

## AN INVESTIGATION INTO THE PREVALENCE AND PSYCHO-SOCIAL IMPACT OF ONLINE HARASSMENT ON SOCIAL MEDIA PLATFORMS AMONG UNIVERSITY STUDENTS IN PAKISTAN

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### ABSTRACT

The rapid proliferation of social media in Pakistan, especially among the youth, has accompanied the rising concern of online harassment in the world. Students at the university, who are at a crucial stage of their personal and professional growth, are particularly susceptible. But there is a lack of empirical studies in the Pakistani sociocultural environment that measure this effect and its exact psychological and social outcomes. This research aimed to examine the prevalence of social media harassment and its psychosocial impacts among university students in Pakistan. Data were gathered on 00 students from 4 universities in Lahore (2 public and 2 private). A quantitative questionnaire was used for data collection, which was then analyzed through SPSS. Findings showed that 35.3% of participants were victims of online harassment in the last six months, with Facebook (42.8%), Instagram (39.5%), and TikTok (34.3%) being the most common platforms where respondents experienced online harassment. There were significant predictors of exposure to harassment, including gender ( $\chi^2 = 5.76$ ,  $p=0.016$ ), time spent online ( $\chi^2 = 18.53$ ,  $p=0.001$ ), and privacy awareness ( $\chi^2 = 9.81$ ,  $p=0.007$ ). Regression analysis revealed that online harassment had significant negative effects on students' self-esteem ( $\beta = -0.44$ ,  $p = 0.001$ ), academic performance ( $\beta = -0.29$ ,  $p = 0.001$ ), and social anxiety ( $\beta = 0.51$ ,  $p = 0.001$ ). The majority of the victims were using informal coping strategies, which included blocking the harasser (45.5%) and emotional support from friends and family (36.3%), etc. They rarely seek institutional and legal support. So, there is an immediate necessity to have digital safety policies and readily available institutional support for students at universities, as well as awareness sessions on cybersecurity and avoiding online harassment, to ensure the well-being of students.

**Keywords:** Online Harassment, Social Media, Psychosocial Effect, Self-esteem, Social Anxiety, Academic Performance, Coping strategies, Digital Safety

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### 1. INTRODUCTION

In the digital era, social media have become part of everyday life for social interaction, communication, information exchange, and education. Particularly, its educational use is common among students in universities. Facebook, Instagram, TikTok, X, and WhatsApp are the most used platforms for self-expression and social networking, yet they have also become places of aggression and harassment. Online harassment, also known as cyberbullying, trolling, or digital abuse, is a continuum of actions that may include: threatening messages, sharing of false information, non-consensual image sharing, and targeted humiliation (Ray et al., 2024). Online harassment has been considered an emerging social and public health concern all over the world, and young people are especially susceptible to it because of their online activity and their developing digital identities (Chan et al., 2021).

The Pakistan Telecommunication Authority (PTA, 2023) has claimed that internet penetration exceeds 50 percent, and a significant portion of internet users are young adults aged 18-29 years, the university-going age for students. Although this form of digital inclusivity has facilitated students' connectivity with learning opportunities, it has also brought about online vulnerabilities to students, such as cyberstalking, defamation, and sexual harassment. The research carried out in South Asian settings has demonstrated that young people, particularly females, tend to develop psychological distress, fear, and social withdrawal due to online harassment (Polanco-Levicán and Salvo-Garrido, 2021; Alavi et al., 2022). Although these cases are common, there are limited empirical

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studies to investigate the psychosocial consequences of online harassment among Pakistanis, especially among university students who form the most digitally literate population in the country.

Psychosocial impacts of online harassment may be significant and include not only a short-term emotional discomfort but also some long-term outcomes, including anxiety, depression, low self-esteem, and poor academic performance (Chun et al., 2020; Giumetti and Kowalski, 2022). Social avoidance, reduced trust in online communication, and low involvement in online communities are common features among victims. In addition, the situation is aggravated by gender norms and cultural taboos in Pakistan. Most victims (primarily women) are afraid to report online abuse because of social stigma or victim-blaming (Ali et al., 2021). As a result, the institutional void in support and awareness of digital safety contributes to the further development of the psychological and social consequences of online victimization.

Prior studies have focused on determining the prevalence, forms, and psychological consequences of online harassment to develop prevention and intervention strategies. For example, Oksanen et al. (2020) emphasized that educational institutions can significantly contribute to addressing digital safety by means of awareness campaigns, counselling, and reporting. Nevertheless, such institutionalized responses remain insufficient in the Pakistani higher education context, and institutional approaches to cyber harassment are weak or poorly implemented (Oladimeji and Kyobe, 2021). This fact highlights the need for empirical research on the experiences and coping mechanisms of online harassment among university students, and on the impact of these experiences on their psychosocial health.

Considering this, the study aims to explore the prevalence and patterns of online harassment among university students on the most popular social media platforms; to assess the psychosocial implications of online harassment in terms of self-esteem, social anxiety, and academic performance; and to find out the coping skills and institutional support systems that victims can rely on. These and objectives enable the research to provide evidence-based understandings that may be used to implement specific interventions, awareness campaigns, and policy frameworks to make online experiences safer and more conducive to students in Pakistan.

## 2. MATERIALS AND METHODS

Quantitative cross-sectional research design was used to study the prevalence rates of online harassment and its psychosocial consequences on Pakistani university students. The target population was undergraduate and post graduate students studying in the public and private universities in Lahore. The sample comprised 400 participants, selected from 4 universities (2 public and 2 private). The data were collected using an organized questionnaire divided into sections covering demographics, patterns of harassment, psychosocial outcomes, coping, and institutional responses. Standardized measures such as the Rosenberg Self-Esteem Scale (RSES) and the Social Interaction Anxiety Scale (SIAS) were added to evaluate psychological outcomes, and some other items were also modified based on previous research (Brandau et al., 2019). SPSS (Version 26) was used to analyze quantitative data. Descriptive statistics, Chi-square tests, and correlation and regression models were used to determine the prevalence and nature of online harassment.

## 3. RESULTS AND DISCUSSION

### 3.1. Prevalence and Patterns of Online Harassment

Table 1 presents the prevalence and trends of online harassment among university students on key social media platforms in Pakistan. According to the data, 35.3 percent of respondents reported being victims of online harassment in the past six months, indicating that the level of online victimization among young adults in higher education is relatively high. The results show that Facebook (42.8%), Instagram (39.5%), and TikTok (34.30%) are the most frequently used resources where harassment cases occur, due to their popularity among university students and the interactivity and image-driven nature of these platforms. It is consistent with earlier studies, showing that visual and comment-driven media are more likely to support more frequent and prominent types of harassment (Cataldo et al., 2021; Cunningham et al., 2021). Most commonly reported types of harassment include verbal abuse, body shaming, fake profiles, sharing of images without consent and derogatory comments. These results align with the existing literature, indicating that gendered insults, humiliation, and intrusive communication tend to be prevalent in online harassment among young people (Olckers and Hattin, 2022; Sedgwick et al., 2019). The mean recurrence of reported incidences was between 1.3 and 2.6 times per month, with Tik Tok and Instagram experiencing greater recurrence. This trend indicates that people are at a higher risk of exposure and criticism when using interactive and video-sharing platforms, as they are more algorithmic and participatory (Twenge, 2020).

Regarding the extent of harassment, on a five-point Likert scale, the mean scores of harassment on TikTok ( $3.3 \pm 1.1$ ) and Instagram ( $3.1 + 1.0$ ) were viewed as more severe than on Facebook ( $2.8 + 0.9$ ) and WhatsApp ( $2.4 + 0.8$ ). These results indicate that websites that focus on visual information and social interaction can increase the emotional and psychological intensity of victimization on the internet. This finding aligns with the global literature

referring to the exposure to image-based harassment and sexualized content as contributors to increased psychological distress in young users (Floros and Mylona, 2022; Gajda et al., 2022). Moreover, despite the comparatively lower prevalence rates (28.6 and 26.4, respectively), WhatsApp and Snapchat were commonly used to perpetrate stalking and unwanted messages as the means of interpersonal and private communication. The information in Table 1 demonstrates that online harassment is a massive and complex phenomenon in the Pakistani university environment, which cuts across platform boundaries but takes different magnitudes and shapes. The findings highlight that the interaction between the platform's elements and users' patterns of involvement significantly influences the types of harassment. The presented results support the need for platform-specific preventive measures, digital literacy training, and institutional policies to help tackle both public and private instances of victimization online among students. According to Gu et al. (2022), enhancing youth's digital resilience and awareness is an important step toward reducing the psycho social risks of online harassment.

**Table 1:** Prevalence and Patterns of Online Harassment across Major Social Media Platforms (n = 400)

Social Media Platform	Students Using Platform (%)	Students Experiencing Harassment (%)	Most Common Form(s) of Harassment	Average Frequency of Incidents (per month)	Severity Level (Mean ± SD)*
Facebook	85.5	42.8	Verbal abuse, fake profiles	2.3	2.8 ± 0.9
Instagram	78.2	39.5	Inappropriate messages, body shaming	2.1	3.1 ± 1.0
WhatsApp	90.7	28.6	Unwanted messages, stalking	1.8	2.4 ± 0.8
TikTok	62.4	34.3	Public ridicule, derogatory comments	2.6	3.3 ± 1.1
X (formerly Twitter)	48.6	21.8	Hate speech, trolling	1.5	2.6 ± 0.7
Snapchat	57.2	26.4	Non-consensual sharing of images	1.9	3.0 ± 0.9
YouTube	69.8	18.9	Negative comments, public insults	1.3	2.1 ± 0.6
Overall (Aggregate)	—	35.3	—	—	2.9 ± 0.9

\*Severity was measured on a 5-point Likert scale: 1 = Mild, 2 = Moderate, 3 = Severe, 4 = Very Severe, 5 = Extremely Severe.

### 3.2. Demographic and Behavioral Factors Associated with Exposure to Online Harassment

Table 2 presents the results of the chi-square tests analyzing the association between selected demographic and behavioral characteristics of university students and their exposure to online harassment across major social media platforms. The findings reveal that behavioral factors are more strongly associated with harassment exposure than demographic characteristics.

**Table 2:** Chi-Square Test Results for Associations between Demographic and Behavioral Factors and Exposure to Online Harassment (n = 400)

Variables	Categories	Experienced Harassment (%)	χ <sup>2</sup> Value	df	P-Value	Significance
Gender	Male / Female	31.4 / 39.2	5.76	1	0.016	Significant
Age Group (years)	18–20 / 21–23 / 24+	29.6 / 37.8 / 33.1	4.12	2	0.128	Not significant
Type of University	Public / Private	33.5 / 38.9	2.41	1	0.121	Not significant
Academic Level	Undergraduate / Postgraduate	36.8 / 32.4	1.12	1	0.290	Not significant
Average Daily Time on Social Media	<2 hrs / 2–4 hrs / >4 hrs	21.9 / 34.2 / 48.7	18.53	2	0.000	Highly significant
Number of Active Platforms Used	1–2 / 3–4 / 5+	25.6 / 37.3 / 46.5	10.94	2	0.004	Significant
Privacy Settings Awareness	Low / Moderate / High	44.2 / 35.8 / 26.7	9.81	2	0.007	Significant
Content Sharing Behavior	Rarely / Sometimes / Frequently	27.5 / 35.9 / 45.6	8.67	2	0.013	Significant
Total (Overall Exposure Rate)	—	35.3%	—	—	—	—

Gender was the only demographic variable statistically associated with online harassment ( $\chi^2 = 5.76$ ,  $p = 0.016$ ), with female students (39.2%) having a higher probability of being harassed online than male students (31.4%). This finding is in tandem with the previous research done in Pakistan and other South Asian settings,

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which underline the gendered character of internet harassment, as women tend to be targeted by attacks, sexually objectifying remarks, and damaged reputations (Li and Penget, 2022; Orben, 2020). Nevertheless, the other demographic factors, including age group, level of study, and the university type, did not reveal any significant relationships, which indicates that online harassment is a common occurrence that cuts across different groups of students irrespective of their institutional or academic background. Factors of behavior, on the other hand, showed strong, statistically significant correlations with exposure to harassment. The data show that most of the students who reported more than four hours a day on social media experienced the highest level of harassment (48.7%), and the relationship was highly significant ( $\chi^2 = 18.53, p < 0.001$ ). Equally, the prevalence of harassment rose with the number of platforms students used, with those active on five or more platforms facing a significantly higher risk (46.5%) than those active on one or two platforms (25.6%). These results are in line with the study conducted by Hinduja (2021), who has reported that the increased use of social media, multi-platform, and the frequency of online appearance expose individuals to digital aggression. In addition, privacy awareness became an important protective factor. Students with low privacy awareness had the highest exposure to harassment (44.2%), while those with high privacy awareness had fewer instances (26.7%). This aligns with previous studies that have highlighted how vulnerability to internet abuse can be addressed through digital literacy and privacy management (Page et al, 2021; Quandt et al., 2022; Abaido, 2020).

The relationship between the variables content sharing behavior and exposure to harassment was also significant ( $\chi^2 = 8.67, p = 0.013$ ). Students who were used to posting personal posts, opinions, or photographs on a regular basis (45.6%) were more likely to be harassed as compared to those who hardly ever posted (27.5%). Studies have found that greater online self-disclosure may attract unwanted attention or negative responses, especially within the sociocultural setting where moral policing and gender-based questioning are typical (Lo Cricchio et al., 2021; Longobardi et al., 2020; Menin et al., 2021; Zhang et al., 2021). Taken together, the chi-square outcomes highlight that the behavioral determinant, particularly excessive social media use, multi-platform use, lack of awareness of privacy, and sharing of content frequently, are the most predictive of being vulnerable to harassment than demographic characteristics. These findings indicate the need to nurture digital responsibility, privacy education, and institutional awareness campaigns to mitigate the risk of online victimization in university students in Pakistan.

### 3.3. Psychosocial Consequences of Online Harassment

Table 3 presents the results of multiple regression analyses examining the psychosocial consequences of online harassment among university students, focusing on three key dimensions: self-esteem, social anxiety, and academic performance. The findings reveal that online harassment significantly affects students' psychological well-being and academic outcomes, highlighting the pervasive impact of digital abuse within educational environments.

**Table 3:** Multiple Regression Analysis Assessing the Psychosocial Consequences of Online Harassment among University Students (n = 400)

Dependent Variable	Independent Variable (Online Harassment)	$\beta$ (Standardized Coefficient)	t-Value	p-Value	R <sup>2</sup>	F (df = 1, 398)	Significance
Self-Esteem	Online Harassment	-0.44	-9.02	0.000	0.19	81.3	Significant
Social Anxiety	Online Harassment	0.51	10.88	0.000	0.26	118.3	Significant
Academic Performance	Online Harassment	-0.29	-6.28	0.000	0.13	39.4	Significant

The results of the regression analysis show that the relationship between online harassment and self-esteem is negative and significant ( $\beta = -0.44, p = 0.001$ ), which implies that the higher the frequency of harassment on social media, the lower the levels of confidence, self-worth, and emotional stability. The result of this finding correlates with the results of Dynel (2021), who discovered that exposure to cyber violence results in worsening self-concept and susceptibility to depression. On the same note, Nesi et al. (2021) opine that continuous abuse over the internet might undermine personal identity and self-image, especially among the youths who are highly active in online communication. The test also reveals the positive and significant relationship between online harassment and social anxiety ( $\beta = 0.51, p = 0.001$ ), which proves that pupils who are exposed to online hostility have elevated risks of feeling fear, withdrawal, and avoiding social interaction. The apprehension towards online communication and in-person interactions has become a common characteristic of victims of cyberbullying and is quite consistent with the literature on this issue across the world and the psychological distress. As an example, Schade et al. (2021) found that cyber harassment is strongly associated with high levels of anxiety and emotional insecurity. In contrast, Zhao and Yu (2021) stated that it has a long-term impact on social functioning and interpersonal confidence in youth groups.

Furthermore, the regression model shows that there is a negative relationship between online harassment and

academic performance ( $\beta = -0.29, p < 0.001$ ), and this fact suggests that frequent online victimization is one of the reasons for academic disengagement, lack of concentration and low academic performance. These results are consistent with the research by Alfakeh et al. (2021) and Al Qudah et al. (2020), who found that students who become targets of harassment on online platforms are often psychologically exhausted and unable to remain academically motivated and engaged. The  $R^2$  values (0.19 for self-esteem, 0.26 for social anxiety, and 0.13 for academic performance) suggest that online harassment accounts for a significant portion of the variance in each of these psychosocial dimensions, confirming its multidimensional impact on students' emotional and educational well-being. The findings underscore the fact that online bullying becomes a major psychosocial risk factor in universities. In addition to a short-term emotional impact, it weakens the academic interest and social inclusion of the students, which leads to mental health problems in the long-term perspective. The results highlight the importance of the introduction of effective digital safety policies, mental health counseling and awareness initiatives in institutions of higher learning in Pakistan to address the psychological and academic damages of online abuse. Such preventive and support tools, as supposed by previous studies, play a significant role in creating safer, more inclusive, and mentally healthy digital learning environments (Barlett et al., 2021; Gohal et al., 2023; Hinduja, 2021).

### 3.4. Coping Mechanisms and Institutional Support Systems

Table 4 is a broad summary of the coping strategies and institutional support systems used by online harassed university students in Pakistan. The statistics show that the most common coping strategies were not responding to the harasser (45.5%) and using privacy settings and technology-related safety measures (44%), indicating a tendency toward self-protective and technological reactions. These results are consistent with the study by Nguyen et al. (2020), who noted that a large portion of online harassment victims use personal control measures, such as updating privacy settings, or give up on online communication rather than seek civil assistance. Self-regulation dependence can also be explained by a lack of confidence in institutional responses or by fears of social stigma, which Jaffer et al. (2021) identify as an issue. Evidence gathering emotional support of friends and family members was also considered as a significant percentage of respondents (36.3%), and the effectiveness degree was high ( $M = 4.2, SD = 0.91$ ). This highlights the role of social and family contacts as the main sources of psychological stability and emotional well-being. Krešić Ćorić et al. (2020) also reported similar findings, documenting that interpersonal communication and social bonding are effective coping skills that reduce the emotional distress associated with digital victimization. The choice of informal social support as compared to institutional support is culturally and contextually important in societies like Pakistan, where emotional coping depends less on the individual and more on family and peer relationships.

**Table 4:** Coping Mechanisms and Institutional Support Systems among Victims of Online Harassment (n = 400)

Coping Mechanisms / Support Sources	Frequency	Percentage	Mean Effectiveness Rating (1–5)	SD
Ignoring or blocking the harasser	182	45.5	3.8	1.02
Reporting to social media platforms	96	24.0	3.1	1.20
Seeking emotional support from friends/family	145	36.3	4.2	0.91
Consulting a university counselor/psychologist	42	10.5	4.0	1.10
Seeking legal or administrative help (cybercrime unit, university administration)	58	14.5	3.4	1.18
Disengaging from social media (temporary deactivation)	89	22.3	3.7	1.06
Using privacy settings and digital safety measures	176	44.0	4.1	0.88

Nevertheless, the results also show a low level of use of formal institutional support, including university counselling services (10.5%) and legal or administrative assistance via agencies such as the Cybercrime Wing of the Federal Investigation Agency (14.5%). Such low use of professional or legal intervention can be explained by several obstacles, including poor internal organizational policies, a lack of awareness of cyber laws, and the stigma around discussing harassment, especially among female students (Pichel et al., 2021). Even though counselling and legal interventions are highly effective ( $M = 3.4$  and  $4.0$ ), low usage rates indicate that universities should reinforce their mental health and grievance redressal systems. Also, a short-term disconnection from social media (22.3) was mentioned as a coping mechanism, indicating that some students use avoidance as a safeguard. Although this behavior can minimize direct exposure to harassment, it also leads to social withdrawal and even digital exclusion, as reported by Shin and Choi (2021) in their research on cyberbullying and psychological well-being.

Table 4 results show that the process of dealing with online harassment among Pakistani university students is more individual and informal and that institutional support systems have not been exploited and are poorly

developed. These findings highlight the need to implement extensive awareness initiatives, digital literacy programs, and convenient access to psychological counselling services in universities to promote reporting and reduce the psychosocial burden of online harassment. Improved institutional guidelines, standard reporting procedures, and cooperation with government agencies in cybercrime might also be important in creating a secure cloud within the Pakistani universities.

#### 4. CONCLUSION

The research results present the fact that online bullying is a widespread and multifaceted problem with a high percentage of university students in Pakistan. The rate of use of basic social media, especially Facebook, Instagram, and TikTok, demonstrates the vulnerability of young users who actively use the Internet for communication and self-expression. Gender, time spent online, and privacy consciousness became the primary predictors of the rate of exposure to harassment. Study found serious psychosocial effects of online harassment on students, including decreased self-esteem, increased social anxiety, and poor academic performance. These effects are detrimental to students' emotional and academic well-being. The findings also highlight the fact that the coping mechanisms of the victims are mostly informal, as they depend on self-protective digital practices and peer/family support, whereas institutional and legal support systems are not fully employed. This indicates an urgent need for universities to upgrade their holistic digital safety systems, integrate mental health counselling services, and become more aware of cyber regulations and reporting protocols. Online harassment is challenging and requires a joint effort among educational institutions, policymakers, and digital platforms to ensure a safer, inclusive online space. The advancement of digital resilience, privacy education, and psychosocial support can empower students to make a confident, secure entry into the world of social media.

#### Declaration

**Acknowledgement:** Not applicable

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#### Author's Contribution

Urva Yousaf conceptualized and designed the study, developed the research instruments, and supervised data collection. Muhammad Saeed Shahbaz performed data analysis, interpreted the results, and drafted the manuscript. Author critically reviewed and revised the paper for intellectual content and approved the final version for publication.

#### Generative AI Statements

The authors confirm that no generative-AI tools (including DeepSeek) were used in the writing or preparation of this manuscript.

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