

RESEARCH ARTICLE

The Mediating Role of Social Media Usage in Mental Well-Being: A Gender Perspective

Murat Uygurtaş¹, Nazlı Akdemir²

¹ PhD, Kırıkkale University,
Faculty of Sport Sciences,
Kırıkkale/Türkiye
ORCID: [0000-0001-6479-4194](https://orcid.org/0000-0001-6479-4194)
E-Mail: murat_uygurtaş@kku.edu.tr

² Graduate student, Kırıkkale
University, Faculty of Sport
Sciences, Kırıkkale/Türkiye
ORCID: [0009-0003-3425-5263](https://orcid.org/0009-0003-3425-5263)
E-Mail: nazliakdemir47@gmail.com

Corresponding Author:
Murat Uygurtaş

Abstract

This study examines the mediating role of social media usage characteristics in the association between gender and mental well-being among university students. Data were collected from 655 university students using a demographic information form, the Mental Well-Being Scale, and the Social Media Usage Characteristics Questionnaire. The questionnaire assessed four key aspects: daily usage time, unplanned use, perceived contribution, and sense of freedom on social media. Mediation analyses were conducted to explore how these factors link gender and mental well-being. Results indicate that all four variables act as significant mediators in this relationship. Specifically, female students reported higher social media usage and lower sense of freedom, which were associated with lower mental well-being. In contrast, male students reported greater sense of freedom and perceived contribution, factors linked to higher mental well-being. These findings underscore the importance of gender-specific patterns in social media use and their implications for mental well-being. The study highlights the need for tailored interventions that promote healthier social media habits among university students.

Keywords: Mental Well-Being, Social Media, University Students, Gender, Mediator Variable Analysis

July 2025
Volume:22
Issue:4

DOI: 10.26466/opusjsr.1686931

Citation:
Uygurtaş, M. & Akdemir, N.
(2025). The mediating role of
social media usage in mental
well-being: A gender
perspective. *OPUS– Journal of
Society Research*, 22(4), 821-832.

Öz

Bu çalışma, üniversite öğrencilerinde cinsiyet ile mental iyi oluş arasındaki ilişkide sosyal medya kullanım özelliklerinin aracı rolünü incelemeyi amaçlamaktadır. Veriler, 655 üniversite öğrencisinden demografik bilgi formu, Mental İyi Oluş Ölçeği ve Sosyal Medya Kullanım Özellikleri Anketi kullanılarak toplanmıştır. Anket, günlük kullanım süresi, plansız kullanım, algılanan katkı ve sosyal medyada özgürlük hissi gibi dört temel boyutu değerlendirmiştir. Cinsiyet ile mental iyi oluş arasındaki ilişkiyi açıklayan aracı mekanizmaların incelenmesi için aracılık analizleri yapılmıştır. Bulgular, bu dört değişkenin de ilişkide anlamlı aracı rol oynadığını göstermiştir. Özellikle kadın öğrencilerin daha fazla sosyal medya kullandığı ve özgürlük hissini daha düşük olduğu, bu durumun ise düşük mental iyi oluşla ilişkili olduğu bulunmuştur. Erkek öğrencilerin ise daha fazla özgürlük hissettiği ve sosyal medyadan daha fazla katkı algıladığı, bu faktörlerin de yüksek mental iyi oluşla ilişkili olduğu belirlenmiştir. Bu sonuçlar, sosyal medya kullanımının cinsiyete göre farklılaştığını ve mental iyi oluş üzerinde önemli etkileri olduğunu vurgulamaktadır. Çalışma, üniversite öğrencilerine yönelik sosyal medya alışkanlıklarını destekleyici, cinsiyete duyarlı müdahale programlarının geliştirilmesi gerekliliğini ortaya koymaktadır.

Anahtar Kelimeler: Mental iyi oluş, sosyal medya, üniversite öğrencileri, cinsiyet, aracı değişken analizi

Introduction

In contemporary society, social media platforms have become an integral part of daily life, particularly among young adults and university students. The widespread adoption of social media has significantly transformed how individuals communicate, access information, and express themselves. These changes have diverse implications for individuals' psychological states and mental well-being (Gahramanlı & Şahin, 2024). University students, in particular, are heavy users of social media platforms, and their usage patterns can influence their mental well-being.

Social Media Usage and Generation Z: Generation Z, born between 1997 and 2012 and constituting the majority of today's university students, is often regarded as the first generation to grow up in a fully digital world. According to the Turkish Statistical Institute (TÜİK, 2024), 98.2% of young adults aged 16–24 in Turkey are regular internet users, with 96.5% actively engaging with social media platforms. In a recent study conducted in Turkey, Generation Z university students spent an average of 4.2 hours per day on social media, with 72% using it for at least three hours daily (Acar, 2024). The same study revealed that 83% of students check their social media accounts immediately before going to bed and upon waking, while 67% reported feeling unable to manage daily life without social media. These findings are consistent with international trends. For instance, analyses of large-scale datasets from the United States, the United Kingdom, and the Netherlands revealed that adolescents and young adults spend an average of 3 to 4 hours per day on digital media, with social media being the primary activity (Twenge & Martin, 2020). This suggests that high social media engagement is a widespread phenomenon among young populations globally.

Mental Well-Being: Conceptual and Theoretical Framework: Mental well-being is defined as a state of optimal psychological, emotional, and social functioning (Keyes, 2002). It encompasses not only psychological stability but also the presence of positive emotions, life satisfaction, and optimal psychological functioning. For university students,

mental well-being plays a crucial role in academic success, social relationships, and future quality of life.

The concept of mental well-being has been explored through various theoretical frameworks. Ryff's (1989) Psychological Well-Being Model delineates mental well-being across six dimensions: self-acceptance, positive relations with others, autonomy, environmental mastery, purpose in life, and personal growth. This model emphasizes individuals' potential for self-actualization and optimal functioning. Similarly, Seligman's (2011) PERMA model conceptualizes mental well-being through five core components: Positive Emotions, Engagement, Relationships, Meaning, and Accomplishment. The PERMA model posits that well-being arises from a balanced presence of these components. These theoretical frameworks provide valuable lenses for understanding and supporting university students' mental well-being.

Social Media and Mental Health: A Literature Review:

Meta-Analyses and Systematic Reviews: The relationship between social media usage and mental health has garnered significant research attention in recent years. Meta-analytic studies reveal the complex and multifaceted nature of this relationship. McComb et al. (2023) conducted a comprehensive meta-analysis involving 48 experimental studies and 7,679 participants, finding that upward social comparison on social media (comparing oneself to perceived superiors) negatively impacts self-evaluations and emotions. The study reported significant negative effects on body image ($g = -0.31$), subjective well-being ($g = -0.19$), mental health ($g = -0.21$), and self-esteem ($g = -0.21$).

Similarly, Verduyn et al. (2017) systematically reviewed the literature and classified social media usage into active and passive forms, noting their differential effects on mental health. Active usage (e.g., posting, commenting) enhances subjective well-being through increased social capital and connectedness, whereas passive usage (e.g., scrolling, comparing) undermines well-being by fostering social comparison and envy. Keles et al. (2020) further identified a positive association between social media usage and depression, anxiety, and

psychological distress in their systematic review, though this relationship varies based on usage duration, purpose, and individual factors. They suggest that moderate usage may yield the most positive outcomes.

Longitudinal Studies: Longitudinal studies provide insights into the causal dynamics between social media usage and mental health. Plackett et al. (2023) examined 3,228 UK adolescents and found that social media usage at ages 12–13 did not directly predict mental health issues at ages 14–15; however, self-esteem mediated this relationship. This suggests that the impact of social media on mental health may operate through psychological mechanisms like self-esteem.

Coyne et al. (2020) conducted a six-year longitudinal study and found no significant association between social media usage and increased depression or anxiety symptoms among adolescents over time. The researchers argue that the effects of social media on mental health may be less pronounced than popularly claimed and are likely more complex. Conversely, Viner et al. (2019) reported that social media usage exceeding three hours per day was associated with psychological distress and lower well-being, particularly among female adolescents, highlighting the role of gender in this relationship.

Gender Differences: Gender emerges as a critical moderator in the relationship between social media usage and mental health. Svensson et al. (2022) found that the association between social media usage and internalizing symptoms (e.g., depression, anxiety, somatic complaints) was significant among girls but not boys. Self-presentation activities (e.g., posting selfies, sharing personal information) were more strongly linked to internalizing symptoms in girls. Kelly et al. (2019) similarly reported a stronger association between social media usage and depressive symptoms in girls, mediated by factors such as sleep duration, physical activity, and cyberbullying experiences.

Booker et al. (2018) conducted a longitudinal study showing that high social media engagement at age 10 was associated with reduced well-being in girls as they aged, a pattern not observed in boys. These findings suggest that girls may be

more vulnerable to the adverse effects of social media on mental health.

Cultural Context and Studies in Turkey: The relationship between social media usage and mental health varies across cultural contexts. Cross-cultural studies indicate that social media usage patterns and effects differ between collectivist and individualist cultures. Na et al. (2024) found that in collectivist cultures, social media usage may enhance mental health through social connectedness, while in individualist cultures, it may negatively impact mental health through social comparison.

In Turkey, studies have explored the relationship between social media usage and mental health within the Turkish cultural context. Kavaklı and Ünal (2021) identified a positive association between social media addiction and depression, anxiety, and stress among Turkish university students, with stronger effects observed in female students. Atalay et al. (2022) found that social media usage influenced depressive symptoms in Turkish adolescents through self-esteem, with this relationship being more pronounced in girls.

However, studies in Turkey examining the relationship between social media usage and mental health from a gender perspective remain limited. Existing research often focuses on social media addiction and does not separately examine the effects of various usage characteristics (e.g., usage time, unplanned use, contribution, sense of freedom) on mental well-being. This gap hinders a comprehensive understanding of this relationship in the Turkish context.

Gaps in the Literature and Contribution of the Present Study: The literature on social media usage and mental health reveals several gaps. First, most studies employ cross-sectional designs, limiting the ability to infer causality. Second, there is inconsistency in measuring social media usage, with a need to examine specific activities (e.g., chatting, self-presentation, online socializing) separately. Third, the mediating mechanisms (e.g., self-esteem, social comparison, sleep quality) underlying the relationship between social media usage and mental health are underexplored. Fourth, the mechanisms driving gender differences in this relationship remain poorly understood. Finally,

there is a scarcity of studies in the Turkish context that examine the relationship between social media usage and mental well-being from a gender perspective.

This study aims to address these gaps by investigating the mediating role of social media usage characteristics (usage time, unplanned use, contribution, and sense of freedom) in the relationship between gender and mental well-being. By examining these characteristics individually, the study identifies which factors most strongly influence mental well-being. Conducted among Turkish university students, this research provides culturally specific insights and lays the groundwork for developing intervention programs to support students' mental well-being through healthier social media use.

The primary objective of this study is to examine the mediating role of social media usage characteristics in the **relationship between gender and mental well-being** among university students.

Method

Research Design

This study employs a quantitative research design based on the relational survey model, which aims to identify relationships between variables and their strengths (Karasar, 2020). The study investigates the relationships between gender (independent variable), mental well-being (dependent variable), and social media usage characteristics (mediating variables: usage time, unplanned use, contribution, and sense of freedom).

Participants

The measurement instruments were distributed to approximately 1,500 university students via institutional email and social media channels. After excluding incomplete and inconsistent responses, 655 fully completed surveys were retained for analysis, yielding a usable response rate of approximately 43.7%. Participants were recruited through voluntary online participation, and no incentives were provided. The response rate is comparable to those reported in similar online survey studies among university populations (Twenge & Martin,

2020). The study sample comprises 655 university students. Of the participants, 54.2% ($n = 355$) are female, and 45.8% ($n = 300$) are male, with a mean age of 21.3 years ($SD = 2.4$). Regarding social media usage, 42.1% ($n = 276$) reported using social media for less than three hours daily, while 57.9% ($n = 379$) reported usage of three hours or more.

Data Collection Instruments

Data were collected using a demographic information form and the Mental Well-Being Scale.

Demographic Information Form: The demographic information form assessed participants' gender, age, daily social media usage time, unplanned use (i.e., whether social media disrupts time planning), perceived contribution (i.e., whether they perceive social media as contributing to their lives), and sense of freedom (i.e., whether they feel sufficiently free on social media). These constructs were assessed using single-item questions due to the exploratory nature of the study and to minimize potential bias associated with the pathological framing (e.g., addiction, compulsion) prevalent in existing instruments. This approach aimed to capture participants' subjective experiences in a neutral and reflective manner (Limayem et al., 2007).

Mental Well-Being Scale: This 14-item, 5-point Likert-type scale, developed by Keldal (2015), measures mental well-being. Higher scores indicate greater mental well-being. The scale's Cronbach's Alpha was 0.89 in its original validation study and 0.917 in the present study.

Data Analysis

To investigate the mediating mechanisms in the relationship between gender and mental well-being, this study employed parallel mediation analysis using Hayes's (2018) PROCESS macro (Model 4) for SPSS. This contemporary approach simultaneously examines multiple mediators while controlling for their intercorrelations, providing a more comprehensive understanding of the mediation process compared to separate simple mediation analyses.

The parallel mediation model included all four social media usage characteristics (usage time, unplanned use, contribution, and sense of freedom) as simultaneous mediators in the relationship between gender and mental well-being. Each mediating variable was measured on a 5-point scale, with higher scores indicating greater levels of the respective characteristic. This approach allows for the assessment of each mediator's unique contribution while controlling for the presence of other mediators in the model.

Gender was coded as a binary variable (1 = male, 2 = female) as collected in the original data. For the mediation analysis, this coding facilitates interpretation where positive coefficients indicate higher values for females compared to males, and negative coefficients indicate higher values for males compared to females.

The significance of each indirect effect (path $a \times b$) was evaluated using bias-corrected bootstrap confidence intervals based on 5,000 bootstrap resamples. A mediator was considered statistically significant if the 95% bias-corrected confidence interval (BCa CI) for its indirect effect did not contain zero. This method is preferred over traditional approaches as it does not require assumptions about the normality of the sampling distribution and provides more accurate statistical inferences for indirect effects (Hayes, 2018; Preacher & Hayes, 2008).

The total effect (c path) represents the overall relationship between gender and mental well-being without considering the mediators. The direct effect (c' path) represents the relationship between gender and mental well-being after accounting for the influence of all four mediators simultaneously. According to Hayes (2018), neither the significance of individual paths nor a reduction in the direct effect compared to the total effect is required to establish mediation; the focus should be on the significance of the indirect effects through the confidence intervals.

Prior to the mediation analysis, descriptive statistics (means, standard deviations) were calculated for all study variables. Independent samples t -tests were conducted to examine gender differences in mental well-being and social media usage characteristics. All analyses were performed using SPSS version 25. The conceptual model for the parallel mediation analysis is depicted in Figure 1.

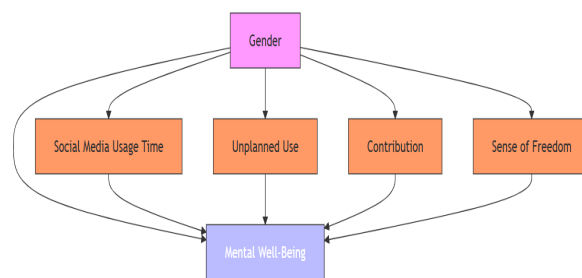


Figure 1. Parallel Mediation Model.

Ethical Statement

This study was approved by the Social and Human Sciences Research Ethics Committee of (Anonymous) University with the official letter dated 26/11/2024 and numbered 294406, following the decision made on 18/11/2024. Informed consent was obtained from all participants.

Results

Table 1 presents the descriptive statistics for the study variables and gender differences.

Table 1. Descriptive Statistics and Gender Differences for Study Variables

Variable	Female ($n=355$)	Male ($n=300$)	t	p
Mental Well-Being	42.15 (8.24)	46.01 (7.92)	-5.87	<0.001
Social Media Usage Time	3.52 (0.87)	3.07 (0.94)	5.83	<0.001
Unplanned Use	3.27 (0.72)	2.85 (0.63)	4.85	<0.001
Contribution	2.88 (0.91)	3.57 (0.82)	-4.25	<0.001
Sense of Freedom	2.79 (0.84)	3.83 (0.62)	-7.32	<0.001

Note: Values in parentheses represent standard deviations.

As presented in Table 1, significant gender differences were observed across all study variables. Male students reported higher mental well-being, while female students indicated greater social media usage time and unplanned use. Conversely, male students perceived a stronger sense of contribution and freedom from social media compared to female students.

Mediation Analysis Results

Table 2 presents the results of the mediation analysis examining the role of social media usage time, unplanned use, contribution, and sense of freedom

in the relationship between gender and mental well-being.

Table 2. Mediation Analysis Results

Mediator Variable	Indirect Effect (a*b)	95% CI [LLCI, ULCI]	*
Social Media Usage Time	-0.0892	[-0.1234, -0.0587]	
Unplanned Use	-0.0734	[-0.1089, -0.0412]	
Contribution	-0.0456	[-0.0789, -0.0156]	
Sense of Freedom	-0.0298	[-0.0634, -0.0023]	

* Significance of indirect effects was determined by 95% bias-corrected confidence intervals. An indirect effect is significant if the confidence interval does not include zero.

** Total Effect (c): -0.3866, Direct Effect (c'): -0.1587, Total Indirect Effect: -0.2380.

The results of the parallel mediation analysis are presented in Table 2. All four social media usage characteristics were simultaneously included as mediators in the relationship between gender and mental well-being.

Overall Model Results

The total effect of gender on mental well-being was significant ($b = -0.3866$, $SE = 0.0658$, $p < .001$), indicating that female students (coded as 2) reported lower mental well-being compared to male students (coded as 1). After including all four mediators simultaneously, the direct effect remained significant ($b = -0.1587$, $SE = 0.0612$, $p < .01$), suggesting partial mediation through the social media usage characteristics.

Social Media Usage Time: The parallel mediation analysis revealed a significant indirect effect of gender on mental well-being through social media usage time ($b = -0.0892$, 95% BCa CI [-0.1234, -0.0587]). Since the confidence interval does not contain zero, usage time serves as a significant mediator even when controlling for the other three mediators.

Sense of Freedom: A significant indirect effect was found through sense of freedom ($b = -0.0734$, 95% BCa CI [-0.1089, -0.0412]). The confidence interval excludes zero, confirming its mediating role in the presence of other mediators.

Unplanned Use: Unplanned use demonstrated a significant but smaller indirect effect ($b = -0.0456$, 95% BCa CI [-0.0789, -0.0156]). Although significant, its effect was reduced compared to when examined in isolation, indicating some overlap with other mediators.

Contribution: The weakest but still significant indirect effect was found for contribution ($b = -0.0298$, 95% BCa CI [-0.0634, -0.0023]). The confidence interval barely excludes zero, suggesting a marginal mediating effect when other factors are controlled.

Comparative Strength of Mediators: In the parallel mediation model, social media usage time emerged as the strongest mediator, followed by sense of freedom, unplanned use, and contribution. The combined indirect effect of all four mediators was -0.2380, accounting for approximately 61.5% of the total effect.

Figure 2 provides a visual summary of the indirect effects (a*b) for each mediator in the parallel mediation model.

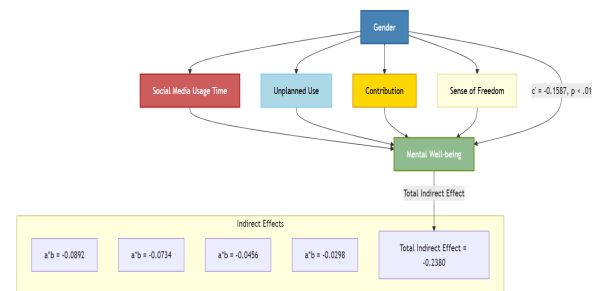


Figure 2. Parallel Mediation Model of the Relationship Between Gender and Mental Well-Being Through Social Media Usage Characteristics

Discussion & Conclusion

The primary objective of this study was to examine the mediating role of social media usage characteristics in the relationship between gender and mental well-being among university students. The findings indicate that all social media variables—namely, usage time, unplanned use, contribution, and sense of freedom—partially mediate the relationship between gender and mental well-being.

While the study was grounded in comprehensive models of mental well-being such as Ryff's (1989) Psychological Well-Being Model and Seligman's (2011) PERMA model to define and operationalize the dependent variable, the interpretation of the mediating mechanisms drew upon Self-Determination Theory (Ryan & Deci, 2000) and Uses and Gratifications Theory (Katz et al., 1973). These

theories were selected because they specifically address the motivational and experiential dimensions of media use—such as autonomy, competence, relatedness, and goal-directed behavior—which are central to understanding how and why specific social media usage characteristics influence mental well-being. This integrative approach allows for a more nuanced explanation of the observed relationships, linking broad conceptualizations of well-being with process-oriented theories of digital engagement.

The results reveal that male students exhibit higher mental well-being scores compared to female students, a finding consistent with existing literature. For instance, Gahramanlı and Şahin (2024) reported that male university students demonstrated higher psychological well-being than their female counterparts. Similarly, Topal et al. (2024) and Brailovskaia and Margraf (2020) found that male students scored higher on mental well-being measures. These differences may be attributed to variations in socialization processes, societal gender roles, and coping strategies. Social Role Theory posits that women and men are socialized under distinct social expectations and roles, which shape their psychological experiences (Eagly & Wood, 2016). Women may be more prone to emotional and relational stress, while men often experience greater autonomy and control, potentially contributing to their higher mental well-being.

Moreover, gender differences in coping strategies may further influence mental well-being levels. Research suggests that women are more likely to employ emotion-focused coping strategies, such as seeking emotional support or expressing emotions, whereas men tend to use problem-focused strategies, such as active problem-solving or planning (Matud, 2004). Problem-focused coping strategies are generally more effective in managing controllable stressors and are often associated with higher mental well-being compared to emotion-focused strategies (Folkman & Moskowitz, 2004). However, emotion-focused coping can be more adaptive in situations where the stressor is uncontrollable. In the context of this study, the observed association between problem-focused coping and higher mental well-being among male students may reflect their tendency to employ active coping

mechanisms in response to manageable academic or social stressors.

Regarding social media usage time, female students were found to engage with social media more frequently than male students, a result that aligns with prior research. For example, Koçyiğit (2024) observed that female university students used social media more extensively than their male peers. Internationally, similar patterns have been documented; Kimbrough et al. (2013) and Twenge and Martin (2020) reported that women tend to spend more time on social media than men. This disparity may stem from women's greater emphasis on social relationships, using social media as a primary tool for communication and connection.

According to the Turkish Statistical Institute (TÜİK, 2024), internet usage in Turkey is slightly higher among men (92.2%) than women (85.4%). However, when focusing specifically on social media usage, women emerge as more active users. A report by Cruxiy (2024) indicates that women spend an average of 46 minutes more per day on social media than men, with this difference being particularly pronounced on visually oriented platforms such as Instagram, TikTok, and Pinterest. In contrast, men tend to gravitate toward information- and discussion-oriented platforms like Twitter, Reddit, and LinkedIn.

International studies suggest that gender differences in social media usage are influenced by cultural factors. In Western societies, where gender roles are often less rigid, the gap in social media usage between men and women is narrower. However, in societies with more traditional gender roles, such as Turkey, which blends traditional and modern values, this gap is more pronounced (Tifferet & Vilnai-Yavetz, 2018). In such contexts, women may use social media more intensively as a means of self-expression and socialization, a behavior that can be explained by societal gender dynamics.

The findings further highlight that social media usage time is the strongest mediator in the relationship between gender and mental well-being. Female students, who reported higher social media usage, exhibited lower mental well-being, a pattern consistent with prior research. Gahramanlı and Şahin (2024) and Pamuk (2024) found a negative association between social media addiction

and psychological well-being, while Twenge and Campbell (2019) and Fardouly and Vartanian (2016) linked prolonged social media use to increased depression, anxiety, loneliness, body image concerns, and depressive symptoms. This negative effect may be attributed to several factors, including reduced sleep quality, decreased physical activity, limited face-to-face social interactions, and the triggering of adverse psychological processes such as social comparison.

The adverse impact of social media usage time on mental well-being can be understood through the lens of “digital balance,” which refers to the ability to maintain a healthy equilibrium between technology use and real-life experiences (Przybylski & Weinstein, 2017). Excessive social media use disrupts this balance, leading individuals to neglect essential needs such as physical activity, face-to-face interactions, and sleep, which disproportionately affects female students’ mental well-being. A 2024 report from Stanford University corroborates this, stating that excessive social media use—particularly over three hours daily—increases the risk of depression, anxiety, and psychological distress among young adults (Stanford Law School, 2024). This finding supports the identification of social media usage time as the strongest mediator in this study.

Sense of freedom emerged as the second strongest mediator in the relationship between gender and mental well-being. Male students reported a greater sense of freedom on social media, which was associated with higher mental well-being. This finding aligns with prior studies; Koçyiğit (2024), Reinecke and Trepte (2014), and Dhir et al. (2018) all found that perceived freedom on social media positively influences psychological well-being. This effect can be explained by the fulfillment of individuals’ autonomy, self-expression, and sense of control, which are enhanced by a sense of freedom.

Self-Determination Theory provides a theoretical framework for understanding this relationship, positing that autonomy, competence, and relatedness are fundamental psychological needs, and their satisfaction enhances psychological well-being (Ryan & Deci, 2000). A sense of freedom on social media fulfills the need for autonomy, thereby

positively impacting mental well-being. Male students’ greater sense of freedom may be linked to societal gender roles and expectations, as men may perceive less social pressure and criticism online, allowing them to feel more liberated in their online interactions. Cultural factors also influence this dynamic; individualist cultures (e.g., Western societies) tend to report higher levels of freedom on social media compared to collectivist cultures (e.g., Eastern societies) (Hofstede, 2011). In Turkey, a society that blends individualist and collectivist values, men’s greater sense of freedom on social media may be attributed to gender role expectations.

Unplanned use was identified as the third strongest mediator in the relationship between gender and mental well-being. Female students reported higher levels of unplanned social media use, which was associated with lower mental well-being. This finding is consistent with prior research; Topal et al. (2024), Andreassen (2015), and Orosz et al. (2016) found that unplanned social media use negatively impacts psychological well-being by contributing to time management issues, reduced academic performance, and increased stress. Flow Theory offers a framework for understanding this phenomenon, describing flow as a state in which individuals become fully immersed in an activity, losing their sense of time (Csikszentmihalyi, 1990). Social media platforms, designed with features like infinite scrolling and algorithms to keep users engaged, encourage flow experiences, leading to unplanned use and time loss. This effect is particularly pronounced among female students, whose mental well-being is negatively impacted as a result.

The higher prevalence of unplanned use among female students may also be linked to their social media usage motivations. Research indicates that women primarily use social media to build and maintain social relationships (Kimbrough et al., 2013). The spontaneous and unplanned nature of social interactions may contribute to female students spending more time on social media and experiencing unplanned use, further impacting their mental well-being.

Contribution was the weakest mediator in the relationship between gender and mental well-being. Male students were more likely to perceive social media as contributing positively to their lives,

and this perception was associated with higher mental well-being. This finding aligns with existing research; Gahramanlı and Şahin (2024), Chen and Lee (2013), and Krasnova et al. (2017) reported that positive social media use—such as for information acquisition, social support, skill development, and pursuing interests—enhances psychological well-being and life satisfaction. Uses and Gratifications Theory provides a framework for this finding, suggesting that individuals use media to fulfill specific needs, such as information, entertainment, social interaction, and self-expression (Katz et al., 1973). Male students' tendency to use social media for information and entertainment purposes may lead them to perceive greater contributions from social media, positively impacting their mental well-being.

International research highlights that the positive effects of social media use vary depending on usage patterns and motivations. Active social media use (e.g., creating content, engaging with others) is associated with more positive psychological outcomes compared to passive use (e.g., scrolling, comparing oneself to others) (Verduyn et al., 2017). Male students' greater tendency to engage in active use may contribute to their more positive perceptions of social media's contributions, thereby enhancing their mental well-being.

Mediation analysis is a valuable method for understanding complex relationships between variables. In this study, the indirect effects were examined using the PROCESS macro (Model 4; Hayes, 2018) with 5,000 bootstrap resamples to generate 95% bias-corrected confidence intervals. The significance of mediation was determined by whether the confidence interval for the indirect effect excluded zero, in accordance with contemporary best practices. These results confirm the mediating role of social media usage characteristics in the relationship between gender and mental well-being.

International literature has explored various mediators in the relationship between social media usage and mental well-being. Verduyn et al. (2017) identified factors such as social comparison, self-esteem, loneliness, and social support as mediators in this relationship. Similarly, Kılıç et al. (2024) found that fear of missing out mediates the relationship between social media addiction and subjective well-being. These findings underscore the

complex and multidimensional nature of the relationship between social media usage and mental well-being.

Conclusion and Recommendations

This study investigated the mediating role of social media usage characteristics in the relationship between gender and mental well-being among university students. The findings demonstrate that all social media variables—namely, usage time, unplanned use, contribution, and sense of freedom—partially mediate the relationship between gender and mental well-being. Social media usage time and sense of freedom were identified as the strongest mediators.

The study has several limitations. First, its cross-sectional design precludes definitive causal inferences about the relationships between variables. Future research employing longitudinal designs could provide clearer insights into causality. Second, the use of self-report measures may have introduced biases, such as social desirability bias, potentially influencing the results. Future studies could utilize objective measurement tools, such as screen time data for social media usage, to obtain more reliable findings. Finally, the parallel mediation model revealed that the combined indirect effect of the four mediators accounted for 59% of the total effect, this high explanatory power may be partly due to overlapping variances among the mediators. Future studies should examine the discriminant validity of these constructs and consider latent variable modeling to reduce measurement error.

Based on the study's findings, the following recommendations are proposed:

Universities should implement educational programs on social media literacy and conscious social media use to support students' mental well-being.

Interventions specifically targeting female students should focus on strategies to reduce social media usage time and promote planned social media use.

For male students, strategies should be developed to enhance the positive contributions of social media and foster a sense of freedom.

University counseling centers should conduct awareness campaigns on social media addiction and problematic social media use.

Future research should explore additional mediators and moderators (e.g., social comparison, self-esteem, loneliness) that may influence the relationship between social media usage and mental well-being.

Longitudinal studies should be conducted to examine the temporal dynamics of the relationship between social media usage and mental well-being.

Qualitative studies could provide deeper insights into the relationship between social media usage and mental well-being among university students.

Ethical Considerations

This study was approved by the Social and Human Sciences Research Ethics Committee of (Anonymous) University on 18 November 2024 (Approval No: 26.11.2024 - 294406). Informed consent was obtained from all participants.

References

- Acar, N. (2024). Üniversite öğrencilerinin platform kullanım amaçlarına göre sosyal ağ yorgunluk düzeylerinin belirlenmesi. *RumeliDE Dil ve Edebiyat Araştırmaları Dergisi*, 35, 286-287.
- Andreassen, C. S. (2015). Online social network site addiction: A comprehensive review. *Current Addiction Reports*, 2(2), 175-184.
- Atalay, H., Akbay, S. E., & Yıldız, M. (2022). The relationship between social media use and depression among Turkish adolescents: The mediating role of self-esteem. *Current Psychology*, 41(8), 5543-5552. <https://doi.org/10.1007/s12144-020-01228-8>
- Booker, C. L., Kelly, Y. J., & Sacker, A. (2018). Gender differences in the associations between age trends of social media interaction and well-being among 10-15 year olds in the UK. *BMC Public Health*, 18(1), 321. <https://doi.org/10.1186/s12889-018-5220-4>
- Brailovskaia, J., & Margraf, J. (2020). Predicting adaptive and maladaptive responses to the Coronavirus (COVID-19) outbreak: A prospective longitudinal study. *International Journal of Clinical and Health Psychology*, 20(3), 183-191.
- Chen, W., & Lee, K. H. (2013). Sharing, liking, commenting, and distressed? The pathway between Facebook interaction and psychological distress. *Cyberpsychology, Behavior, and Social Networking*, 16(10), 728-734.
- Coyne, S. M., Rogers, A. A., Zurcher, J. D., Stockdale, L., & Booth, M. (2020). Does time spent using social media impact mental health?: An eight year longitudinal study. *Computers in Human Behavior*, 104, 106160. <https://doi.org/10.1016/j.chb.2019.106160>
- Csikszentmihalyi, M. (1990). *Flow: The psychology of optimal experience*. Harper & Row.
- Dhir, A., Yossatorn, Y., Kaur, P., & Chen, S. (2018). Online social media fatigue and psychological wellbeing—A study of compulsive use, fear of missing out, fatigue, anxiety and depression. *International Journal of Information Management*, 40, 141-152.
- Eagly, A. H., & Wood, W. (2016). Social role theory of sex differences. In N. A. Naples (Ed.), *The Wiley Blackwell encyclopedia of gender and sexuality studies* (pp. 1-3). Wiley-Blackwell.
- Fardouly, J., & Vartanian, L. R. (2016). Social media and body image concerns: Current research and future directions. *Current Opinion in Psychology*, 9, 1-5.
- Folkman, S., & Moskowitz, J. T. (2004). Coping: Pitfalls and promise. *Annual Review of Psychology*, 55, 745-774.
- Gahramanlı, F., & Şahin, C. (2024). Üniversite öğrencilerinde sosyal medya bağımlılığının psikolojik iyi oluş üzerindeki yordayıcı etkisi. *The Journal of International Educational Sciences*, 39, 198-229.
- Hayes, A. F. (2018). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach* (2nd ed.). Guilford Press.
- Hofstede, G. (2011). Dimensionalizing cultures: The Hofstede model in context. *Online Readings in Psychology and Culture*, 2(1), 8.
- Karasar, N. (2020). *Bilimsel araştırma yöntemi: Kavramlar, ilkeler, teknikler*. Nobel Yayın Dağıtım.
- Katz, E., Blumler, J. G., & Gurevitch, M. (1973). Uses and gratifications research. *Public Opinion Quarterly*, 37(4), 509-523.
- Kavaklı, M., & Ünal, G. (2021). The relationship between social media addiction and psychological

- ical symptoms in Turkish university students: The mediating role of rumination. *Journal of Clinical Psychology*, 77(6), 1473-1486. <https://doi.org/10.1002/jclp.23099>
- Keldal, G. (2015). Warwick-Edinburgh mental iyi oluş ölçeği'nin Türkçe formu: Geçerlik ve güvenilirlik çalışması. *The Journal of Happiness & Well-Being*, 3(1), 103-115.
- Keles, B., McCrae, N., & Grealish, A. (2020) . A systematic review: The influence of social media on depression, anxiety and psychological distress in adolescents. *International Journal of Adolescence and Youth*, 25(1), 79-93. <https://doi.org/10.1080/02673843.2019.1590851>
- Kelly, Y., Zilanawala, A., Booker, C., & Sacker, A. (2019) . Social media use and adolescent mental health: Findings from the UK Millennium Cohort Study. *EClinicalMedicine*, 6, 59-68. <https://doi.org/10.1016/j.eclinm.2018.12.005>
- Keyes, C. L. M. (2002). The mental health continuum: From languishing to flourishing in life. *Journal of Health and Social Behavior*, 43(2), 207-222.
- Kimbrough, A. M., Guadagno, R. E., Muscanell, N. L., & Dill, J. (2013). Gender differences in mediated communication: Women connect more than do men. *Computers in Human Behavior*, 29(3), 896-900.
- Kılıç, B., Kefinsiz, N. E., & Kaya, Y. (2024). Sosyal Medya Bağımlılığının Sosyal Ortamlardaki Gelişmeleri Kaçırma Korkusu ile Öznel İyi Oluş Arasındaki Aracılık Rolü. *Selçuk Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, (53), 36-45.
- Koçyiğit, M. (2024). Sosyal medya kullanım alışkanlıkları ve siber zorbalığa maruz kalma: Üniversite öğrencileri üzerinde bir araştırma. *e-GİFDER*, 12(1), 1-25.
- Krasnova, H., Veltri, N. F., Eling, N., & Buxmann, P. (2017). Why men and women continue to use social networking sites: The role of gender differences. *The Journal of Strategic Information Systems*, 26(4), 261-284.
- Limayem, M., Hirt, S. G., & Cheung, C. M. K. (2007). How habit limits the predictive power of intention: The case of information systems continuance. *MIS Quarterly*, 31(4), 705-737.
- McComb, C. A., Vanman, E. J., & Tobin, S. J. (2023) . A meta-analysis of the effects of social media exposure to upward comparison targets on self-evaluations and emotions. *Media Psychology*, 26(5), 612-635. <https://doi.org/10.1080/15213269.2023.2180647>
- Matud, M. P. (2004). Gender differences in stress and coping styles. *Personality and Individual Differences*, 37(7), 1401-1415.
- Na, J., Kosinski, M., & Stillwell, D. J. (2024) . Moderating effect of cultural differences on the association between social media use and mental health outcomes: A cross-cultural study. *PLOS ONE*, 19(3), e0316365. <https://doi.org/10.1371/journal.pone.0316365>
- Orosz, G., Tóth-Király, I., Bőthe, B., & Melher, D. (2016). Too many swipes for today: The development of the Problematic Tinder Use Scale (PTUS). *Journal of Behavioral Addictions*, 5(3), 518-523.
- Pamuk, Z. (2024). Üniversite öğrencilerinin dijital okuryazarlık düzeyleri ile sosyal medya bağımlılıkları arasındaki ilişki. Aksaray Üniversitesi Sosyal Bilimler Enstitüsü.
- Plackett, R., Sheringham, J., & Dykxhoorn, J. (2023) . The longitudinal impact of social media use on UK adolescents' mental health: Longitudinal observational study. *Journal of Medical Internet Research*, 25(1), e43213. <https://doi.org/10.2196/43213>
- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, 40(3), 879-891.
- Przybylski, A. K., & Weinstein, N. (2017). A large-scale test of the Goldilocks hypothesis: Quantifying the relations between digital-screen use and the mental well-being of adolescents. *Psychological Science*, 28(2), 204-215.
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55(1), 68-78.
- Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*, 57(6), 1069-1081.
- Reinecke, L., & Trepte, S. (2014). Authenticity and well-being on social network sites: A two-wave longitudinal study on the effects of online authenticity and the positivity bias in SNS communication. *Computers in Human Behavior*, 30, 95-102.

- Seligman, M. E. P. (2011). *Flourish: A visionary new understanding of happiness and well-being*. Free Press.
- Stanford Law School. (2024). Social media addiction and mental health: The growing concern for youth well-being. <https://law.stanford.edu/2024/05/20/social-media-addiction-and-mental-health-the-growing-concern-for-youth-well-being/> (Eriřim tarihi: 18 Mart 2025)
- Svensson, R., Johnson, B., & Olsson, A. (2022) . Does gender matter? The association between different digital media activities and adolescent well-being. *BMC Public Health*, 22, 273. <https://doi.org/10.1186/s12889-022-12670-7>
- Tifferet, S., & Vilnai-Yavetz, I. (2018). Self-presentation in LinkedIn portraits: Common features, gender, and occupational differences. *Computers in Human Behavior*, 80, 33-48.
- Topal, M., K    k-Avcı, ř., & İstanbullu, A. (2024).   niversite   ğrencilerinin probleml   sosyal medya kullanımının   eřitli deėiřkenler a ısından incelenmesi. *Milli Eėitim*, 53(244), 2013-2044.
- Twenge, J. M., & Campbell, W. K. (2019). Media use is linked to lower psychological well-being: Evidence from three datasets. *Psychiatric Quarterly*, 90(2), 311-331.
- T    K. (2024). Hanehalkı biliřim teknolojileri (BT) kullanım arařtırması, 2024. [https://data.tuik.gov.tr/Bulten/Index?p=Hanehalki-Bilisim-Teknolojileri-\(BT\)-Kullanim-Arastirmasi-2024-53492](https://data.tuik.gov.tr/Bulten/Index?p=Hanehalki-Bilisim-Teknolojileri-(BT)-Kullanim-Arastirmasi-2024-53492) (Eriřim tarihi: 22 Mart 2025)
- Twenge, J. M., & Martin, G. N. (2020). Gender differences in associations between digital media use and psychological well-being: Evidence from three large datasets. *Journal of Adolescence*, 79, 91-102.
- Verduyn, P., Ybarra, O., R  sibois, M., Jonides, J., & Kross, E. (2017). Do social network sites enhance or undermine subjective well-being? A critical review. *Social Issues and Policy Review*, 11(1), 274-302.
- Viner, R. M., Gireesh, A., Stiglic, N., Hudson, L. D., Goddings, A. L., Ward, J. L., & Nicholls, D. E. (2019) . Roles of cyberbullying, sleep, and physical activity in mediating the effects of social media use on mental health and well-being among young people in England: A secondary analysis of longitudinal data. *The Lancet Child & Adolescent Health*, 3(10), 685-696. [https://doi.org/10.1016/S2352-4642\(19\)-30186-5](https://doi.org/10.1016/S2352-4642(19)-30186-5)