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SOCIAL MEDIA ENGAGEMENT AND IDENTITY: THE LONELINESS AND FOMO EXPERIENCE OF YOUNG PEOPLE

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ABSTRACT:

Social media platforms, designed to facilitate connectivity, have a complex impact on psychological well-being. This study investigates the relationship between social media usage, loneliness, and the fear of missing out among young people in Slovakia, focusing on gender differences. Using a quantitative cross-sectional design, data was collected from 225 university students (70.2% female, 29.8% male) through the UCLA Loneliness Scale, the Social Media Engagement Questionnaire (SMEQ), and the Fear of Missing Out (FOMO) Scale. Statistical analyses conducted included linear regression and correlation analyses; the results showed no significant correlation between social media use and loneliness ($r = 0.08$, $p = 0.11$), although a weak to moderately strong positive correlation was found between loneliness in women and FOMO ($r = 0.24$, $p = 0.001$). Additionally, a significant positive correlation was identified between FOMO and social media use ($r = 0.27$, $p < 0.001$), with FOMO predicting increased social media engagement. The study concludes that while social media use does not directly predict loneliness, FOMO significantly influences social media engagement among young people. These findings underscore the importance of considering psychological factors like FOMO in understanding students' social media behaviour and point to the need for gender-specific approaches to digital wellness.

1 Introduction

Social media platforms have fundamentally transformed how young people maintain and develop social connections, particularly when they have relocated to pursue their studies. Cumming and Ingber (2024) state that a virtual space facilitates individuals' ability to create virtual groups with people of similar interests, or freely express their opinion despite physical separation. Social media platforms facilitate various forms of identity expression and social comparison, enabling individuals to engage in strategic self-presentation, form interest-based communities, and receive immediate social feedback that may significantly influence their self-concept and cognitive processes (Orben et al., 2024). According to Kong and You (2013), social media are very attractive, especially for young people, because they are a space where a person becomes both the protagonist and the director of their own virtual world. According to Pérez-Torres (2024) social media represents an identity challenge and also an ideal place for interaction with other people who have similar interests. In addition, the primary motivation for creating social media accounts stems from the desire to maintain or establish friendships (Tomczyk & Selmanagic-Lizde, 2018). Loneliness is one of the most important factors that motivate young people to sign up for social media. Almost one in five respondents, as described in a study by Tomczyk & Selmanagagic-Lizde (2018), stated that they log into social media without any particular need, even when they are in the company of others. However, recent studies have revealed a more nuanced understanding of social media engagement, distinguishing between active and passive use (O'Day & Heimberg, 2021). Active use encompasses direct exchanges through posting, sharing, and messaging; passive use involves consuming content without direct engagement (Godard & Holzman, 2024). Verduyn et al. (2021) found that active use correlates with positive psychological outcomes, whereas passive use is associated with declining psychological well-being (Qutishat, 2020).

Within digital engagement, the Fear of Missing Out (FOMO) has emerged as a significant psychological phenomenon among young people. Characterised by persistent anxiety about potentially missed experiences (Gupta & Sharma, 2021; Szawłoga et al., 2024), FOMO is strongly associated with loneliness, depression and the need for belonging, often manifesting through the excessive use of technology (Orben & Przybylski, 2019; He et al., 2024). FOMO syndrome, defined as the fear of missing out on socially enjoyable activities, particularly in the online space, is considered a negative experience for some social media users (Kurucová, 2019). Given that FOMO involves feelings of fear and concern (Przybylski et al., 2013; Kurucová, 2019), it can negatively impact the quality of life. Specifically, FOMO has been shown to adversely affect individuals' health, increase stress, and impair life functionality (Tanhan et al., 2022). When going through FOMO, individuals are not always conscious of its impact on their decision-making (Gupta & Sharma, 2021). Empirical evidence indicates that FOMO significantly impacts academic performance and mental well-being (Sabir & Jabeen, 2023), correlated with compulsive social media use and procrastinatory behaviour (Surjandy et al., 2024). Additionally, research has established a positive correlation between FOMO and nomophobia, suggesting that elevated FOMO levels may predict increased nomophobic tendencies among students (Hamutoğlu et al., 2018). Nomophobia, defined as the fear of being unreachable via or being unable to use one's mobile phone (King et al., 2014), further underscores the complex interplay between digital engagement and psychological well-being.

Recent research reveals complex relationships between social media use and psychological well-being. Ramadhan and Maryam (2024) identified positive correlations between social media use intensity and loneliness, while Çerkez and Kara (2017) observed significant relationships between social media use, student depression levels, and social anxiety (Wallace, 2014). Kross et al. (2013) identified that excessive Facebook use could be linked to a decline in subjective wellbeing, including a deterioration in both the emotional state and life satisfaction. According to Littman-Ovadia & Russo-Netzer (2024) this effect can be attributed to the anxiety of missing out on potentially better experiences. This constant need for staying connected can result in the checking of mobile phones constantly (Turkle, 2023). Kuczynski et al. (2024) highlight how momentary loneliness can precipitate depression, particularly when exacerbated by online experiences. Bonsaksen et al. (2023) suggest that while social media has the potential to reduce isolation, those using it primarily for relationship maintenance paradoxically report greater loneliness. This complexity is further evidenced by Naslund's et al. (2020) observation that reducing social media use correlates with

improved mood and decreased loneliness. Understanding these dynamics is crucial for addressing online isolation and promoting mental health resilience. While some scholars indicate associations between social media usage and increased loneliness (Song et al., 2014; O'Day & Heimberg, 2021), others have found that social media abstinence has no significant effect on loneliness levels (Hall et al., 2021).

2 Integrative Theoretical Perspectives

The intersection of social media use, loneliness, and FOMO among university students is a complex phenomenon that requires examination through multiple theoretical lenses. This study integrates three complementary frameworks to provide a comprehensive understanding.

The *Uses and Gratifications Theory* (UGT) initially conceptualised by Katz et al. (1973), serves as the primary foundation. UGT posits that individuals actively select and utilise media to satisfy specific psychological and social needs (Rubin, 2009). Hoque and Hossain (2023) extended this framework to explain how young people use social media for social connection, information seeking, and emotional support. These findings are pertinent when examining the relationship between loneliness and platform selection, as individuals choose social media channels that align with their social and emotional needs (Buzeta et al., 2024). *Self-Determination Theory* (SDT) (Deci & Ryan, 2012) highlights three fundamental psychological needs – autonomy, competence, and relatedness – as essential for well-being. Przybylski et al. (2013) found that unmet needs in traditional social contexts lead individuals to turn to social media as a compensatory mechanism. Recent research shows how these needs are manifested in digital environments, particularly among young people seeking social connections (Adam et al., 2024). This helps explain the relationship between FOMO and increased platform engagement, as students attempt to fulfil their need for relatedness through digital means (Gupta & Sharma, 2021). *Social Comparison Theory* (SCT) (Festinger, 1954) illuminates the psychological processes underlying social media's impact on well-being and FOMO development. Contemporary applications of SCT reveal how social media intensifies social comparison through exposure to curated representations of other people's lives (Schmuck et al., 2019). This perspective is relevant when examining passive social media consumption, which Mao and Zhang (2023) found to be associated with increased FOMO and decreased well-being. The theory explains why passive scrolling through curated content might trigger FOMO and emotional responses (Godard & Holtzman, 2024).

These three frameworks intersect to create a comprehensive lens for examining the relationships between social media use, loneliness, and FOMO; UGT explains the motivational aspects of platform selection, SDT illuminates the psychological needs driving these behaviours, and SCT helps understand the consequences of specific types of engagement. Together, they provide a robust foundation for investigating how young people navigate their digital social lives and experience psychological outcomes such as loneliness and FOMO. This integrated approach allows for a nuanced examination of these phenomena, contributing to a more complete understanding of modern digital social behaviour.

3 Methodology

This study aims to explore the relationship between social media use, loneliness, and FOMO among young people. It specifically examines the correlation between loneliness and FOMO syndrome, gender differences in FOMO manifestation, and the impact of social media use on loneliness and FOMO syndrome. The level of loneliness and the intensity of social network use and their influence on FOMO syndrome, with particular attention to gender differences in these variables, is also investigated.

H1: Higher levels of social network use will be positively associated with increased levels of loneliness among young people. The first hypothesis was formulated based on research by Tanhan et al. (2022), who state that individuals fear that others have a better life due to social media. Przybylski et al. (2013) suggest that people strongly desire to stay connected with their social network, a phenomenon that Kurucová (2019) claims is primarily experienced by young people in society. While the use of social networking sites facilitates interaction with others, it can also lead to FOMO, as noted by Verduyn et al. (2021).

H2: High rates of loneliness in women will be a predictor of subsequent FOMO syndrome. This hypothesis furthers the work of the Qutishat (2020); that reported a higher rate of FOMO syndrome in men, although preliminary evidence suggests that FOMO is more likely to occur in women (Elhai et al., 2021).

H3: Higher levels of FOMO will predict increased social media use intensity. This hypothesis is grounded by Rozgonjuk et al. (2020), supported further by Bandaru et al. (2020), who identified FOMO as a contributing factor to both social network usage frequency and the variety of platforms used. Research by Ozimek et al. (2024) demonstrated that FOMO is more prevalent among users who engage with social media passively rather than actively. Similarly, Mao and Zhang (2023) found that reducing passive social network usage can decrease FOMO, suggesting that passive engagement predicts FOMO.

Research Design and Methods

The research design incorporated gender and type of schools as key demographic variables. Factors influencing loneliness among young people were examined using three validated instruments: *(1) UCLA Loneliness Scale* – Developed by Russell (1996) this scale has previously been adapted for the Slovak population (Tomšik, 2014). The instrument consists of 20 items, equally divided between positive and negative statements, rated on a five-point Likert-type scale. Scores range from 20 to 80, with higher scores indicating greater loneliness. The scale demonstrates excellent internal consistency (coefficient $\alpha = 0.96$) and has been validated for adolescent populations (Tomšik, 2014). *(2) Social Media Engagement Questionnaire (SMEQ)* – this instrument, developed by Przybylski et al. (2013; in Tomczyk & Selmanagic-Lizde, 2018), features a one-dimensional structure with five items and eight response options. Scores range from 0 to 35, with higher scores indicating greater social media engagement (Alutaybi et al., 2020). The Slovak version underwent the same rigorous bilingual validation process as the FOMO scale. *(3) FOMO Scale* – The Fear of Missing Out Scale, developed by Przybylski and colleagues in 2013, assesses motivational, emotional, and behavioural correlates of FOMO. The instrument comprises 10 items rated on a five-point Likert scale (1 = not at all true, to 5 = absolutely true), with total scores ranging from 10 to 50. Higher scores indicate elevated levels of fear of absence. The original scale demonstrates high reliability (Cronbach's $\alpha = 0.90$). As conceptualised by Przybylski et al. (2013) and Tomczyk & Selmanagic-Lizde (2018), the scale measures individuals' tendencies to seek social network engagement when experiencing insufficient psychological need satisfaction. The FOMO Scale and SMEQ required translation and validation for the Slovak population. The research team implemented a rigorous bilingual validation process, performed by one researcher with C1 English proficiency (DD, an expert within psychology), and a second with an extended residence in an English-speaking country (MT, an expert in public health and social science). All disparities were discussed with the expert in social media and marketing (SE) to ensure the validity and reliability of data collection. The translation process emphasised maintaining conceptual equivalence while ensuring cultural appropriateness for Slovak students. Following translation, each instrument underwent reliability testing using Cronbach's alpha.

Sample and Selection Process

The majority of the research sample consisted of students of humanities, with the remainder studying technical fields. The 225 participants (100%), all students from various universities in Slovakia, consisted of 67 males (29.8%) and 158 females (70.2%). To select the research sample and to ensure data saturation, a purposive sampling method was employed, focusing on gender, type of study programme, university and faculty. Data was collected through questionnaires and stored in an academic informatics system. This study employed a systematic multi-channel

recruitment strategy to ensure broad representation across Slovak universities, while maintaining rigorous inclusion and exclusion criteria. The recruitment process spanned three months, from February to April 2024 inclusive, utilising a comprehensive institutional communication framework to reach potential participants. The primary recruitment pathway operated through official university channels, where departmental heads facilitated the distribution of recruitment materials via institutional email. In addition, information was posted on university notice boards and learning management systems, ensuring visibility across multiple platforms. Student representatives were actively involved in disseminating information through official student groups, creating a peer-to-peer recruitment component that complemented the institutional approach. Participant selection followed strictly defined criteria to ensure sample appropriateness and data quality. Eligible participants were required to be full-time students, aged 18-26 years old, and enrolled at participating Slovak universities. Given the focus on social media engagement, participants needed to be active users of at least one social media platform, with a minimum of three months of regular use before participation. Language proficiency in Slovak was mandatory, and participants required access to internet-enabled devices for survey completion.

To maintain sample homogeneity and control for potential confounding variables, several exclusion criteria were implemented (Pourhoseingholi et al., 2012). Part-time and distance learning students were excluded, as their different educational experience patterns might influence social media usage and social connection opportunities; similarly, students on academic leave, or participating in exchange programmes, were excluded to ensure consistency in the educational context. Those reporting diagnosed mental health conditions that might influence social media use patterns were also excluded to avoid potential confounding effects on the study's primary variables of interest. International students were excluded due to potential cultural and linguistic variations that might affect survey responses. Additionally, to prevent data contamination, students who participated in the pilot testing phase were excluded from the main study. This carefully structured recruitment and selection process aligned with the study's objectives while maintaining methodological rigour and sample quality; this provided a sufficiently diverse sample within the specified parameters of the study population.

Data Collection and Analysis

The study commenced in December 2023 with the translation of research instruments from English to Slovak. In February 2024, the online questionnaires were developed and then distributed across participating educational institutions. Data collection occurred during February and April 2024, followed by comprehensive statistical analysis in May 2024. The final phase, in June 2024, encompassed data synthesis, manuscript preparation, and completion of the final research report. This structured timeline ensured methodological rigour and systematic data collection and analysis procedures. The analytical process began with reliability testing of the non-standardised instruments, followed by normality assessment before hypothesis testing. The study operationalised four key variables: gender (nominal), age (cardinal) for gender-difference analyses, educational level (ordinal), and loneliness (cardinal). This enabled systematic measurement and statistical analysis of the research objectives. For the assessment of the translated instruments' reliability, Cronbach's alpha coefficients were calculated. The hypothesis testing employed a comprehensive set of statistical methods. Levene's test was utilised to examine the homogeneity of variance across groups, followed by independent samples t-tests for comparing group means. In cases where parametric assumptions were not met, the Mann-Whitney U-test was employed for group comparisons. The research utilised linear regression analysis to examine relationships between variables, with the Durbin-Watson test applied to assess autocorrelation in the residuals. One-way ANOVA was implemented to evaluate differences between multiple groups. The significance level for all statistical tests was set at $p < 0.05$.

Data acquisition procedure

Investigating loneliness among young people in Slovakia presents unique methodological challenges due to the absence of standardised measurement tools in the Slovak context. The study utilised the UCLA Loneliness Scale as the primary instrument, supplemented by measures examining the influence of social network use and FOMO syndrome. These variables were assessed through the SMEQ and FOMO Scale, with gender and type of college serving as key demographic variables. Given that the SMEQ and FOMO Scale lacked Slovak standardisation, a

comprehensive bilingual validation process was implemented. The translation process emphasised maintaining conceptual equivalence, while ensuring cultural appropriateness for the Slovak student population. Two interpreters independently translated the instruments, following which a consolidated Slovak version was developed through discussions and careful comparison and synthesis of the translations. The psychometric properties of the translated instruments were evaluated using Cronbach's alpha reliability coefficients. Data analysis was conducted using SPSS Statistics version 20 (Statistical Package for Social Sciences), employing both descriptive and inferential statistical methods. The analytical framework included Levene's T-test, Mann-Whitney U-test, linear regression analysis, Durbin-Watson test, and ANOVA, ensuring a robust examination of the research hypotheses.

4 Results

The analysis examined relationships between social media use, loneliness, and FOMO among young people, implementing reliability testing, variance analysis, and hypothesis testing. The findings are presented sequentially, starting with instrument validation and proceeding to hypothesis examination.

Reliability and Variance Analysis

The reliability of the non-standardised instruments for the Slovak population was examined through one-dimensional reliability testing. Table 1 presents the Cronbach's alpha coefficients: SMEQ (α = 0.81), UCLA (α = 0.90), and FOMO (α = 0.79). All coefficients exceeded 0.7, meeting Cortina's (1993) threshold for acceptable reliability in psychological research.

Table 1: Cronbach's Alpha Coefficients of SMEQ, UCLA, and FOMO.

Reliability	
Test	**Cronbach's alpha**
SMEQ	0.81
UCLA	0.90
FOMO	0.79

Source: Own processing, 2024

The coefficient of variance (CV) analysis, presented in Table 2, demonstrated homogeneity across the measured variables, with all values falling below 60%: SMEQ (51.9%), UCLA (24.3%), and FOMO (24.3%). The Index of Qualitative Variance (IQV) analysis, shown in Table 3, revealed a strong gender balance in the sample (83.68%), though the school distribution showed a less optimal balance (30%).

Table 2: Calculation of coefficient of variance (CV)

A variable	CV
SMEQ	51.9%
UCLA	24.3%
FOMO	24.3%

Source: Own processing, 2024

The coefficient of variance analysis for metric variables and qualitative variance index for nominal variables indicated sample homogeneity (see Table 3). All measured variables showed a coefficient of variance below 60%, confirming relative sample homogeneity.

Table 3: Index of qualitative variance (IQV)

A variable	IQV
Gender	83.68%
University	30%

Source: Own processing, 2024

The subsequent step involved calculating the coefficient of variance for the metric variables and the qualitative variance index values for the nominal variables. The coefficient of variance for all three measured variables was found to be below 60%, indicating that the sample is relatively homogeneous for these variables. For the nominal variable 'University', a relatively low qualitative variance index value was observed, suggesting that the sample is not entirely balanced concerning this variable. In contrast, the 'Gender' variable exhibited a high qualitative variance index value, indicating that the population is sufficiently balanced for this variable.

H1: Higher levels of social network use will be positively associated with increased levels of loneliness among young people. The correlation analysis revealed no significant relationship between social media use and loneliness ($r = 0.08$, $p = 0.11$). Social media use explained only 0.7% of loneliness variability ($R^2 = 0.007$) (Table 4).

Table 4: Results of correlation testing

Linear regression – correlations		SMEQ
UCLA	**Pearson's correlation coefficient**	0.08
	Significance	0.11
	Count	225

Source: Own processing, 2024

The Durbin-Watson value (1.88) indicated independence of residuals, presented in Table 5.

Table 5: Results of multiple correlation coefficient and Durbin-Watson test

Results of multiple correlation coefficient and Durbin-Watson test			
	R square	**Adjusted R square**	**Durbin-Watson**
SMEQ	0.007	0.002	1.88

Source: Own processing, 2024

The ANOVA results ($F = 1.54$, $p = 0.22$), shown in Table 6 and linear dependence testing ($\beta = 0.08$, $t = 1.24$, $p = 0.216$) (see Table 7), confirmed no significant linear relationship between the variables.

Table 6: Statistical model testing results

ANOVA	
F	**Significance**
1.54	0.22

Source: Own processing, 2024

Table 7: Results of linear dependence testing

	Standardised beta coefficient	t	Significance
SMEQ	0.08	1.24	0.216

Source: Own processing, 2024

H2: A high level of loneliness in women will be a predictor of subsequent FOMO syndrome. In hypothesis no. 2, the study evaluates possible statistically significant relationships between the level of loneliness in women and the subsequent FOMO syndrome.

Table 8: Test results – correlations

	Linear regression – correlations	UCLA
FOMO	Pearson's correlation coefficient	0.24
	Significance	0.001
	Count	158

Source: Own processing, 2024

Table 8 presents the correlation testing values, and with a Pearson correlation coefficient (r = 0.24) and a significance value (p = 0.001) the null hypothesis is consequently rejected. This indicates a statistically significant, weak to moderately strong, positive correlation between the feeling of loneliness in women and FOMO syndrome.

Table 9: Results of multiple correlation coefficient and Durbin-Watson test

Multiple correlation coefficient and results from the Durbin-Watson test			
	R square	Adjusted R square	Durbin-Watson
UCLA	0.06	0.05	1.95

Source: Own processing, 2024

The values of the multiple correlation coefficient indicate a 6% overlap variance between our variables; the expected value was 5%. In Table 9 the value of the Durbin-Watson test was 1.95, i.e., within the range between 1 and 3; this points to the fact that adjacent residuals are not correlated.

Table 10: Test results – statistical model

ANOVA	
F	Significance
9.77	0.002

Source: Own processing, 2024

ANOVA also shows the statistical significance (p = 0.002) of our model (see Table 10).

Table 11: Test results – linear dependence

	Unstandardised beta coefficient	Standardised beta coefficient	t	Significance
UCLA	0.16	0.24	3.13	0.002

Source: Oown processing, 2024

Based on the values in Table 11, which indicate a statistically very significant, weak, linear, directly proportional relationship between the feeling of loneliness in women and the subsequent FOMO syndrome, the null hypothesis is rejected. Additionally, the non-standardised beta coefficient indicates that for every one-point increase in the level of loneliness, the value of the FOMO syndrome increases by 0.16 points.

H3: Higher levels of FOMO will predict increased social network use intensity. Analysis revealed a significant positive correlation between FOMO and social media use ($r = 0.27$, $p < 0.001$), presented in Table 12. The model explained 7% of the variance, with the Durbin-Watson value (1.89) confirming the independence of observations, shown in Table 13. ANOVA results demonstrated model significance ($F = 17.58$, $p < 0.001$), exhibited in Table 14, and linear regression analysis ($\beta = 0.27$, $t = 4.19$, $p < 0.001$) confirmed a significant positive relationship between FOMO and social media use intensity, as presented in Table 15.

Table 12: Results of correlation testing

Linear regression – correlations		FOMO
	Pearson's correlation coefficient	0.27
SMEQ	**Significance**	<0.001
	Count	225

Source: Own processing, 2024

Table 13: Results of multiple correlation coefficient and Durbin-Watson test

Results of multiple correlation coefficient and Durbin-Watson test			
	R square	**Adjusted R square**	**Durbin-Watson**
FOMO	0.07	0.07	1.89

Source: Own processing, 2024

Table 14: Statistical model testing results

ANOVA	
F	**Significance**
17.58	<0.001

Source: Own processing, 2024

Table 15: Results of linear dependence testing

	Unstandardised beta coefficient	**Standardised beta coefficient**	**t**	**Significance**
FOMO	0.37	0.27	4.19	<0.001

Source: Own processing, 2024

The analyses revealed no significant correlation between social media use and loneliness, while identifying significant gender differences in social media engagement patterns. Additionally, FOMO emerged as a significant predictor of social media use intensity, suggesting its key role in digital engagement behaviours among young people.

5 Discussion

The impact of social media on the well-being of young people presents a complex paradigm. While Thomas et al. (2020) demonstrated that social media can positively influence university transition through enhanced social capital and community integration, their research simultaneously revealed a paradoxical relationship where digital self-reinvention ('liminal self') is associated with increased loneliness. This complexity gains further depth through the findings of Özsat et al. (2022); these establish a correlation between social media overuse and loneliness, highlighting the potential risks of prolonged digital engagement in academic settings. Understanding these contradictory effects becomes crucial for developing effective support mechanisms for young people navigating their social lives, especially in a digital setting. The present study significantly contributes to the understanding of FOMO syndrome by focusing on three main variables. Firstly, the analysis revealed no significant correlation between social media use and loneliness levels, suggesting that the relationship between digital engagement and psychological well-being is more nuanced than previously theorised. This finding aligns with Bonsaksen et al. (2023), who observe that social media can potentially reduce social isolation, while contrasting with Ramadhan and Maryam's (2024) findings of positive correlations between social media intensity and loneliness. Alt (2015) concluded that social networks can play an important role in keeping college students in touch with family and friends, giving them a sense of social support and helping them cope with the excessive levels of stress they experience at school. The complexity may be attributed to varying patterns of platform engagement; Qualter et al. (2015), for example, observed that prolonged mobile phone use correlates with higher loneliness scores. This apparent contradiction suggests that the impact of social media use on loneliness may depend on individual usage patterns, personal characteristics, and social context rather than mere exposure time. Secondly, significant gender differences emerged in social media use patterns, with female students demonstrating higher engagement levels. This finding provides robust support for the research by Twenge and Martin (2020), which identifies gender disparities in digital platform usage. The gender difference becomes particularly relevant in the context of observations by Naslund et al. (2020), which consider that the impact of social networks on depression and anxiety is more pronounced among women. This finding carries important implications for mental health professionals and university support services, suggesting that there is a need for gender-specific approaches in addressing digital well-being among young people. Understanding these gender-based differences could be crucial in developing targeted interventions that address the unique challenges faced by male and female students in their digital social interactions. Thirdly, and most notably, the study established FOMO as a significant predictor of social media use intensity, contributing valuable insights to the existing literature on digital behaviour patterns. Contemporary social networking platforms serve a dual purpose: enhancing social engagement and reducing traditional social interaction barriers. However, this technological evolution has given rise to FOMO syndrome, characterised by anxiety about missed experiences (Glaser et al., 2018). The study's findings provide robust support for Mróz and Solecki's (2017) characterisation of FOMO as an 'escape motive' among young people, representing a desire to run away from problems and loneliness. The significant correlation between FOMO and social media use intensity suggests that psychological factors, rather than mere social connection needs, may drive excessive platform engagement. According to research by Casale et al. (2018), FOMO syndrome and self-presentation skills were directly and indirectly linked to problematic social media use by mediating positive metacognitions.

The relationship between FOMO and social media use appears to create a complex, self-reinforcing cycle that merits careful consideration. As Alutaybi et al. (2020) note, individuals experiencing FOMO often fulfil their social needs through sustained social media engagement, potentially creating a dependency pattern. Tomczyk and Selmanagic-Lizde (2018) further state that many people with FOMO syndrome use social media much more often in situations and times inappropriate to their circumstances. They also pointed out a significant relationship between the intensity of the use of social media and the devastating consequences of FOMO syndrome. The results confirmed that the more intensively social media are used, the greater the risk of FOMO syndrome. Tomczyk, Selmanagic-Lizde (2018), report a strong correlation between FOMO syndrome and the use of social media even while the user is engaged in different activities. Przybylski et. al. (2013; in: Tomczyk & Selmanagic-Lizde, 2018) state that social media

are harmful and can be dangerous to their millions of young users. Their study revealed small to medium correlations between social media use and moodiness, which can create a vicious circle of increased social networks and heightened feelings of loneliness. Roberts and David (2019) further illuminate this dynamic by explaining that individuals with FOMO syndrome tend to perceive the lives of others as more interesting than their own, potentially driving increased platform engagement and creating a cycle of social comparison and dissatisfaction. These findings confirm that FOMO serves as a crucial operational-theoretical framework for understanding the experience of loneliness among young Slovak people from psychological, social, and public health perspectives. The strong predictive relationship between FOMO and social media use suggests that interventions focusing solely on reducing screen time may be insufficient without addressing underlying psychological needs and anxieties. These findings collectively emphasise the need for comprehensive, multifaceted intervention strategies that address both the behavioural and psychological aspects of digital engagement. Research by Tomczyk and Selmanagic-Lizde (2018) emphasises the importance of offline activities and real-world interactions as protective mechanisms against FOMO, suggesting that interventions should build real-world social connections alongside digital literacy skills. Their advocacy for educational interventions, combined with the findings of this study, indicates that effective approaches should address both behavioural patterns and underlying psychological needs, particularly considering the significant role of FOMO in driving social media engagement. The gender differences identified in this study further suggest that these interventions should be tailored to address the specific patterns and vulnerabilities associated with male and female social media use. The integration of these findings, within the broader context of the well-being of young people, could have several important implications in practice. University support services should benefit from incorporating a FOMO assessment into their standard mental health screening procedures, and the development of gender-specific digital wellness programmes could provide targeted and effective support for students struggling with social media-related issues. In addition, the promotion of balanced engagement patterns, incorporating both online and offline social activities, might help students to develop healthier relationships with social media platforms while maintaining the benefits of digital connectivity. As part of our investigation, we confirmed that the level of use of social media has no impact on whether the user will subsequently feel lonely. This phenomenon can be explained by this study's target group. As explained by Thomas et al. (2020), involvement in university life helps young people have better adaptation and coping mechanisms. In addition, Thomas et al. (2020) concluded that university activities facilitate the creation of social relationships. It is possible that young people cope with the feeling of loneliness in a different way than people of a different age group.

Implementation for Practice

This study reveals the necessity for a comprehensive strategy to be put into place that integrates institutional interventions with targeted support services. Universities should develop gender-specific digital wellness programmes, integrate FOMO assessment into student support services, and establish peer support networks to facilitate healthy digital engagement. Educational initiatives should include digital literacy courses, workshops communicating balanced social media use, and mindfulness programmes targeting digital anxiety. Clear university-wide digital wellness policies should guide these programmes, incorporating innovative approaches such as 'digital sunset' periods and tech-free social spaces. Programme effectiveness requires systematic monitoring and evaluation, including regular assessments of student digital well-being and tracking intervention outcomes through longitudinal studies. Well-trained counsellors, versed in FOMO-specific strategies and dedicated digital wellness clinics, are essential for early intervention. Success relies on consistent evaluation and refinement based on empirical evidence, with attention to gender-specific outcomes and evolving digital engagement patterns.

Strengths and Limitations of the Study

The strengths of the study include a sample size of 225 participants, enhancing statistical reliability, and the use of validated measurement tools, such as the UCLA Loneliness Scale and the FOMO Scale adapted for the Slovak context. The multidisciplinary and multilingual research team from Slovakia and Norway added methodological rigour and cross-cultural perspectives. Comprehensive statistical analysis provided robust evidence, and the examination of both genders and multiple psychological variables offered valuable insights. Limitations include the cross-sectional

design, which prevents establishing causal relationships, and the uneven gender distribution (70.2% female), affecting generalisability. Reliance on self-reported data may introduce social desirability bias, and the geographical limitation to young Slovak people restricts generalisability to other cultural contexts. Pre-existing mental health conditions were not accounted for, and the lack of previously validated Slovak versions of measurement tools may have introduced cultural biases.

6 Conclusion

The study offers valuable insights into the complex relationships between social media use, loneliness, and FOMO among young Slovak people. The research demonstrates that social media use does not directly lead to loneliness; however, FOMO emerges as a key factor in determining time spent on social media. The study reveals that female students display higher social media usage than their male counterparts. This finding indicates that FOMO and social media use are interconnected, suggesting that intervention strategies should extend beyond screen time reduction to address underlying psychological needs and concerns. The observed gender differences indicate potential benefits in developing gender-specific approaches to digital wellness support. The findings present important implications for university student support services, mental health professionals, and educational and public health policymakers. The outcome of this study further emphasises the necessity for the formulation of targeted prevention initiatives aimed at cultivating psychological resilience to FOMO, with the potential to indirectly curtail problematic social media utilisation. This study advocates for the implementation of screening instruments to discern FOMO into prevailing student counselling services, thereby facilitating the early identification of individuals who may be at risk. The research contributes to the growing body of knowledge about digital wellness among young people and emphasises the need for a nuanced understanding of the impact of social media on student well-being. The study points out the importance of targeted interventions that consider both the benefits and challenges of social media use in academic environments and acknowledge the role of psychological factors, such as FOMO, in shaping students' digital behaviour patterns. Future research should prioritise longitudinal studies to examine how relationships between social media use, loneliness, and FOMO develop over time. Mixed-methods approaches can provide deeper insights into students' experiences. Cross-cultural comparisons across European universities can illuminate cultural variations in FOMO and social media use patterns. Developing and evaluating targeted intervention strategies for managing FOMO and promoting healthy social media use among young people is essential. Additionally, examining the influence of emerging social media platforms and technologies on student well-being and social connections is recommended.

Ethical Statements

All respondents participated in the research voluntarily, and their informed consent was obtained. The research passed the Ethics Committee at the University of Ss. Cyril and Methodius in Trnava, Slovakia, and is registered as: EK FF UCM: UCM-FF-EK 5/2024.

Author Contributions

Conceptualisation: D.D. & M.T.; Investigation: D.D.; Data curation and Software, D.D.; Formal analysis: D.D. & M.T.; Methodology: D.D. & M.T.; Validation: S.E. & M. T.; Visualisation: S.E.; Writing - original draft preparation: D.D., S.E. & M.T.; Writing, review and editing: D.D., S.E. & M.T.; Supervision: M.T. Project administration: D.D. & M.T. All authors have read and agreed to the published version of the manuscript.

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