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Digital Media Habits and Depressive Symptoms in Romanian Health Sciences Students: A Focused Pilot Study on Social Media Use and Gaming Time

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Abstract: This focused pilot study aimed to explore specific associations between key digital media habits, namely, time spent on social media applications and video gaming, and the severity of depressive symptoms among undergraduate medical and nursing students at the University of Galați during the 2024–2025 academic year. A total of 115 students completed standardised measures assessing time spent on social media and gaming, alongside the Patient Health Questionnaire-9 and data were analysed using SPSS version 27. Descriptive statistics characterised the sample's digital media engagement and varying levels of depressive symptoms (mean PHQ-9 = 9.72 for medical students; mean PHQ-9 = 8.05 for nursing students). Correlational analyses revealed no statistically significant associations between self-reported time spent on social media applications and PHQ-9 scores, nor between time spent on video games and PHQ-9 scores. Regression analyses further indicated that specific screen time metrics were not significant predictors of depressive symptom severity. These findings suggest that screen time, in isolation, may not adequately capture the complexities of mental health outcomes in this population, highlighting the need for larger, more nuanced studies that investigate additional dimensions of digital engagement and contextual factors pertinent to student mental health in Romania.

Keywords: social media use; gaming; screen time; depressive symptoms; PHQ-9; medical students; nursing students; student mental health; pilot study.

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1. Introduction

Major Depressive Disorder (MDD), commonly known as depression, is a widespread and severe mental health condition. The Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5), describes depression through a collection of symptoms that impact a person's emotions, thoughts, and ability to manage their daily life. A 2023 report from the World Health Organization (WHO) on "Depressive disorder (depression)" indicated that over 280 million people globally are affected by depression, with women being 50% more likely to experience it than men. In recent years, the number of individuals suffering from depression has risen considerably, largely due to factors such as daily stress, social isolation, and economic instability (World Health Organization, 2023).

Depression is a significant mental health concern for college students, particularly young adults. It profoundly affects their overall well-being and academic performance. The issue was exacerbated by the COVID-19 pandemic, with early meta-analyses in 2021 estimating that around 25% of young people globally experienced clinically significant depressive symptoms (Racine et al., 2021). More recent data underscores the severity of this problem; for example, a 2025 study revealed that 46.8% of adolescents in the post-pandemic era exhibited clinically significant depressive symptoms (Yang et al., 2025). Anxiety and depression are among the most common mental illnesses affecting young adults. Despite their prevalence, these conditions are often overlooked, despite significantly impacting individuals' social, intellectual, and personal lives (Li et al., 2022b).

The need for early intervention to shield future generations from the detrimental effects of this pathology and the fact that depression is occurring at a younger age than in previous decades make it more crucial than ever to find and identify the risk factors that contribute to the development of this mental illness (Naushad et al., 2014).

Recent research has delved into the complex relationship between digital engagement and mental health. High-level evidence from comprehensive umbrella reviews confirms a small but consistent association between social media use and heightened depressive symptoms, particularly among adolescents with pre-existing vulnerabilities (Valkenburg et al., 2022). In contrast, the relationship for video gaming is even more complex; recent meta-analyses have found only a negligible overall association with depression, suggesting that gaming, unlike passive social media use, does not represent a significant risk factor and may even offer social benefits in some contexts (Pallavicini, Pepe, & Mantovani, 2022).

Students are using social networking sites and online games more and more in the digital age. Recent research has delved into the complex relationship between digital engagement and mental health. Findings indicate that adolescents who spend extended periods on social media platforms often report heightened depressive symptoms (Office of the Surgeon General, 2023). Similarly, excessive video gaming, particularly within immersive social virtual environments, has been linked to adverse mental health outcomes, especially among individuals with low self-esteem or limited social interactions (Lee, Kim, & Uhm, 2021).

Excessive or problematic use of digital tools can heighten the risk of anxiety and depression, especially for students already dealing with academic pressure (Sserunkuuma et al., 2023). This academic pressure is substantial, involving the demanding task of diagnosing and managing a wide range of conditions, from common illnesses to rare and complex pathologies, all of which require an extensive and multidisciplinary understanding (Ekpenyong, Daniel, & Aribio, 2013). While a broader investigation into the mental health of students in this region is ongoing, this pilot study specifically examines the potential links between two common digital behaviours—time spent on social media and video gaming—and the severity of depressive symptoms (measured by the PHQ-9). The goal is to offer initial insights into whether these particular screen time metrics are directly related to depression in a group of Romanian medical and nursing students at the University of Galați during the 2024-2025 academic year. This will help form hypotheses for larger, more comprehensive studies.

At our Faculty of Medicine, the demands of the curriculum and exposure to clinical environments differ greatly across academic years, which can impact students' mental health and behaviours. This analysis concentrated on third-year students, a group that typically faces increased academic and clinical responsibilities. Future research should include cross-year comparisons to better understand how stressors and coping mechanisms evolve throughout medical education.

2. Methods

2.1. Participants

We enrolled 115 third-year undergraduate students from the University Dunarea de Jos Galati, Faculty of Medicine and Pharmacy, from two different specialities, general Medicine and nursing students, aged between 18-25. Subjects were recruited voluntarily. Response rate was not formally tracked. This analysis forms part of a broader research framework involving undergraduate medical and nursing students from the same academic institution.

2.2. Clinical Assessment

The Patient Health Questionnaire 9 item depression module (PHQ-9) and a series of questions measuring the amount of time spent on social media sites like Facebook, Telegram, TikTok, and others, as well as the amount of time spent playing virtual games, were administered to all clinical trial participants following a series of acquaintance questions, using PsyToolkit (Stoet, 2010, 2016).

The Patient Health Questionnaire (PHQ) is a self-administered version of the PRIME-MD diagnostic instrument for common mental disorders. The PHQ-9 is the depression module, which scores each of the 9 DSM-IV criteria using a Likert scale from “0” (not at all) to “3” (nearly every day) (Kroenke, Spitzer, & Williams, 2001).

The questionnaire consists of nine questions that track the frequency of occurrence of nine symptoms that indicate the existence of depression in the last two weeks. The score a subject can earn ranges from 0 to 27, which is why this test divides participants into score ranges as follows:

0-4: Minimal symptoms

5-9: Mild depression

10-14: Moderate depression

15-19: Moderate-severe depression

20-27: Severe depression

To precisely determine how much time each participant spends on social networking applications and virtual games, as well as which apps appear to be utilised most frequently, we proposed the following questions:

- How much time do you often spend in a day scrolling through Facebook, Instagram, or TikTok applications?

- What is the average amount of time you spend playing video games?

The participants were presented with a list of options that resembled a Likert scale for each of the two questions, with the responses being:

0p No time spent

1p Maximum ten minutes

2p Between ten and thirty minutes

3p Between thirty minutes and one hour

4p Between one hour and two hours

5p Between two hours and three hours

6p More than three hours

2.3. Statistical analysis

Statistical analysis was performed using SPSS version 27 (IBM Corp, 2020). The data were initially managed in Excel before being transferred to SPSS for detailed descriptive and inferential statistical analysis.

Descriptive statistics were used to examine the distribution of the primary variables: PHQ-9 scores, time spent on applications, and time spent on gaming. Descriptive statistics included the mean and standard deviation for these variables.

Normality tests (Kolmogorov-Smirnov and Shapiro-Wilk) were conducted to assess the distribution of PHQ-9 scores, time spent on applications, and time spent on gaming for both General Medicine and General Nursing students. Based on the normality test results, non-parametric tests were employed where appropriate.

Independent sample t-tests were used to compare the mean PHQ-9 scores between the General Medicine and General Nursing student groups. The Mann-Whitney U test, a non-parametric test, was used to compare the time spent on applications and gaming between the two groups, as these variables were not normally distributed.

Correlations between PHQ-9 scores and time spent on applications and gaming were examined using Spearman's rho for General Medicine students (due to non-normal distribution of the variables) and Pearson correlations for nursing students (where PHQ-9 scores were normally distributed).

A multiple linear regression analysis was performed to investigate the influence of time spent on applications and gaming on PHQ-9 scores.

2.4. Ethical aspects

The Ethics Committee of the Dunărea de Jos University of Galați granted its approval to this study. All participants were made aware beforehand of the goal of the study, the anonymous and exclusive use of the data for academic purposes, and the option to discontinue participation at any time in compliance with the General Data Protection Regulation (GDPR) of the European Union. Only authorised researchers actively involved in the project had rigorous access to the data, which was stored anonymously and under safe settings. Throughout the whole process of data collecting and analysis, the participants' information was kept completely secret.

3. Results

3.1. Descriptive and Comparative Outcomes

For the 2024-2025 academic year, 115 students from the faculties of General Medicine and General Nursing at Dunărea de Jos University in Galați, Romania, were included in the analysis. The two student groups' depression scores and digital media usage showed different trends, according to descriptive statistics

For General Medicine students, the average PHQ-9 score was 9.72 (SD = 5.575), the average time spent on applications was 5.79 (SD = 1.457), and the average time spent gaming was 3.10 (SD = 2.132). For nursing students, the average PHQ-9 score was 8.05 (SD = 4.696), the average time spent on applications was 5.71 (SD = 0.994), and the average time spent on games was 4.07 (SD = 2.303) (Table 1).

Table 1. Descriptive Statistics for General Medicine and Nursing Students

Variable	Minimum	Maximum	Medicine students Mean $\pm$ SD	Nursing students Mean $\pm$ SD
PHQ-9 Score	0	25	9.72 $\pm$ 5.58	8.05 $\pm$ 4.70
Application Time	1	7	5.79 $\pm$ 1.46	5.71 $\pm$ 0.99
Gaming Time	1	7	3.10 $\pm$ 2.13	4.07 $\pm$ 2.30

No statistically significant differences were observed between the two groups.

The independent samples t-test comparing PHQ-9 scores yielded $t(113) = 1.245$, $p = 0.216$. Additionally, Mann–Whitney U tests showed no significant differences in application time ($U = 561$, $p = 0.450$) or gaming time ($U = 470.5$, $p = 0.131$) between groups.

3.2. Correlational and Predictive Analyses of Digital Media Habits and Depressive Symptoms

Correlation analyses were conducted to examine the relationship between PHQ-9 scores and time spent on applications and gaming within each student group.

For General Medicine students, Spearman's rho showed no significant correlation between PHQ-9 scores and time spent on applications ($\rho = -0.167$, $p = 0.113$) or gaming ($\rho = -0.067$, $p = 0.534$). Similarly, for nursing students, Spearman correlations indicated no significant correlation between PHQ-9 scores and time spent on applications ($r = 0.000$, $p = 1.000$) or gaming ($r = 0.455$, $p = 0.102$) (Table 2).

Table 2. Correlation Summary between PHQ-9 and Digital Media Use

Group	Variable	Correlation Type	Coefficient	p-value	95% CI (Lower)	95% CI (Upper)
General Medicine	PHQ-9 vs App Time	Spearman ρ	-0.167	0.113	-0.336	0.046
General Medicine	PHQ-9 vs Gaming	Spearman ρ	-0.067	0.534	-0.277	0.150
Nursing students	PHQ-9 vs App Time	Spearman ρ	0.000	1.000	-0.543	0.543
Nursing students	PHQ-9 vs Gaming	Spearman ρ	0.455	0.102	-0.117	0.800

A multiple linear regression analysis was performed to analyse the influence of time spent on applications and gaming on PHQ-9 scores. The overall predictive value of the regression model was not significant ($R^2 = 0.044$, $F(2.86) = 1.958$, $p = 0.147$). This suggests that, in this model, time spent on digital media applications and gaming does not significantly predict depression scores. Collinearity statistics (Tolerance and VIF near 1) indicated no multicollinearity issues.

The scatterplot of standardised residuals (Figure 1) showed a random distribution of points, indicating that the assumption of homoscedasticity was met. This suggests consistent variance of residuals across predicted PHQ-9 scores. The Normal P-P Plot of residuals (Figure 2) displayed points closely following the diagonal line, confirming the assumption of normally distributed residuals for the regression model.

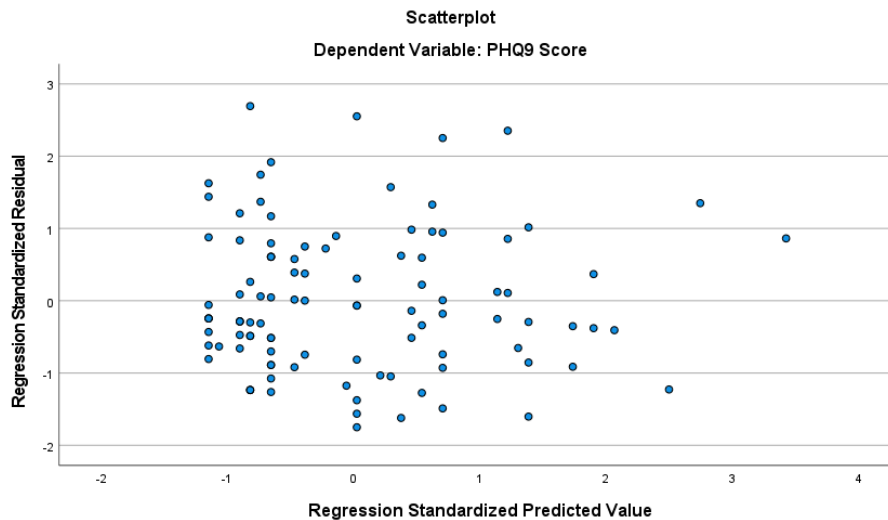


Figure 1. Scatterplot of standardised residuals

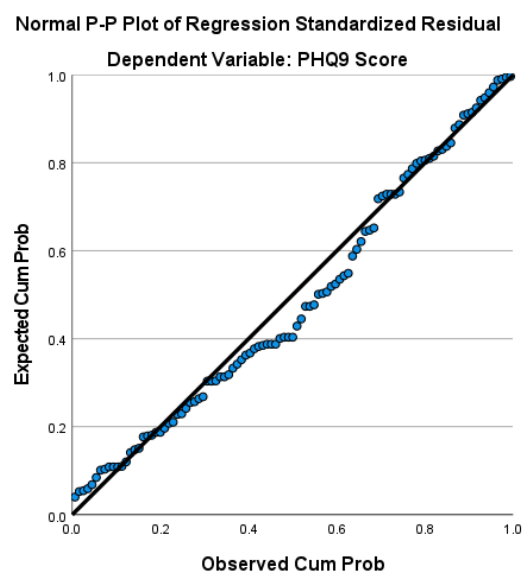


Figure 2. Normal P-P Plot of residuals

Students studying general medicine and general nursing did not significantly differ in their mean depression levels. The amount of time spent on apps and gaming did not significantly differ between the two groups. Within both student groups, there were no discernible relationships between depression scores and application or gaming time. In the regression model, depression scores were not substantially predicted by the amount of time spent on apps and games.

4. Discussion

The primary aim of this focused pilot study was to explore potential direct associations between self-reported time spent on social media applications and video gaming, and the severity of depressive symptoms in a sample of Romanian health sciences students. Contrary to some expectations or findings in broader literature that often link overall screen time to mental health outcomes (Twenge et al., 2017), our results did not reveal significant correlations between these specific quantitative measures of digital media use and PHQ-9 scores, nor did these time-based metrics predict depression severity in this cohort.

4.1. Analysis of Results: Departure from Predictions

The observation that total screen time lacks a direct, statistically significant relationship with depression ratings may be interpreted not merely as evidence of regional specificity but rather as indicative of a broader, temporal shift in the function of digital media. We propose that these platforms are undergoing a global transformation from potential risk factors into protective environments capable of fostering psychological well-being. This transformation is rooted in two phenomena: the profound integration of digital interfaces into the lived reality of ‘digital natives,’ and the maturation of these platforms from rudimentary communication channels into complex ecosystems affording nuanced social support and identity work (Azzaakiyyah, 2023; Zelenin, 2024).

The widespread adoption of digital platforms as adaptive coping mechanisms, a trend significantly accelerated by global stressors such as the COVID-19 pandemic, lends empirical weight to this interpretation. The purpose of engagement appears to be shifting from passive consumption towards active self-regulation and the maintenance of crucial social conduits (Maftei, Merlici, & Dănilă, 2022).

In this light, the consistent meta-analytic findings of a weak or negligible direct association between screen time quantity and depression cease to be anomalous. They instead become a predictable outcome of a diversifying digital experience (Gao & Gao, 2024; Li et al., 2022a; Tang et al., 2021).

It's important to note that the effect of screen time on depression risk isn't consistent across all digital activities. Research consistently indicates that the type and context of screen use are crucial. Specifically, social media and internet use are more strongly linked to depressive symptoms, particularly in adolescent girls. In contrast, video gaming and television viewing show weaker, or even inverse, associations, especially in boys. For example, high social media use is associated with more depressive symptoms, possibly due to mechanisms like upward social comparison and reinforcing negative cycles. However, video gaming isn't consistently tied to depression and might even offer some protection in certain groups (Boers et al., 2019; Kandola et al., 2022).

Cross-sectional links between screen time and depression are typically stronger than longitudinal ones. This suggests the relationship might be bidirectional or influenced by other factors such as self-esteem or pre-existing mental health conditions. The medical literature stresses the importance of moving beyond simply measuring total screen time. Instead, it's vital to consider the specific content, context, and motivations behind screen use when assessing mental health risks (Li et al., 2025; Twenge & Farley, 2021).

Furthermore, the age range of our participants (18–25 years old) is significant. Studies on emerging adults (university-aged, 18–25) suggest that this group generally experiences fewer negative mental health associations with digital technology use compared to younger adolescents. For this age group, the quality and context of digital engagement—especially social connections—are more influential on well-being than just screen time itself (Chase, Brown, & Jensen, 2022).

Research in younger adolescents (14–18) shows a stronger association between excessive digital technology use and negative psychological outcomes, especially among girls (Limone & Toto, 2022). In contrast, digital resilience—defined as the ability to cope with and adapt to online challenges—tends to increase with age and is influenced by factors such as digital skills, self-efficacy, and experience (Qi & Yang, 2024). Adolescents and young adults with higher digital literacy are better equipped to critically appraise online information and manage online risks, which can buffer against the potential harms of screen use (Taba et al., 2022).

4.2. Comparison with Existing Literature: Navigating the Contradictions

The sociocultural environment in which students live must be taken into account in order to completely comprehend our findings. Depending on variables including socioeconomic level, cultural background, and the availability of digital resources, access to technology and the social

norms around its use might differ greatly. Furthermore, the elevated levels of depressive symptoms observed in our cohort may reflect the lingering psychological sequelae of the COVID-19 pandemic. Indeed, a large 2021 study showed that patients recovering from COVID-19 experienced significantly increased rates of anxiety and mood disorders, suggesting a heightened baseline of mental distress in the post-pandemic population (Taquet et al., 2021). It is plausible that the stressors of that period have contributed to an increased vulnerability to mood disorders, a phenomenon that our current study may be capturing.

Our results are not wholly inconsistent with the larger body of research, even though they are at odds with some studies showing a favourable relationship between screen time and depression. Teenagers, for instance, have been the subject of numerous studies because they are more susceptible to the detrimental effects of screen time. Excessive screen usage has been related to an increased incidence of depression, particularly among adolescents (Gao & Gao, 2024). Changes in the sample group's age may be the cause of the differences between our study's results and those of other studies.

Of particular note within the nursing cohort was the moderate positive correlation observed between time spent on gaming and PHQ-9 scores ($p = 0.455$). Although this association did not meet the conventional threshold for statistical significance ($p = 0.102$), the magnitude of the coefficient suggests a potential underlying relationship. The failure to detect a statistically significant effect is likely attributable to the low statistical power inherent in the small subgroup size. This finding, which may be described as a statistical trend, underscores the necessity for future, adequately powered studies to clarify whether a genuine association between gaming and depressive symptoms exists in this specific student population.

The need for a more detailed strategy for studying screen time and mental health is highlighted by the inconsistent findings across studies. The kinds of online activities, individual vulnerability variations, and sociocultural elements affecting digital behaviours must all be taken into account (Vasconcellos et al., 2025).

4.3. Mechanisms and Moderating Factors

The absence of a direct association in our study could be explained by a number of processes. The "displacement hypothesis," which contends that excessive screen time may supplant other healthy pursuits like exercise and in-person social connection, is one possibility. But our fellow citizens may not experience more depression symptoms as a direct result of this shift (Tokunaga, 2016).

The potential moderating influence of social support is another important consideration. People who have robust social networks may be better able to handle the possible pressures that come with using the internet. Personality qualities like self-control and resilience may also affect how people react to digital stimuli (Frison & Eggermont, 2015).

The absence of a direct association may be profoundly influenced by specific sociocultural factors and coping mechanisms prevalent in the Romanian context. For Romanian adolescents, social media can function as a dual-edged coping mechanism; while it can provide a sense of connection and validation, the expectation of online gratification can also reinforce affective involvement, potentially exacerbating depressive symptoms if unmet (Maftai, Merlici, & Dănilă, 2022). This dynamic is embedded within a unique cultural context where traditional collectivist values, such as strong family and peer support, coexist with increasing Western influences, creating a complex landscape of coping responses (Şimon, Fărcaşiu, & Dragomir, 2022). At an individual level, traits like self-control, alongside the maintenance of daily routines, have been identified as crucial coping strategies among Romanian students, being strongly associated with higher resilience against stress and anxiety (Simionescu et al., 2024). Therefore, it is highly plausible that the direct effects of screen time in our sample were attenuated or even nullified by this complex interplay of cultural buffers and individual coping strategies, which were not accounted for in our study.

4.4. Limitations and Future Directions

There are several restrictions on this study. A notable limitation of this study is the lack of screening for potential physiological confounders that can mimic or exacerbate depressive symptoms. It is well-documented that common medical conditions, particularly iron-deficiency anaemia, can present with symptoms of fatigue, apathy, and difficulty concentrating, which overlap significantly with the diagnostic criteria for depression. Another notable constraint is the absence of screening for physiological confounders that may mimic or exacerbate depressive symptoms. Iron-deficiency anaemia, for instance, is well known to present with fatigue, apathy, and impaired concentration—features that overlap substantially with diagnostic criteria for depression. This is particularly relevant considering that iron deficiency affects a significant proportion of young women, who represent a substantial demographic segment in our sample (Knowles et al., 2024; GBD Anaemia Collaborators, 2023). Consequently, the absence of even a minimal screening for such common underlying conditions means we cannot exclude the possibility that some of the observed depressive symptoms could be partially attributable to physiological, rather than purely psychological, factors. Future research in this area should therefore incorporate baseline medical screening to control for such variables, ensuring a more accurate assessment of psychological distress. Similarly, beyond physiological conditions, the study did not include a screening for comorbid psychiatric disorders.

Depressive symptoms are frequently a core feature or a common comorbidity in severe and persistent mental illnesses. The clinical complexity and social challenges associated with conditions such as chronic schizophrenia have been documented within the local healthcare setting, highlighting a population with significant psychosocial needs (Mutica et al., 2016). Without a baseline psychiatric screening, it is difficult to ascertain whether the depressive symptoms captured by the PHQ-9 in our sample represent a primary depressive disorder or are secondary to another underlying psychiatric condition. Future investigations would be greatly strengthened by employing structured clinical interviews or validated screening tools to better characterise the psychiatric profile of the participants and control for these significant comorbidities. This study only assessed the quantity of time spent on social media and gaming, not the nature of the content, specific activities undertaken, or motivations for use, which are likely critical. The absence of a direct, significant correlation in our pilot data suggests that future research must adopt a more holistic perspective, moving beyond simple screen time metrics. A recent scoping review on the state of social prescribing in Romania highlights a promising alternative framework (Surugiu et al., 2023). Social prescribing focuses on connecting individuals with non-medical, community-based resources to improve well-being. Surugiu et al. (2023) emphasise the potential of such interventions to address psychosocial needs that are often unmet by the formal healthcare system. Therefore, a crucial future direction for research on student mental health in Romania would be to investigate the role of community engagement, social support networks, and access to structured hobbies as potential protective factors against depression, aligning with the principles of social prescribing. The sample size ($N=115$), while adequate for a pilot exploration, may lack power to detect smaller effects and introduce specific statistical limitations. This is exemplified by the correlation between PHQ-9 scores and application time, which yielded a mathematically perfect null correlation ($\rho = 0.000$, $p = 1.000$). Such a result is highly improbable in real-world data and is best interpreted as a statistical artefact, likely arising from the combination of a small sample and a limited number of response categories, which can lead to a high frequency of tied ranks in the data. While the formal conclusion of non-significance is sound, this artefact highlights the constraints of performing subgroup analyses with insufficient statistical power and reinforces the exploratory, pilot nature of our findings. Longitudinal designs should be used in future studies to examine the temporal relationships between depression and screen use. Furthermore, bias may be introduced due to the reliance on self-reported data. In addition, exploring psychological processes such as appraisal, coping, and stress, using

network analyses, could provide a deeper understanding of the complexity of this relationship. (Spataru et al., 2024).

Future research should also investigate anxiety within this population, as anxiety and depression frequently co-occur and may influence digital behaviours differently. These mechanisms may also underlie certain patterns of technology use, particularly when digital platforms are employed as maladaptive coping strategies. In addition to anxiety, personality traits should also be investigated in relation to depressive symptomatology. Research has increasingly demonstrated that certain traits, such as high neuroticism or low conscientiousness, are predictive of depression severity and persistence. Trait-based models like the Big Five Inventory offer a structured approach for exploring stable psychological predispositions that may affect vulnerability to mood disorders. This is especially relevant in the context of individuals who may have experienced cumulative psychological trauma or social adversity. As Modrigan et al. (2017) noted, “the personality mixture disorders identified in most patients can be an expression of multiple experiences of stigmatisation, social rejection, and sometimes even from family.” These findings highlight the need to understand how enduring personality structures interact with environmental stressors and emotional regulation patterns in the development or maintenance of depression. Although students were informed about their results, including their depression scores and categorical severity, they were merely advised to consult a mental health professional in cases of elevated scores. However, no follow-up data were available regarding whether these individuals actually sought help or were already under psychiatric care. This represents a major limitation in the context of early intervention and continuity of care. Although justified ethical arguments exist in favour of breaching confidentiality when a patient poses a danger to themselves (Roşca et al., 2019), as in the case of severe depression, research involving such individuals must still ensure strict protection of medical data

In South-Eastern Europe, including Romania, significant delays in accessing psychiatric services are well documented. Structural, cultural, and financial barriers often prevent the timely diagnosis and treatment of mental health disorders. As Țirintică et al. (2018) highlight, multiple systemic and societal factors contribute to the limited access to mental health services in the region, exacerbating the treatment gap. Therefore, future protocols should include mechanisms to actively facilitate access to mental health care, particularly for students with clinically relevant levels of depression identified through screening. Investigating additional independent variables is essential for identifying risk and protective factors that influence mental health and psychological resilience (Backhaus et al., 2021).

Future research should look at:

- Data on app usage and other objective metrics of screen time.
- The results of particular online pursuits, like social media engagement, game genres, and online education.
- The function of personality traits, coping strategies, and social support.
- Longitudinal research to determine relationships throughout time.
- Researching people from different socioeconomic backgrounds.
- Developing efficient and traceable mechanisms to actively facilitate access to mental health care when needed, particularly for students with clinically significant levels of depression identified through screening.
- Investigating additional independent variables

4.5. Implications and Concluding Remarks

Even if this pilot study did not find a direct quantitative link between time spent on social media/gaming and depressive symptoms, the complexity of digital well-being remains a concern. The findings suggest that simple time-based metrics may not fully capture the impact of digital media. Educational institutions and mental health practitioners should encourage mindful digital consumption, focusing on content and context rather than solely on duration. It is crucial to approach the findings cautiously, even if our study did not discover a clear link between social

media applications and video game use and depression. Emphasis should be placed on digital hygiene. Encouraging a healthy mix of offline and online activities can improve mental health (Przybylski & Weinstein, 2017).

Furthermore, this discovery has important practical ramifications. Educational institutions should consider implementing digital literacy programs that educate students on responsible technology use and regulating their time online. These results can be used by mental health practitioners to customise therapies and offer kids who are struggling with problems associated with excessive screen use individualised support.

Additionally, it is crucial to use digital channels to raise awareness of mental health issues and make resources accessible. To develop interventions that encourage ethical technology use, educational institutions and mental health professionals should work together (Naslund et al., 2016).

It's also critical to acknowledge the beneficial ways in which technology may support mental health. Virtual support groups, online treatment platforms, and mindfulness applications can all be helpful tools for students dealing with depression or other mental health conditions.

Future research should also explore the specific impact of different types of online content on mental health. For example, studies could examine the effects of social media that promote social comparison or hateful content, compared to platforms that provide support and positive connections (Primack et al., 2017).

In summary, there is a complex association between screen time and depression. To fully comprehend its complexity, further detailed study projects are required in the future. It is essential to take a balanced strategy that acknowledges both the possible advantages and disadvantages of digital involvement.

5. Conclusion

This focused pilot study explored the direct associations between self-reported time spent on social media applications and video gaming and the severity of depressive symptoms among a cohort of Romanian health sciences students.

In contrast to some prior studies, our research did not identify a statistically significant correlation between screen time and depression levels. Nonetheless, echoing findings from other Romanian investigations, we observed an upward trend in moderate to moderately severe depressive symptoms among students.

These outcomes underscore the necessity of a comprehensive approach when examining the effects of digital engagement on mental health. It's imperative to consider socio-cultural contexts, the nature of online activities, and individual psychological profiles. Even in the absence of a direct association, promoting digital well-being and encouraging a balanced online-offline lifestyle remain crucial. Collaboration between educational institutions and mental health professionals is essential to develop interventions that foster responsible digital behaviour.

Future research should employ longitudinal methodologies to delve deeper into how various types of online content specifically influence mental health outcomes over time

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