Vol. 6, Issue 2, 2026 (April – June)
ISSN 2710-4532 (Online) ISSN 2710-4524 (Print) ISSN 2710-4540 (ISSN-L)
Journal of Educational Research & Social Sciences Review (JERSSR)

Responsible Digital Citizenship and Students' Psychological Well-being: A Comparative Study of Different Platforms

1. **Zahid Hussain** PhD Scholar, Institute of Education, University of Sargodha
Email: Zahidawanuol@gmail.com
2. **Dr. Uzair Ul Hassan** Associate Professor, Institute of Education, University of Sargodha
Email: uzair.hassan@uos.edu.pk
3. **Dr. Iram Uzair** Assistant Professor, Institute of Education, University of Sargodha
Email: iram.uzair@uos.edu.pk

Abstract

The research was conducted to find out the Impact of social media on Student Well-being. To examine the association between responsible digital citizenship and student well-being, aiming to determine the extent of the positive correlation. The hypothesis of the study was "there is no significant relationship between Responsible digital citizenship and psychological wellbeing of graduate students". The study was delimited to 3 universities in District Sargodha (i.e. 1 public, 1 Private and one Open Distance Learning university). Three adapted questionnaires were used to collect the data from the respondents. Accessible population from district Sargodha for the study was consisted of all the students studying at graduate level. Multistage sampling technique was used to access the desired sample. Data analysis was carried out by using inferential statistics i.e., Regression and correlation was used to draw out the findings and conclusion. It was concluded that many graduate students have a moderate level of psychological well-being while using social media. So, it is recommended that institutions and communities apply their observations of online posts or content that encouraged them to develop behaviours to prevent adverse emotional responses.

Keywords: Psychological Wellbeing, Responsible Digital Citizenship

Introduction

In the era of modernism, social media and social networks have significantly influenced the student community. This impact can be both positive and negative. In modern society, social media has increasingly become an integral part of every individual's life (Raghavendra et al., 2018). In this context, innovations have rapidly progressed in the field of information technology. This advancement is attributed to the evolving nature of social media, introduced through various networking websites. Generally, social media is considered a computer-based technology that fosters the growth and exchange of ideas. Additionally, it is valuable for raising awareness about career interests and gathering information. Social media acts as a crucial outlet for expressing thoughts through social networks and virtual communities (Nielsen, 2017). Therefore, the information shared on social media must be authentic and based on facts.

In a similar vein, students who use social media more frequently have fewer opportunities to interact with others in person. These behaviours impair their ability to communicate. Students may occasionally miss deadlines as a result of the time they spend on social media. Since good communication is known to be the key to success, they may find it difficult to interact and speak with others in person. Additionally, kids' mental and physical health are impacted by excessive social media use. In order to stay alert and active, students put off eating and don't get enough sleep, instead drinking too much tea or coffee. In light of this, studies will be carried out to determine how social media affects students' wellbeing through instruction in responsible digital citizenship.

However, other research has indicated that the prevalence of usage and the rise in new users in recent years are factors that lead to mental illness (Richter et al., 2019). The relationship between individuals, their use of social media, and their psychological health has been studied. Social media users' associations with many psychological processes, such as depression, anxiety, loneliness, happiness, and psychological well-being, have been extensively studied. For example, it has been

noted that social media users are linked to notions like overall psychological well-being (Erfani & Abedin, 2018) and emotions including self-confidence, melancholy, and apprehension (Seabrook et al., 2016). Given this, the study looks at the moderating effect of responsible digital citizenship while determining the effect of social media engagement (SME) on students' well-being. (Saiphoo et al., 2020).

Review of the Related Literature

Social Media Engagement (SME)

The social media commitment of the student is observed as a complex construct that comprises interdependent interactive, emotional, and mental mechanisms that exhibit some overlap (Bekalu, 2023). Behavioral engagement refers to involvement in instructional activities, effort investment, sustained attention to tasks, and persistence in academic pursuit. Emotional appointment states to affective student feelings of enjoyment, interest, eagerness, and interest, whereas mental commitment mentions to involvement in self-regulated learning strategies (Yalalem, 2023). But Reeve (Citation 2012) argued that the above three-dimensional conceptualization of student appointment, which disregards agentic appointment, employs a more limited definition of appointment. The argument that students' participation in social media is better explained by a four-component model rather than a three-component model has been of particular interest.

Students' Social Media Usage (SMU) and Students' Wellbeing

Technology is often adopted because it enhances traditional processes and makes everyday life easier. Yet, its impact on society is profound—sometimes beneficial, and sometimes problematic. In the realm of communication, for example, digital technologies have transformed the way people connect with each other, even changing the definition of community (Sankar, 2011). Sincar (2011) further emphasized that the influence of technology in education is significant issues today. In light of these changes, educators must convert into digital citizens, acceptance the technologies and digital cultures that now define the modern learning environment (Sincar, 2011).

Despite being part of a tech-savvy generation, many preservice teachers lack the foundational understanding necessary to guide their future students in navigating digital environments safely. Pusey and Sadera (2012) noted that this includes insufficient knowledge of C3 concepts—cyber ethics, cyber safety, and cybersecurity—which are central to digital citizenship. These areas are especially critical for students, who, through their constant engagement with social media, face a wide range of consequences that can significantly affect their academic, personal, and future professional lives.

Digital Citizenship

In contemporary terms, citizenship is often understood as membership within a specific geographic or political community. Individuals within this community typically share a common set of rights and responsibilities, as well as cultural values, language, and historical experiences. They also operate under the same political and economic systems (Udvari et al., 2021).

However, digital citizenship represents a shift from this traditional notion. Unlike geographical citizenship, which is clearly defined by national borders, digital citizenship exists within the global, borderless realm of the internet. The digital sphere transcends political, cultural, and linguistic boundaries, resulting in a far more diverse and expansive population. Digital citizens come from various backgrounds, speak different languages, and hold a wide range of cultural values and worldviews the concept of digital citizenship is still evolving and gaining clarity. Scholars such as Cobbe (2019), Ribble (2011), and Cooney et al. (2018) have attempted to define it, often highlighting similar foundational ideas, though each brings a unique perspective. One widely accepted definition describes a digital resident as "any distinct who, in the sequence of their daily lives, participates in some way in the modern internet-connected world as the numerical world lasts to grow in inspiration and difficulty, understanding what it means to be a responsible, ethical, and informed digital citizen becomes increasingly important. This includes not only technical literacy but also awareness of digital rights, responsibilities, and the broader social and cultural implications of online behavior (Cobbe, 2019).

Responsible Digital Citizenship Definition

A citizen as an individual—either built-in or accepted—who owes commitment to a larger cooperative, such as a state, and shares in the privileges and accountabilities granted to all members of that group (p. 7). This understanding implies that citizenship involves not just legal status, but also a

set of social expectations. For a society to function effectively and harmoniously, its members are expected to follow shared norms and adhere to established laws as technology reshapes how people interact and engage globally, the traditional concept of citizenship is evolving. With the rise of digital communication and interconnectedness, citizenship is no longer confined to physical spaces. Lyons (2012) referred to digital citizenship as a "subdivision of nationality" (p. 40), acknowledging its roots in traditional civic identity while highlighting its relevance in the digital world. Ribble (2011) went further, describing it as suggesting that digital engagement now plays a central role in how individuals function as members of society.

Being a digital citizen, as it is identified that, by simply using and using electronic devices to take part in the Internet-connected world. A deeper category of digital citizenship is accountable digital citizenship, which includes both participation and responsible conduct in the digital sphere.

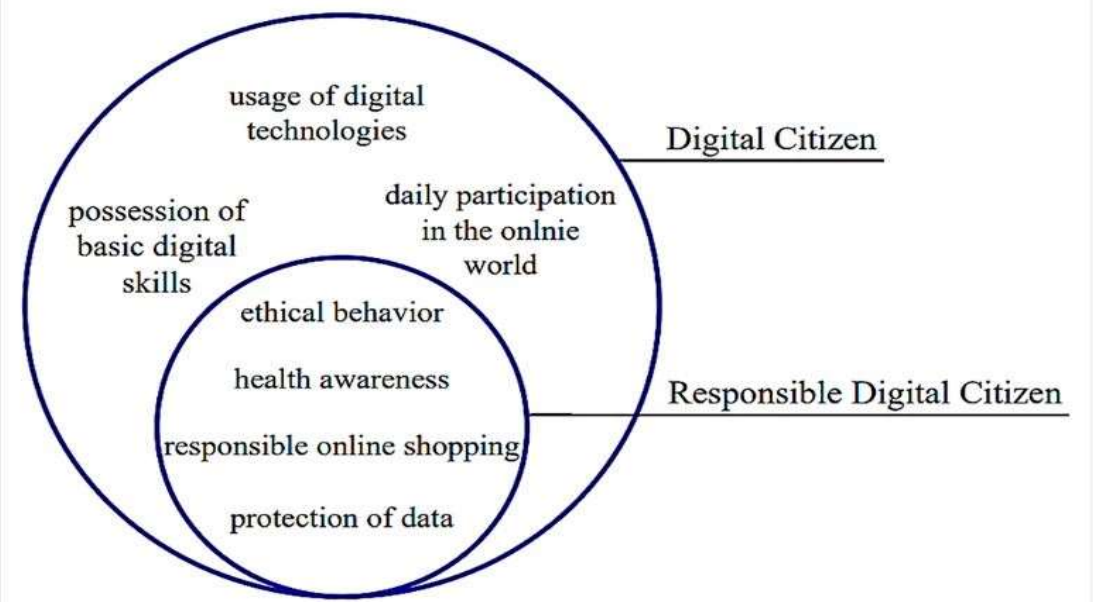

Figure 1

The Nordin et al. 5-factor model (2016) is the most similar to this method, as all of its issues define accountable actions in the numerical space. Due to the robustness of this model and the confirmation from previous analysis, we adopted this as a foundation for the features of a accountable digital citizen. That said, we have also additional new features based on the literature discussed to date as well as from trusted websites (Bencie 2017; CISA 2020).

Statement of Problem

In an age where social media infuses every aspect of modern life, its effects on the well-being of students have become a subject of increasing concern. As digital natives, students are both consumers and creators of online content, making their relationship with social media crucial in understanding its impact on their mental health and overall well-being. By determining the relationship between Responsible digital citizenship and psychological wellbeing, this research seeks to provide an understanding of how students can navigate the digital landscape while safeguarding their psychological well-being. This study has explored complex dynamics between Social media Engagement and students' psychological well-being.

Objectives of study

Following were the objectives of the study:

i. To identify the levels of Responsible digital citizenship at graduate level students
ii. To explore the levels of psychological wellbeing in students at graduate level.
iii. To determine the association between responsible digital citizenship and psychological wellbeing of the students at graduate level.

Significance of study:

The study may be helpful in following ways:

i. The study may contribute to developing the evidence-based link between SME and student wellbeing.
ii. The findings of the study may guide future investigations and intervention strategies.

iii. This study may also contribute to the digital future, influence practice and policy.
iv. This study may have the ability to equip the students with tools for responsible digital citizenship.
v. It may also empower the students for digital citizenship, specifically about SME and their wellbeing.
vi. The findings of the study may have the ability to encourage ethical use of technology and customized interventions.
vii. The study can serve as a resource material and would be helpful for future researchers.

Research Hypotheses

i. There is no significant difference in students' responsible digital citizenship and students' wellbeing at graduate level.

Methodology

The study was quantitative in nature with descriptive nature.

Population

For the data collection about students' psychological wellbeing, and Responsible digital Citizenship the population that was considered were all the boys' and girls' graduate students studying at the public, private and ODL universities of Punjab.

Sampling of the study

In Sargodha district there are three different types of universities (i.e. Public, Private and Open Distance Learning). To select the sample following criteria:

This sampling was carried out according to the following steps

1. First of all, among all the universities of Sargodha district, three universities (i.e. University of Sargodha, University of Lahore Sargodha Campus and Allama Iqbal Open University) were selected randomly.
2. From each selected university, five departments (i.e. social sciences, basic Sciences, Languages, applied science, and CS & IT) were selected purposively.
3. From each cluster of faculty, graduate students were selected conveniently to reach the desired sample of study.

Research Instruments

To collect the data from the respondents, i.e. graduate students, three questionnaires were adapted: one questionnaire was collecting the perceptions of graduate students about the Psychological SW of the students, 2nd one was about responsible digital citizenship.

The questionnaire for PSW was adapted from Ryff's Psychological Well-Being Scales (PWB) (Alias, Hashim & Yahya 2020), and the questionnaire for responsible digital citizenship was adapted from Ribble's (2022) Nine Elements of Digital Citizenship.

Questionnaire for Graduate students' psychological well-being (PSW)

There were six factors in Graduate students' PSW, i.e. in the autonomy factor, 7 statements were included; in environmental mastery, 7 statements were included; in personal growth factors, there were also seven statements included: in positive relations with others, purpose in life, and self-acceptance factors 7 statements were included accordingly.

Questionnaire for Graduate students' responsible digital citizenship

There are nine factors for RDC. In the factors of digital access, digital commerce, digital communication, digital etiquette, digital law, digital health and wellness, and digital rights and responsibilities, four statements were included accordingly. In the digital security (self-defense) factor, there were six statements. Meanwhile, in the digital citizenship (community) factor, there were three statements.

Validation of Research instruments

To assess the content and face validity, expert opinions were sought for validating the instruments. The questionnaires for PSW, RDC, and social media usage were also validated through feedback from experts. All questionnaires were made bilingual (in Urdu and English). The panel of experts consisted of five individuals with Ph.D. degrees in education, who were tasked with evaluating both the content and face validity. Additionally, they were asked to align the indicators and statements of the instruments with the study's objectives, difficulty levels, and sentence structure in both English and Urdu. They also evaluated the translations of the instruments.

Reliability of Research Instruments

After taking in to account the suggestions of experts, the tools were pilot tested. The data for all the three questionnaires (i.e. students' PSW, RDC and social media usage) were collected from 150 students. The data were collected to find out the reliability coefficient, Cronbach's alpha (α). It was drawn by using SPSS software and found the reliability of all four questionnaires. Cronbach's alpha Reliability of the questionnaire about PSW was 0.843, which was acceptable according to the recommendation of Law 40 (2004), which explored that "it will be rated excellent if the coefficient is greater than 0.80 and adequate if it is from 0.60 to 0.79".

The detail of the reliability of the instruments is given below.

Table 1*Cronbach's value of all instruments*

Sr No	Factors	No of items	Cronbach Alpha
1	Psychological Well-being	42	0.843
2	Responsible digital citizenship	37	0.828

All the Cronbach alpha value were within the recommended range.

Procedure of the Study

The procedure of the study is given as under:

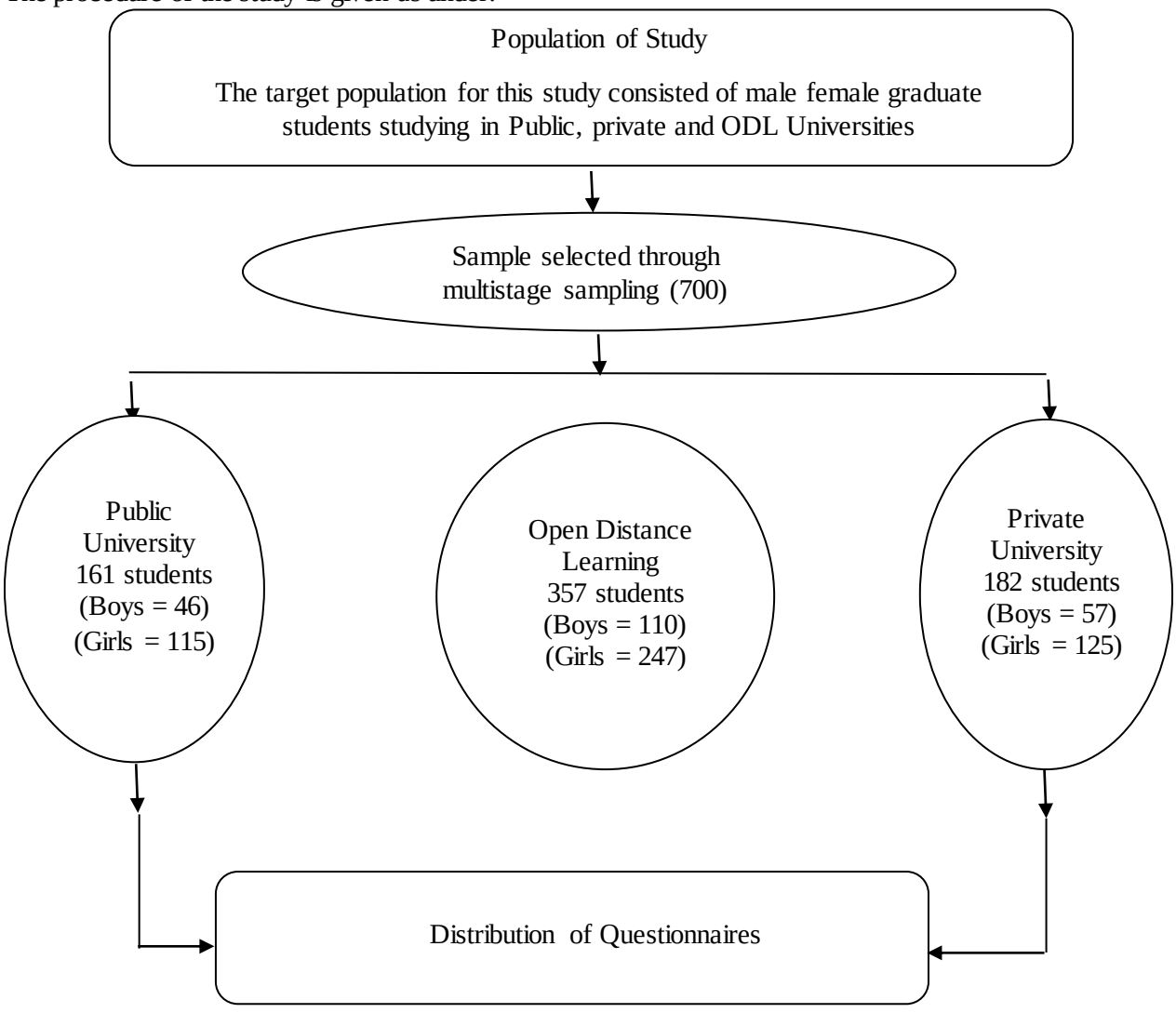

Figure shows the procedure of the study. The study was quantitative in nature. Three questionnaires were distributed to collect the data from the respondents. The data were collected and analyzed by using descriptive and inferential statistics.

Analysis of Data

The data were collected by the research instruments and were coded then tabulated before being evaluated and interpreted it statistically. There was no need to reverse the coding because there was not any statement which contains "Not" and "No" in both questionnaires, so.

Following scoring procedure was adopted for the questionnaire of head teachers and teachers

1. Weights were given to the responses as
   Strongly Agree = 5, Agree = 4, Un-decided = 3, Disagree = 2 and strongly disagree = 1
2. All the data collected from the teachers and head teachers were categorized on their average mean score basis. Categorization of the mean score was given as

i. If, mean score = 0-2.0 = lower
ii. Mean score =2.1–3.0 = low
iii. Mean score = 3.1 – 4.0 = moderate
iv. Mean score = 4.1 – 4.5 = high
v. Mean score = 4.6 – 5.0 =higher

Data were analyzed by using SPSS software. The T test, correlation and chi square tests were applied for statistical measurements

To what extent the rate of difference of the perception of students according to their psychological wellbeing with respect to different levels exists?

Table 2*Students' psychological wellbeing*

Students' psychological wellbeing					
Level	**Mean score**	**Frequency**	**Percent**	**Weighted Mean**	**SD**
Lower	0-2.0	0	**0%**	2.97	0.45
Low	2.1-3.0	72	**10%**		
Moderate	3.1- 4.0	588	**84%**		
High	4.1- 4.5	28	**4%**		
Higher	4.6- 5.0	12	**2%**		
Total		**700**	**100%**		

In table 2 it is indicated that overall, 84% of students having frequency 588 viewed moderate level towards their psychological wellbeing while 10% of the students showed low level towards their psychological wellbeing, whereas 4% of the students showed level of perception with mean score 2.97 and SD = 0.45, towards their psychological wellbeing. This shows the trend that graduate students have moderate level of psychological wellbeing.

Ryff's Psychological wellbeing model

Following are the constructs involved in psychological wellbeing of the students at graduate level

Table 3 Factor wise Analysis

Construct	**SA f (%)**	**AG f (%)**	**UN f (%)**	**DA f(%)**	**SDA f(%)**	**Total f(%)**	**Mean**	**SD**
Total Autonomy Factor	800 16%	2064 42%	1072 21%	696 14%	268 5.4%	4900 100%	3.49	0.97
Total Environmental mastery Factor	500 10%	1652 34%	1316 27%	1192 24%	240 5%	4900 100%	3.19	1.01
Total Personal Growth	736 15%	1756 36%	1180 24%	976 20%	252 5%	4900 100%	3.19	1.01
Total positive relations	912 18%	1860 38%	1196 24%	724 15%	208 5%	4900 100%	3.52	1.01
Total Purpose in life	748 16%	1652 34%	1064 22%	1048 23%	288 5%	4900 100%	3.34	0.99
Total Self-Acceptance Factor	872 18%	2160 44%	1176 24%	556 11%	136 3%	4900 100%	3.61	0.95

It is revealed that many (58%) of the students with a mean score = 3.49 and SD = 0.97 showed an agree response towards the autonomy factor. Similarly, it is found that many (44%) of students with mean score = 3.19 and SD = 1.01, showed agree response towards the environmental mastery factor, whereas, 27% students were showed neutral response. many (51%) of students with mean score = 3.19 and SD = 1.01 showed agree response towards personal growth. While (25%) showed disagree response towards personal growth. many (56%) of students with mean score = 3.52 and SD = 1.01 showed agree response towards positive relations. While (24%) showed undecided response toward positive relations. It was found that many (50%) of the students with mean score of 3.34 and SD = 0.99 showed agree response towards the purpose in life factor. it was shown that many (49%) of students with mean score = 3.30 and SD = 1.06, showed agree response towards the self-acceptance factor of psychological wellbeing.

Q.2 To what extent the rate of difference of the perception of students according to their responsible digital citizenship with respect to different levels exists?

Table: 4 *Levels of Responsible digital citizenship*

Responsible digital citizenship					
Level	**Mean score**	**Frequency**	**Percent**	**Weighted Mean**	**SD**
Lower	0-2.0	4	**1%**	3.52	0.79
Low	2.1-3.0	34	**5%**		
Moderate	3.1- 4.0	336	**48%**		
High	4.1- 4.5	243	**35%**		
Higher	4.6- 5.0	83	**12%**		
Total		**700**	**100%**		

In this table it is indicated that overall, 48% of students having frequency 336 viewed moderate level towards their Responsible digital citizenship while 35% of the students showed low level towards their Responsible digital citizenship, whereas 12% of the students showed level of perception towards Responsible digital citizenship with mean score = 3.52 and SD = 0.79, towards their Responsible digital citizenship.

Statement Analysis of Responsible digital citizenship (RDC)

The data about RDC is given as under.

Table 5

Statement	**Always f(%)**	**Often f(%)**	**Few f(%)**	**Rarely f(%)**	**Never f(%)**	**Total f(%)**	**Mean**	**SD**
Digital access	1252 45%	757 27%	364 13%	251 9%	176 6%	2800 100%	3.9	1.17
Digital commerce	1212 43%	825 29%	418 15%	223 8%	122 4%	2800 100%	4.0	1.1
Digital Communication	1095 39%	695 25%	402 14%	200 7%	408 15%	2800 100%	3.7	1.1
Digital Etiquette	1547 55%	527 19%	371 13%	146 5%	209 7%	2800 100%	4.1	1.2
Digital Law	1300 46%	669 24%	409 15%	211 8%	211 8%	2800 100%	3.9	1.1
Digital health	1048 37%	660 24%	404 14%	190 7%	498 18%	2800 100%	3.6	1.2
Digital rights and responsibilities	1460 52%	648 23%	401 14%	178 6%	123 4%	2800 100%	4.1	1.1
Digital security	1855 44%	1170 28%%	793 19%	253 6%	184 4%	4200 100%	4.02	1.1
Digital community	852 41%	646 31%	319 15%	142 7%	141 7%	2100 100%	3.9	1.2

This table shows that many of (72%) students with supporting mean value = 4.0 and SD = 1.1, agreed towards the digital commerce for the RDC while majority of (74%) students with supporting mean value = 4.1 and SD = 1.2, agreed towards the digital etiquette for the RDC. Similarly, majority of (70%) students with supporting mean value = 3.9 and SD = 1.1, agreed towards the digital law for the RDC. Moreover, many of (61%) students with supporting mean value = 3.6 and SD = 1.2, agreed towards the digital health and wellness for the RDC while, majority of (75%) students with supporting mean value = 4.1 and SD = 1.1, agreed towards the digital rights and responsibilities for the RDC. Majority of (72%) students with supporting mean value = 3.9 and SD = 1.1, agreed towards the digital security for the RDC similarly, majority of (72%) students with supporting mean value = 3.9 and SD = 1.2, agreed towards the digital community for the RDC.

Relationship between Psychological well-being of the students and responsible digital citizenship (RDC):

The analysis psychological well-being of the students and responsible digital citizenship is given as:

Table *Psychological well-being of the students and responsible digital citizenship*

	Autonomy	**Environmental Mastery**	**Personal Growth**	**Positive Relations**	**Purpose in life**	**Self-acceptance**	**Total Responsible digital citizenship**
Autonomy	1						
Environmental Mastery	.372**	1					
Personal Growth	.372**	.470**	1				
Positive Relations	.353**	.468**	.549**	1			
Purpose in life	.438**	.376**	.661**	.540**	1		
Self-acceptance	.441**	.325**	.437**	.493**	0.479	1	
Total RDC	-.023	-.030	-0.059	-0.036	-.029	-.025	1

*Correlation is significant at the 0.05 level (2-tailed) **Correlation is significant at the 0.01 level (2-tailed)

The results of Pearson's correlation of different factors of psychological wellbeing and RDC. It was evident that there is a significant negative correlation between pressure group factor of psychological wellbeing and RDC ($r = -.025^{**}$, $p > 0.01$). However, the other factors of psychological wellbeing such as Autonomy, Environmental Mastery, Personal Growth, Positive Relations, and Purpose in life, Self-acceptance have been found to have significant correlation with RDC. These findings supported the findings of previous table that indicated a very low and negative correlation between psychological wellbeing and the RDC ($r = -0.214$). Furthermore, the correlation was found to be statistically non-significant ($p > 0.05$). Consequently, the null hypothesis, which stated that there is no statistically significant impact of RDC on psychological wellbeing of graduate students, was not supported by the findings.

Therefore, the analysis clearly indicated that despite the significant evidence was found about the mediating role of RDC among graduate students, however, no evidence was found regarding the impact of RDC on psychological wellbeing.

Results of Pearson's Correlation Coefficient

There is no significant relationship between responsible digital citizenship and students' psychological well-being

Table: *Relationship between responsible digital citizenship and students' well-being*

	Pearson Correlation 'r'	Sig.
responsible digital citizenship students' well-being	-0.041	0.276

Based on the Pearson product-moment correlation analysis, the results indicated a very low and negative correlation between students' well-being and responsible digital citizenship ($r = -0.214$). Furthermore, the correlation was found to be statistically non-significant ($p > 0.05$). Consequently, the null hypothesis, which stated that there is no statistically significant relationship between responsible digital citizenship and students' well-being, was not supported by the findings. Therefore, based on the p-value of 0.085, the null hypothesis was retained this shows that responsible digital citizenship has no relation with students' well-being at graduate level.

Conclusions:

Conclusions from Students' Psychological Well-being Findings

i. It was concluded that many graduate students have a moderate level of PSW.
ii. Moreover, it was reflected that female students have better PSW than that of male students. Similarly, science students have more PSW than CS and IT students. It was also concluded that ODL university students have more PSW than Public and private university students.
iii. It was concluded that many of the students were agreed towards autonomy, environmental mastery, personal growth, positive relations, and purpose in life and self-acceptance factors of psychological wellbeing.

Conclusions from Students' Responsible Digital Citizenship (RDC) Findings

i. It was concluded that many graduate students have a moderate level of responsible digital citizenship.
ii. From the findings, it was revealed that female students have more RDC as compared to male students. Moreover, it was shown that science students have more RDC than that of CS and IT and other departments. Based on university type, it was concluded that ODL (open distance learning) university students showed more levels of RDC than that of public and private universities.
iii. It was revealed that many of the students agreed with digital access, digital law, and digital health and wellness factors of RDC, while the majority of the students agreed with digital commerce, digital communication, digital etiquette, digital rights and responsibilities, digital security, and digital community for RDC.

Discussions

The results of Pearson's correlation of different factors of psychological wellbeing and responsible digital citizenship. It was evident that there is a significant negative correlation between pressure group factor of psychological wellbeing and responsible digital citizenship ($r = -.025^{**}$, $p > 0.01$). However, the other factors of psychological wellbeing such as Autonomy, Environmental Mastery, Personal Growth, Positive Relations, and Purpose in life, Self-acceptance have been found to have significant correlation with responsible digital citizenship. These findings supported the findings of previous table that indicated a very low and negative correlation between psychological wellbeing and the responsible digital citizenship ($r = -0.214$). Furthermore, the correlation was found to be statistically non-significant ($p > 0.05$). Consequently, the null hypothesis, which stated that there is no statistically significant impact of responsible digital citizenship on psychological wellbeing of graduate students, was not supported by the findings.

From the analysis of graduate students' perception, it was concluded that that there is a strong and positive relationship between students' wellbeing, responsible digital citizenship, and SMU, so it is depicted that SMU and responsible digital citizenship were retained. This conclusion was opposed by Abbas, J., & Aman, et al., in 2019. According to this study, there are more detrimental effects of social media use on students' behavior in Pakistan than favorable ones. They contend that students who use social media excessively become emotionally and physically unbalanced and exhibit drab or agitated behavior. Taking into account the benefits and drawbacks of social media, they felt that parents ought to impose rules on their kids' usage as social media's detrimental effects can impact their academic achievement.

Recommendations

It was concluded that many graduate students have a moderate level of PSW while using social media. So, it is recommended that institutions and communities apply their observations of online posts or content that encouraged them to develop behaviours to prevent adverse emotional responses.

Suggestion for further Studies

i. Future research may identify additional factors to expand the elements that are taken into account in this study, so that they may be able to improve the attitude of the students towards the usage of social media.

ii. It may also recommended that to future researchers may explore the effects of specific social networking platforms, on students' life, including Facebook, WeChat, WhatsApp, and Twitter.

iii. Moreover, similar studies may be conducted by taking other age groups belonging to schools and colleges' students or by selecting the other cities of Pakistan.

References

Nielsen, M.I.S.W. (2017) Computer-mediated communication and self-awareness—A selective review. *Comput. Hum. Behav*, *76*, 554–560.

Raghavendra, P.; Hutchinson, C.; Grace, E.; Wood, D.; Newman, L. (2018)"I like talking to people on the computer": Outcomes of a home-based intervention to develop social media skills in youth with disabilities living in rural communities. *Res. Dev. Disabil.*, *76*, 110–123.

Richter, D., Wall, A., Bruen, A., & Whittington, R. (2019). Is the global prevalence rate of adult mental illness increasing? Systematic review and meta-analysis. *Acta Psychiatrica Scandinavica, 140*(5), 393-407.

Erfani, S. S., & Abedin, B. (2018). Impacts of the use of social network sites on users' psychological well-being: A systematic review. *Journal of the Association for Information Science and Technology, 69*(7), 900-912.

Saiphoo, A. N., Halevi, L. D., & Vahedi, Z. (2020). Social networking site use and self-esteem: A meta-analytic review. *Personality and Individual Differences, 153*, 109639.

Alias, Z., Jafar, M. F., & Kasim, M. (2023). The Relationship Between Maths Anxiety, Attitude Towards Mathematics and Maths Problem-Solving Skills Among Primary School Pupils in Kedah. *Journal of Modern Education, 5*(16), 28-40.

Ribble, M., & Park, M. (2022). *The digital citizenship handbook for school leaders: Fostering positive interactions online*. International Society for Technology in Education.

Abbas, J., Aman, J., Nurunnabi, M., & Bano, S. (2019). The impact of social media on learning behavior for sustainable education: Evidence of students from selected universities in Pakistan. *Sustainability, 11*(6), 1683.