's social and cultural reforms and has achieved considerable success in terms of governance reforms and increases in public sector efficiency.[65] Customarily, Islamic conservative norms were enforced on Saudis' daily lives by the *Committee for the Promotion of Virtue and the Prevention of Vice,* known as the 'religious police' (in Arabic, *alhay'aa*). In an attempt to transform society from a religious/Islamic society to a civil society governed by laws, in April 2016, King Salman limited the authority and power of the religious police along with the announcement of the *Saudi Vision 2030* and the *Council of Senior Islamic Scholars*.[66]

To accelerate social reforms and reduce the gender gap, a decree allowing women to drive was issued in June 2018. The ban on women traveling without the consent of a male guardian was also lifted, and male guardianship laws were reformed to reshape Saudi society as a civil society governed by unbiased and non-discriminatory laws. Because segregation between sexes in the workplace was the cause of the lower percentage of women in the workforce, SA stopped imposing it. Mixed-gender workplaces and social and sports events are now permitted and encouraged to offer women opportunities to apply for and obtain senior management positions and roles.[67] It is worth noting that for many Saudi women such segregation does not imply that they have lesser social status.[68] On the contrary, they believe that such sex segregation offers them more professional advantages and less competition with their male counterparts for job and school opportunities.[69]

Most importantly, on *International Women's Day* in 2022, the first *Personal Status Law* (PSL) in SA was passed as part of a package of legislative reforms to preserve rights, strengthen the principles of justice, enforce transparency, protect human rights, achieve comprehensive and sustainable development, and establish a civil society based on laws rather than a male-dominated judiciary's subjective application of *Sharia* (Islamic law) regulations and interpretations of Islamic texts.[70] In 2019, many of the problematic aspects of the guardianship law were repealed, for example, women over the age of 21 years can obtain a passport and travel without permission to a guardian. Previously, this law was officially codified, and every

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[61] Wali, R., Khalil, A., Alattas, R., Foudah, R., Meftah, I., & Sarhan, S. (2020). Prevalence and risk factors of domestic violence in women attending the National Guard Primary Health Care Centers in the Western Region, Saudi Arabia, 2018. *BMC Public Health* 20, 239.

[62] Alghamdi, A. K. H., Alsaadi, R.K., Alwadey, A.A., Najdi, E.A. (2022). Saudi Arabia's Vision 2030's Compatibility with Women and Children's Contributions to National Development. *Interchange*, *53*, 193–214.

[63] Knoema, (2022). Saudi Arabia - Global gender gap index.

[64] World Economic Forum, (2023). Global Gender Gap Report.

[65] Habibi, Nader. (2019). Implementing Saudi Arabia's Vision 2030: An Interim Balance Sheet. Middle East Brief, 127:1–9.

[66] ibid

[67] Doumato, E. (2010). Saudi Arabia. In Sanja Kelly and Julia Breslin (Eds.), *Women's Rights in the Middle East and North Africa* (pp. 2-30). New York: Freedom House.

[68] Huyette, (1985). Political Adaptation in Saudi Arabia: A Study of the Council of Ministry. Colorado: Westview Press.

[69] Fakhro, M. (1996). Gulf women and Islamic Law. In M. Yamani (Ed). *Feminism and Islam: Legal and Literary Perspectives*, (pp.251-262). New York: New York University Press.

[70] Amnesty International. (2023). 'Saudi Arabia: New Personal Status Law.'

Saudi woman, regardless of age, was subject to the authority of a male guardian, most often her father or husband, to make decisions or, in best cases, execute them on her behalf. This law may remain unofficial within some families but has been eliminated from the country's system.

Since 2007, promoting digital literacy and skills has been a government priority and has later become an integral part of *Vision 2030.*[71] A digital transformation initiative known as '*Digital Saudi 2030*' for creating a vibrant digital society in the rapidly evolving digital world was launched. SA has been building a comprehensive platform for e-services and digitalizing the government, including cybersecurity strategies to protect its interests and citizens[72] and to improve young people's digital skills, technological knowledge, leadership skills, and other relevant skills through various programs. Therefore, it becomes possible to create a safe digital space for women by considering the safety measures, laws, and regulations.

In Saudi laws, obtaining information, including any private material related to a person's private life and/or publishing it for the purpose of defamation or harm, falls within the scope of cybercrimes. SA's *National Unified Portal for Government Services*[73] launched an e-service, a cybercrime helpline, and an email service. An anti-extortion e-service[74] by the *General Presidency of Promotion of Virtue and Prevention of Vice* was established to combat any (digital) threat or extortion of an individual through pictures, conversations, or forbidden relations, to induce them to commit adultery or send money, whether male or female, known or unknown. The role of the helpline (1909) was also expanded to include reports of digital extortion in addition to domestic violence. Most importantly, crimes such as real-life or digital fraud, threats, defamation, hacking, bullying, blackmailing, assault against a person, their honor, or their money[75] can be reported through the *Police Declaration* application (or the *Kollona Amn*, *kamnapp*).[76]

To combat the abuse of technology within its digital transformation journey, SA was among the first countries in the Middle East to introduce Internet-specific laws to regulate Internet activity in 2008. In more detail, the *Ministry of Communications and Information Technology (MCIT)* implemented 16 articles concerning Internet use, including "*severe legal penalties and a fine for website operators who advocate or support terrorism; financial fraud or invasion of privacy; distributing pornography or other materials that violate public law*."[77] The Saudi MCIT's vision for ICT sectors necessitated the development of Internet-based society to allow citizens to use the Internet and the various online technology tools to improve "*efficiency, productivity and the quality of products and services*."

The *Communications and Information Technology Commission* (CITC) in SA is among the most advanced regulators in the Middle East.[78] SA has invested heavily in new technologies[79] and because of the nature of the Internet, hundreds of websites were and many still are censored in SA to preserve the culture and principles held in SA[80] and keep out other undesirable information and material.[81] In fact, censorship in SA

[71] Alghamdi, A. K. H., Alsaadi, R.K., Alwadey, A.A., Najdi, E.A. (2022). Saudi Arabia's Vision 2030's Compatibility with Women and Children's Contributions to National Development. *Interchange*, *53*, 193–214.

[72] InvestGlass (2023, 14 May). Digital Saudi 2023: Envisioning A Technologically Advanced Future.

[73] Saudi Arabia's National Unified Portal for Government Services (my.gov.sa)

[74] Unified National Platform. Anti-extortion Service.

[75] Police Declaration (Kollona Amn) (my.gov.sa)

[76] Abdullah, N. (2020, December). Saudi Human Rights: Crimes that Require Arrest.

[77] International Telecommunication Union. (2009). Information Society Statistical Profiles 2009: Arab States.

[78] ibid

[79] Lynch, J. (2022). Iron net: Digital repression in the Middle East and North Africa. European Council of Foreign Relations.

[80] Albugami, S., & Ahmed, V. (2016, January 24). Effects of culture and religion on the use of ICT in the Saudi education system [Presentation]. Institute of Research Engineers and Scientists 25th International Conference, Istanbul, Turkey.

[81] Al-Saggaf, Y., & Begg, M. M. (2004). Online communities versus offline communities in the Arab/Muslim world. *Journal of Information, Communication and Ethics in Society*, 2(1), 41–54.

is often described as relentless.[82] Saudi women journalists reported being hesitant to participate online because of the country's rigorous regulations governing online content and their concern about unintentionally falling into any of the above mentioned cybercrimes and breaking the law.[83]

Furthermore, the *Saudi Vision 2030* required the establishment of laws against cybercrime.[84] The following cybercrimes are punishable by a one-year jail term and/or a maximum fine of 500,000 riyals (nearly USD 134,000):

1. Spying on, interception, or reception of data transmitted through an information network or computer without legitimate authorization.
2. Unauthorized access with the intention of threatening or extorting any person to compel them to take or refrain from taking an action, be it lawful or unlawful.
3. Unauthorized access to a website, hacking a website to change its design, destroy or modify it, or occupy its URL.
4. Invasion of privacy through the misuse of camera-equipped mobile phones.
5. Defamation and infliction of damage on others through the use of various information technology devices.

Electronic blackmailing is punishable under Saudi law by jail time and fines.[85] According to Aldoseri (2022), a Saudi lawyer, victims who are exposed to such digital extortion and blackmail are urged by the government not to give in to the demands of the blackmailer; on the contrary, they must submit a report to the police station and/or the *Commission for the Promotion of Virtue*, who will send these reports to the *Public Prosecution* to investigate and collect evidence for the court and punish those who committed any digital extortion from SA or outside of it.[86] For women in particular, this is a tool to protect them from any digital abuse of users' online data, including personal pictures and personal information.

In addition to enacting legislation and imposing strict penalties on perpetrators, SA has a number of initiatives and entities to address such issues. The *General Presidency of the Commission for the Promotion of Virtue and Prevention of Vice* has a set of measures to enable them to fight any form of extortion, threat, or blackmail against men or women equally.[87] As noted in the interviews, the various existing support systems are not adequately useful because they need to be effectively enhanced to accommodate female victims' needs.

There are some individual initiatives in SA. For example, a number of lawyers, who are familiar with such cases, run websites to educate women on what to do and how to report such incidents and offer free consultation sessions.[88] There is also a Saudi elite team comprised of skilled lawyers and legal consultants who try to resolve cases of digital extortion and threat with complete confidentiality and provide assistance, guidance, and ways to report extortion.[89] They have published articles to educate the public on how to avoid being abused and extorted online. In addition, there are a number of T.V. programs that educate citizens and residents concerning electronic extortion and how to avoid and report such incidents. It has been noted that there is a prevailing sentiment in the Middle East that is critical of non-governmental organizations (NGOs), a subset of civil society organizations (CSOs), especially those that receive funding from foreign sources. However, local CSOs can assist government organizations in SA in addressing such social problems.[90]

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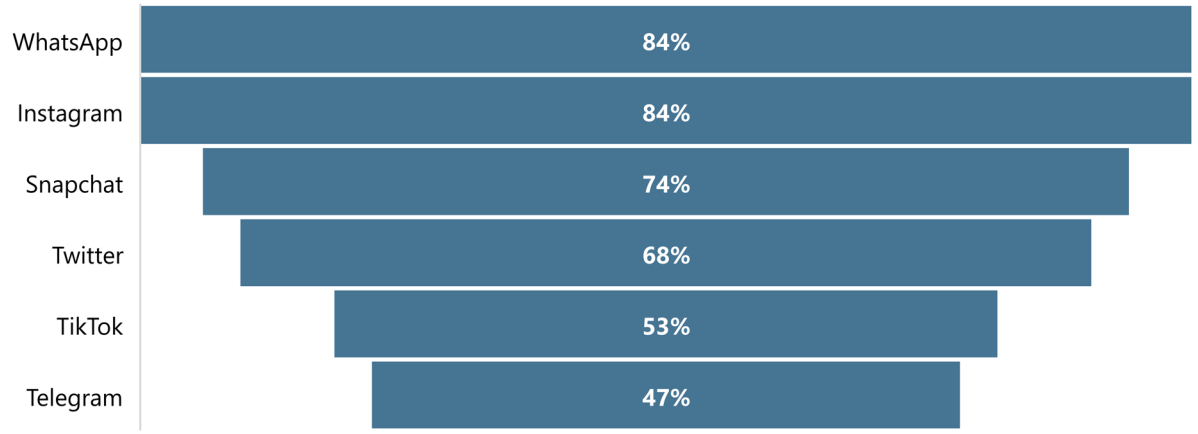
[82] Porutiu, T. (2022). Censorship in Saudi Arabia: How to Get Around It. VPN Overview.
[83] Aljuaid, K. (2020). *Media in Saudi Arabia: The challenge for female journalists* (unpublished doctoral dissertation). University of Bedfordshire.
[84] Anti-Cyber Crime Law. (2007). Bureau of Experts at the Council of Ministers.
[85] Find KSA Law. (n.d.). Punishment for blackmailing girls in Saudi Arabia.
[86] Ibid
[87] Abdullah, N. (2020, December). Saudi Human Rights: Crimes that Require Arrest.
[88] Find KSA Law. (n.d.). Punishment for blackmailing girls in Saudi Arabia.
[89] نخبة elite-law.com
[90] Cook, S. (2018). The Real Reason the Middle East Hates NGOs. Foreign Policy.

Despite the enormous effort that has gone into developing a digital system to combat cybercrimes, including DVAW, it is difficult to assess the seriousness of DVAW in SA, as, unfortunately, there are no official statistics or reports publicly available on the number of cases and the gender of the victims related to domestic or digital violence, even though domestic violence is prevalent.[91] It was last estimated in 2012 that SA had more than 3.6 million victims of cybercrime.[92] This lack of statistics might partly be because women are "*reluctant to disclose being abused due to several factors, one of which is saving the family from destruction and feeling ashamed*."[93] Accordingly, digital violence, especially extortion and blackmailing, might be a serious problem in SA; otherwise, it would not have been necessary to impose heavy fines and tough penalties.

Exposure to DVAW: Where, What, by Whom, and Why?

The most frequently used platforms by 85% of the respondents are WhatsApp and Instagram, as shown in Figure 1. Snapchat and Twitter were the second most frequently used social platforms (75% and 70%, respectively), followed by TikTok and Telegram (about 50% each).

Figure 1: Frequently used social platforms in KSA



The study also indicates that Saudi women are still reluctant to use their own personal pictures on social media platforms. Only 11% used real pictures, whereas the rest used generic pictures. Some of the respondents identified their online activities as posting about their day, ideas, experiences, emotions, their social and technical knowledge), and photos of their travels.

The survey showed that the majority (60%) of the respondents indicated that they did not experience any DVAW on social media platforms (see Figure 2). However, 15% admitted that they did not experience it because they took personal safety precautions, which shows that they are aware of possible online threats. Only 14% acknowledged that they had experienced DVAW. However, some respondents thought they might have experienced digital violence, but were afraid to discuss it (5%) or did not want to discuss it (6%). Accordingly, it can be claimed that 25% experienced DVAW, but only 14% acknowledged it. It is worth noting that the question of whether the respondents experienced DVAW was a filtering question, allowing only those who experienced DVAW to continue (14%).

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[91] Wali, R., Khalil, A., Alattas, R., Foudah, R., Meftah, I., & Sarhan, S. (2020). Prevalence and risk factors of domestic violence in women attending the National Guard Primary Health Care Centers in the Western Region, Saudi Arabia, 2018. *BMC Public Health* 20, 239.

[92] Elnaim, B. (2013). Cyber Crime in Kingdom of Saudi Arabia: The Threat Today and the Expected Future. *Information and Knowledge Management*, 3(12), 14-18.

[93] Wali, R., Khalil, A., Alattas, R., Foudah, R., Meftah, I., & Sarhan, S. (2020). Prevalence and risk factors of domestic violence in women attending the National Guard Primary Health Care Centers in the Western Region, Saudi Arabia, 2018. *BMC Public Health* 20, 239.

Figure 2: "Have you ever experienced digital violence?"

This low acknowledgment percentage is not surprising, considering the cultural restrictions these women may be exposed to. Most importantly, the low percentage of those who experienced DVAW shows that this phenomenon might be a new, growing issue, or one can claim that the strict Saudi laws and penalties may have discouraged some women from participating online and many offenders from harassing women or exercising any type of DVAW.

Furthermore, respondents might not be aware of DVAW or its seriousness, or it might be so normalized that it was difficult to recognize. If they were aware, their online presence might not be as challenging; this is evident in the percentage of those who said they use real pictures in their profiles, which was no more than 10% of all the respondents, and 30% of those who experienced DVAW wrote posts on different general topics while 42% published personal posts. According to interviewee (A1), a marketing expert who is active online, women who experience DVAW are those who share their opinions and discuss religious and social topics. She continued, "*[s]ocial media users who retweet, post Hadiths*[94]*, or circulate quotes, usually do not experience DVAW, because their presence is not challenging any social or religious norms*." A digital marketing expert from SA, interviewee (A4), indicated that most Saudi female social media users are interested in fashion, lifestyle, and cooking. She also noted that women are more active online than men. She said, "*[w]omen are more active online even when the contents are more relevant to men*."

Regarding the relatively low number of women who experienced DVAW in the survey, (A1) argued, "I think the percentage of those who experienced DVAW is higher than what is reported, but I would say that either these respondents did not have time to take the survey, they did not care about the topic because of lack of awareness or they did not have bad experiences, or the survey did not reach to the right group of people who could be younger women or those who are controversial with reference to their content. It could also be the fact that they do [sic] not want to discuss such a topic."

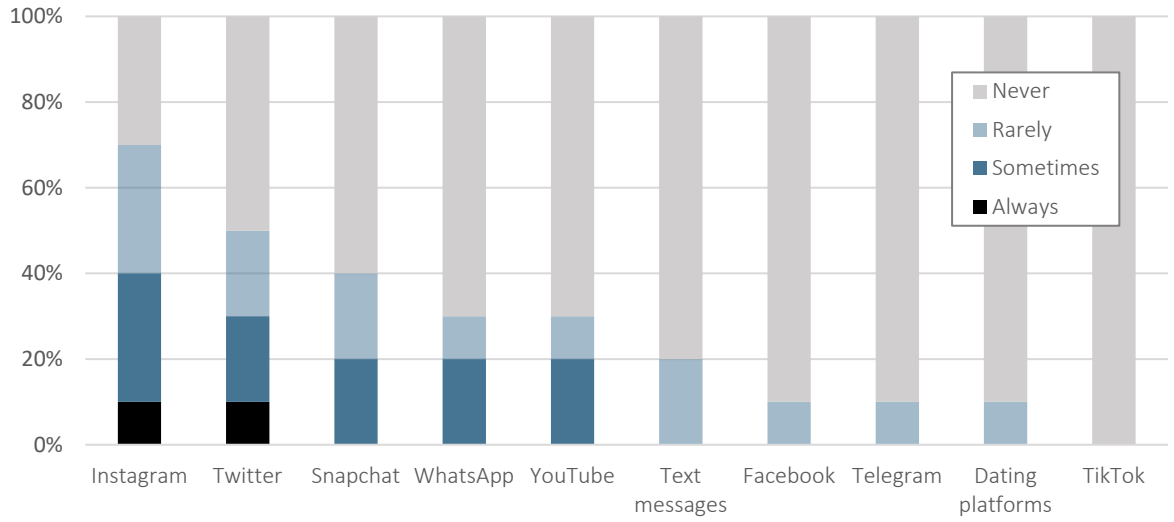
Interviewee (A3), who is a gender study researcher, also argued that DVAW is frequent worldwide and in SA. She did not experience DVAW, yet she often saw some verbal violence in the comment sections of female Saudi influencers' social media accounts. (A4) expressed her frustration with DVAW and, as a digital marketing expert, described it as an obstacle to having an online space full of beneficial content. She knew some women who have beneficial educational content, but their accounts are private to fend off digital violence. Interviewee (A5), a DVAW expert, acknowledged that she was stalked online and had to delete all her social media accounts except WhatsApp because she needed it to stay connected with her colleagues, family, and friends. However, she believed that DVAW might no longer be gender-based because the Internet is widely used, and victims are from different walks of life. Without quantifying data and official

[94] Hadiths are religious sayings of the Prophet Mohammed (pbuh).

government reports, (A5) believed that we cannot argue that it is gender-based. She speculated that DVAW is not as prevalent in SA as it was before the cybercrime laws were put into place, and the data of this project confirms this conclusion. The low frequency of DVAW indicates that the provided government measures and tools are effective and successful.

While half of those exposed to DVAW dropped out of the survey, the other half continued to indicate that most of the violence they experienced occurred on Instagram (40%) and Twitter (30%), followed by Snapchat and YouTube (20% each).

Figure 3: Social media platforms where DVAW occurs

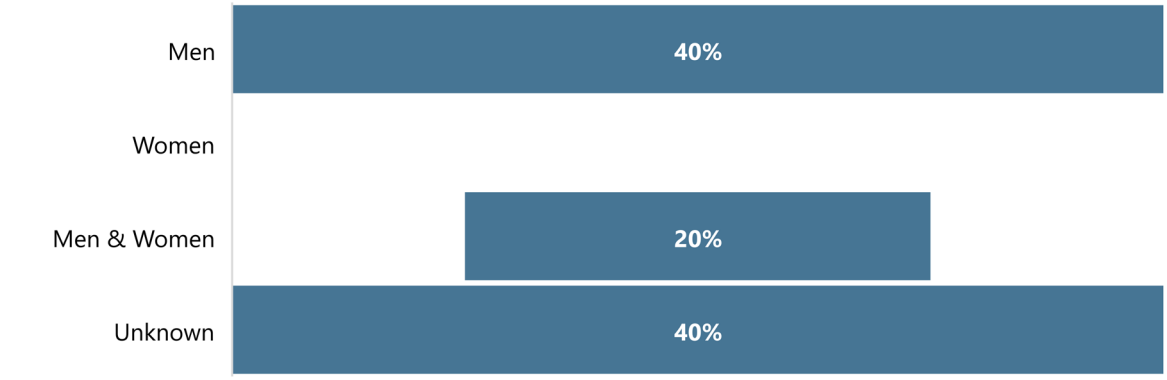


Interviewee (A1) witnessed DVAW on Instagram and Twitter frequently, especially because her account and many of her followers as well as those whom she followed had public profiles and, therefore, she could evaluate the comments posted publicly. On the other hand, interviewee (A2) said that DVAW mostly happens on Snapchat, and it is hard to be reported because it is ephemeral, as it does not "*document or save the conversation so we often find a lot of violence and type of blackmailing*."

Interviewee (A5) explained, "[f]rom my experience in DVAW research in the ME, Facebook is the most violent platform. However, Facebook is not as popular in SA, so I would say that Twitter and Snapchat would replace it because Saudis prefer Twitter for arguments and Snapchat for sharing visual content. That's why, based on frequency of use, I would say that Twitter is the most violent platform followed by Snapchat and WhatsApp, which have more private settings."

In terms of the aggressors' gender, interestingly, as Figure 4 shows, 40% of the respondents who experienced digital violence indicated that they were men, whereas 40% selected the gender as unknown and the remaining 20% indicated that they were equally men and women.

Figure 4: Aggressors' gender

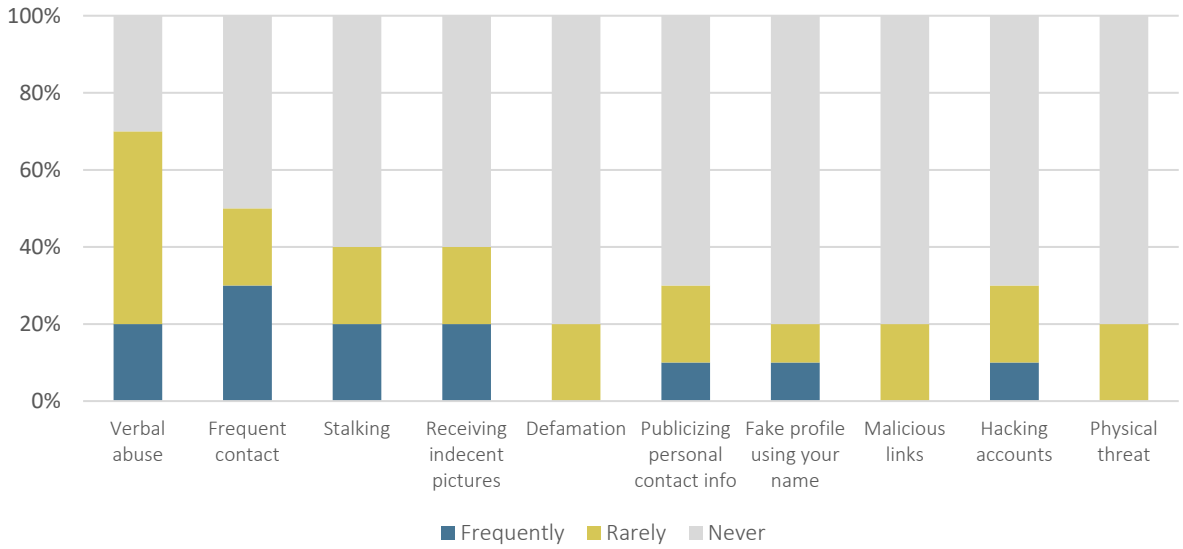


Apparently, the fact that most of the aggressors used gender-unidentifiable usernames, they feel invisible; hence, they are empowered to assume personas that do not match theirs, in terms of gender or age, for instance, and exercise DVAW without facing consequences. Social media platforms have made women in SA virtually visible and more accessible, something that Saudi men are not accustomed to. This virtual presence is also something that the Saudi society is not accustomed to, as it is unacceptable in the real world. Men and women in Saudi society are segregated and discouraged from engaging in mixed-gender arguments or conflicts. In the past, women were not seen or heard of in public life. They were compliant and did not try to disrupt social norms by expressing their opinions or behaving untraditionally. Nowadays, men experience a different reality on social media platforms. Therefore, violence is exercised to discourage women from participating online and suppress their voices, which is motivated by patriarchal thinking that denies women their freedom and space even when it is virtual. In doing so, men might attempt to confine women to their expected roles and 'appropriate behavior' dictated by society. However, the Saudi government addressed this issue since phone devices and mobile SIM cards are registered to their owners using their national ID; therefore, the government can identify and prosecute the person behind any harmful social media post within SA.

Not only men, but sometimes women who claim to be religious are the worst enemies of other women, as highlighted by (A1), attacking and being violent towards women who are not as compliant to social norms as they are. She indicated that "*DVAW in general and verbal violence in particular is fueled by religious and cultural ideas. Most verbal attacks are related to a woman's hijab, religious ideas, or upbringing. Usually, men comment inappropriately on women's clothes, actions, and anything related to the Saudi culture that they think unacceptable*." Interviewee (A4) agreed that men are more violent online than women, but that there are many women whose violence is directed against their kind.

Figure 5 shows that the types of DVAW are negatively correlated with their frequencies. That is, the more serious the form of violence, the less frequent it is. Physical threats, malicious links, and defamation are among the least frequent types of threats. Only 20% of the respondents indicated that these types occurred rarely, and 80% said never. The least frequent types are hacking accounts, publicizing personal contact information, and verbal abuse. This is not to say that women do not experience these types of violence, but more respondents indicated that they rarely or never experienced them. The most frequent type was frequent unwanted contact, with 30% of the respondents acknowledging experiencing it. This could be a result of men not considering it harmful and not viewing it as a type of violence. Stalking, receiving indecent pictures, and creating fake profiles using the respondents' names are among the types that respondents indicated they equally experienced frequently or rarely (both 20%).

Figure 5: DVAW types and frequency



Some of the survey respondents, however, indicated that they were exposed to verbal abuse, including name calling and insulting comments, when they expressed their opinions against mainstream or widely accepted ideas. One respondent experienced more than one type of violence, as she explained that one man followed her on all her social media accounts, using different accounts in an attempt to contact her and start a conversation. Another experienced more than one type of violence, receiving inappropriate pictures and comments, unsolicited marriage proposals, and frequent unwanted contact.

Interviewee (A1) argued that men and women experience DVAW, but women experience it more in terms of frequency and type. She also explained that women were targeted for being women who are Saudi. She continued, "*[i]f a man said the same thing a woman said, he would not be attacked or at least would not be attacked the same way a woman would have been attacked. If a non-Saudi woman said or did the same thing, she would not be attacked*." Interviewee (A3) indicated that she did not have any statistics to judge who was exposed to DVAW but, based on what she heard and saw on social media, she believed that both men and women, especially youth, are equally exposed to digital aggressive behaviors. Needless to say, she argued that women are more sensitive to DVAW than men and that they face more consequences than men. She continued, *"[m]en and male children are blackmailed, extorted, cyberbullied, and sexually harassed*."

However, the survey respondents also acknowledged that they were exposed to such violence because they were women, and if they were men, they would have never had to experience such abuse; there are many men who upload content against Saudi culture and Islamic teachings, but they do not receive such gender-based abuse or violence. Therefore, women do not believe that they experience DVAW because of their unaccepted ideas, but rather because these ideas are being expressed by them. One respondent shared one of her experiences regarding digital violence that was politically charged because she was Saudi and a woman. She thought that being a woman makes her an easy target for politically oriented social media users, who express their political views or conflicts in an aggressive manner. However, it should be noted that this respondent did not participate in any political conversation or express political views.

Similarly, interviewee (A2) indicated that, as a woman and an expat at the same time, she experienced hate speech from aggressors who also reside inside SA because women are easier targets than men for those who wish to attack a political group or nationality other than their own. Interviewee (A1) believed that she was exposed to verbal violence because she is a woman but believed that the other types of DVAW are not

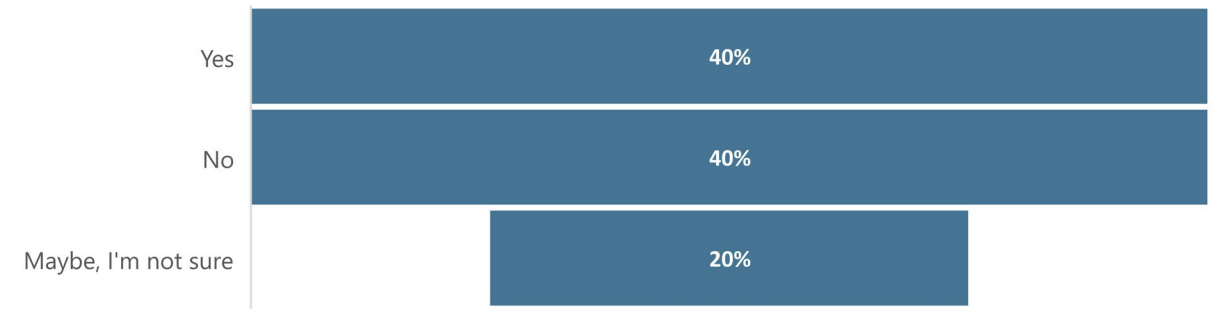
widely spread because in SA it is easy to report any kind of violence or harassment, and men take it seriously. Accordingly, she believed that verbal attacks are more frequent online because they are difficult to report, and no one would take them seriously. Interviewee (A3) contradicted her by emphasizing that since there are legal offices online advertising their services and their ability to address DVAW, this shows that various types of DVAW could be widespread in SA as they are worldwide.

Consequences—Harm

When the respondents were asked if DVAW transferred into the real-world, as shown in Figure 6, 40% of respondents selected 'Yes', 40% selected 'No', and 20% indicated that they were 'Not sure'. As an example, one of the respondents explained that one man whom she worked with proposed to her and his proposal was turned down. After she resigned from her job, he kept stalking her and following her on all her social media accounts, asking her to give him another chance.

Some of the respondents were known publicly and used their pictures in their social media profiles; accordingly, this brought negative attention to them in real life because of their posts. A respondent to the survey who identified as an influencer explained that she had received death threats mailed to her house when she decided to appear online without hijab.

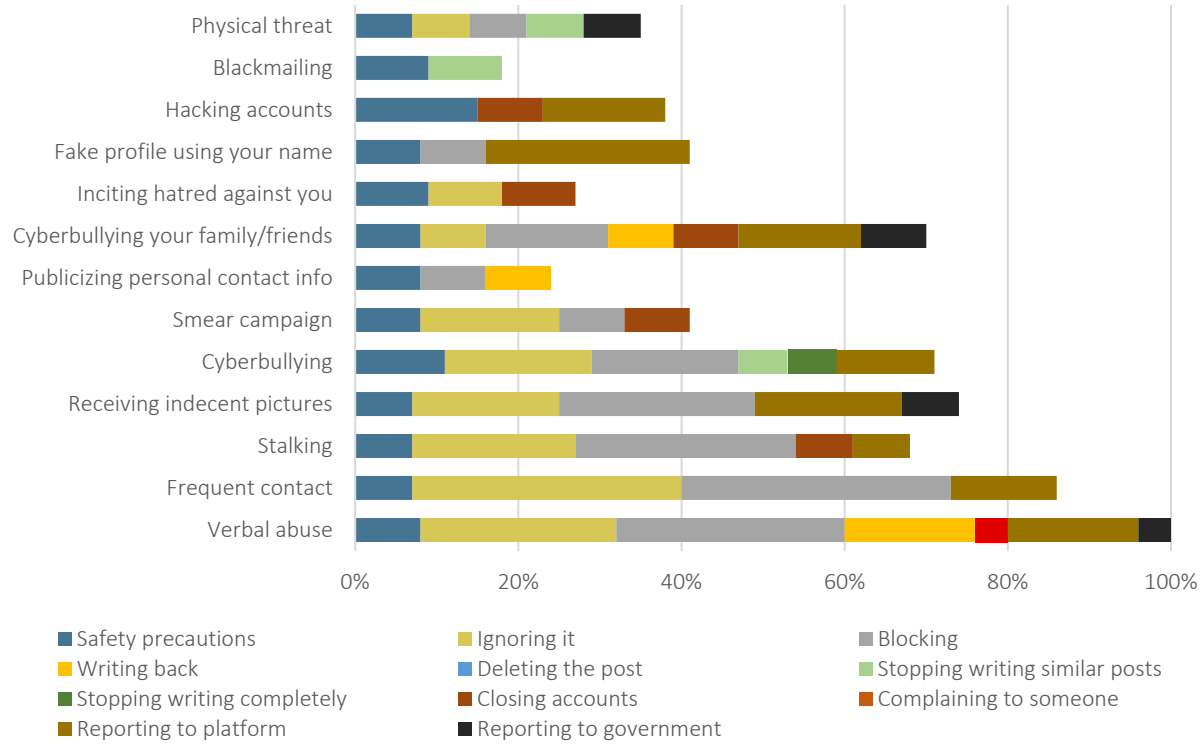
Figure 6: "Did DVAW turn into real-world violence?"



Interviewee (A1) believed that well-known women, such as influencers, experience more types of DVAW and they sometimes transfer into the real-world due to the public taking matters into their own hands across the virtual and real worlds. She continued, "*I saw pictures online of female influencers that were taken by people and uploaded online without her* [sic] *permission, violating her* [sic] *privacy. I think this is a violation and such behaviors should be discouraged by reporting them.*"

Regarding the measures taken by victims when faced with DVAW, the respondents' reactions correlated positively with specific types of DVAW, as they viewed the gravity of the various types of violence differently, hence tolerating and responding to them differently. In more detail, with verbal abuse, as shown in Figure 7, the most frequently taken measures are blocking and ignoring the aggressor with percentages of 28% and 24%, respectively, whereas 16% of the respondents indicated that they wrote back and argued or reported them on the social media platform. Only 8% selected taking technical safety precautions to address verbal abuse.

Figure 7: Measures taken when facing forms of DVAW



With reference to frequent unwanted contacts, 33% chose to ignore or block aggressors equally. On the other hand, 13% of the participants reported aggressors to the social media platform and only 7% took safety precautions to protect themselves.

The third type of DVAW, stalking, was addressed by again blocking and ignoring the aggressors, with percentages of 27% and 20%, respectively, whereas 7% took safety precautions or closed their accounts. When the participants received indecent pictures, 24% blocked the aggressors and 18% ignored or reported the aggressor to social media platforms. However, only 7% took safety precautions or reported them to the government.

Regarding cyberbullying, 18% of the participants either ignored or blocked aggressors, 12% reported them on social media platforms, 11% took safety precautions, and only 6% stopped posting anything on their social media accounts. Interestingly, regarding smear campaigns, 8% of the participants either took safety precautions, blocked aggressors, or closed their own accounts. Only 17% of the participants ignored aggressors in this case. Similarly, 8% of the respondents chose to take safety precautions, block aggressors, or write back when their personal contact information was publicized. As for attack threats on friends and families, 8% either took safety precautions, ignored, wrote back to the aggressors, closed their own accounts, or reported the aggressors to the government while only 15% blocked or reported aggressors on social media platforms. When hatred was incited against them, 9% of the participants either took safety precautions, ignored aggressors, or closed their accounts.

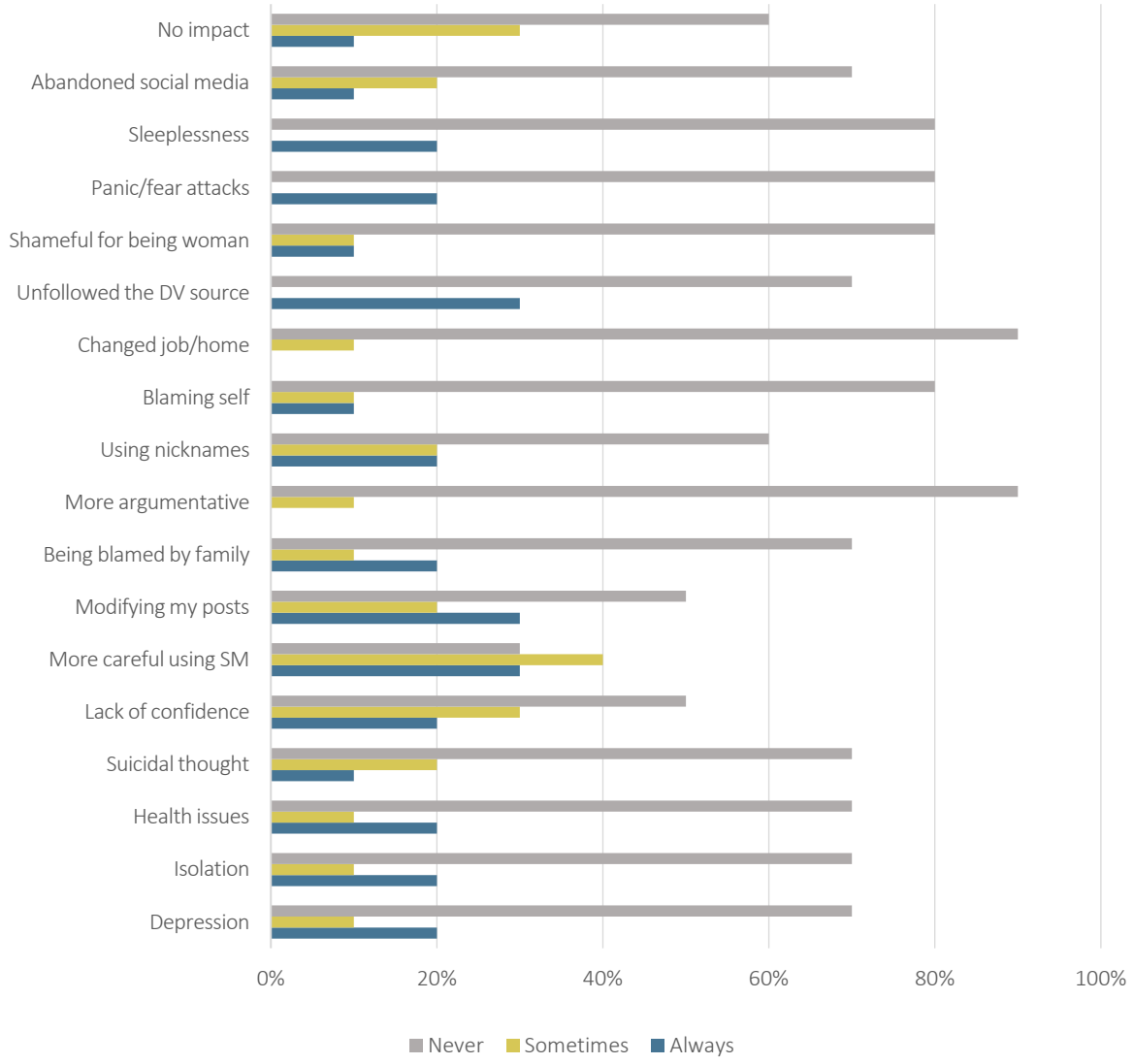
When violence is technical, such as when aggressors create an account using the victims' names, 8% of the respondents either took safety precautions or blocked them, and 25% reported them to the social media platforms. Hacking accounts caused 15% of the respondents to either take safety precautions or report the incidents to social media platforms, and only 8% closed their accounts.

When the type of violence is more serious, such as blackmailing, 9% of the respondents either took technical safety measures or stopped posting. Physical threat, which was not prevalent, as shown in Figure 5, caused 7% of the participants to either take safety precautions, ignore, or block aggressors, stop writing posts, or report incident(s) to the government.

Interviewee (A1) agreed that the actions taken against aggressors depend on the type of violence. She blocked aggressors when they repeatedly attacked her verbally or criticized her mental ability and her speech using gender-based criticism, such as '*go to the kitchen,*' '*go and take care of your husband and kids,*' or '*mind your business*.' So, she ignored comments that were not worth addressing and responded only when she felt that she needed to explain or justify her posts, which were mainly educational (about science and Islam) or social advice and tips concerning how to deal with people and children, etc. When the comments were personally directed to her because she is a woman, she blocked the attacker(s), regardless of their gender. She also explained, "*[s]ometimes men comment positively, and they go overboard. I think this is unacceptable because it is their way of seeking attention and harassing women. I always ignore them. Therefore, DVAW has different shapes and forms. Sometimes it is flirting, which is not acceptable either because when it happens more than three times; this is harassment, but unfortunately you cannot accuse or report such behavior*." (A5) recommended reporting any inappropriate action to the platform, blocking, and ignoring the source of violence, immediately. She mentioned that she deleted all her social media accounts because she understood the consequences of such violence on her own well-being.

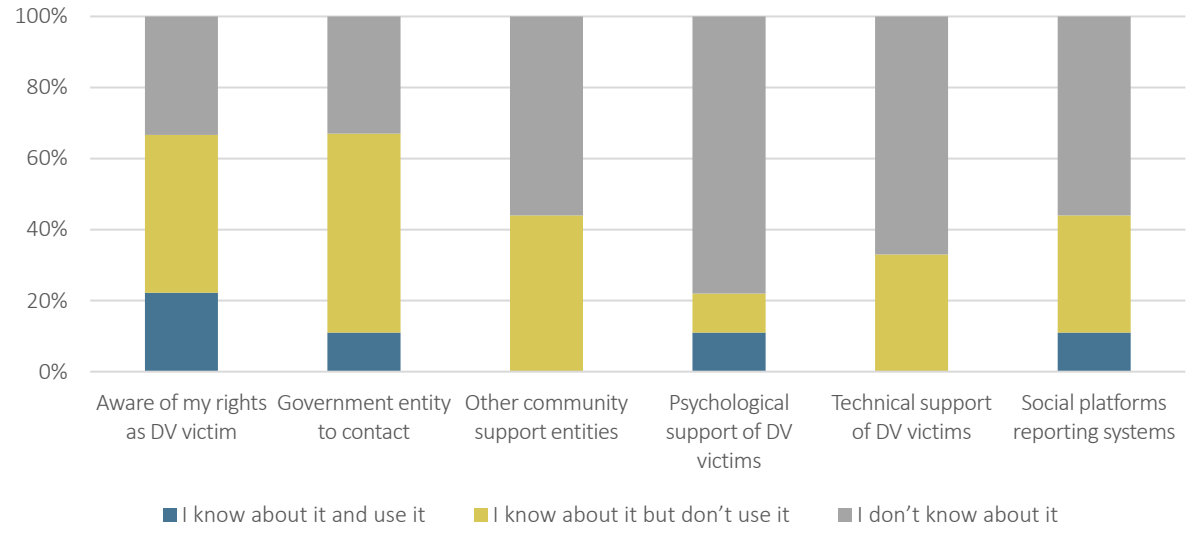
Regarding the impact of DVAW, as shown in Figure 8, more than half of the respondents who continued the survey because they suffered DVAW reported that they had not experienced a negative impact. Although 70% of the respondents mentioned they changed their behavior online by becoming more careful when using social media, between 10%-20% indicated that sometimes they had suicidal thoughts, and 10%-30% suffered from depression, isolation, health issues, sleeplessness, panic attacks or lack of confidence, were blamed by themselves or family members or felt ashamed of being women, started modifying their posts or unfollowing aggressors, started using nicknames, or abandoned social media altogether. Finally, 10% indicated that sometimes they became more argumentative, or changed job/home.

Figure 8: Reported impacts of DVAW



The respondents were later asked to evaluate their knowledge, use, and effectiveness of readily available support systems and services. From Figure 9, it is apparent that the majority of the respondents did not know about specific services for DVAW victims, namely, government support entities, legal support, psychological support, technical support, and social media reporting tools. Nevertheless, more than half of them (56%) knew about the available government support system, but they chose not to seek help from them. Similarly, 44% were aware of their rights as DVAW victims and community support entities that could help them but chose not to seek their support. In addition, about one-third knew about the technical support available for DVAW victims and the reporting systems of social media platforms but did not use them. Only 11% knew the psychological support available to them but never used it. Similarly, 11% knew about and used the following services for DVAW victims: government services, psychological services, and social media platform reporting systems. A respondent who experienced DVAW indicated that she had to stop being active online for a long time and travel abroad, hoping things would subside before she went back home. She acknowledged that she subsequently had some confidence issues, stuttered when she talked, and feared expressing her true feelings.

Figure 9: Awareness of available support for DVAW victims



Interviewee (A1) admitted that DVAW did not have a serious impact on her. She said, "I get angry when I read inappropriate comments on my accounts. But nothing serious." Yet, she acknowledged, "I witnessed a few cases in which women virtually disappeared for a long time and stopped posting. In addition, these women struggled with depression." Interviewee (A2) affirmed, "[i]t's very annoying to cope with it or even accept it. The impact on me personally is that I don't feel safe, even if there are a lot of regulations and rules and security, sometimes it happens, and you literally find no one around you."

Interviewee (A3), as an expert in gender studies, believed that even though DVAW is universal, the consequences in conservative societies such as SA are more serious, especially because of the seriousness of families' and society's reactions to such a phenomenon, the limited space of freedom, and the concern for one's reputation. She continued, "*[g]enerally speaking, and even though I do not have any* [DVAW] *experience, it is expected to blame the victims for not knowing enough about technology to protect themselves or for sharing personal pictures online. In addition, blames might be accompanied by punishments based on the educational and cultural/financial class of families*."

Commenting on DVAW incidents (A5) faced, she acknowledged:

> *"When a man sent me a photo of his genitals, I was shocked, and I felt violated; my boundaries were crossed for no reason or fault of mine. I could not tell my parents, and when I once did, to seek support, I was blamed. My nerves broke down, and I was not able to sleep as a result, for days in a row, until I made peace with the fact that people will just express who they are, wherever they come to be, online or offline. I say the same thing to women or girls who report such incidents to me. This may have resulted in the cessation of writing online and, eventually, in me, leaving all social media, but this does not contradict the need to take action to stop the violence, like reporting to authorities, depending on the gravity of the situation, or to the platform alone, and blocking, because running away without dealing with it every time is just a traumatic response leading to no resolution."*

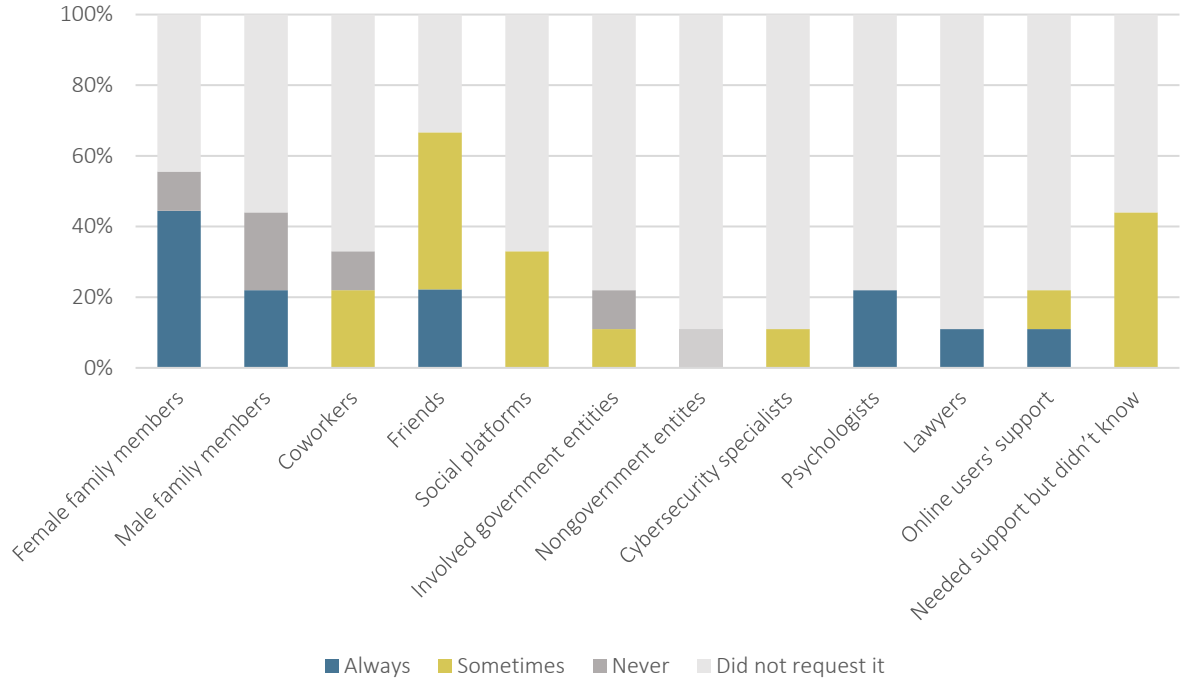
As noted earlier, anonymity can empower social media users to commit aggressions. This is evident in the percentage of respondents who indicated that their reaction to the violence would have been different if they knew the identity of the aggressors. Identifying the aggressor disarms him. As shown in Figure 10, 50% of the respondents thought that they would have acted differently if the attacker were known to them, whereas 30% said that they would have acted the same. Three respondents indicated that, had they known the aggressor, they would have personally contacted him. While one did not mention what she would have done, the second said that she could have told someone she trusted to deal with him, and the third

mentioned she would have filed a complaint using the government system of cybercrime services. Another respondent indicated that she had, indeed, requested support from the anti-cybercrime service government agency (Police Declaration or *Kollona Amn-kamnapp*), but nothing happened. However, interviewee (A4) confirmed that a friend used this service, and the man was arrested by the police.

Since it was observed that SA has taken several initiatives to combat violence, digital violence, and cybercrime in general, the respondents were asked what support systems they sought, and as shown in Figure 11, the majority did not request any support. This may be because the respondents felt that they did not need any support, or they were afraid of being blamed.

Figure 10: If the aggressors' identity were known, would they have reacted the same?

Figure 11: Where DVAW victims received support



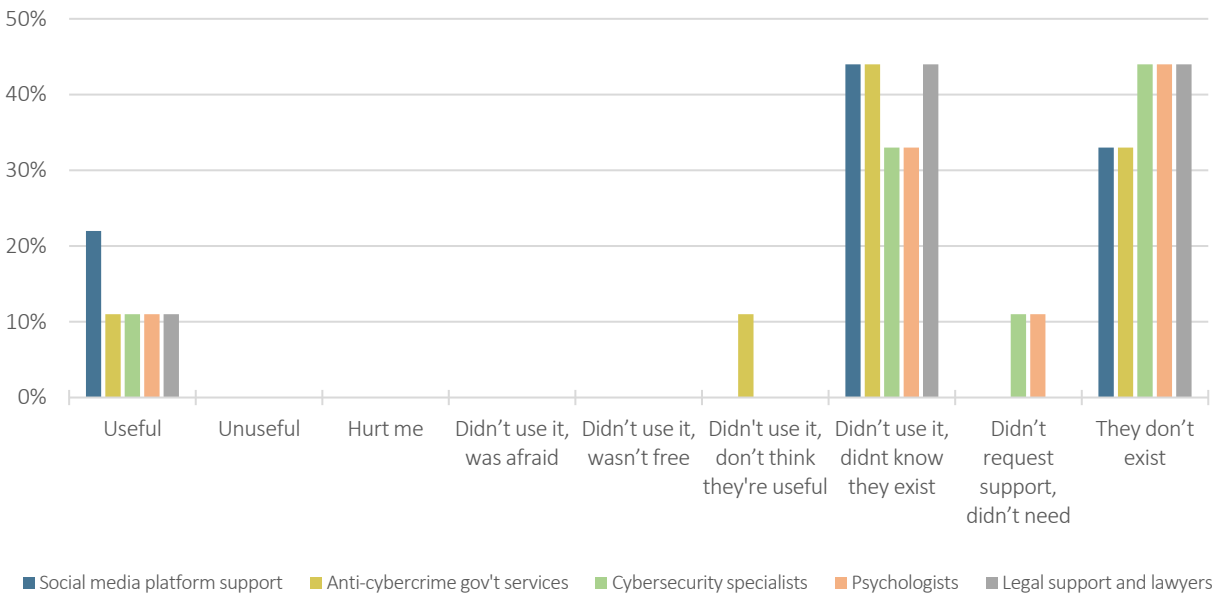
However, the most important support systems were female family members, friends, and social media platforms, with percentages of 44%, 44%, and 33%, respectively. Only 22% sought support from their male family members or from psychologists. The least significant support systems were lawyers and other social media users, with a percentage of 11% each. This could be a result of the respondents feeling that these acts of violence are not severe enough to seek an attorney, or because the identity of the aggressor is unknown. This was as evident in their responses when they were asked about their reactions when the identity of the aggressors was known (see Figure 10).

Interestingly, 56% of the respondents knew about the available government support systems but decided not to use them. As noted earlier, this could be because these violent acts are not serious enough, or they do not trust these services. It is worth noting that 66% of the respondents were aware of their rights as DVAW victims, and 67% knew about government support systems. Accordingly, more needs to be done to educate women and victims equally about other support systems available in SA.

Interviewee (A3) mentioned that she and women around her are fully aware of their rights as women, and they always seek legal consultations concerning specific issues. She believed that to be aware of their rights, women's level of education and access to knowledge sources are vital. (A5), as an expert, acknowledged that discussing such incidents is still challenging in our society, especially for young women and men, and it is difficult to acknowledge the victims of such violence due to the distanced relationships among family members, their busy schedules, and the frequent use of technology.

The respondents were asked to evaluate the quality of the support they received when they experienced DVAW. As shown in Figure 12, 22% of the participants thought that the social media platform support system was useful, whereas no more than 11% believed that the other systems, namely, anti-cybercrime government services, cybersecurity specialists, psychologists, legal support, and lawyers, were useful. Notably, 11% indicated that they did not use anti-cybercrime government services because they were not useful. Some of these services were not needed; thus, 11% of the participants did not require cybersecurity specialists or psychologists.

Figure 12: DVAW victims' evaluation and knowledge of support systems



With reference to the participants' knowledge of the existence of these services, 33% to 44% of them did not use any of these services because they did not know that they existed or said they did not exist. Unfortunately, one of the respondents acknowledged that she did not know what to do with an aggressor living outside SA who had been stalking her since 2011. One of them explained that she needed legal action to take against an aggressor, but this did not occur. She did not elaborate on why she could not take such legal actions even though a few attorneys' websites offer legal services and actions against extortion and cybercrimes. One of the respondents who was a victim of DVAW admitted that people usually do not understand what a victim might go through after experiencing digital violence, and often victims are blamed because these women are subjected to violence due to the novel, different, and unconventional ideas they express online. She felt the need to clarify that she had never supported feminism or cohabitation (men and women living together without marriage). She elaborated that her ideas concerned women achieving financial independence and being self-sustained to empower them to make better decisions.

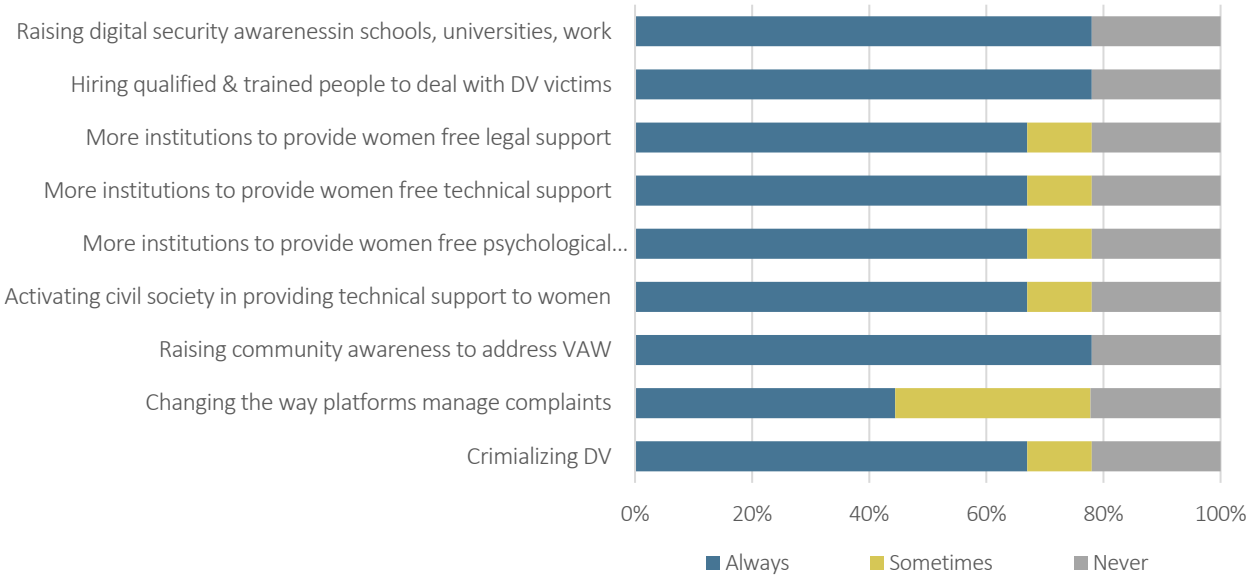
As interviewee (A1) argued, "*[w]omen usually expose aggressors' verbal abuse by sharing it with their followers to allow people to discipline them. Many social media users, especially followers, comment and defend women. I think this is a useful way to address such behavior because many aggressors dislike it which discourages them from doing so again. Most of the time, these aggressors, both male and female, stop and disappear, but sometimes argue back with followers when they are attacked. Of course, this is when the abuse is public, but it is more often than private one*."

Regarding the support provided by social media platforms, interview (A1) said, *"[t]hey do not take any action against verbal violence; and to close someone's account, this account needs to be reported by many users. Even if the account is closed, the consequences are not serious*." Interviewee (A2) said that the Saudi government established laws concerning cybercrime. They always send text messages and conduct awareness campaigns to educate both citizens and residents regarding these laws. She said in SA "*[a]ny person who commits one of the following cybercrimes shall be subject to imprisonment for a period not exceeding five years and a fine not exceeding three million riyals*." Interviewee (A4) believed that the government system is useful because one of her friends was harassed online by a man who hacked her phone and posted her pictures online, and she reported him to the government, leading to his arrest.

Potential Solutions to DVAW

In an attempt to combat DVAW and help victims in SA, the respondents were asked to evaluate suggested solutions and preventative or protective measures in this research. As shown in Figure 13, more than half the respondents believed that the suggested solutions were 'always' useful for preventing DVAW. On the other hand, 22% indicated that these suggested measures would never prevent DVAW or protect DVAW victims, which means they would not use them if they were available, whereas 11% believed that they might sometimes help. However, 33% believed that social media platforms needed to change the manner in which they managed complaints to prevent women's exposure to DVAW.

Figure 13: Perceived usefulness of preventive/protective measures



Interviewee (A3) argued that addressing VAW in general and DVAW in particular is a serious phenomenon, because social media platforms have become the most widely used means of communication among people, especially youths who are not aware of digital threats and do not have psychological immunity against the consequences of DVAW. Accordingly, she indicated that various governmental organizations need to educate communities on DVAW and how to deal with it, making effective solutions public knowledge. Some of the respondents showed their willingness to participate in awareness campaigns to educate women about their rights and how to protect themselves when exposed to digital violence. Their readiness to participate demonstrates their awareness that many women are not aware of DVAW, how to address it, what support systems are available, and when to seek help.

Having established that most respondents who were exposed to DVAW believed that they are targeted because they are women, some of them did not expect that there would be any single solution to stop this kind of violence. This is because they shared the view that the results of DVAW are multifaceted; for example, the aggressor knew that he would not be exposed and felt safe because his identity was unknown; men in the Saudi culture were accustomed to treating women as minors and to taking decisions on their behalf because of the earlier guardianship law. Men have, therefore, a sense of superiority and feel that they are the guardians, in charge of protecting women's honor, and rather feel responsible for any mistakes she makes. Finally, some women justify men's harassment and violence online or offline and do not report it because they were brought up in a culture that normalizes discrimination against them and forgives men's erratic behavior, with women or otherwise. She would blame herself for the violence that occurred by saying something along the lines of 'I shouldn't have posted that,' 'I was laughing too loud,' or 'I should have covered my face.' It seems that the presence of men alongside women, who are not family, and whom they have no power over, in the virtual world does not help to make men less patriarchal or less patronizing. They still act like they are the guardians of all women online.

Similarly, interviewee (A1) said, "[t]here is no way DVAW can be addressed and ended by the government because the source of such violence is more cultural, as men believe that they are the evaluator of women's ideas and behaviors even when these women are not their relatives. So, all they can do is put laws to discourage aggressors, just as they did regarding Saudi women's driving. Many men do not like it, but laws prevent them from acting on how they feel."

Regarding the measures taken by the Saudi government, she said, "[t]hey have cybercrime laws, but the issue is that the widespread type of DVAW, which is verbal violence, is unreportable. I myself experienced some, but I cannot report someone who said something I feel like he should have never said such as 'go to the kitchen'95 out of fear I'd be called childish. This kind of violence is difficult to report and more difficult to regulate." She continued, "[o]ne female influencer received what is beyond verbal abuse, defamation. It was slandering and falsely imputing unchastity or adultery. I think these women should report such slanderous disrepute because there is an Islamic punishment for it, and it is easy to prove it, but women do not do so." She believed, "[t]hese aggressors were praised and encouraged by deep-rooted cultural norms, unlike in Western cultures, where civil laws and borders do not allow people to violate each other. In such a society, the aggressors will be attacked and rejected by users unlike our society that forgives or rewards such aggressors." Interviewee (A4) believed, "[w]omen should be respected, and men should be taught to respect women even online. They also need to respect their content. I know many women who can have important content online, but their parents or husband prevent them from being online because they know that they might be abused especially by men. There are laws, but people need to learn how to respect each other to have a safe space online."

Interviewee (A2) indicated that "Saudi women are now empowered to track and get them [aggressors] into jail, especially after Saudi women's rights were established two years ago. But they still experienced digital violence because aggressors are anonymous and online harassment is accessible." Thus, "[t]here should be a truly accessible hotline to report digital violence. To prevent DVAW, we need to raise awareness of digital violence, taboo subjects, and hate speech. The problem, especially in SA, is inequality between men and women. Although Saudi women are now empowered and have the rights they have never had before, men are not yet coping with it. This is why women are more prone to digital violence." Yet, interviewee (A3) highlighted the importance of establishing government and non-government organizations that deal with VAW/DVAW within the given social context, effectively, confidentially, and easily.

Interviewee (A5) argued that young women sometimes are blackmailed because of personal pictures they have sent online to someone (without a hijab). Due to their fear of punishment and ruining their reputation if people find out, they decide not to share their problems with family members. Accordingly, to address this issue and offer solutions, she encouraged parents to foster healthy relationships, build communication and respect, and develop trust to support and protect their daughters from online predators. This is pivotal because virtual drug and human trafficking are on the rise. She suggested that SA offers more supporting tools to protect people, especially women, from online cybercrime.

Finally, this study suggests that social media platforms take a more proactive role in preventing DVAW and abruptly reacting to protect those who experienced it. For example, Instagram acknowledged that digital violence and offensive comments are a growing form of violence and, hence, attempted to prevent violence and provide a peaceful environment for everyone. It started to alert users before they leave a comment with a message asking them to help keep Instagram a supportive, inclusive place. If a comment contains hateful words, Instagram asks users to reconsider it before posting. It was claimed that the number of inappropriate comments decreased because of this pop-up message.96

[95] In the Arab world, there is a common gender stereotype that women should be domestic and that they belong in the kitchen or to serve their families. It is used to belittle women and their opinions.

[96] Mosseri. A. (2021). Introducing New Ways to Protect Our Community from Abuse | Instagram Blog.

Conclusions and Recommendations

This study aimed at exploring DVAW in SA through a mixed method approach of quantitative surveys and qualitative interviews coupled with a desktop review and the researchers' professional expert analysis.

It was found that one fourth of women who use the Internet in SA had suffered from at least one type of DVAW, and that the most common forms were receiving verbal abuse or inappropriate pictures and stalking. The most common platforms where violence occurred were Instagram and Twitter (X). Most incidents were perpetrated by men or persons of unknown gender. It also seems that the sources of DVAW as well as misogyny are deeply rooted in the patriarchal system of the Arab culture. One third of the sampled victims considered suicide, while the majority became more careful online. The respondents who were subject to DVAW said that they were being targeted for the opinions and views they expressed as women. The findings show that there is high awareness of the laws and institutions that could be used to protect women online; however, they are rarely used, mainly because of the culture of normalizing DVAW, and the victims' reluctance to get authorities involved. Moreover, although the laws and institutional systems do not address DVAW in particular, they could be more effectively implemented should those in charge of applying them choose to do so.

While conducting this study, a number of challenges were faced relating to respondents' willingness to participate (to the survey and interviews) due to their awareness of the strict cyber laws and government censorship. This could also be due to distrust, safety concerns, previous marginalization, or ongoing normalized discrimination. Government censorship could be a two-edged sword that may lead to atrocities and pose a threat to the rights of law-abiding citizens. Accordingly, government censorship needs to be used solely where necessary and justified, to gain people's trust and provide a safe space for them to discuss what affects their livelihood and well-being. Another challenge is the lack of an active civil society working in this field in the country, or even statistics about DVAW in SA, which makes it difficult to find subject matter experts.

SA embraced a digital shift in lifestyle, acknowledging and responding to the existence of digital violence worldwide. Accordingly, new laws were put in place to combat growing cyber threats, including digital violence. However, the results show that the implementation of these laws in a gender responsive manner is lacking due to the dominant culture.

To combat cybercrimes, the Saudi government was among the first Arab countries to quickly not only establish laws to govern Internet use but also to develop procedures and reporting tools, such as the easily accessible online application 'Kollona Amn-kamnapp.' Nevertheless, the results showed that many women did not always find it useful.

Therefore, to combat DVAW, a few institutional (e.g., government entities, media, and schools), legal, technical, and social recommendations can be derived from the interviews and surveys related to laws, regulations, and campaigns. These include:

1. **Regular amendments of cybercrime legislation:** First, a clear definition of what DVAW entails and its various classifications must be established; one that is inclusive and updated regularly. To achieve deterrence, DVAW should be criminalized, and its perpetrators prosecuted and penalized and for the public to know about them. Preventative and punitive laws concerned with DVAW need to be clear and in tandem with international and regional laws against it to facilitate tracking offenders from outside the country's borders as well. Also, it is important that cybercrime laws keep up with the constant technological advancements, and, at the same time, guarantee that these laws are implemented by assigned courts, authorities, and support services, in a gender responsive manner. This can be achieved by hiring more women police officers, service providers, and first responders.

2. **Public awareness campaigns** could be conducted to identify and denounce DVAW, eliminate all forms of VAW, and educate the community about the laws concerning such violations, encouraging women to report them. Involving schools, mosques, media outlets to contribute, a wide collaboration is needed to educate Internet users, of all ages, on the importance of women's online presence, DVAW harms, (digital) rights, and privacy issues. More needs to be done to unroot discriminatory attitudes against women and to empower them to report aggressors and speak up. In addition, women could be further empowered through technical and cybersecurity training courses in the educational system to protect themselves from any form of violence and extortion.
3. **Legal, technical, and psychosocial support:** SA should activate the role of various support mechanisms, to reduce VAW and establish programs to provide various free services, including, but not limited to, cybersecurity and psychological, social, and legal services. SA needs to encourage individuals, including researchers and experts, to participate in the eradication of DVAW, but there is opportunity to encourage the establishment of civil society organizations to actively engage in research. They can also assist in supporting victims, educating men about gender equity and equality and the social consequences of DVAW, denormalizing (D)VAW, and collaborating with religious and educational institutions to organize campaigns to raise awareness or initiate policy update.
4. **The role of social media:** In addition to educating their users about DVAW, social media platforms, especially Instagram and Twitter, where most violence occurs, need to hold users who commit any acts of violence responsible and face consequences. These platforms must create deterring and cautioning measures against potential offenders and have a rapid response mechanism to DVAW cases on their platforms, including identifying repeat offenders, blocking their IP addresses, and blacklisting them.
5. **Research and data sharing:** A government research center or department concerned with documenting different forms of violence needs to be established, and experts need to be hired to deal with such cases and provide accurate numbers and statistics to address this issue efficiently, especially sensitively, when the violence is targeting women.

Finally, future studies need to delve deeper into how women's digital experience impacts their behavior and how they react to abuse. They could explore the difference in the DVAW women face based on their geographies, in line with the cultural variation between the regions in SA: Eastern, Southern, Northern, Hijazi, and Najdi. Another future research topic could be the prevalence and impact of digital violence against girls (under 18 years of age), as the scope of this study was 18+ years. The findings of this study showed that girls may be more vulnerable to violence because of their lack of experience or confidence. Since influencers could not be reached or convinced of participating in the present research, it may be of interest for future research as well because they are more visible and accessible than other women in SA. Also, since Saudi women were given back many of their rights by the current sovereign, they have been given more access and opportunities they have never had before, and men are not yet coping with these fast-paced top-down changes. The effect of these changes on society warrants further research.