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# Impact of Cyber Bullying On the Academic Performance of Female Students at University Level

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**Abstract**
*Bullying is a form of control that is described as hostile behavior or repeated threats by others, as well as a real or perceived power imbalance between the victim and the bully. External bullying includes social exclusion (e.g., you never connect with us, you are not welcome, etc.) and the spread of rumors. The majority of academics concur that bullying is defined as an intentional act of aggression intended to cause injury to another person and to create an imbalance of power between the victim and the aggressor. The fact that internet users between the ages of 12 and 30 typically use mobile and internet communication tools as their main communication channels is another noteworthy characteristic. Ironically, these new forms of engagement and communication have led to the harmful practice known as cyber bullying, which involves using electronic communication to harass and harass people. It is well acknowledged that bullying has disastrous consequences regardless of whether people "label" themselves as bullies or victims. These can include low self-esteem, despair, anxiety, loneliness, and insecurity, as well as more severe situations that could lead to suicide. This study investigates how cyber bullying affects student academic achievement. It will look into the problems and ethical issues of integrating cyber bullying into educational institutions, as well as students' perceptions of potential hurdles. Using a quantitative methodologies approach to determine the influence of bullying on their learning experiences. The findings will seek to fill a gap in the existing knowledge by providing practical insights into how bullying can interfere with student involvement in academic activities and academic success. The study will also enlighten educational practitioners and policymakers on the benefits and problems of cyber bullying, as well as how to resolve issues through root cause analysis. Finally, the study will help to design more effective and efficient anti-cyber bullying instructional tools, hence improving learning outcomes across a wide range of educational institutions.*

## Introduction

Bullying research started more than 40 years ago. It is characterized as aggressive behavior that is purposefully carried out by an individual or group of individuals against victims who are unable to defend themselves on a regular basis (Aguinaldo, Barco, Mallabo, & Sunga, 2022). The majority of academics concur that bullying is defined as an intentional act of aggression intended to cause

injury to another person and to create an imbalance of power between the victim and the aggressor (Al-loughani & Al-Shammari, 2022). Additionally, bullying is described as a dynamic relationship between the victim and the aggressor in which the victim's power decreases, and the perpetrator's strength grows. The victims are unable to handle or react to the issue as their power is taken away from them (Albantan, 2021). Repeated behaviors, including physical contact, verbal abuse, nonverbal cues, or purposeful social exclusion, are all examples of bullying. It is purposefully created to cause harm to people who are unable to protect themselves (Al-Rahmi et al., 2022). In a one-sided exercise of power, bullying is defined as unprovoked abuse that is repeated over an extended period of time to cause distress to someone who is thought to be vulnerable.

Bullying has been the subject of studies in Europe and later Australia, where it is well recognized as a worldwide issue. Bullying victims are at risk for subpar academic achievement, mostly in elementary and intermediate level of education (Albantan, 2021). According to the National Center for Education Statistics' 2009 report, 90% of students have experienced bullying, which has caused their grades to decline. Victimization and bullying are prevalent in elementary and secondary level of education across the globe (Albikawi, 2023). The prevalence of bullying and victimization is estimated to be between 15% and 25%.

People's interactions and communication styles have changed during the last 20 years. Adopting a new communication paradigm, which was created as a result of the internet's increasing use and accessibility, began with the development of affordable mobile devices (Alzamil, 2021). According to research, people who use the Internet generally consider electronic tools to be the best way to communicate. The fact that internet users between the ages of 12 and 30 typically use mobile and internet communication tools as their main communication channels is another noteworthy characteristic (Aparisi, Delgado, Bo, & Martínez-Monteagudo, 2021). Ironically, these new forms of engagement and communication have led to the harmful practice known as cyber bullying, which involves using electronic communication to harass and harass people.

Bullying is widely known to have disastrous consequences, whether or not individuals label themselves as bullies or victims (Asad & Fatima, 2024). These can include low self-esteem, despair, anxiety, loneliness, and insecurity, as well as more severe situations that could lead to suicide. Even worse, according to global estimates, at least 5% of students in higher education institutes between the ages of 20 and 28 experience bullying on a daily basis (Bashir, Ibrahim, & Saidu, 2022). Over the past ten years, research on cyber bullying in universities has increased and it is now recognized as a worldwide issue. Therefore, this study will attempt to determine the scope of the issue within the framework of the selected Universities of Narowal.

**Rational of the study**

Bullying is a serious problem at Pakistani universities. However, many students do not believe that cyber bullying is as harmful as traditional bullying. They deny that there are physical effects because the victim is not being physically attacked with punches and kicks (Ademiluyi, Li, & Park, 2022). They further challenge the idea that psychological impacts are rare since the victim is being attacked through a screen and may ignore it. Thus, the researcher wishes to highlight the harm that cyber bullying causes to the body and mind. With a greater awareness of the detrimental impacts of cyber bullying, students would be more inclined to stop or prevent it.

**Problem Statement**

A culture influenced by children, teens, and young adults has emerged as a result of electronic communication and contemporary technologies in all their forms. From their point of view, these technologies enable them to transcend conventional culture (Albantan, 2021). As they enter a virtual world that piques their interest, entertains them, and offers them undiscovered delights,

they can discover that technology has taken away their privacy. Bullying, melancholy, dependence, intellectual deviation, fanaticism, and ethical dilemmas, however, are hidden behind these joys. Because it poses a significant risk to the academic achievement of its victims, the problem of cyber bullying presents a new challenge to society. It happens when college students frequently engage in inappropriate speech and behavior and utilize the internet, social media, educational platforms, and digital devices to communicate offensive content, including pictures, videos, and damaging messages. By answering the research questions, this issue justifies examining the degree to which electronic bullying affects the psychological health of a sample of college students nationwide, particularly those at the selected Universities of Narowal.

**Research Objectives**

1. **To examine the relationship between cyber bullying with the academic performance female student at University level.**
2. **To examine the impact of cyber bullying on academic performance female student at University level.**
3. To examine the perception of female students about cyber bullying.

**Research Questions**

1. Is there any association between cyber bullying and academic performance of female student at University level?
2. Is cyber bullying influence the academic performance of female student at University level?
3. What are the perceptions of female students about cyber bullying?

**Hypothesis of the study**

**H1:** There is a significance relationship between cyber bullying and academic performance of female students at University level.

**H2:** There is a significance impact of cyber bullying on academic performance of female students at University level.

**H3:** There is a significance difference in the perception of cyber bullying among female students.

**Significance of the Study**

Students across all educational levels in Pakistan utilize Internet platforms and social networks, including Facebook, YouTube, Instagram, TikTok, and WhatsApp, which, while their advantages, also yield detrimental effects among pupils. This research will provide updated information on the type and intensity of cyber bullying among female students in higher education. The tranquil atmosphere of the University is significantly disrupted by malevolent students who harass the innocent ones. Bullying is regarded as a societal concern in nearly every community. The university mirrors society, and one of the objectives of higher education is to promote culture and values within the public sphere. Bullying is a prevalent issue in higher education institutions, notably in Pakistan.

Bullying originates from school age and then becomes ingrained in society, so integrating into the culture and resulting in social insecurity in women's lives, particularly during their educational development. The proposed study will elucidate the dynamics of bullying, including its sources and effects on kids. It will also provide support to bullied kids in readjusting to university conditions. The study will provide knowledge to staff and guardians regarding bullying and its management. In the long term, it will motivate the organization and stakeholders of the educational institution to implement suitable measures for monitoring and mitigating bullying in universities.

**Delimitations of the Study**

1. The study scope will be delimited to female students only.

2. Female students from the selected Universities of Narowal will be only considered the respondents of the study.

**Literature Review**

The use of the Internet for communication has become commonplace. 82% of Pakistani citizens aged 26 to 65 uses the internet every day. People can use the internet and stay connected at any time and from any location thanks to the advancement of portable devices like laptops, cellphones, and tablet computers as well as the growing availability of Wi-Fi. In addition to emails and texts, social media platforms like Facebook, Twitter, social forums, and online communities are also being used more and more for workplace communication. Cyber bullying and online harassment are terms used to describe digital communication that has harassing elements (Aguinaldo et al., 2022). Online harassment refers to more singular, one-time behaviors or acts, whereas cyber bullying refers to negative online acts that are repeated over time.

Children and teenagers being cyber bullied is a very well-known occurrence. While the issue seems to be mostly unexplored among working-age people (Akrami et al., 2024), numerous studies have been conducted among children (Akrami et al., 2024; Al-loughani & Al-Shammari, 2022). However, there are signs that bad online behaviors are not limited to children and teenagers in educational settings; they can also happen in the workplace (Al-Rahmi et al., 2022). We refer to research done on children and adolescents in our literature review because there aren't many studies on cyberbullying among working adults.

Bullying is when someone intentionally hurts another person verbally, physically, or psychologically. Bullying stems from an imbalance of power and is frequently perpetuated over time. Bullying behaviors include shoving, hitting, or making unwanted physical contact; name-calling and mocking; regularly excluding someone from events and games; sending unpleasant or threatening messages via voicemail, chat, or text; and spreading untrue rumours (Albantan, 2021). It could be a threat or the use of physical force against a person, another person, or a particular group, with the potential for harm, death, physical damage, and/or mental distress.

**Female Victimization**

Cyber bullying can occur in a variety of settings. Bullying occurs on a number of well-known and widely accessible sites, including Facebook, Instagram, Snapchat, TikTok, messaging, and emails. The amount of time women spend communicating on social media sites on their phones may be a contributing factor to their exposure to cyber bullying. According to a study by (Albikawi, 2023), women spend more time online conversing than men do, who use the internet for a variety of activities like playing online games. According to a different study conducted in 2008 by Juvonen and Gross, women used blogs, social media, and email far more frequently than men. They have more chances to engage in victimization and cyber bullying behaviors since they use technology platforms frequently (Ali & Shahbuddin, 2022). Regular and continuous social interactions and online activities lead to the propagation of rumors, arguments, and fights, which creates a vicious cycle (Alsawalqa, 2021). Singling someone out for cruel or unjust treatment is known as victimization. Cyber-victimization is the term used when victimization is carried out via technology (Alzamil, 2021). This study looked into learners who had been cyber victimized.

Bullying is a problem in many parts of the world these days (Aparisi et al., 2021). Bullying is a subset of various forms of aggression that are differentiated by the use of power, and it is defined by purpose, repetition, and an imbalance of power. Bullying can take many different forms, including direct physical assault (physical bullying), verbal taunting and threats (verbal bullying), exclusion, humiliation, and spreading of rumours (relational or social bullying), and electronic harassment through text, email, or other media (cyber bullying). Social and verbal bullying is the most common form that children experience, however physical and cyber bullying

are typically the most serious problems (Asad & Fatima, 2024). Bullying is an ecological phenomenon that develops and persists over time due to the complex interactions between the kid, family, peer group, community, and culture. Some people utilise bullying, which is typically acquired from their parents, to achieve particular aims through coercion (Asanjarani, Arslan, Ghezelseflo, & Akbari, 2024). Furthermore, people may learn about bullying in one way or another through involvement in culture, education, and other sociopolitical activities.

**Academic performance**

The phrase used to describe a student's accomplishment following the completion of a course or subject from an institution is academic performance. Formative and summative examinations are used to gauge students' learning in a variety of academic subjects. Because it affects a student's mental health, focus, and general engagement with studying, cyber bullying has a substantial negative influence on academic achievement (Sheikh, Hossan, & Menih, 2023). Cyber bullying victims frequently suffer from anxiety, sadness, and low self-esteem, which can impair their ability to focus in class, their motivation, and even their attendance at school. Because teenagers are using digital devices more frequently, the issue of cyber bullying has become a major concern in the field of education in the past ten years (Sheikh et al., 2023). The fact that 10% to 40% of teenagers worldwide experience cyber bullying shows how pervasive this problem is (Shin & Choi, 2021). About 21% of teenagers in Europe have at some point reported being the victim of cyber bullying (Skinner, 1957), with regional differences impacted by things like internet usage patterns and societal perceptions of bullying. In particular, 17% of Italians report having experienced cyber bullying (Sobkin & Fedotova, 2021).

Cyber bullying, which is defined as harassment via digital channels including emails, texts, and social networks, has distinct features that set it apart from conventional bullying (Subaramaniam, Kolandaisamy, Jalil, & Kolandaisamy, 2022). These distinctions include the potential for an infinite audience (Thumronglaohapun et al., 2022), the ability of offenders to stay anonymous (Tetteh, Awaah, & Addo, 2023), and the potential for ongoing harassment without regard to time or location (Torres, D'Alessio, & Stolzenberg, 2020). Age, gender, relationships with family and peers, as well as cultural norms and societal values pertaining to discrimination on the basis of appearance, sexual orientation, ethnicity, or religion, are risk factors for cyberbullying (Tran, Weiss, & Nguyen, 2022). Adolescents' psychological health and academic achievement are significantly impacted by this phenomena, which hurts both victims and offenders.

According to victims, cyber bullying is a pervasive and ongoing type of harassment (Wagemaker & Mirazchiyski, 2023). Cyber bullying can follow victims to their homes, entering what should be their safe haven, in contrast to traditional bullying, which is typically limited to physical locations and particular times, like school. As such, victims experience a variety of psychological and emotional issues, such as suicidal thoughts, low self-esteem, anxiety, and sadness (M. Wang, Huebner, Liu, & Tian, 2022). These problems can result in high stress levels and PTSD symptoms similar to those seen in people who have been physically bullied (X. Wang, Gao, & Chen, 2023). Furthermore, cyber bullying has a detrimental impact on teenagers' social adaption and interpersonal interactions, raising their risk of social isolation and problematic behaviors.

Age and gender are important moderators of the association between psychological distress and cyberbullying, according to research. Compared to males, girls are more likely to be cybervictims and engage in problematic social media usage (PSMU) (Wordu, Dan-Jumbo, & Mina, 2021). Boys are more likely to engage in externalizing activities, while girls are more likely to have emotional issues including anxiety and sadness (Wright, 2024). On the other hand, it can initially appear that age has a conflicting effect on the psychosocial effects of cyberbullying. Younger

teenagers, especially those around age 11, usually have greater amounts of social support from friends, family, and teachers, which can protect them from the harmful consequences of cyberbullying. As they get older, however, this support tends to wane (Yang et al., 2021). Furthermore, because of their developmental stage and underdeveloped coping mechanisms, younger teenagers remain especially susceptible to the effects of cyberbullying despite this support (Yoo, 2021). Furthermore, as teenagers get older, cyberbullying is becoming more widely acknowledged as a criminal offense (Yosep, Hikmat, & Mardhiyah, 2023).

These results imply that being harassed is associated with a poorer level of life satisfaction and the formation of an undesirable psychological identity (Zhang, Han, & Ba, 2020). Online experiences have a strong correlation with body image satisfaction, a particular aspect of overall personal fulfillment (Zhou, 2021). Adolescents who have a negative body image are more susceptible to cyberbullying and its negative consequences because they may engage in unsafe online behaviors. According to studies, problems with body image might worsen the psychological effects of cyberbullying by increasing social disengagement, anxiety, and sadness (Zhu, Huang, Evans, & Zhang, 2021). In order to lessen the negative effects of cyberbullying on teenagers' psychosocial wellbeing, it may be essential to address body image concerns through education and supportive interventions. Furthermore, compared to adolescents who are only victims or offenders, individuals who are both victims and perpetrators—often referred to as "bully–victims"—tend to face significantly more significant psychological and social challenges (Ademiluyi et al., 2022). Bully-victims have complicated inner upheaval and a higher risk of long-term mental health disorders because to the guilt and internal conflict involved with their aggressive behavior, in addition to the emotional and psychological effects of being targeted. Furthermore, these teenagers might find it difficult to establish and sustain positive interactions, which would exacerbate their feelings of loneliness and misery (Aguinaldo et al., 2022).

Cyberbullies suffer serious repercussions in addition to the effects on their victims. According to Akrami et al. (2024), engaging in digital harassing behaviors may result in the internalization of violent and antisocial behaviors and be linked to problems with empathy and moral development. These teenagers may be more likely to engage in other problematic behaviors and frequently struggle in their interpersonal interactions, which can negatively impact their academic performance and psychosocial well-being (Al-loughani & Al-Shammari, 2022).

Both victims and offenders are greatly impacted by cyberbullying, which has a tremendous academic influence. Grades are simply one aspect of academic performance; other factors include attendance at school, involvement in extracurricular activities, and overall academic success. Reduced academic performance and higher absenteeism have been associated with cyberbullying (Al-Rahmi et al., 2022). The academic self-concept and consciousness of victims of cyberbullying frequently deteriorate, which has a negative impact on their learning and social adaption (Albantan, 2021). There are gender-based disparities in this decline, which is mediated by elements like academic engagement and a sense of belonging (Albikawi, 2023).

On the other hand, students who perform worse academically are more likely to engage in cyberbullying than their friends who achieve averagely or better. Additionally, there is a negative correlation between cyberbullying and traditional protective qualities like strong peer connections, a favorable school climate, and supportive family interactions (Ali & Shahbuddin, 2022). One of the most important protective factors is schools. By creating a secure and encouraging environment, putting in place strong anti-bullying procedures, and encouraging goodwill amongst students and employees, they can lessen the negative impacts of cyberbullying (Alsawalqa, 2021). In addition to lowering the prevalence of cyberbullying, a supportive school environment benefits kids' academic and psychological well-being.

**Impact on Academic Performance**

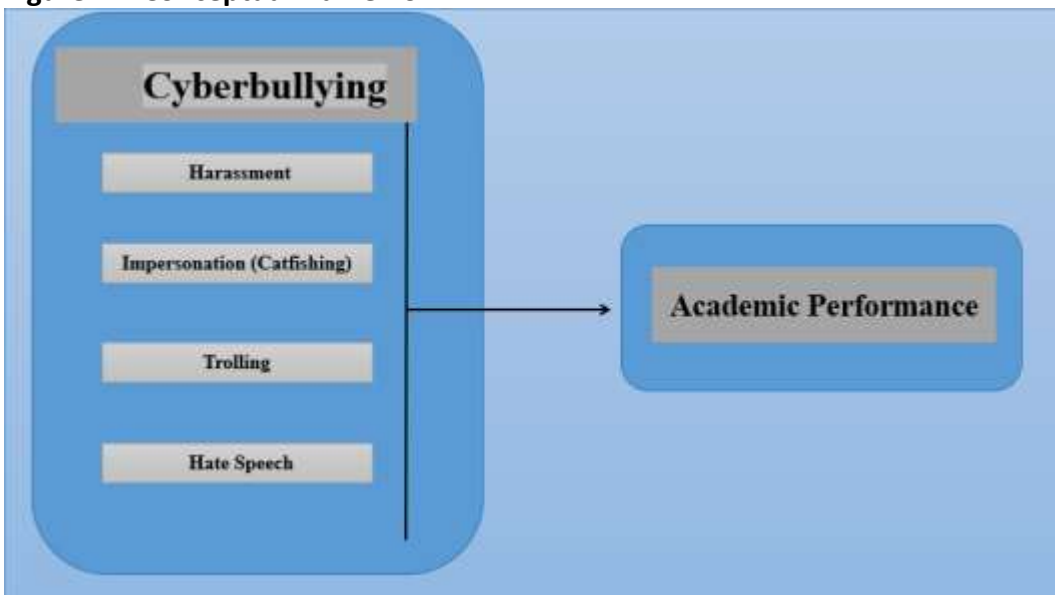
Cyber bullying can make it challenging for students to focus during class or while studying, leading to a decline in academic performance. Reduced concentration can significantly hinder academic performance due to difficulties with focus and attention during study or class time (Asanjarani et al., 2024). This can manifest as difficulty keeping up with lectures, completing assignments, or performing well on assessments. A variety of factors, both internal and external, can contribute to this, including psychological factors like anxiety and stress, physical health issues, and environmental distractions (Awaah et al., 2024). Victims may lose interest in learning and experience a lack of motivation to engage with their studies. Some students may avoid school altogether due to fear or anxiety related to cyber bullying. The combined effects of mental health issues and reduced engagement can result in lower academic grades and potentially even academic failure. Around the turn of the 20th century, scholars started to pay more attention to the crime as a result of the advancements in technology (Akers & Jennings, 2015). Crime was increasingly seen as a practice that involved a victim and a criminal, together with the time and location of the crime. Various theoretical viewpoints emerged as a result of the way crime was seen.

A different study by (Huang et al., 2024) similarly revealed a substantial correlation between the same variables (bully behavior and views about bullying). Bullying research revealed a strong correlation between bullying conduct in schools and students' views about violence. These kinds of studies also demonstrated that young people who believed that positive aggression was acceptable were more likely to engage in bullying behavior since it was a part of their possible solutions to issues (Huang et al., 2023). In order to determine how cyber-victims dealt with bullying online, (Kamel, 2021) conducted a study on cyber bullying among Tanzanian teenagers. According to the study, victims used retaliation as a coping strategy.

Gender is described by (Y. Lee et al., 2022) as a man's or woman's behavioral and psychological traits. Research indicates that guys engage in bullying behaviors at a higher rate than girls (Lessard & Puhl, 2021). On the other hand, (Li et al., 2023) contends that women engage in cyber bullying more often than men. Males are typically more susceptible to direct bullying, although both sexes reported the same percentages of indirect bullying, such as rumors and social exclusions (López-Meneses et al., 2020). Researchers are now looking more closely at how gender disparities relate to cyber bullying tendencies as a result of these findings. Because men are more likely to commit cybercrimes, some academics contend that cyber bullying belongs in the same category as traditional bullying (Luo et al., 2023). However, some scholars contend that the role of victimization and cyber bullying changes since women are more likely to engage in indirect bullying because technology gives them more power. Compared to men, women spend more time on social media and the internet, which makes them more susceptible to abuse. According to a study by a US cyberbullying research institute, female victims of cyberbullying had greater mental distress than male victims (MacDonald & Roberts-Pittman, 2010). The statistical findings, which showed that a high proportion of female victims reported experiencing feelings of rage, despair, and frustration while a low proportion of male victims did the same, provided support for this. According to these findings, men are less likely than women to acknowledge their vulnerability (Malinowska-Cieślik et al., 2022). According to (Malinowska-Cieślik et al., 2023), female victims of cyberbullying are more concerned with their reputation and safety than with their academic performance, which may lead to their skipping class and receiving low scores on standardized examinations. This is corroborated by a study conducted by (Martínez-Monteagudo et al., 2023), which found that although cyberbullying has detrimental effects on

both males and females, female students are disproportionately affected by psychological stress, which will impair their capacity to perform well academically.

**Figure 2.1 Conceptual framework**




***Source**: Developed by Scholar for the study*

**Research Methodology**

The process of gathering and evaluating the data needed to address the research questions that direct a study is known as methodology. The proper procedures and research methods to be employed in a study are determined by the research methodology (Teherani, Martimianakis, Stenfors-Hayes, Wadhwa, & Varpio, 2015). The procedures and techniques utilized in this study's data collection and analysis are covered in the sections that follow.

**Research Approach**

The deductive and inductive approaches are the two methods that are employed in research. To arrive at a conclusion, the deductive method makes use of presumptions, facts, and information that is already available (Teherani, Martimianakis, Stenfors-Hayes, Wadhwa, & Varpio, 2015). There are five steps in the deductive method:

A. Developing the hypothesis,
B. Showing how the variables relate to one another,
C. Producing the results and testing the link between the variables,
D. Verifying the theory and admitting when it has to be changed,
E. Adjusting the hypothesis in light of the results.

When developing a theory from the ground up, an inductive technique is employed. Since the deductive reasoning approach is most suited for this type of research, it was used in this study. The aforementioned five processes were utilized in order to accomplish the goals of this study.

**Research Strategy**

The research methodology employed in this study is presented in this section. Case studies, surveys, experiments, ethnography, design and creation, and action research are some of the several research methodologies that can be employed (Yin, 1981). The kind of research questions and goals for this study were taken into consideration when selecting the strategy. A survey was employed as the research method for this investigation.

**Population of the study**

The target group of the present study consists of all the female students enrolled in three selected univeraities (University of engineering and technology(UET), University of veterinary

and animal sciences(UVAS), and University of Narowal (Ramadan et al.), who are aiming for the degree. It is crucial to realize that this group's excitement stems mostly from their approaching conclusion of their educational paths and may be counted upon to be guiding choice of career when they have finished their studies. As such, in terms of their relevance to the aim, university students are best suited as the target population for the present study. The total number of female students enrolled in the academic session counts to 2500 females students at the selected universities.

**Sample size**

All the students enrolled in the three universities were the targeted population for the study. The study indicated that the expected 2500 (total numbers of students) registered for the current sessions, So, the researcher takes sample of 300 female students.

**Sampling method**

Simple random sampling procedure was used to arrive at the sample of female students who took part in the study. Simple random sampling involves creating a sample by randomly selecting participants from a population, ensuring each member has an equal chance of being chosen. The procedure typically involves defining the population, determining the sample size, creating a sampling frame, assigning numbers to units, generating random numbers, and then selecting the sample based on those numbers. To arrive at the sample of the study, the researcher considered at least 10% of the total number of students for each university. This is in conformity with Mugenda and Mugenda (2003) who suggested that at least 10% of the accessible target population is appropriate for statistical reporting.

**Data collection and Research Instrument**

Data can be gathered in a variety of methods, including through observations, surveys, interviews, and documentation. The research plan of this study served as the foundation for the data gathering method that was used. Questionnaires were selected by the researcher as the best research tool for this investigation. For this specific investigation, the questionnaires were used. By asking respondents to respond to pre-formulated questions, questionnaires facilitate the comparison and standardization of the data gathered (Monday, 2020). Because they provide data for a quantitative research design, questionnaires were also perfect for this study. For people who might not have access to questionnaires via other means, physical surveys are the best option (Monday, 2020). The process of data collecting involves the researcher approaching the chosen respondents face-to-face and gathering their responses using a questionnaire administered to female students enrolled at the selected uiversities. The rationale behind choosing the female student stems from the topic's pertinence.

Data analysis

In order for us to make sense of survey data, data analysis attempts to offer interpretative, comprehensible, and clarifying interpretations. An tool known as SPSS (Statistical Package for Social Scientists) was used to analyze the data for this investigation. The hypothesis derived from the constructs developed in the conceptual model for this study was measured and examined using SPSS. The following statistical tools were used in order to test the hypothesis:

A. Correlation
B. Regression
C. Test of Significance (Carvalho et al.)

**Results**

The presentation and discussion of the impact of cyber bullying on female university students' academic performance are covered in this chapter. Questionnaires were used to gather data, which was then entered into Microsoft Excel and any anomalies removed. After that, the finished

spreadsheet was exported to SPSS for examination. The profile and attributes of the respondents who took part in this study are presented in the first section of this chapter. Descriptive and hypothesis testing are used to analyze the study data in the second section. The findings are discussed in the third section.

**Reliability Testing**

Every construct (such as female academic success and cyberbullying) underwent a reliability test. By calculating the average of the variables that represented the factors, the values of the factors were determined. Data reliability was assessed using a Cronbach's Alpha reliability coefficient.

**Table 4.1 Reliability Statistics (Cyberbuylling)**

| Cronbach's Alpha[a] | N of Items |
|---|---|
| -.959 | 16 |

The table presents the reliability statistics for a measure related to cyberbullying, indicating the internal consistency of the items used in the measurement. The Cronbach's Alpha value of -.959 for Cronbach's Alpha indicates the internal consistency reliability of the scale used to measure cyberbullying. A negative Cronbach's Alpha value is highly unusual and suggests a significant issue with the data or the scale's construction, such as negatively worded items not being reverse-coded or errors in data entry. Typically, a Cronbach's Alpha value above 0.70 is considered acceptable for demonstrating internal consistency.

**Table 4.2 Item Statistics**

| | Mean | Std. Deviation | N |
|---|---|---|---|
| **Harassment** | 4.43 | .730 | 266 |
| **Harassment** | 4.71 | .453 | 266 |
| **Harassment** | 3.71 | .453 | 266 |
| **Harassment** | 3.86 | .351 | 266 |
| **Impersonation (Catfishing)** | 3.86 | .835 | 266 |
| **Impersonation (Catfishing)** | 2.00 | .536 | 266 |
| **Impersonation (Catfishing)** | 4.00 | .536 | 266 |
| **Impersonation (Catfishing)** | 3.71 | .453 | 266 |
| **Trolling** | 4.71 | .453 | 266 |
| **Trolling** | 3.00 | .536 | 266 |
| **Trolling** | 4.14 | .640 | 266 |
| **Trolling** | 4.00 | .536 | 266 |
| **Hate Speech** | 3.71 | 1.163 | 266 |

| | | | |
|---|---|---|---|
| **Hate Speech** | 3.71 | .882 | 266 |
| **Hate Speech** | 2.00 | .536 | 266 |
| **Hate Speech** | 3.71 | .882 | 266 |

Table 4.2 presents the item statistics for various online behaviors: Harassment, Impersonation (Catfishing), Trolling, and Hate Speech. For each of these categories, multiple items are listed, along with their respective Mean, Standard Deviation (Std. Deviation), and the sample size (N). The sample size (N) is consistently 266 across all items, indicating that data from 266 participants or instances were used for each measurement. The Mean values represent the average score for each item, while the Standard Deviation indicates the dispersion or variability of the scores around the mean. For instance, Harassment items show mean scores ranging from 3.71 to 4.71, with standard deviations varying from .351 to .730. Similarly, Impersonation (Catfishing) items have means between 2.00 and 4.00, and standard deviations from .453 to .835. Trolling items exhibit means from 3.00 to 4.71, with standard deviations between .453 and .640. Lastly, Hate Speech items have mean scores ranging from 2.00 to 3.71, and standard deviations from .536 to 1.163. These statistics provide insights into the central tendency and variability of responses or occurrences related to each specific item within these categories of online behavior.

**Table 4.3 Reliability Statistics (Academic Performance)**

| **Cronbach's Alpha[a]** | **N of Items** |
|---|---|
| -.617 | 7 |

The table presents reliability statistics for academic performance using Cronbach's Alpha. Cronbach's Alpha ($\alpha = -0.617$) value indicates the internal consistency or reliability of the scale used to measure academic performance. A negative Cronbach's Alpha is problematic and suggests issues with the data or the scale itself, as reliability coefficients should ideally range from 0 to 1. Generally, a Cronbach's Alpha value of 0.7 or higher is considered acceptable for good internal consistency, while values below 0.6 are considered poor. The negative value in this table suggests a serious problem, possibly indicating incorrect calculation, reversed-scored items not being properly handled, or very poor inter-item correlation.

**Table 4.4 Item Statistics**

| | **Mean** | **Std. Deviation** | **N** |
|---|---|---|---|
| **Female Academic Performance** | 4.14 | .640 | 266 |
| **Female Academic Performance** | 4.14 | .351 | 266 |
| **Female Academic Performance** | 4.71 | .453 | 266 |
| **Female Academic Performance** | 4.71 | .453 | 266 |
| **Female Academic Performance** | 1.71 | .453 | 266 |

| | | | |
|---|---|---|---|
| **Female Academic Performance** | 1.29 | .453 | 266 |
| **Female Academic Performance** | 4.29 | .453 | 266 |

This table, "Table 4.4 Item Statistics," presents descriptive statistics for multiple items related to "Female Academic Performance." This Mean shows the average score for each specific item of Female Academic Performance, with values ranging from 1.29 to 4.71. This Std. Deviation indicates the spread or variability of scores around the mean for each item. The standard deviation values are relatively consistent across items, primarily at .453, with one item having a standard deviation of .640 and another at .351.

**Demographics and study of Participants**

As previously stated, one university took part in the research. As mentioned in chapter 3, there were 300 female students in the sample, but only 274 university students finished the survey. However, only 266 of the replies were usable for data analysis since some students left out important information on the questionnaires, and others answered them incorrectly. Descriptive statistics about the 266 students who took part in the study are given in this section.

**Descriptive Statistics**

Descriptive analysis in research involves summarizing and describing the key features of a dataset, focusing on what the data is like without making generalizations about a larger population. It's often the initial step in statistical analysis, helping researchers understand patterns, trends, and distributions within the data.

**Table 4.5 Different group of Ages**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | **18-19 years** | 79 | 29.7 | 29.7 | 29.7 |
| | **20-21 years** | 68 | 25.6 | 25.6 | 55.3 |
| | **22-23 years** | 66 | 24.8 | 24.8 | 80.1 |
| | **24 and above** | 53 | 19.9 | 19.9 | 100.0 |
| | **Total** | 266 | 100.0 | 100.0 | |

This table presents the age distribution of a sample, categorized into four groups: 18-19 years, 20-21 years, 22-23 years, and 24 years and above. The table shows the frequency of each age group, their percentage within the sample. For age group 18-19 years, 79 individuals, making up 29.7% of the sample. For age group 20-21 years, 68 individuals, 25.6% of the sample, with a cumulative percentage of 55.3%. For age group 22-23 years, 66 individuals, 24.8% of the sample, and for age group 24 years and above, 53 individuals, 19.9% of the sample, bringing the cumulative percentage to 100%. The data suggests that the sample is primarily composed of young adults, with the 18-19 age group being the most frequent.

**Table 4.6 Study levels of the respondents**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Graduation | 161 | 60.5 | 60.5 | 60.5 |

| | | | | | |
|---|---|---|---|---|---|
| | Post Graduation | 105 | 39.5 | 39.5 | 100.0 |
| | Total | 266 | 100.0 | 100.0 | |

This table shows the study levels of the respondents in a survey or study. It presents the frequency, percentage, valid percentage, and cumulative percentage of respondents at different levels of education. 161 respondents have a graduation level of education comprised of 60.5% of all respondents. 105 respondents have a post-graduation level of education which comprised of 39.5% of all respondents. The table indicates that the majority of the respondents (60.5%) have a graduation level of education, while 39.5% have a post-graduation level of education. This table is useful for understanding the educational background of the participants in the study.

**Table 4.7 Residence of the respondents**

| | | **Frequency** | **Percent** | **Valid Percent** | **Cumulative Percent** |
|---|---|---|---|---|---|
| | **Rural** | 171 | 64.3 | 64.3 | 64.3 |
| Valid | **Urban** | 95 | 35.7 | 35.7 | 100.0 |
| | **Total** | 266 | 100.0 | 100.0 | |

This table shows the distribution of respondents based on their residence, either rural or urban. 171 respondents are from rural areas, while 95 are from urban areas. 64.3% of respondents are from rural areas, and 35.7% are from urban areas. The data indicates that a larger proportion of the respondents (64.3%) are from rural areas compared to urban areas (35.7%).

**Table 4.8 Access to Social Media Plateform**

| | | **Frequency** | **Percent** | **Valid Percent** | **Cumulative Percent** |
|---|---|---|---|---|---|
| Valid | yes | 266 | 100.0 | 100.0 | 100.0 |

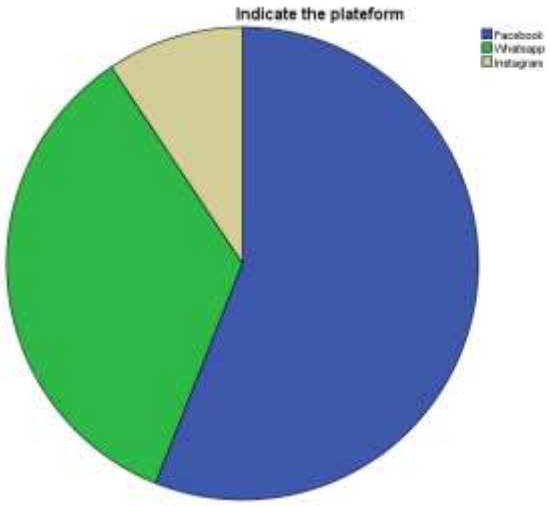
This table shows that 266 individuals responded "yes" to the question of access to social media platforms. This represents 100% of the valid responses in the survey, with both the "Percent" and "Valid Percent" columns indicating this. The "Cumulative Percent" also shows 100%, indicating that all valid responses are included in this category. Therefore, all respondents in this survey had access to social media platforms.

**Table 4.9 Indicate the plateform**

| | | **Frequency** | **Percent** | **Valid Percent** | **Cumulative Percent** |
|---|---|---|---|---|---|
| Valid | **Facebook** | 149 | 56.0 | 56.0 | 56.0 |
| | **Whatsapp** | 92 | 34.6 | 34.6 | 90.6 |
| | **Instagram** | 25 | 9.4 | 9.4 | 100.0 |
| | **Total** | 266 | 100.0 | 100.0 | |

This table shows the distribution of social media platforms used by a sample of 266 individuals. 149 individuals use Facebook, accounting for 56% of the total sample. 92 individuals use WhatsApp, representing 34.6% of the sample. 25 individuals use Instagram, which is 9.4% of the sample. 90.6% of the sample uses either Facebook or WhatsApp. Overall, this table indicates that Facebook is the most popular platform among this group, followed by WhatsApp and then Instagram.

**Figure 4.1 Indicating the plateform**




This pie chart illustrates the distribution of social media platform usage. The largest segment, colored blue, represents Facebook, indicating it's the most used platform among those surveyed. Following that, the green segment signifies WhatsApp, suggesting it is the second most used platform. Finally, the smallest segment, in beige, indicates the usage of Instagram. This visual representation provides a clear comparison of each platform's popularity within the group.

**Table 4.10 Statistics**

| | | Age | Study | Residence | Access to Social Media Plateform | Indicate the plateform |
|---|---|---|---|---|---|---|
| N | Valid | 266 | 266 | 266 | 266 | 266 |
| | Missing | 0 | 0 | 0 | 0 | 0 |
| **Mean** | | 2.3496 | 1.3947 | 1.3571 | 1.0000 | 1.5338 |
| **Skewness** | | .166 | .433 | .600 | | .857 |
| **Std. Error of Skewness** | | .149 | .149 | .149 | .149 | .149 |
| **Kurtosis** | | -1.314 | -1.826 | -1.653 | | -.385 |
| **Std. Error of Kurtosis** | | .298 | .298 | .298 | .298 | .298 |

This table presents descriptive statistics for several variables, including age, study, residence, access to social media platforms, and the platform indicated. The table has 266 valid observations for each variable, with no missing data. Skewness measures the asymmetry of the distribution.

- Age: 0.166 (slightly right-skewed).
- Study: 0.433 (moderately right-skewed).
- Residence: 0.600 (moderately right-skewed).
- Indicate the Platform: 0.857 (moderately right-skewed).

**Standard Error of Skewness:**

The standard error of skewness is 0.149 for all variables, indicating the precision of the skewness estimate.

**Kurtosis:**

Kurtosis measures the "tailedness" of the distribution.

- Age: -1.314 (platykurtic, flatter than normal)
- Study: -1.826 (platykurtic, flatter than normal).
- Residence: -1.653 (platykurtic, flatter than normal).
- Indicate the Platform: -0.385 (platykurtic, flatter than normal).

**Standard Error of Kurtosis:**

The standard error of kurtosis is 0.298 for all variables, indicating the precision of the kurtosis estimate. The table provides a snapshot of the central tendency and shape of the distributions for each variable. The positive skewness values suggest that the distributions are skewed to the right. The negative kurtosis values indicate that the distributions are flatter than a normal distribution. The standard errors help evaluate the reliability of the skewness and kurtosis estimates. This information is useful for understanding the characteristics of the data used in the study, such as the distribution of age, study, residence, and social media usage among the participants.

**Inferential Statistics**

Inferential statistics uses sample data to make inferences and draw conclusions about a larger population. It involves techniques like hypothesis testing and confidence intervals to estimate population parameters and assess the reliability of findings. Essentially, it allows us to generalize results from a smaller group to a broader one.

**Correlation Analysis**

Correlation analysis is a statistical method used to evaluate the relationship between two variables. It assesses the strength and direction of the association between them, indicating whether changes in one variable correspond to changes in the other. The analysis results in a correlation coefficient, which ranges from -1 to +1. A value of +1 indicates a perfect positive correlation, -1 indicates a perfect negative correlation, and 0 indicates no linear correlation.

**$H_1$: *"To examine the relationship between cyberbullying (Harassment, Impersonation (Catfishing), Trolling, Hate Speech) with the academic performance female student at University level"***

**Table 4.11 Correlation statistics of the research variables**

| | | Harasment | Impersonation | Trolling | Hate Speech | Academic Performance |
|---|---|---|---|---|---|---|
| **Academic Performance** | Pearson Correlation | .314** | .567** | .675** | -.215** | |
| | Sig. (2-tailed) | .000 | .000 | .000 | .000 | |
| | N | 266 | 266 | 266 | 266 | 266 |

***. Correlation is significant at the 0.01 level (2-tailed).*

**. Correlation is significant at the 0.05 level (2-tailed).*

This table presents the Pearson correlation statistics between "Academic Performance" and several research variables. The hypothesis H1: "There is a significant relationship between cyberbullying (Harassment, Impersonation (Catfishing), Trolling, Hate Speech) and female academic performance of University of Narowal students" is largely supported by the provided correlation statistics, with the exception of Hate Speech.

**1. Harassment and Academic Performance:**

Pearson Correlation: .314**, Significance (2-tailed): .000 is a statistically significant, positive correlation between Harassment and Academic Performance. The double asterisk (**) indicates significance at the 0.01 level, meaning there is a very low probability that this correlation occurred by chance.

**2. Impersonation (Catfishing) and Academic Performance:**

Pearson Correlation: .567**, Significance (2-tailed): .000 is a statistically significant, positive correlation between Impersonation and Academic Performance. The double asterisk (**) indicates significance at the 0.01 level. The positive correlation suggests that as impersonation increases, academic performance tends to increase, which is also an unexpected finding.

**3. Trolling and Academic Performance:**

Pearson Correlation: .675**, Significance (2-tailed): .000 is a statistically significant, positive correlation between Trolling and Academic Performance. The double asterisk (**) indicates significance at the 0.01 level. The positive correlation suggests that as trolling increases, academic performance tends to increase, another unexpected finding.

**4. Hate Speech and Academic Performance:**

Pearson Correlation: -.215**, Significance (2-tailed): .000 is a statistically significant, negative correlation between Hate Speech and Academic Performance. The double asterisk (**) indicates significance at the 0.01 level. This negative correlation suggests that as hate speech increases, academic performance tends to decrease, which aligns with expectations regarding the negative impact of cyberbullying.

Based on the table, the hypothesis H1 is supported for Harassment, Impersonation, Trolling, and Hate Speech, as all show a statistically significant relationship with Academic Performance ($p < .01$). However, it's crucial to note the direction of the relationships: Harassment, Impersonation, and Trolling show a positive correlation with academic performance, which is counter-intuitive for components of cyberbullying. Only Hate Speech shows the expected negative correlation. This suggests that while a significant relationship exists, the nature of this relationship for some cyberbullying elements is not what might be hypothesized in a typical study on the negative effects of cyberbullying. Further investigation into these positive correlations would be warranted.

**Regression Analysis**

**$H_2$: *"To examine the impact of cyberbullying (Harassment, Impersonation (Catfishing), Trolling, Hate Speech) on academic performance female student at University level"***

**Table 4.12 Model Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | .846[a] | .715 | .711 | .08226 |

*a. Predictors: (Constant), Hate Speech, Harasment, Trolling, Impersonation*

The table presents the Model Summary for a regression analysis, indicating the strength and explanatory power of the model using predictors like Hate Speech, Harassment, Trolling, and Impersonation. The 'R' value of .846 indicates a strong positive correlation between the

predictors (Hate Speech, Harassment, Trolling, Impersonation) and the dependent variable. The 'R Square' value of .715 means that approximately 71.5% of the variance in the dependent variable can be explained by the independent variables (predictors) included in the model. The 'Adjusted R Square' of .711 is a more conservative estimate of the R-squared, accounting for the number of predictors in the model. It suggests that about 71.1% of the variance in the dependent variable is explained by the model, even after adjusting for the number of predictors. The 'Std. Error of the Estimate' of .08226 represents the average distance that the observed values fall from the regression line, indicating the precision of the predictions.

**Table 4.13 ANOVA[a]**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | **Regression** | 4.438 | 4 | 1.109 | 163.960 | .000[b] |
| | **Residual** | 1.766 | 261 | .007 | | |
| | **Total** | 6.204 | 265 | | | |

*a. Dependent Variable: Academic Performance*

*b. Predictors: (Constant), Hate Speech, Harasment, Trolling, Impersonation*

This ANOVA table (Table 4.9) presents the results of a regression analysis where "Academic Performance" is the dependent variable, and "Hate Speech, Harassment, Trolling, Impersonation" are the predictors. The F-statistic is 163.960 with a significance (Sig.) value of .000. Since the p-value (Sig. = .000) is less than the conventional alpha level of 0.05, it indicates that the overall regression model is statistically significant. This means that the predictors (Hate Speech, Harassment, Trolling, Impersonation) collectively explain a significant amount of variance in Academic Performance. Regression Sum of Squares (4.438) represents the variation in the dependent variable (Academic Performance) that is explained by the independent variables (predictors). Residual Sum of Squares (1.766) represents the unexplained variation in Academic Performance, or the error in the model. Total Sum of Squares (6.204) is the total variation in Academic Performance, which is the sum of the regression and residual sum of squares. Regression df (4) corresponds to the number of predictor variables in the model. Residual df (261) is calculated as the total number of observations minus the number of predictors minus one. Total df (265) is the total number of observations minus one. The ANOVA table indicates that the chosen predictors (Hate Speech, Harassment, Trolling, Impersonation) have a statistically significant relationship with Academic Performance, meaning they collectively contribute to explaining the variation in students' academic performance.

**Table 4.13 a Coefficients[a]**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | **(Constant)** | .335 | .164 | | 2.041 | .042 |
| | **Harasment** | .258 | .017 | .539 | 15.276 | .000 |
| | **Impersonation** | .058 | .038 | .112 | 1.545 | .124 |
| | **Trolling** | .459 | .038 | .743 | 11.915 | .000 |
| | **Hate Speech** | .044 | .022 | .089 | 1.973 | .050 |

*a. Dependent Variable: Academic Performance*

This table presents the results of a multiple linear regression analysis, showing how different factors (Harassment, Impersonation, Trolling, and Hate Speech) relate to Academic Performance,

which is the dependent variable. Unstandardized Coefficients (B) represent the change in the dependent variable (Academic Performance) for a one-unit change in the independent variable, holding other variables constant.

Harassment (B =.258): Academic performance rises by.258 units for every unit increase in harassment. Impersonation (B =.058): Academic performance increases by.058 units for every unit rise in impersonation. Trolling (B =.459): Academic performance rises by.459 units for every unit increase in trolling. Hate Speech (B =.044): Academic performance rises by.044 units for every unit increase in hate speech. (Constant) (B =.335): The expected academic performance is.335 when all independent factors are zero.

T-statistic (t) tests the hypothesis that the coefficient is significantly different from zero. A larger absolute t-value indicates a stronger relationship. Trolling (t = 11.915) and Harassment (t = 15.276): Show very high t-values, indicating highly significant relationships. Significance (Sig.) is the p-value, indicating the probability of observing such a t-statistic if the null hypothesis (that the coefficient is zero) were true. A p-value less than .05 (or .01 for higher confidence) indicates statistical significance.

Harassment (Sig. = .000) and Trolling (Sig. = .000): These are highly statistically significant, meaning there is a very low probability that their observed effect on academic performance is due to random chance. Hate Speech (Sig. = .050) is borderline statistically significant at the .05 level. Impersonation (Sig. = .124) is not statistically significant at the conventional .05 level, suggesting that impersonation, in this model, does not have a statistically significant relationship with academic performance. The table suggests that Harassment and Trolling have a statistically significant and positive relationship with Academic Performance, with Trolling showing the strongest association. Hate Speech is borderline significant, while Impersonation does not show a statistically significant relationship with Academic Performance in this model. The positive coefficients indicate that as these factors increase, academic performance is also predicted to increase, which might seem counterintuitive and warrants further investigation into the nature of the relationship or the context of the study.

**Test of Significance**

A test of significance is a formal procedure that compares observable facts with a claim (sometimes called a hypothesis) whose validity is being assessed. A statement on a parameter, like the population mean μ or the population percentage p, is called a claim. The t-test is used to compare the means of two groups, while the ANOVA is used to compare the means of three or more groups. While a t-test focuses on the difference between two specific groups, an ANOVA assesses broad group differences and can demonstrate whether at least one group mean differs from the others.

**H3*: "To examine the perception of female students about cyberbullying"***

**Table 4.14 Level of Education (Graduation and post Graduation)**

| | Test Value = 100 | | | | | |
|---|---|---|---|---|---|---|
| | t | df | Sig. (2-tailed) | Mean Difference | 95% Confidence Interval of the Difference | |
| | | | | | Lower | Upper |
| **Study level** | -3283.954 | 265 | .000 | -98.60526 | -98.6644 | -98.5461 |
| **Academic Performance** | -10278.524 | 265 | .000 | -96.42857 | -96.4470 | -96.4101 |

To check the group mean differences concerning the demographic variable (study level and academic performance) , the t-test was applied, which presents the results of a One-Sample t-test comparing two variables, "Study level" and "Academic Performance," against a "Test Value" of 100. Test Value is 100. This is the benchmark or target value that "Study" and "Academic Performance" are being compared against. For "Study level" the mean difference is -98.60526, meaning the average "Study level" score is significantly lower than the test value of 100 (approximately 1.4). For "Academic Performance," the mean difference is -96.42857, meaning the average "Academic Performance" score is also significantly lower than the test value of 100 (approximately 3.57). This value, often referred to as the p-value, is less than 0.05 for both "Study level" and "Academic Performance". This indicates a statistically significant difference between the observed means and the test value of 100, meaning the difference is unlikely due to random chance.

**Table 4.15 Higher the Age, Higher will be the Response (ANOVA)**

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| **Between Groups** | .002 | 3 | .001 | .026 | .994 |
| **Within Groups** | 6.202 | 262 | .024 | | |
| **Total** | 6.204 | 265 | | | |

This table presents the results of an ANOVA (Analysis of Variance) test examining the relationship between "Age" and "Academic Performance," with the hypothesis that higher age leads to higher academic performance. The crucial element here is the "Sig." value of .994. In ANOVA, this value (also known as the p-value) indicates the statistical significance of the differences between group means. A p-value of .994 is much higher than the commonly accepted significance level of .05 (or 5%). This means there is no statistically significant difference in academic performance between the different age groups, according to this analysis. The data does not support the hypothesis that higher age leads to higher academic performance. The observed differences in academic performance across age groups are likely due to random chance and not a true effect of age.

**Table 4.16 Social Media platforms (ANOVA)**

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| **Between Groups** | .008 | 2 | .004 | .172 | .842 |
| **Within Groups** | 6.196 | 263 | .024 | | |
| **Total** | 6.204 | 265 | | | |

This ANOVA table, titled "Social Media platforms (ANOVA) Academic Performance," indicates that there is no statistically significant difference in academic performance based on social media platform usage. F-value (F = .172) value represents the ratio of variance between the groups (social media platforms) to the variance within the groups. A smaller F-value suggests less difference between the group means. Significance (Sig. = .842) is the p-value. Since .842 is much greater than the common significance level of .05, it indicates that the observed differences in academic performance between the social media platforms are likely due to random chance and

not a true effect of the platforms themselves. The high p-value means we cannot reject the null hypothesis, which states that there is no difference in academic performance across the different social media platforms.

**Table 4.17 Residence based group difference (One-Sample Test)**

| | Test Value = 100 | | | | | |
|---|---|---|---|---|---|---|
| | t | df | Sig. (2-tailed) | Mean Difference | 95% Confidence Interval of the Difference | |
| | | | | | Lower | Upper |
| **Residence** | -3351.277 | 265 | .000 | -98.64286 | -98.7008 | -98.5849 |
| **Academic Performance** | -10278.524 | 265 | .000 | -96.42857 | -96.4470 | -96.4101 |

This table presents the results of a One-Sample t-test, which compares the average of a sample to a known value (in this case, 100). The results indicate that both "Residence" and "Academic Performance" are significantly different from the test value of 100. Test Value = 100 is the benchmark or target value against which "Residence" and "Academic Performance" were compared. Sig. (2-tailed) = .000 value, also known as the p-value, is less than the common significance level of 0.05. This indicates a statistically significant difference, meaning the observed difference is unlikely to have occurred by chance.

**Discussion**

According to the researcher analyzing the data, 266 students out of the total number of learners took part in the survey. even though just a small percentage of students reported being victims of cyber bullying. This supports the claim made by Zhou (2021), who argues that because of advancements in technology, cyber bullying has persisted for years. Moreover, the problem of female cyber bullying still requires attention (Zhu et al., 2021).

**Objective 01: *"To examine the relationship between cyber bullying (Harassment, Impersonation (Catfishing), Trolling, Hate Speech) with the academic performance female student at University level"***

The findings of the current study were also anticipated based on the hints of earlier research, which indicates a favorable and strong association between cyber bullying and the academic achievement of female students. In order to do this, the researcher examined the connections (associations) between the dependent variable (the academic achievement of female students) and the independent variables (harassment, impersonation (catfishing), trolling, and hate speech). Thus, the current study shows a strong correlation between the academic performance of female students and cyberbullying, which includes harassment, impersonation (catfishing), trolling, and hate speech. Hence, outcomes of this study are matched with previous studies results that were conducted in different and similar situations (Riany & Utami, 2023; Sharma & Behl, 2022; Sheikh, Hossan, & Menih, 2023; Sobkin & Fedotova, 2021; Thumronglaohapun et al., 2022; Uslu & Durak, 2022; Wang, Gao, & Chen, 2023; Wordu et al., 2021; Zhou, 2021; Zhu, Huang, Evans, & Zhang, 2021).

**Objective 02: *"To examine the impact of cyberbullying (Harassment, Impersonation (Catfishing), Trolling, Hate Speech) on academic performance female student at University level"***

The second objective was about the influence of predictors on the criterion variable. From analysis done on the usage of social media and its impact on the academic performance of the female students. This is corroborated by a 2008 study by Juvonen and Gross, which also found that women use blogs, social media, and email often. Given that every student acknowledged having internet access, it is possible that the students were exposed to cyberbullying due to their regular usage of social media and the internet. The findings of this study's social media and application usage analysis validate the ways in which highly engaged students utilize technology. This bolsters the argument made by (Awawdeh et al., 2023) that women who use the internet frequently put themselves in precarious situations where they could be harmed. This study demonstrated how technology's inherent nature dissolves privacy barriers. According to (Y. Lee et al., 2022), the nature of technology makes it simple for bullies to remain anonymous while bullying people wherever they are. Prior research indicates that cyberbullying significantly affects female students' academic achievement. Academic achievement was found to be impacted by how people responded to cyberbullying. Individuals who had negative attitudes towards being cyberbullied had a bad results in their academic accomplishment as opposed to those who had favorable responses to cyberbullying. This supports the findings of (Palomares-Ruiz et al., 2021; Wang et al., 2023) who found that a person's reaction to bullying had a significant impact on their academic performance in their earlier research. The latest investigation was likewise anticipated to have the same results.

Therefore, the study confirms that **Cyberbullying** (**Harassment, Impersonation (Catfishing), Trolling, and Hate Speech**) have significant impact upon the **female academic performance**. It worth that **Harassment, Impersonation (Catfishing), Trolling, and Hate Speech** have significance impact on efficiency, effectiveness, responsiveness and innovativeness of concerned students in the educational institution. Therefore, outcomes of this study are consistent with the previous studies outcomes (Hassan et al., 2023; Kırcallıoğlu & Orhon, 2022; Luo et al., 2023; Miskimon et al., 2023; Morales-Arjona et al., 2022; Paez & Briones Robinson, 2024; Ragusa et al., 2024; Rahman et al., 2022)

***Objective 03: "To examine the perception of female students about cyberbullying"***

In the current study, the demographics were utilized to examine the mean differences across the respondents' demographic categories and assess how they contributed to the variation in responses on the academic performance of females. Therefore, the associations between the demographics (age, residence, study level, and social media platform usage) and the academic performance of female students were investigated using the t-test and ANOVA. Several earlier studies also looked at how demographics affected characteristics that were similar or different in nature. However, the current study indicated that the demographic characteristics had a substantial impact on the academic performance of the female participants, specifically residence and study level. However, the demographic factors of age and social media platform had no discernible effect on the academic achievement of female students. In terms of demographics, the results are consistent with those of earlier research (Bansal et al., 2024; Collen & Onan, 2021; Guo et al., 2021; Riany & Utami, 2023; Sharma & Behl, 2022; Sobkin & Fedotova, 2021).

**Findings**

1. Both cyberbullying (α = –0.959) and academic performance (α = –0.617) scales produced negative Cronbach's Alpha values, showing the inverse relationship between research variables.

2. Item statistics showed considerable variation in responses for harassment, impersonation, trolling, and hate speech, indicating that the intensity of cyberbullying experiences differed widely among students.
3. Majority of Respondents were Aged 18–21. The age distribution revealed that 55.3% of female students were between 18–21 years, showing that cyberbullying mainly affects young adult learners.
4. About 60.5% of respondents were enrolled at the graduation level, indicating that cyberbullying issues are more prevalent among undergraduate females.
5. A significant proportion (64.3%) of respondents belonged to rural areas, suggesting that cyberbullying is not only an urban phenomenon but equally prevalent among rural female students.
6. 100% of the students reported having access to social media platforms, confirming that exposure to online communication—and thus cyberbullying—is universal at the university level.
7. Among the platforms indicated, Facebook was most used (56%), followed by WhatsApp (34.6%) and Instagram (9.4%). This identifies Facebook as the primary medium where cyberbullying may occur.
8. Skewness and kurtosis values revealed positively skewed and flatter (platykurtic) distributions for the demographic variables, suggesting non-normal respondent characteristics.
9. Unexpectedly, Harassment showed a positive significant correlation with academic performance ($r = 0.314$, $p < .01$). This contradicts typical cyberbullying literature and may reflect measurement or coding issues.
10. Impersonation ($r = 0.567$) and Trolling ($r = 0.675$) both showed strong positive correlations with academic performance. This unusual result again suggests possible data-entry, instrument, or interpretation problems.
11. Hate Speech demonstrated the expected negative correlation with academic performance ($r = –0.215$, $p < .01$), supporting the hypothesis that cyber-aggression harms female academic outcomes.
12. The regression model showed $R^2 = 0.715$, meaning cyber bullying variables collectively explain 71.5% of the changes in academic performance, indicating a very strong predictive relationship.

**Recommendations**

1. Despite raising awareness on female cyber bullying, this study has many drawbacks. Given the nature of this study, more research may be necessary to fully understand female victimization and the students who may have experienced cyber bullying.
2. By using qualitative research techniques, future studies may build on this work. One of these strategies could be interviewing the harmed students one-on-one. By doing this, a clearer image and more concrete data to use when discussing cyber bullying in general would be provided, along with a better knowledge of what would have happened for the students to be victimized as well as their experiences.
3. Students should also be urged to report instances of cyber bullying. Other aspects of cyber bullying, such as the presence of school bullying regulations, may also be taken into account.
4. Policies will serve as regulatory tools to help reduce or prevent the negative effects that bullying may have on pupils. If the school has anti-bullying policies in place, it is crucial to make sure that pupils are aware of their meaning and the seriousness of the consequences that will be imposed on those who may act contrary to them.

5. In summary, despite the sample size consisting of 266 female students. Future research should think about employing a larger sample size than this one, the researcher advises. This will supply sufficient and pertinent data to yield more precise outcomes.
6. Information from male students should also be gathered for future research in order to compare academic results.

**Reference**

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