

Digital Violence against Women and its Effect on Women and Society from the point of view of Female Saudi University Students

By

Dr.\ Wedad bint Abdullah Nasser Sharaby

*Associate Professor of Pedagogy at the Faculty of Education, Al-Kharj ,
Prince Sattam Bin Abdulaziz University Saudi Arabia

Abstract:

This study aimed to investigate forms of digital violence against women, its causes, and its effect on women and society from the point of view of Female Saudi university students. The study followed the descriptive analytical method; And to achieve the purposes of the study, a questionnaire was prepared, which consisted of (27) statements distributed to three main axes addressing the forms of digital violence against women and its causes and effect on women and society. The study sample included (418) female students at the bachelor's, master's and doctoral levels in a number of Saudi universities. The study findings showed that the respondents agreed to all aspects of the questionnaire to a high degree, with impersonating a woman's digital identity and broadcasting indecent clips through women's personal accounts being the most common forms of digital violence against women; Among the reasons why women fall victim to this violence: random acceptance of friend requests, and the desire of the perpetrators of digital violence to blackmail women financially; The study also showed that digital violence against women leads to an increase in cases of family dysfunction, and women feel a loss of trust in those around them. Through these findings, the study recommended working towards raising the level of digital culture among Female Saudi university students, women in general, and informing them about their rights to express their opinions in digital environments, and conducting more studies on digital violence against women.

Key words: digital violence against women, forms of digital violence, causes of digital violence, effect of digital violence on women and society.

Introduction:

The world today lives in the shadow of the second digital revolution, which led to inclusive developments in the lives of modern humans, and this revolution was reflected in the emergence of several digital forms in daily, scientific and practical life, including the rise of digital learning, digital games, digital or electronic commerce and digital currency, electronic shopping, communication via social media, using smart devices at home or at work, and other developments in today's world.

And despite the positive developments brought about by this revolution in most areas of life and work, it led to the emergence of many negative aspects and problems resulting from the tendency of some users of smart devices, instant communication applications, digital platforms, or those who frequent social media sites, to practice new forms of violence against other users, and the term Digital Violence appeared to express these behaviors; Melhem (2021, 11) explains that this term refers to using words and other means in a malicious way that manifests careful planning though used to offend others, whether by threats, provocation, insulting, etc.

Digital environments witness multiple forms of digital violence that represent an extension of the violence practiced against women in the real world, and represent a new form of social inequality that exists between men and women, and which exists on a large scale in all societies (Montesanti, 2015, 3), and thus these environments represent a new field in committing violent crimes against women, and digital violence is often viewed as more serious than real-life violence (Martinez and Duran, 2019, 814).

The danger of digital violence is due to it being hidden and incorporeal violence, which leads to limiting women's ability to exercise their rights and enjoy their personal freedom in their environment and society (Rashid, 2016, 123). In addition, a single tweet or post that is offensive to women can become a barrage of hatred within a few minutes, and its spread exceeds the usual restrictions, whether temporal or spatial (Jami, 2022, 462).

Many digital environments are described as misogynistic environments, and witness many forms of violence, which include receiving images or symbols with sexual content, inappropriate phone calls, receiving insulting and hateful messages, in addition to direct sexual blackmail (UN Women, 2021, 3), cyber harassment, cyber stalking, defamation, email spoofing, cyber hacking, up to what is known as virtual rape (Singh, 2015, 65), and in many countries, women suffer from Digital Voyeurism, where many of them are filmed secretly in changing rooms and other public spaces, and these images are digitally falsified and manipulated. This is very common in South Korea, where 7,000 women in 2017 found offensive video clips of them on pornographic sites (UN, 2020, 27). Digital violence may sometimes turn into reality, as some resort to collecting available information about women through social media or other digital platforms, including information such as: their name, photo, and place of work, with the aim of harming them in real life (Harris & Vlitis, 2020, 328).

Several studies (Younis, 2023; Jami, 2022; Wasar, 2021) mentioned the report issued by Amnesty International in 2008, and known as "Toxic Twitter", which explained that Twitter witnessed many cases of digital violence against women because they speak about certain issues or because they are public figures, and that the abuse that women are exposed to is often of a sexual and sexist nature: The reporter also revealed that approximately 20% of women in the United Kingdom, and 25% of women in the United States felt that their families' safety was compromised after they suffered digital violence.

A study conducted by the Fundamental Rights Agency in 2014 about violence against women, concluded that sexual harassment and gender-based violence are a common experience for women in the European Union, and that digital violence is a great threat to the wellbeing of women and girls (Kavanagah & Brown, 2019, 382). The issue of digital violence against women and its growth were recognized at the European level, where the Gender Equality Strategy promulgated by Council of Europe acknowledged the consequences of online behaviors that amount to sexual and violent threats to women's online participation (Baker & Juras, 2020, 2).

UN Women (2021) conducted a study about digital violence against women in the Arab World, which included 14 Arab countries, and the findings showed that the digital space was not safe for women in the Arab world because of digital harassment, and about 16% of the study sample had been exposed to at least one incident of digital violence during the year preceding the study; the responses of 33% of the women showed that they had been exposed to physical violence by family members after reporting cases of digital violence, and 25% of the men participating in the study mentioned that women who show their photos and videos should accept that these materials can be used against them by others.

The spread of this kind of violence led to the rise of a huge network of organizations online, with the aim of finding solutions to this global problem, with the website of "End Violence Against Women" project being one of the most important gathering places for these effective efforts, and the project implemented many campaigns against social media sites, including a campaign against advertisements that degrade women, and include images of domestic violence and rape fantasies (Reed, 2018, 164).

Many countries have passed legislation and laws to reduce these crimes, as a law was issued in Germany imposing a penalty of up to 50 million euros on social media networks that fail to delete comments that are considered a violation of German law, South Korea enacted a law against digital violence in (2011), the Philippines' Anti-Digital Voyeurism Act was enacted in (2010), India's Information Technology Act in (2008), and Pakistan passed the Cybercrime Act (2019).

In the Arab world, the United Nations (2021, 6) mentioned that the Kingdom of Saudi Arabia, Egypt, Morocco and Lebanon are among the leading Arab countries in the field of enacting laws that criminalize digital violence and punish harassment that occurs through social media platforms; These countries have allocated multiple communication channels to help victims of digital violence. Despite the importance of drafting legislation that provides full protection for women in digital environments, this is not sufficient generally.

Rather, women and society must have full awareness of the seriousness of this matter. In the context of seeking to raise women's awareness of digital violence and provide them with the necessary protection. The study of (Nasrawi, 2021) indicates the use of technology in this field, through a number of digital applications aimed at informing women of their rights, enabling them to quickly report crimes of digital or real violence via email to the competent authorities, and the possibility of making audio recordings or video clips as evidence of conviction against the perpetrators, including the Streetpal application in Egypt, Secuella in Morocco, and SafeNes in Tunisia.

Through this growing interest in the phenomenon of digital violence and its danger to women and society in general, many previous studies have focused on examining this phenomenon from multiple aspects and the extent of its spread around the world. The study of Manpreet and Munish (Mapreet & Munish, 2023) indicated that these crimes increased by 63% in India between the years 2018-2019, which called for taking many measures to combat this digital violence, with the participation of the Ministry of Women and Child Development and the competent authorities in combating cybercrimes; These authorities have allocated landlines to support women and websites specialized in this matter, and legislative authorities have issued strict legal provisions to reduce crimes and digital violence against women. The study of (Powell & Henry, 2019) showed that the rates of digital violence reached 25% for women compared to men, and that women aged 18-24 years are the most vulnerable to this kind of violence.

The study of (UN, 2020) indicated that women face digital violence in many societies because they deviate from gender norms and expectations, and this could lead to murder, which happened in a Pakistani village where four women were murdered because of a video clip of them clapping and singing in a private wedding, although the video was not published by them.

(Araujo et al., 2022) made a systematic review of previous studies addressing digital violence against women, and the study included a review of about 30 previous studies conducted between 2016-2021; This study showed that women are exposed to digital violence to a greater extent than men, and that digital violence occurs at a rate of 27 cases for women compared to one case for men, and the aggressive tendencies of men against women are expressed in digital environments in multiple forms, and although women are victims of digital violence, they are also vulnerable to blame and reprimand in this case, and the study showed that the age group 18-35 is considered the group most likely to be victims of digital violence. The study also showed that the pace of technical development exceeds legal developments, and this leads to the absence of rules that actually protect women from inappropriate behavior in digital environments.

The study of (Hassan et al., 2020) explained that the most common forms of digital violence are: receiving images or symbols of sexual content, offensive e-mails or messages, making offensive or insulting posts or comments, receiving indecent or violent images that degrade women, and receiving files containing viruses via e-mail messages. The study explained that about (77%) of the victims were mentally affected, as they felt angry, anxious and afraid, and the most common response in these cases was blocking the perpetrator, and the police was not informed about any of the cases included in the study. The study of (Mosaedi, 2020) added that the exposure of women, in Arab societies in general, to electronic harassment pushes them to hide behind fake names when building their virtual identities on social media, and that this disguise allows them to express their opinions more freely and independently, and that family objections to them using these websites is one of the reasons why they do not reveal their true identity across these websites.

The study of (Jami, 2022) explained that electronic violence and harassment against women via social media is one of the worst experience that women go through, and these experience leave them with devastating psychological effects, starting from the moment they occur and continuing to haunt women throughout their life. The study of (Cripps & Sterman, 2018) revealed a correlation between female university students' exposure to experience of digital violence and their struggle with symptoms of anxiety, stress and depression, and low levels of emotional wellbeing. While the study of (Harris & Villitis, 2020) indicated the negative effects of digital violence on women's private, public and professional lives; This study explained that this violence might occur by known or unknown persons to women, and emphasized the need to provide social and technical protection for the victims of digital violence, and gave an example of the famous hashtag "Me Too," which was launched in 2017 as a free space in which abused women narrate their experiences with digital violence.

Digital violence also leads to many negative implications for society, including causing psychological and economic damage that hinder women and girls in their private lives, significantly undermine women's opportunities for education and employment, and limit their ability to earn income and advance in the workplace; All of this limits women's participation in social life and economic development, and poses an obstacle before human development, women's empowerment and gender equality (UN, 2020, 21).

What was presented above demonstrates the seriousness of digital violence to which women are exposed in various countries around the world, and that this phenomenon adds a new form of negative discrimination against women in digital societies, in addition to what they face in real societies, and places contemporary women in confrontation with extra challenges to their participation in different social activities or work life.

Study problem:

The phenomenon of digital violence against women is widespread with the spread of the use of the Internet and the use of various social media sites around the world, and despite the fact that women at different ages are victims of this digital violence in its many forms, a number of previous studies (Pencio & Duran, 2015; Censure et al., 2016; Cripps & Stermac, 2018; Powell & Henry, 2019) have shown that university students are the most exposed to this form of violence, and that this violence has a negative effect on the mental and social lives of these students. The study of (Baker & Juras, 2020) showed that this digital violence is not only a challenge to gender equality and social protection of women, but the natural outcome of this violence is silencing women and excluding them from digital spaces. The study of (Abd Al-Rahman, Abd Al-Fattah, & Abd Al-Hai, 2022) adds that female university students' exposure to digital violence leads to their weak self-confidence, inability to perform their duties, losing their confidence in themselves and society, and their willingness to give up their ambitions to please society.

And despite the seriousness of this phenomenon, the researcher noted the scarcity of studies conducted in the Kingdom of Saudi Arabia-as far the researcher knows-which address the issue of digital violence, as the researcher only found a study by Al-Gasser (2021) which sought to detect cyber-crimes practiced against Saudi women and their correlation with personal traits of the victim used in new media; This study revealed that the most common cyber-crimes Saudi women are exposed to are: cyber-hacking, sexual crimes, financial crimes, defamation, and theft of personal information. And the study by Qotb (2022) which showed that Saudi women were exposed to cyber-bullying for multiple reasons, most notably: external appearance, what women post about their daily lives through social media, and the difference of their opinions and orientations from others.

From the above, the interest of the current study was directed to studying digital violence against women and its effect on women and society from the point of view of Female Saudi university students. The problem of the study is summed up in answering the following main question: "What are the forms of digital violence against women and what are its causes and effects on women and society from the point of view of Female Saudi university students?", and the following sub-questions branch out from this main question:

1. What are the forms of digital violence to which women are exposed from the point of view of Female Saudi university students?
2. What are the causes of women's exposure to digital violence from the point of view of Female Saudi university students?
3. What is the effect of digital violence on women and society from the point of view of Female Saudi university students?
4. Are there statistically significant differences in the responses of the sample individuals of Female Saudi university students regarding digital violence in terms of its forms, causes and effect on women and society according to the variable of academic level?

Study purposes:

The current study seeks to achieve the following purposes:

1. Understanding the forms of digital violence to which women are exposed from the point of view of Female Saudi university students.
2. Defining the causes of women's exposure to digital violence from the point of view of Female Saudi university students.
3. Detecting the effect of digital violence on women and society from the point of view of Female Saudi university students.
4. Investigating the significance of differences in the responses of the sample individuals according to the variable of academic level.

Significance of the study

- Theoretical significance
 1. The novelty of the phenomenon under study, as digital violence against women appeared with the spread of the use of social media, the easy access to these sites through many media, and the scarcity of Arab studies in general, and Saudi studies in particular that were interested in this phenomenon.
 2. Highlighting the issue of digital violence against women, and attracting the attention of researchers to conduct more studies on this phenomenon in Saudi society.
 3. The study comes in line with the official efforts of the Kingdom of Saudi Arabia in the field of combating violence and crime in digital societies in general, especially Through the issuance of the Anti-Electronic Harassment Law in the Kingdom of Saudi Arabia in 2018.
- Applied significance
 1. The study may contribute to increasing awareness among female university students and other users of social media about the nature of digital violence, and the possible reasons for them becoming victims of this phenomenon.
 2. The study may contribute to creating comprehensive legislations that provide full protection for women in digital communities, and impose appropriate punishment on perpetrators of crimes of digital violence against women.

Limits of the study

Topic limits: the study is confined to digital violence against women in terms of its forms, causes and effects on women and society.

Spatial limits: Jeddah University, Imam Ibn Saud University, Prince Sattam Bin Abdulaziz University, Northern Border University, University of Hafr Al Batin, and Najran University.

Human limits: female university students at the undergraduate and postgraduate levels in the universities under study.

Time limits: the first semester of the academic year 1445 AH.

Study terms**Digital violence against women**

During her review of previous studies, the researcher noticed the use of many terms to refer to digital violence, including cyber-violence, or online violence. The term violence against women and girls committed through information and communications technology (ICT Violence against Women and Girls (ICT VWAG) is also used), and the most common term is digital violence.

The United Nations defines digital violence against women (UN, 2020) as a comprehensive concept for all cases of violence committed using information and communications technology, including: online stalking, bullying, and harassment across multiple platforms; Attacking someone for comments, accessing, uploading or publishing intimate photos, videos or audio clips without consent, accessing or publishing private data without consent, sexual blackmail.

The researcher defines it procedurally as all practices aimed at harming women in digital environments. These practices target women intentionally, and include all cybercrimes and all forms of harassment, bullying, and other practices in digital environments, and are expressed in voice, text, or via video clips or emojis.

Study methodology and procedures

Study approach: The study followed the descriptive analytical approach, which is known as one of the forms of organized scientific analysis and interpretation to describe a specific phenomenon or problem, and depict it quantitatively by collecting and analyzing standardized data and information about the phenomenon under study, and subjecting it to careful study (Suleiman, 2014).

Study population and sample:

The study population consisted of all Female Saudi students at the undergraduate and post-graduate levels in the following Saudi universities: Jeddah University, Imam Ibn Saud University, Prince Sattam Bin Abdulaziz University, Northern Border University, University of Hafr Al Batin, and Najran University. Their number reaching about 190000 students.

The size of the sample was calculated using Herbert Arkin formula (Bishmani, 2014):

$$n = \frac{P(1-P)}{(SE/t) + \left(\frac{P(1-P)}{N}\right)}$$

Where (n) is the sample size, (N) is the population size, (P) is the probability value of 0.5, SE is the value of the standard error (0.05), and (t) is the standard score of 1.96 at a confidence coefficient of 0.95.

The sample size on this basis was 384 individuals. Accordingly, the questionnaire was sent electronically to a sample of 500 female students in the Saudi universities under study. There were about 418 correct responses received, which represents the number of individuals in the sample. Table (1) shows the distribution of respondents by Saudi universities and by academic level.

Table (1) distribution of the sample by Saudi universities and by academic level

Variable	Level	No.	Percentage
University	Jeddah University	71	17%
	Imam Mohammed Ibn Saud University	188	45%
	Prince Sattam Bin Abdulaziz University	46	11%
	Northern Border University	71	17%
	University of Hafr Al Batin	21	5%
	Najran University	21	5%
	Total		418
Academic level	Bachelor's level	176	42%
	Master's level	129	31%
	Doctoral level	113	27%

Table (1) shows that the respondents were distributed to (6) Saudi universities, and that (42%) of them are bachelor's students, 31% are Master's level students, and 27% are doctoral level students.

Preparing the study instrument

To achieve the purposes of the study, a questionnaire was prepared and it consisted of three axes: forms of digital violence to which women are exposed, reasons why women fall victim for digital violence, and the effect of digital violence on women and society. The questionnaire was developed by referring to a number of previous studies (Younis, 2023; Abd Al-Rahman et al., 2022; Jami, 2022; Al-Gasser, 2021), and it consisted of (30) items in its initial form, with (10) items in each axis.

Verifying the face validity of the questionnaire: The questionnaire was presented in its initial form to a number of (7) arbitrators, with the aim of verifying the accuracy of the scientific and linguistic formulation of the questionnaire's items, and the correctness of each item's affiliation to the axis within which it falls, and making the necessary amendments or deletion of inappropriate items. The arbitrators recommended reformulating three items and excluding three items due to their inappropriateness, and those amendments were implemented.

Verifying the internal consistency of the questionnaire: The questionnaire was applied to a pilot sample of (30) female students who did not belong to the study sample, and then Pearson correlation coefficients were calculated between the score of each item and the total score of the axis to which it belongs, as well as calculation of correlation coefficients between the score of each axis and the total score of the questionnaire, and the results were as follows: As shown in Table (2) and Table (3).

Table (2) correlation coefficients between the score of each item and the total score of the axis to which it belongs

First axis		Second axis		Third axis	
Item no.	Correlation coefficient	Item no.	Correlation coefficient	Item no.	Correlation coefficient
1	0.899**	10	0.847**	19	0.852**
2	0.784**	11	0.919**	20	0.504**
3	0.760**	12	0.667**	21	0.733**
4	0.817**	13	0.858**	22	0.742**
5	0.543**	14	0.729**	23	0.822**
6	0.818**	15	0.813**	24	0.630**
7	0.858**	16	0.922**	25	0.765**
8	0.785**	17	0.839**	26	0.703**
9	0.877**	18	0.863**	27	0.695**

** a correlation coefficient significant at significance level of 0.01

* a correlation coefficient significant at a significance level of 0.05

The above results show that every item in the questionnaire is correlated by a significant correlation coefficient at a significance level (0.01) with the total score of the axis to which it belongs. Table (3) shows the values of the correlation coefficients between the score of each axis and the total score of the questionnaire.

Table (3) correlation coefficients between the score of each axis and the total score of the questionnaire

Questionnaire axes	Correlation coefficients with the total score of the questionnaire
Forms of digital violence to which women are exposed	0.877**
Reasons why women fall victim to digital violence	0.875**
Effect of digital violence on women and society	0.928**

The results of table (3) show that the total score for each axis of the questionnaire is correlated by a significant correlation coefficient at a significance level (0.01) with the total score of the questionnaire. Taken together, the above results indicate that the questionnaire has a high degree of internal consistency validity.

Verifying the internal consistency of the questionnaire:

Cronbach's Alpha coefficient was calculated for each axis of the questionnaire, and for the questionnaire as a whole, and the results were as shown in table (4)

Table (4) reliability coefficients for each axis of the questionnaire and for the questionnaire as a whole

Questionnaire axes	Number of items of each axis	Reliability coefficients
Forms of digital violence to which women are exposed	9	0.924
Reasons why women fall victim for digital violence	9	0.940
Effect of digital violence on women and society	9	0.869
The questionnaire as a whole	27	0.957

Table (4) shows that the reliability coefficient of the questionnaire as a whole was (0.957), and the reliability coefficients of the axes ranged between (0.869 – 0.940), all of which are high reliability coefficients, indicating the validity of using the questionnaire to achieve the study purposes.

Preparing the questionnaire in its final form: The questionnaire, in its final form, consisted of two sections as follows:

The first section: dealt with introducing the respondents to the subject and purpose of the questionnaire, the method of answering its items, and emphasizing that participation is voluntary in responding to the questionnaire items, and that the results of the study are intended only for the purposes of scientific research, and have no relation to the academic path of the respondents.

The second section: consists of (27) items distributed over the three axes of the questionnaire, with (9) items in each axis. The responses of the sample individuals were estimated according to a five-point scale, and the average relative weight of the responses was calculated by dividing the range (5-1=4), on the number of categories (5), meaning that the length of the category = 0.8, and then adding the length of the category to the smallest score on the scale, which is (1). The quantitative estimation of the responses of the sample individuals and the average relative weight of each response can be clarified and evaluated as shown in a table (5).

Table (5) quantitative estimation of the responses of the sample individuals to the questionnaire

Response	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Quantitative estimation	5	4	3	2	1
Average relative weight	4.2 - 5	3.4 – 4.19	2.6 – 3.39	1.8 – 2.59	1 – 1.79
Response assessment	Very high	High	Average	Low	Very low

Statistical methods

- Pearson correlation coefficient to verify the validity of the internal consistency of the study instrument.
- Cronbach's Alpha coefficient to verify the reliability of the study instrument.
- Arithmetic mean and standard deviation to estimate the responses of the sample individuals to the study instrument.
- One-Way ANOVA to verify the significance of the differences between the responses according to the variable of academic level.

Results of answering the study questions

The first question stated, "What are the forms of digital violence to which women are exposed, from the point of view of female Saudi university students?" The responses of the sample individuals to this question were as shown in Table (6).

Table (6) results of sample individuals responses' to the first axis of the questionnaire

s	Forms of digital violence to which women are exposed	Mean	Standard deviation	Degree of agreement	Order
1	Digital impersonation of a woman	4.01	0.9	High	1
2	Broadcasting indecent clips through women's personal accounts	3.78	1.01	High	2
3	Digitally manipulating women's pictures and displaying them in an offensive manner through women's personal accounts	3.76	1.03	High	3
4	Sending messages containing sexual content via instant communication applications	3.31	1.13	Average	5
5	Spying on a woman's smartphone or computer	2.93	1.19	Average	9
6	Threatening a woman with physical violence if she does not respond to the requests of the perpetrator of digital violence	3.21	1.07	Average	8
7	Showing embarrassing pictures of the woman for the purpose of blackmailing her financially	3.30	1.03	Average	6
8	Publishing personal secrets about a woman without her knowledge	3.40	1.29	Average	4
9	Sharing posts that include sayings and proverbs that degrade women' value	3.24	1.48	Average	7
First axis as a whole		3.43	1.12	High	

It is clear from the above results that the sample individuals agreed with the forms of digital violence mentioned in the study instruments to a high degree in general, and the response to three items was high, and the response to six items was average, and the most common forms of digital violence to which women are exposed, are: impersonating a woman's digital identity, and broadcasting indecent clips through women's personal accounts, digital manipulation of a woman's image, and displaying it in an offensive manner through women's personal accounts.

The least common forms from the point of view of the sample individuals are: threatening women with physical violence if they do not respond to the requests of the perpetrator of digital violence, sharing posts that include sayings and proverbs that degrade women's value, and spying on a woman's smartphone or computer. Some forms were less widespread, as they involved a degree of risk on the side of the perpetrators, such as threats of physical violence, they required greater technical skills, such as tracking a woman's phone, or because these cases may be easy to detect and are not similar to other forms of digital violence that are limited to digital spaces without actually moving to real-life violence.

The spread of some forms of digital violence against women, with greater degrees or averages than others, can be explained by the fact that these forms are considered more harmful to women than others. For example, impersonating a woman's digital identity means creating a false profile through which the perpetrator of digital violence assumes the identity of the targeted woman, thus, he can practice many forms of tricks, deception, and harm to women, and broadcasting indecent clips or digitally manipulating a woman's picture causes her severe psychological harm; The spread of this aspect related to digital manipulation of pictures can be explained Through the multiplicity of applications that allow making adjustments to pictures and manipulating them digitally in a simplified manner, and there are many of these applications spread across smartphones. These results are consistent with what was shown by previous studies that dealt with forms of digital violence against women, including the studies by (Hassan et. al., 2020), (Singh, 2015), (Abdul Rahman et al., 2022), and (Al-Jasser, 2021). And the study by the United Nations (2021).

The second questions: "What are the causes of women's exposure to digital violence from the point of view of female Saudi university students?". The responses of the sample individuals to this question were as shown in Table (7)

Table (7) Results of the responses of the sample individuals to the second axis of the questionnaire

s	أسباب وقوع المرأة ضحية للعنف الرقمي	Mean	Standard deviation	Degree of agreement	Order
1	Women randomly accept friend requests	3.97	1.17	High	1
2	Opening anonymous messages via instant communication applications	3.74	1.29	High	5
3	Women posting their personal pictures on social media	3.32	1.3	Average	8
4	Women add controversial comments on social media	2.89	1.45	Average	9
5	Low level of digital literacy among most users of digital environments	3.47	1.1	High	6
6	Ease of evading legal responsibility in cases of digital violence	3.89	0.79	High	3
7	Weak religious motivation among perpetrators of digital violence	3.84	1.14	High	4
8	Weak deterrent laws for digital crimes	3.35	1.10	Average	7
9	The desire of perpetrators of digital violence to blackmail women financially	3.95	0.89	High	2
The second axis as a whole		3.60	1.13	High	

It is clear from the above results that the sample individuals agreed on the causes of digital violence mentioned in the study instrument to a high degree in general. The response to six items was high, and the response to three items was average. At the forefront of the causes of digital violence to which women are exposed was: women accepting friend requests randomly, the desire of perpetrators of digital violence to blackmail women financially, and the ease of evading legal responsibility in cases of digital violence, and among the items that had an average degree of agreement: the weakness of deterrent laws for digital crimes, women posting their personal pictures on social media, and the low level of digital literacy among most users of digital environments.

These results indicate the need to raise the level of digital literacy among women in particular, and among members of society in general, and the need to take more deterrent measures and enact the necessary legislation to punish perpetrators of digital violence, and raise awareness of those punishments. They also indicate the need to issue appropriate digital applications to raise awareness among women of rights and how to confront the perpetrators of digital violence, as explained by Nasrawi's study (Nasrawi, 2021), such as Streetpal, NesSafe, and Securella applications.

These results can also be interpreted Through what the study of (Qotb, 2022) explained about the reasons for women being exposed to digital bullying because of what they post about their personal lives, or their external appearance, or because they present an opinion that is contrary to the views of others; and the United Nations study (UN, 2020) confirmed this aspect as a cause of digital violence against women, or considering their opinion to be contrary to accepted social expectations and standards. This appears to be linked to the belief of the perpetrators of digital violence in the need to place restrictions on freedom of expression or women's expression of an independent opinion regarding the issues under discussion. On the other hand, it is believed that these perpetrators believe that a woman's use of her name or picture provides a wide scope to inflict more harm on her, as indicated by (Harris & Vlittis, 2020), and these results are also consistent with the results of the study (Jami, 2022) on the weakness of religious motivation as one of the causes of digital violence.

Third question: "What is the effect of digital violence on women and society from the point of view of female Saudi university students?". The responses of the sample individuals were as shown in table (8)

Table (8) Responses of the sample individuals to the third axis of the questionnaire

s	Effect of digital violence on women and society	Mean	Standard deviation	Degree of agreement	Order
1	Illness of women's health	4.11	1.17	High	3
2	Women's loss of confidence in people around them	4.21	1.11	Very high	2
3	Increase in cases of family disintegration	4.32	0.86	Very high	1
4	High rate of negative discrimination against women	3.84	1.35	High	4
5	Working women's loss of their jobs	3.47	1.5	High	6
6	Women are exposed to the risk of being boycotted by those around them	3.37	1.53	Average	7
7	Blaming women for the responsibility of digital violence	3.68	1.13	High	5
8	Preventing women of using smart phones by the family	3.16	1.39	Average	9
9	Decline in the level of women's social activity	3.35	1.35	Average	8
Third axis as a whole		3.72	1.26	High	

The above results indicate that the sample individuals agreed on the third axis as a whole to a high degree, and the responses to the items of this axis came to varying degrees, as responses to two items were very high, responses to four items

were high, and responses to three items were average, and the most common effects of digital violence on women and society were: increasing cases of family disintegration, women's loss of confidence in people around them, illness of women's mental health, and a high rate of negative discrimination against women. Among the items that had an average response degree: women are exposed to the risk of being boycotted and prevented from using smart phones by their families, and the decline in their level of social activity.

These results regarding the multiple effects of digital violence can be interpreted Through the ease with which forms of digital violence spread without time or place restrictions, as indicated by the study of (Rashid, 2016), and they can also be interpreted Through gender inequality in general, and that women are considered largely responsible for the digital violence that befalls them, and their exposure to blame and reprimand instead of support, as the study of (Araujo et al., 2022) showed; and the study of (Hassan et al., 2020) indicated that in most cases of digital violence, official authorities are not informed, which leads to an exacerbation of the effects of this violence and an increase in reprimand of women. These results are also explained by the fact that many women consider that digital violence does not only affect them personally, but rather represents a threat to their families. It is also considered one of the worst experiences they are exposed to, as indicated by the studies of (Younis, 2023; Jumai, 2022).

These results are also consistent with what the results of these studies have shown, in addition to the fact that digital violence against women causes many psychological effects, such as an increase in anxiety and stress, and a direct impact on their personal and professional lives, and these effects and others reflect negatively on society, in terms of increased cases of family disintegration, a decline in women's level of social activity, and their feeling of anxiety about their professional future, as shown in these studies (Abdel Rahman et al., 2022; Harris & Vlittis, 2020; Cripps & Stermac, 2020).

Fourth question: "Are there statistically significant differences between the responses of the sample individuals of female Saudi university students regarding digital violence in terms of its forms, causes, and effect on women and society according to the variable of academic level?" One-way analysis of variance was used to verify the significance of the differences between the responses of the sample individuals of female Saudi university students according to the academic level variable, for each axis of the study instrument, and the results were as shown in Table (9).

Table (9) Results of One-Way ANOVA to verify the significance of the differences between the responses of the sample individuals to the axes of the study instrument according to the academic level variable

Axis	Source of variance	Sum of squares	df	Mean square	F	Significance level
Forms of digital violence	Between groups	148.34	2	74.17	1.804	Not significant at 0.166
	Within groups	17066.91	415	41.125		
	Total	17215.25	417			
Reasons why women are exposed to digital violence	Between groups	32.40	2	16.20	0.316	Not significant at 0.729
	Within groups	21285.97	415	51.29		
	Total	21318.20	417			
Effect of digital violence on women and society	Between groups	26.18	2	13.09	0.149	Not significant at 0.862
	Within groups	36452.25	415	87.837		
	Total	36478.44	417			

It is clear from the above results that there are no statistically significant differences between the responses of the sample individuals of on all aspects of the study instrument, according to the academic level variable. These results can be interpreted Through the widespread use of social media, regardless of their differences, among all segments of society in general, and the high percentage of this use among female university students for various reasons, as demonstrated by the studies of (Abd Al-Rahman et al., 2022; Qotb, 2022), and the high percentage of female targets at that age, as demonstrated by studies of (Powell & Henry, 2019; Araujo et. al. , 2022), and that digital spaces in general are an arena for digital violence against women (Younis, 2023; Jami, 2022). In addition to the previously mentioned ease of committing various forms of digital violence, and the perpetrators' belief that it is easy to evade punishment, or evade legal responsibility resulting from committing digital violence in its various forms.

Study recommendations

Through the above results, the study recommends the following:

1. Working to raise the level of digital literacy among female Saudi university students, and women in general, and making them aware of their rights to express their opinions in digital environments, and enabling them to report the various forms of digital violence they are exposed to in those environments.
2. Working to allocate telephone communication channels, electronic portals, and digital applications via smart phones, with the aim of providing support and assistance to women in the event that they are exposed to digital violence, and facilitating their means of communication with the authorities concerned with combating digital violence against women.

3. Announcing through official or alternative media the penalties due against perpetrators of digital violence, and seeking to enhance the image of women as partners in all areas of human activity, and guaranteeing their rights in real and virtual digital environments.

Acknowledgments

This Research publication was supported by the Deanship of Scientific Research, Prince Sattam bin Abdulaziz University, Al – Kharj, Saudi Arabia.

References:

- Al-Gasser, Shuaa Abdul Rahman. (2021). Cyber-crimes against Saudi women and their relationship to the personal traits of the victim used in new media. *University of Sharjah Journal for Humanities and Social Sciences*, 18 (1), 195 _-233.
- Araujo, A.; Bonfim, C.; Bushatsky, M. & Frutado, B. (2022). Technology-facilitated sexual violence: a review of virtual violence against women. *Research, society, and development*, 11(2), 1-17.
- Barker, K. & Jurasz, O. (2020). Online violence against women as an obstacle to gender equality: a critical view from Europe. *European Equality Law Review*, 1, 47–60.
- Cesur, B., Nur, N., & PI, S.(2016). The Relation of cyber-Bullying and cyber victimization on Loneliness among university students University Students". *International Journal of Current Research*, 8(3), 27725-27730.
- Bishmani, Shakib. (2014). A comparative study of the formulas used to calculate the random sample size. *Tishreen University Journal for Research and Scientific Studies*, 36(5), 85-100.
- Cripps, J. & Stermac, L. (2018). Cyber-sexual violence and negative emotional states among women in a Canadian university. *International journal of cyber criminology*, 12(1), 171-186.
- Harris, B.; & Vlitis, L. (2020). Digital intrusions: technology, spatiality and violence against women. *Journal of gender violence*, 4(3), 325-341.
- Hassan, F., Khalifa, F., Desouky, E., Salem, R., & Ali, M. (2020). Cyber violence pattern and related factors: Online survey of females in Egypt. *Egyptian Journal of Forensic Sciences*, 10(1), 1–7
- Jami, Sajih. (2022). Violence and electronic harassment towards women - studying the forms and manifestations of violence through social media. *Journal of Social Sciences*, 16(7), 455-964.
- Kavanagh, E., & Brown, L. (2019). Towards a research agenda for examining online gender-based violence against women academics. *Journal of further and higher education*, 44(10), 1379-1387.
- Rashid, Marivan Mustafa. (2016). *The crime of moral violence against women*. Cairo: National Center for Electronic Publications.

Reid, T.V. (2018). *Digital Life: Culture, Power, and Social Change in the Internet Age*. Translated by: Nashwa Maher Karamallah. Riyadh: Obeikan Bookstore.

Suleiman, Abdul Rahman Sayed (2014). *Research Methods*. Cairo: Alam Al Kotob, 2014.

Abd Al-Rahman, Mahmoud; Abd Al-Fattah, Nasser; Abd El-Hay, Hossam. (2022). University students' exposure to crime news via Facebook and its relationship to their mental well-being. *Journal of Research in the Fields of Specific Education*, 8(42), 1047-1081.

Qotb, Raghda bint Saud. (2022). Cyberbullying: The concept and motives from the perspective of Saudi women. *Arab Journal of Arts and Humanities*, 6(23), 305-336.

Martinez, R., & Durán, M. (2019). I love you but I cyberbully you: the role of hostile sexism. *Journal of Interpersonal Violence*, 34(4), 812-825.

Melhem, Ibrahim Ahmed. (2021). *Literature and digital audiences*. Amman: Alaan Publishers and Distributors.

Mosaedi, Salami. (2020). Arab women and social media: uses and representations, a field study from the point of view of a sample of female Facebook users. *Al-Hikma Journal for Media and Communication Studies*, 21, 124-146.

Montesanti, S. (2015). The role of structural and interpersonal violence in the lives of women: a conceptual shift in prevention of gender-based violence. *Bio-Med Central women's health*, 15, 1-3.

UN Women. (2021). *Violence against women in digital space*. UN Women.

Nasrawi, S. (2021). *Combating cyberviolence against women and girls: another view of legislative and policy reforms in the arab region*. The Emerald international handbook of technology-facilitated.

Pecino, R., & Durán, M. (2019). I love you but I cyberbully you: The role of hostile sexism. *Journal of interpersonal violence*, 34(4), 812-825.

Powell, A., & Henry, N. (2019). Technology-facilitated sexual violence victimization: results from an online survey of Australian adults. *Violence Against Women*, 34(17), 3637-3665.

Singh, J. (2015). Violence against women in cyber world: a special reference to India. *International Journal of Advanced Research in Management and Social Sciences*, 4(1), 60-76.

Wasar, Nawal. (2021). Digital violence against women: extension of the phenomenon and expansion of forms. *Al-Riwaq Journal for Social and Human Studies*, 17(8), 260-281.

Younis, Mahmoud Al-Gharib. (2023). Gender-based digital violence among female students at Egyptian universities: A study in light of Pierre Bourdieu's theory. *Journal of the Faculty of Education, Al-Azhar University*, 197(2), 323-377.

UNWOMEN. (2020). *Online violence against women in Asia: a multicounty study*. UNWOMEN.