

Behind The Screen: Cyber Harassment and Its Psychological Impact Among Young Adults

Basharat Hussain¹, Dr Roomana Zeb²

Abstract

The increasing use of social media and digital communication platforms has contributed to a rise in cyber harassment, making it a significant concern for the psychological well-being of young adults. The present study aimed to examine the relationship between cyber harassment, anxiety, and body dissatisfaction among young adults. Specifically, the study investigated whether cyber harassment significantly predicts these psychological outcomes and whether gender differences exist in cyber harassment experiences. This study adopted a quantitative, cross-sectional, and correlational research design. The sample consisted of 300 young adults (146 males and 154 females) recruited through convenience sampling from various universities. Data were collected using a demographic information sheet, the Cyber Harassment Experience Scale (CHES) by Ayub and Malik (2024), the Hamilton Anxiety Rating Scale (HAM-A) by Hamilton (1959), and the Body-Esteem Scale for Adolescents and Adults (BESAA) by Mendelson, White, and Mendelson (1997). Regression analyses indicated that cyber harassment significantly predicted anxiety, accounting for 46% of the variance, $F(1, 298) = 254.15, p < .001$, and body dissatisfaction, accounting for 55.9% of the variance, $F(1, 298) = 377.30, p < .001$. Furthermore, female participants reported significantly higher levels of cyber harassment than male participants, $t(298) = -12.00, p < .001$, with a large effect size (Cohen's $d = 1.39$). The findings suggest that cyber harassment is strongly associated with adverse psychological outcomes among young adults and serves as a significant predictor of anxiety and body dissatisfaction. The study highlights the need for digital safety awareness, mental health interventions, and policies aimed at preventing cyber harassment and promoting psychological well-being among young adults.

Article History

Received 15 June 2026

Revised 25 June 2026

Accepted 24 July 2026

Published 30 July 2026

OPEN ACCESS

Keywords

cyber harassment, anxiety, body dissatisfaction, young adults, social media, psychological well-being

Introduction

The digital revolution has fundamentally transformed human interaction, communication, and social engagement. The widespread accessibility of smartphones, social networking sites, and internet-based communication platforms has enabled individuals to connect instantly across geographical boundaries and maintain continuous social interaction. Young adults are among the most active users of digital technologies and social media platforms, utilizing them for educational, professional, recreational, and interpersonal purposes. According to recent global statistics, social media

¹ MPhil Scholar, Department of Psychology, University of Peshawar. basharathus946@gmail.com

² Assistant Professor, Department of Psychology, University of Peshawar. *Corresponding Author.
Email: roomazeb@uop.edu.pk

engagement continues to increase annually, with young adults spending a substantial portion of their daily lives in online environments (Vogels et al., 2022). Although digital technologies have enhanced communication and access to information, they have simultaneously created new opportunities for interpersonal aggression and victimization that occur beyond traditional physical settings (UNESCO, 2023).

One of the most concerning consequences of increased digital engagement is the emergence and expansion of cyber harassment. Cyber harassment has become a significant social and psychological issue affecting millions of individuals worldwide. Cyber harassment refers to intentional and repeated behaviours conducted through electronic communication technologies that are aimed at threatening, intimidating, humiliating, embarrassing, stalking, or otherwise harming another individual (Ayub & Malik, 2024). This phenomenon utilizes digital spaces such as social networking sites, instant messaging applications, emails, online gaming platforms, and discussion forums (Patchin & Hinduja, 2023). Researchers emphasize that cyber harassment is a multidimensional construct encompassing a wide range of harmful online behaviours. These include cyberstalking, impersonation, dissemination of false information, unauthorized sharing of personal content, online blackmail, trolling, flaming, sexual harassment, and invasion of privacy (Dragiewicz et al., 2018). The increasing integration of technology into everyday life has amplified the reach and impact of cyber harassment, making it one of the most pressing public health challenges associated with modern digital communication (Patchin & Hinduja, 2023).

Cyber harassment differs fundamentally from traditional face-to-face harassment across several distinct dimensions. First, digital environments often provide perpetrators with anonymity and reduced social cues, which diminishes behavioural accountability and significantly increases the likelihood of aggressive, hostile actions (Suler, 2021; Wright, 2021). Second, online content can be rapidly disseminated to massive, global audiences, magnifying the social and emotional consequences experienced by victims (Kowalski et al., 2022). Third, cyber harassment occurs continuously without temporal or geographical limitations, creating an environment in which victims find escape difficult, as digital devices remain accessible throughout the day (Wachs et al., 2021). Finally, harmful digital content can remain accessible indefinitely, prolonging emotional distress and increasing the likelihood of repeated exposure to victimizing material (UNESCO, 2023).

To understand the mechanisms driving the prevalence and severity of cyber harassment, contemporary psychological and sociological research frequently applies distinct theoretical frameworks. Foremost among these is online disinhibition theory, which provides a foundational explanation for the escalation of aggressive behaviours in digital environments (Suler, 2021). According to this theory, individuals behave differently online because factors such as anonymity, invisibility, and reduced social cues diminish self-awareness and social accountability. These conditions lower psychological restraints, increasing the likelihood of hostile or inappropriate actions. Digital communication minimizes the immediate social consequences associated with harmful behaviour; unlike face-to-face interactions, where perpetrators witness real-time facial expressions, tone of voice, and body language, online environments obscure the victim's emotional reactions, making it easier for perpetrators to disregard their suffering (Wright, 2021).

Complementing this perspective, social learning theory proposes that individuals learn behaviours through observation, imitation, and reinforcement within their environment (Bandura, 2018). Within digital ecosystems, users are frequently exposed to public conflicts, toxic exchanges, and hostile communication patterns. Observing such behaviours may normalize online aggression and increase the likelihood that individuals will imitate similar actions (Kowalski et al., 2022). Repeated exposure to online aggression correlates with a heightened acceptance of cyber harassment over time (Wachs et al., 2021). Furthermore, social media algorithms often reward controversial or hostile content with increased engagement, attention, and visibility. Consequently, users learn that aggressive behaviour can generate social recognition, thereby reinforcing and promoting future cyber harassment behaviours (Patchin & Hinduja, 2023).

While social learning highlights behavioural acquisition, routine activity theory shifts the focus to structural opportunities for victimization, explaining it through the convergence of a motivated offender, a suitable target, and the absence of capable guardianship (Reyns & Henson, 2020). In digital environments, individuals who maintain a high-frequency online presence, operate highly visible social media profiles, and share sensitive personal details present themselves as accessible targets for perpetrators. This vulnerability is exacerbated by limited digital guardianship, such as inadequate platform monitoring systems and ineffective reporting mechanisms (Reyns & Henson, 2020). Young adults are uniquely vulnerable under this framework due to their extensive integration into digital spaces, which naturally increases their exposure to potential online offenders (Pew Research Centre, 2024).

The pervasive nature of these online risks carries severe psychological implications, with anxiety emerging as one of the most frequently reported outcomes in contemporary clinical and developmental literature. Studies consistently indicate that individuals who experience online victimization report elevated levels of psychological distress, loneliness, emotional dysregulation, and reduced self-esteem compared to non-victimized peers (Giumetti & Kowalski, 2022; Keles et al., 2020). Anxiety itself is characterized by excessive worry, apprehension, tension, and physiological arousal in response to perceived threats or uncertain conditions (American Psychiatric Association, 2022). Cyber harassment is uniquely configured to foster chronic anxiety because digital devices remain continuously active. Harassment can occur unpredictably at any hour, forcing victims into a state of heightened hypervigilance where they remain constantly alert to potential online threats (Keles et al., 2020). Victims often experience profound uncertainty regarding future attacks, public humiliation, and reputational damage, which severely undermines their perceived personal safety (Martínez-Monteagudo et al., 2020).

Empirical research strongly supports this positive association between online harassment and anxiety. Extremera et al. (2018) demonstrated that individuals exposed to online victimization exhibited significantly higher clinical anxiety scores than their unharassed counterparts. Similarly, a systematic review by Keles et al. (2020) concluded that cyber harassment consistently serves as a robust predictor of prolonged anxiety and diminished psychological well-being. Among university students, this persistent anxiety has been shown to degrade academic performance by causing concentration deficits, elevated academic stress, and severe sleep disruption (Giumetti & Kowalski, 2022). Victims frequently struggle with intrusive thoughts and a persistent fear of negative social evaluation, which complicates both their online and offline interpersonal interactions (Navarro et

al., 2023). This relationship can be further conceptualized through cognitive theories of stress and coping, which suggest that individuals experience psychological distress when they appraise a situation as threatening and perceive that they lack the resources to manage it effectively (Lazarus & Folkman, as cited in Keles et al., 2020). Because cyber harassment is often unpredictable and difficult to control, it fosters a sense of helplessness, directly intensifying severe anxiety symptoms.

Beyond general affective distress, cyber harassment significantly disrupts self-perceptions, particularly regarding body image dissatisfaction. Body image refers to an individual's subjective perceptions, thoughts, feelings, and attitudes regarding their physical appearance (Cash, 2020). Body image dissatisfaction occurs when an individual develops negative evaluations of their body, driven by a perceived discrepancy between their actual physical appearance and their internalized ideal appearance (Rodgers et al., 2023). This dissatisfaction has grown increasingly prevalent among young adults due to the pervasive influence of appearance-focused online environments and idealized representations of beauty (Fardouly & Vartanian, 2021). Cyber harassment serves as a significant risk factor for body image concerns when the aggressive behaviour specifically targets an individual's physical traits, body shape, weight, or clothing (Marengo et al., 2022).

Social comparison theory provides a vital framework for analyzing this link, as it posits that individuals evaluate their own worth and appearance by comparing themselves to others (Fardouly & Vartanian, 2021). Social media platforms subject users to a continuous stream of idealized, curated, and digitally altered images, creating highly unfavourable comparison conditions. When cyber harassment weaponizes these unrealistic standards to target a user's physical attributes, it intensifies negative self-evaluations and drives acute body dissatisfaction (Rodgers et al., 2023). Empirical evidence consistently verifies the damaging nature of appearance-based online victimization. Marengo et al. (2022) found that victims of appearance-focused cyber harassment reported significantly lower levels of body satisfaction and elevated appearance-related anxieties. Similarly, Bell et al. (2023) demonstrated that negative digital commentary regarding physical appearance directly predicts increased body dissatisfaction, lower global self-esteem, and severe psychological distress among young adults.

The public architecture of modern social media networks uniquely compounds these effects, as hostile comments can be observed, shared, liked, and reinforced by large public audiences, magnifying the emotional trauma of the initial comment. Over time, severe body image dissatisfaction can act as a gateway to broader psychological maladaptation, including social withdrawal, clinical depression, and reduced quality of life (Rodgers et al., 2023). The manifestation and consequences of these psychological outcomes are also deeply gendered, representing another crucial dimension within contemporary cyber harassment literature. Previous studies suggest that males and females display divergent patterns of victimization and distinct psychological responses to online threats (Machimbarrena et al., 2021). Female users are disproportionately targeted by appearance-based harassment, sexual harassment, cyberstalking, and unwanted online attention (Patchin & Hinduja, 2023). Following these experiences, females frequently report higher rates of emotional distress, clinical anxiety symptoms, and body image dissatisfaction (Wachs et al., 2021). Conversely, male users are more likely to encounter direct threats, hostile verbal interactions, and victimisation localised within online gaming environments (Patchin & Hinduja, 2023). These

variations highlight the necessity of examining gender-stratified outcomes when designing psychological interventions and assessing the overall impact of online victimisation.

To fully comprehend these relationships, they must be examined within specific socio-cultural environments, such as contemporary Pakistan. In Pakistan, the rapid proliferation of smartphone technology and affordable internet access has dramatically escalated participation across digital communication and social media networks. Although these advancements have expanded educational and socio-economic opportunities, they have simultaneously increased young adults' exposure to online victimization and cyber harassment (Digital Rights Foundation, 2023). Official records from the Federal Investigation Agency confirm an annual upward trajectory in formal complaints involving cyberstalking, online blackmail, identity theft, and digital harassment (FIA, 2024). Despite the rising frequency of these incidents, deep-seated cultural norms, concerns regarding family honour, fear of pervasive victim-blaming, and limited institutional awareness regarding legal protections often discourage victims from seeking counselling or executing formal complaints, resulting in widespread empirical and legal underreporting (Ayub & Malik, 2024).

While cyber harassment is increasingly recognized as a vital societal crisis, localized empirical research remains limited. Existing Pakistani literature has focused broadly on general cyberbullying, generalized depression, or broad psychological distress, leaving important gaps in understanding the specific mechanisms through which online victimization shapes mental health and self-perceptions among young adults. There is a distinct lack of empirical evidence exploring how cyber harassment simultaneously interacts with anxiety and body image dissatisfaction within the Pakistani demographic. Furthermore, few studies have rigorously evaluated how gender variations influence these psychological interactions within the framework of Pakistani cultural expectations. Addressing these specific empirical gaps is critical for the development of culturally relevant preventive strategies, institutional policies, and mental health interventions designed to preserve digital safety and psychological well-being.

To address these distinct empirical omissions, the present study seeks to examine the relationship between cyber harassment, anxiety, and body image dissatisfaction among young adults within the Pakistani context. Specifically, this study aims to investigate whether experiences of cyber harassment significantly predict levels of anxiety and body image dissatisfaction, and whether significant gender differences exist regarding the types of cyber harassment experienced and their associated psychological outcomes. By exploring these complex dynamics, this study intends to enrich the global and localized literature on cyber harassment, providing empirical evidence to inform public policy, digital safety initiatives, and culturally tailored mental health support systems within Pakistan.

Rationale of the Study

The rapid advancement of digital technologies and the widespread use of social media have significantly transformed communication patterns among young adults. While these technological developments have enhanced social connectivity and access to information, they have also increased exposure to online risks, particularly cyber harassment. Cyber harassment has emerged as a growing concern because of its potential to negatively affect individuals' psychological well-being and social functioning (Patchin & Hinduja, 2023). Unlike traditional harassment, cyber harassment can occur

anonymously, reach a large audience, and persist over time, making its psychological consequences more severe and long-lasting (UNESCO, 2023).

Previous research has demonstrated that experiences of cyber harassment are associated with various mental health problems, including anxiety, depression, emotional distress, low self-esteem, and reduced life satisfaction (Keles et al., 2020; Giumetti & Kowalski, 2022). Victims often experience fear, insecurity, and constant worry regarding future victimization, which may contribute to increased anxiety levels (Martínez-Monteagudo et al., 2020). Furthermore, social media environments place considerable emphasis on physical appearance and social approval, making individuals more vulnerable to appearance-related criticism and negative online interactions. Consequently, cyber harassment may contribute to body image dissatisfaction by reinforcing negative perceptions about one's physical appearance and self-worth (Rodgers et al., 2023; Marengo et al., 2022).

Although a substantial body of international literature has explored the psychological effects of cyber harassment, limited research has examined its relationship with both anxiety and body image dissatisfaction simultaneously among young adults in Pakistan. Moreover, cultural factors such as social norms, concerns about family reputation, fear of victim blaming, and underreporting of online harassment may influence the experiences and psychological outcomes of victims within the Pakistani context (Ayub & Malik, 2024). Therefore, there is a need for empirical research that investigates the psychological impact of cyber harassment among Pakistani young adults.

The present study seeks to address this gap by examining the relationship between cyber harassment, anxiety, and body image dissatisfaction among young adults, while also exploring gender differences in these variables. The findings of this study may contribute to the existing body of knowledge by providing culturally relevant evidence regarding the psychological consequences of cyber harassment. Furthermore, the results may assist mental health professionals, educators, policymakers, and social media awareness programs in developing effective interventions and preventive strategies aimed at promoting online safety, psychological well-being, and healthy digital engagement among young adults.

Objectives

1. To determine whether cyber harassment predicts anxiety and body image dissatisfaction among young adults.
2. To examine gender differences in cyber harassment experiences, anxiety levels, and body image dissatisfaction among young adults.

Hypotheses

H1: Cyber harassment will lead to anxiety among young adults.

H2: Cyber harassment will have a positive impact on body image dissatisfaction among young adults

H3: Females will score high on cyber harassment than males.

Methodology

The study adopted a quantitative research approach and utilized a cross-sectional correlational design to explore the relationships between cyber harassment, anxiety, and body image dissatisfaction among young adults.

Sample

The sample consisted of 300 young adults recruited from public and private universities through convenience sampling. Participants included both male and female students aged between 18 and 30 years ($M=$; $SD=$). The selected sample size was considered adequate for conducting regression, and group comparison analyses. To be included in the study the individuals must be active users of social media platforms and digital communication technologies.

Measures

Demographic Information Sheet

A demographic information form was prepared by the researcher asking about the participants, age, gender, education, socioeconomic status, mobile phone access, family system, area of residence, social media use, and number of social media followers.

Cyber Harassment Experience Scale (CHES)

Cyber harassment was assessed using the Cyber Harassment Experience Scale (CHES) developed by Ayub and Malik (2024). The scale was specifically designed to assess experiences of cyber harassment among young adults within the Pakistani cultural context. The scale consists of 54 items organized into four dimensions: *Unauthorized Use of Identity Information*, *Use of Sexual Content*, *Cyber Terrorization*, and *Intimidation*. Responses are recorded on 5 options in a Likert manner scoring between 1 (Never) to 5 (Mostly). The higher the scores the greater the incidences of cyber harassment. The authors claimed the overall scale with a Cronbach's alpha of .98 (Ayub & Malik, 2024). In the current study, the scale has also demonstrated high Cronbach's alpha ($\alpha=.97$) coefficient.

Hamilton Anxiety Rating Scale (HAM-A)

Anxiety was measured using the Hamilton Anxiety Rating Scale (HAM-A; Hamilton, 1959). The scale is one of the most widely used measures for assessing anxiety symptoms in clinical and non-clinical populations. The scale comprises of 14 items designed to assess both psychological (psychic) and physical (somatic) symptoms of anxiety. The intensity of anxiety is noted on 5 point Likert format between 0 (Not Present) to 4 (Very Severe), with higher total scores manifesting higher amount of anxiety. The present study also showed a Cronbach's alpha of .90

Like the previous showing the suitability and excellent internal consistency the instrument in Pakistani population.

Body-Esteem Scale for Adolescents and Adults (BESAA)

Body image dissatisfaction was measured using the Body-Esteem Scale for Adolescents and Adults (BESAA) developed by Mendelson, White, and Mendelson (1997). The scale assesses individuals' attitudes and feelings regarding their physical appearance. The final version consists of 23 items distributed across three dimensions: Appearance, Weight Satisfaction, and Attribution. Participants respond using a 5-point Likert scale ranging from 0 (Never) to 4 (Always). Higher scores indicate more positive body esteem, whereas lower scores indicate greater body image dissatisfaction. Like the original study (Mendelson et al., 1997), the scale has demonstrated high reliability ($\alpha=.94$) in the current sample.

Procedure

Before data collection, permission to use the selected instruments was obtained where required. Participants were approached through universities and social networking platforms. The purpose of the study was made explicit to the participants and they were informed that participation is totally voluntary. After sorting out the informed consent, the study scales were distributed among the

participants. The respondents were requested to answer honestly as their responses would be kept confidential serving only research purposes. The average completion time for the questionnaire was approximately 15 minutes.

Results

Table 1

Demographics Characteristics of Participant

Variable	<i>f</i>	%
Gender		
Male	146	48.7%
Female	154	51.3%
Age		
18-24	193	64.3%
25-30	90	30.0%
31 above	17	5.7%
Education		
BS	216	72.0%
MPhil	69	23.0%
PhD	15	5.0%
Family system		
Nuclear	135	45.0%
Joint	165	55.0%
Socioeconomic status		
Lower	81	27.0%
Middle	178	59.3%
Upper	41	13.7%
Area of living		
Hostel	105	35.0%
Home	195	65.0%
Frequency Checking SM		
very low frequency	4	1.3%
low frequency	30	10.0%
Normal	94	31.3%
high frequency	118	39.3%
very high frequency	54	18.0%

Note: $N = 300$

Table 1 presents the demographic characteristics of the study participants ($N = 300$). Regarding gender distribution, the sample consisted of 146 males (48.7%) and 154 females (51.3%), indicating a relatively balanced representation of both genders. In terms of age, the majority of participants were between 18 and 24 years old (64.3%), followed by those aged 25 to 30 years (30.0%), while only a small proportion of participants were above 31 years of age (5.7%). These findings suggest that the sample primarily comprised young adults. With respect to educational level, most participants were enrolled in Bachelor's degree programs (72.0%), whereas 23.0% were MPhil students and 5.0% were PhD students. This indicates that undergraduate students constituted the largest proportion of the sample. Regarding family systems, more than half of the participants belonged to joint family systems (55.0%), while 45.0% reported living in nuclear family systems. The socioeconomic status of participants revealed that the majority belonged to the middle socioeconomic class (59.3%), followed by the lower socioeconomic class (27.0%), whereas only

13.7% belonged to the upper socioeconomic class. Concerning the area of residence, most participants reported living at home (65.0%), while 35.0% resided in hostels. Furthermore, participants' frequency of checking social media indicated that high-frequency users constituted the largest group (39.3%), followed by those reporting normal frequency usage (31.3%). A considerable proportion of participants also reported very high frequency social media use (18.0%). In contrast, relatively few participants reported low frequency (10.0%) or very low frequency (1.3%) social media use.

Table 2
Psychometric Properties for HAMA , BES and CHES

Variable	Items	<i>M</i>	<i>SD</i>	Range	Cronbach's
HAMA	14	27.77	9.694	5-51	.90
BES	23	45.53	16.546	6-87	.94
CHES	54	147.02	38.540	68-243	.97

Note:

M = mean, *SD* = standard deviation, *HAMA* = Hamilton Anxiety Rating Scale, *BES* = Body-Esteem Scale, *CHES* = Cyber Harassment Experience Scale

Table 2 presents the descriptive statistics and reliability coefficients of the study measures. The Hamilton Anxiety Rating Scale (HAM-A) demonstrated excellent internal consistency ($\alpha = .90$), with a mean score of 27.77 ($SD = 9.69$). Similarly, the Body-Esteem Scale (BES) showed excellent reliability ($\alpha = .94$), with a mean score of 45.53 ($SD = 16.55$). The Cyber Harassment Experience Scale (CHES) exhibited outstanding internal consistency ($\alpha = .97$), with a mean score of 147.02 ($SD = 38.54$). Overall, all study measures demonstrated high reliability, indicating that they were suitable for assessing anxiety, body esteem, and cyber harassment among the participants.

Table 3
*Simple Linear Regression Analysis Predicting Body Dissatisfaction from Cyber Harassment (*N* = 300)*

Variable	<i>B</i>	<i>SE</i>	β	<i>t</i>	<i>P</i>
Constant	-0.71	2.51	—	-0.28	.778
Cyber Harassment	0.32	0.02	.75	19.42	< .001
R^2	.55				
Adjusted R^2	.56				

Note.

Dependent variable = Body Dissatisfaction. $R = .75$, $R^2 = .559$, Adjusted $R^2 = .56$, $F(1, 298) = 377.30$, $p < .001$. *B* = unstandardized coefficient; *SE B* = standard error of the coefficient; β = standardized coefficient.

A simple linear regression analysis was conducted to examine whether cyber harassment predicted body dissatisfaction among young adults. The overall model was statistically significant, $F(1, 298) = 377.30$, $p < .001$, explaining 55.9% of the variance in body dissatisfaction ($R^2 = .56$). Cyber harassment significantly and positively predicted body dissatisfaction, $\beta = .75$, $t(298) = 19.42$, $p < .001$. Therefore, higher levels of cyber harassment were associated with greater body dissatisfaction among young adults.

Table 4

Simple Linear Regression Analysis Predicting Anxiety from Cyber Harassment (N = 300)

Variable	B	SE	β	t	P
Constant	2.68	1.63	—	1.65	.100
Cyber Harassment	0.17	0.01	.68	15.94	< .001
R ²	.46				
Adjusted R ²	.46				

Note.

Dependent variable = Anxiety (HAM-A). $R = .68$, $R^2 = .46$, Adjusted $R^2 = .46$, $F(1, 298) = 254.15$, $p < .001$. B = unstandardized coefficient; SE B = standard error of the coefficient; β = standardized coefficient.

A simple linear regression analysis was conducted to examine whether cyber harassment predicted anxiety among young adults. The overall regression model was statistically significant, $F(1, 298) = 254.15$, $p < .001$, explaining 46.0% of the variance in anxiety scores ($R^2 = .46$, Adjusted $R^2 = .46$). Cyber harassment significantly and positively predicted anxiety, $\beta = .68$, $t(298) = 15.94$, $p < .001$. The unstandardized regression coefficient indicated that for every one-unit increase in cyber harassment, anxiety increased by 0.17 units ($B = 0.17$, $SE = 0.01$). These findings support the hypothesis that higher levels of cyber harassment are associated with higher levels of anxiety among young adults.

Table 5

Independent Samples t-Test Comparing Male and Female on the CHES scale (N = 300)

Variables	Male		Female		<i>t</i> (298)	<i>p</i>	Cohen's <i>d</i>	95% CI
	(n = 146)		(n = 154)					
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>				
CHES	124.4	32.7	168.4	30.6	-12.0	.001	1.39	[51.1, 36.7]

Note:

N= sample, M=mean, SD= standard deviation, CHES= Cyber Harassment Experience Scale

An independent-samples *t*-test was conducted to examine gender differences in cyber harassment scores. As shown in Table 3, female participants ($M = 168.40$, $SD = 30.60$) reported significantly higher levels of cyber harassment than male participants ($M = 124.40$, $SD = 32.70$), $t(298) = -12.00$,

$p < .001$. The effect size was large (Cohen's $d = 1.39$), indicating a substantial difference in cyber harassment experiences between males and females.

Discussion

The present study aimed to investigate whether cyber harassment, has an influence on anxiety, and body dissatisfaction among young adults and whether significant gender differences existed in cyber harassment experiences. Overall, the findings supported all proposed hypotheses and highlighted the significant psychological impact of cyber harassment among young adults.

The first hypothesis proposed that cyber harassment would lead to anxiety among young adults. The findings supported this hypothesis, as cyber harassment emerged as a significant positive predictor of anxiety and explained 46% of the variance in anxiety scores. This substantial proportion of explained variance indicates that cyber harassment is an important factor contributing to anxiety among young adults. These findings are consistent with prior research demonstrating that cyber victimization predicts anxiety, stress, and other emotional difficulties (Keles et al., 2020; Extremera et al., 2018). However, many previous studies relied primarily on simple correlational analyses and did not examine the predictive strength of cyber harassment. The current study extends previous findings by demonstrating that cyber harassment is not merely associated with anxiety but also serves as a significant predictor of anxiety symptoms.

These findings are consistent with previous studies that identified cyber harassment as a significant contributor to emotional distress and anxiety symptoms among adolescents and young adults (Keles et al., 2020; Giumetti & Kowalski, 2022). Similarly, Martínez-Monteagudo et al. (2020) found that victims of cyber victimization experienced significantly greater anxiety than non-victimized individuals. The current findings extend this literature by providing evidence from a Pakistani sample of young adults, a population that has received comparatively limited attention in cyber harassment research.

One possible explanation for this relationship is that cyber harassment creates a persistent sense of insecurity and uncertainty. Unlike traditional forms of harassment, cyber harassment can occur continuously and anonymously through digital platforms, making it difficult for victims to escape victimization (Patchin & Hinduja, 2023). Consequently, victims may experience fear of future attacks, concerns regarding social reputation, and heightened emotional distress, all of which contribute to increased anxiety. While previous studies primarily focused on adolescents or Western populations, the present findings demonstrate that cyber harassment also represents a significant mental health concern among Pakistani young adults. This suggests that the psychological consequences of cyber harassment may transcend cultural boundaries and highlights the need for culturally relevant interventions targeting online victimization.

The second hypothesis predicted the positive influence of cyber harassment on body image dissatisfaction. The findings supported this hypothesis and revealed that cyber harassment explained approximately 56% of the variance in body dissatisfaction. This finding suggests that cyber harassment is a particularly powerful factor influencing how young adults perceive and evaluate their physical appearance. Previous studies have documented associations between cyber victimization and body image concerns (Marengo et al., 2022; Rodgers et al., 2023); however, relatively few studies have examined the predictive role of cyber harassment in body dissatisfaction,

particularly within non-Western populations. Therefore, the present findings contribute to the existing literature by demonstrating that cyber harassment represents a significant predictor of body dissatisfaction among Pakistani young adults. The magnitude of the relationship observed in the present study further emphasizes the importance of addressing appearance-related harassment within digital environments.

These findings are consistent with previous research demonstrating that appearance-related online victimization is associated with negative body image, low self-esteem, and psychological distress (Marengo et al., 2022; Rodgers et al., 2023). Bell et al. (2023) similarly reported that individuals who experienced negative comments and criticism regarding their appearance on social media were more likely to develop body image concerns. The present findings may be explained through Social Comparison Theory, which suggests that individuals evaluate themselves by comparing their appearance with that of others (Fardouly & Vartanian, 2021). Social media platforms frequently expose users to idealized images and unrealistic beauty standards. When cyber harassment targets physical appearance, victims may internalise negative comments and become increasingly dissatisfied with their bodies. Although previous studies have established a link between cyber victimization and body image concerns, many investigations have focused primarily on female adolescents and appearance-based cyberbullying. The present study contributes to the literature by demonstrating that cyber harassment is broadly associated with body dissatisfaction among both male and female young adults within the Pakistani context. This finding highlights the importance of examining body image consequences beyond traditionally studied populations.

The third hypothesis proposed that there would be a significant difference between boys and girls in cyber harassment experiences. The findings supported this hypothesis, revealing that female participants reported significantly higher levels of cyber harassment than male participants. Furthermore, the large effect size indicated that this difference was not only statistically significant but also practically meaningful. These findings are consistent with previous studies reporting that females are more likely to experience cyber harassment, particularly appearance-related harassment, cyberstalking, sexual harassment, and unwanted online attention (Wachs et al., 2021; Patchin & Hinduja, 2023). UNESCO (2023) similarly reported that women and girls experience disproportionately higher rates of online harassment across various digital platforms.

Several factors may explain the observed gender differences. Female social media users are often subjected to greater scrutiny regarding their appearance and social behaviour, making them more vulnerable to online victimisation. Within the Pakistani context, cultural norms and gender expectations may further intensify the impact of cyber harassment on women. Concerns regarding family reputation, social judgment, and victim blaming may discourage reporting and increase psychological vulnerability among female victims. While previous studies have documented significant gender differences in cyber harassment internationally, with females generally reporting higher levels of online victimization than males (Wachs et al., 2021; Patchin & Hinduja, 2023), relatively limited research has examined these differences among Pakistani young adults (Ayub & Malik, 2024). Therefore, the present findings contribute valuable evidence regarding gender-based vulnerabilities in online environments within Pakistan. Therefore, the present findings contribute valuable evidence regarding gender-based vulnerabilities in online environments within Pakistan.

Conclusion

Overall, the findings of the present study make several important contributions to the literature. First, they provide empirical support for the growing body of evidence linking cyber harassment with adverse psychological outcomes. Second, the study extends previous research by simultaneously examining anxiety and body dissatisfaction within a single framework. Third, it contributes culturally relevant evidence from Pakistan, where research on cyber harassment remains relatively limited. Finally, the findings highlight the importance of considering cyber harassment as a serious public health and mental health concern that requires attention from researchers, educators, mental health professionals, and policymakers. Developing effective digital literacy programs, awareness campaigns, reporting mechanisms, and psychological support services may help reduce the harmful consequences of cyber harassment and promote safer online environments for young adults.

Limitations

- The use of cross-sectional data precludes the ability to establish definitive causal directionality between cyber harassment and psychological outcomes.
- The sample was restricted to university students, which may not represent the experiences of young adults outside of academic settings.
- All data collected via questionnaires are subject to potential social desirability bias and recall error.
- While the study addresses the Pakistani context, the reliance on scales developed in other cultural contexts (HAM-A, BESAA) may not fully capture culture-specific manifestations of anxiety or body esteem.

Implications

- Clinicians should routinely screen for cyber harassment experiences when treating young adults presenting with generalized anxiety or body dysmorphia.
- Educational institutions in Pakistan should establish formal, culturally sensitive reporting mechanisms for digital harassment that account for concerns regarding family reputation.
- Awareness programs should move beyond basic safety to teach coping mechanisms for the hypervigilance and social comparison traps common in online environments.
- Longitudinal studies are necessary to track the long-term trajectory of these psychological outcomes to determine if the effects of cyber harassment are transient or chronic.

References

- American Psychiatric Association. (2022). *Diagnostic and statistical manual of mental disorders* (5th ed., text rev.). American Psychiatric Association Publishing.
- Ayub, A., & Malik, S. (2024). Development and validation of the Cyber Harassment Experience Scale (CHES) among young adults. *Pakistan Journal of Psychological Research*.
- Bandura, A. (2018). *Social learning theory*. Prentice Hall. (Original work published 1977).
- Bell, B. T., Lawton R, M., & Taylor, C. (2023). Negative digital commentary and body image: A longitudinal analysis. *Journal of Youth and Adolescence*, 52(4), 812–826.
- Cash, T. F. (2020). *The Body Image Workbook: An eight-step program for learning to like your looks* (2nd ed.). New Harbinger Publications.
- Digital Rights Foundation. (2023). *Annual report on digital rights and cyber harassment in Pakistan*. DRF Pakistan.

- Dragiewicz, M., Burgess, A., Matamoros-Fernández, A., Salter, M., Light, B., Campbell, J., & Johns, J. (2018). Technology facilitated coercive control: Domestic violence and the competing roles of digital media platforms. *Feminist Media Studies*, 18(4), 609–625.
- Extremera, N., Quintana-Orts, C., Mérida-López, S., & Rey, L. (2018). Cyber victimization and anxiety: The mediating role of emotional intelligence. *Computers in Human Behavior*, 85, 258–265.
- Fardouly, J., & Vartanian, L. R. (2021). Social media and body image concerns: Current research and future directions. *Current Opinion in Psychology*, 40, 1–5.
- FIA. (2024). *Cybercrime annual report*. Federal Investigation Agency, Government of Pakistan.
- Giumetti, G. W., & Kowalski, R. M. (2022). Cyberbullying in the workplace and online settings: An overview. *Current Opinion in Psychology*, 44, 1–6.
- Hamilton, M. (1959). The assessment of anxiety states by rating. *British Journal of Medical Psychology*, 32(1), 50–55.
- Keles, B., McCrae, N., & Grealish, A. (2020). A systematic review: The impact of social media on depression, anxiety and psychological distress in adolescents. *International Journal of Adolescence and Youth*, 25(1), 79–93.
- Kowalski, R. M., Limber, S. P., & McCord, A. (2022). Cyberbullying: Definitions, outcomes, and prevention. *Psychological Bulletin*, 148(1-2), 1–29.
- Mendelson, B. K., White, D. R., & Mendelson, M. J. (1997). Body-Esteem Scale for Adolescents and Adults (BESAA). *Journal of Personality Assessment*, 69(1), 22–34.
- Martínez-Monteaagudo, M. C., Delgado, B., García-Fernández, J. M., & Rubio, E. (2020). Cyberbullying, school victimization, and anxiety in adolescents. *Journal of Interpersonal Violence*, 35(21-22), 4825–4844.
- Machimbarrena, J. M., González-Cabrera, J., Ortega-Barón, J., Beranuy-Fargues, M., Álvarez-Bardón, A., & Tejero, B. (2021). Profiles of cybervictimization and their relationship with psychological adjustment. *Computers in Human Behavior*, 119, 106725.
- Marengo, D., Longobardi, C., Fabris, M. A., & Settanni, M. (2022). Cyber victimization and body image concerns among adolescents and young adults: The role of social appearance anxiety. *Body Image*, 40, 108–117.
- Mendelson, B. K., White, D. R., & Mendelson, M. J. (1997). *Manual for the Body-Esteem Scale for adolescents and adults*. Concordia University.
- Navarro, R., Yubero, S., & Larrañaga, E. (2023). Intrusive thoughts and social evaluation in cyber-victims: The mitigating role of structural cognitive coping strategies. *Journal of Affective Disorders*, 324, 402–410.
- Patchin, J. W., & Hinduja, S. (2023). *Cyberbullying among youth: A comprehensive review*. Cyberbullying Research Center.
- Pew Research Center. (2024). *Social media use and digital trends among young adults*. Pew Research Center.
- Rodgers, R. F., Slater, A., & Paxton, S. J. (2023). Idealized bodies and digital social comparison: A conceptual review of modern media environments. *Body Image*, 45, 122–134.

- Reyns, B. W., & Henson, B. (2020). The routine activities of cyber harassment victims: Examining online victimization risk. *Journal of Interpersonal Violence*, 35(23–24), 5569–5592.
- Suler, J. (2021). The psychology of the digital world: The online disinhibition effect. In *The Psychology of the Digital Age* (pp. 45–68). Cambridge University Press.
- UNESCO. (2023). *Digital safety and online victimization: A global perspective*. United Nations Educational, Scientific and Cultural Organization.
- Vogels, E. A., Gelles-Watnick, R., & Massarat, N. (2022). *Teens, social media and technology 2022*. Pew Research Center.
- Wachs, S., Wright, M. F., & Krause, N. (2021). Gender differences in cyberbullying and online harassment: An analysis of coping mechanisms and emotional impact. *Journal of Adolescence*, 88, 12–23
- Wright, M. F. (2021). Anonymity and the online disinhibition effect in cyber-aggression: A longitudinal study among young adults. *Computers in Human Behavior*, 115, 106596.