

Hidden Costs of Online Exclusion: Social Alienation as a Mediator Between Cyber Ostracism and Mental Well-being Among University Students

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Abstract

Cyber ostracism is an emerging form of online social exclusion that may undermine students' psychological functioning, yet the mechanisms explaining this association remain insufficiently understood. The present study examined whether social alienation mediates the relationship between cyber ostracism and mental well-being among university students. A cross-sectional correlational design was used. Data were collected from 213 university students aged 18 to 30 years using validated self-report measures of cyber ostracism, social alienation, and mental well-being. Pearson correlation, hierarchical regression, and mediation analyses were conducted. The results showed that cyber ostracism was positively associated with social alienation and negatively associated with mental well-being. Social alienation was strongly and negatively associated with mental well-being. Hierarchical regression indicated that cyber ostracism significantly predicted mental well-being after controlling for age, gender, and daily social media use; however, this effect became non-significant after social alienation was entered into the model. Mediation analysis using PROCESS Model 4 further confirmed a significant indirect effect of cyber ostracism on mental well-being through social alienation. These findings suggest that cyber ostracism may be linked to poorer mental well-being primarily because it increases students' sense of social alienation. The study extends cyber-ostracism literature by identifying social alienation as a key psychological pathway connecting online exclusion with positive mental health. The findings highlight the need for university student-support services to recognize subtle forms of online exclusion and promote belonging, inclusion, and social connectedness.

Keywords: cyber ostracism, social alienation, mental well-being, university students, mediation, online exclusion

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Introduction

Digital communication has become an important source of social connection, self-expression, identity expression, and peer interaction, particularly among young adults and university students. Social networking sites and messaging platforms play a vital role in the students' social lives. Students use these platforms to seek support, maintain friendships, and express themselves within peer groups (Tang & Duan, 2023; Wesselmann et al., 2023). Simultaneously, digital communication has introduced distinct forms of interpersonal vulnerability, including digital exclusion, being ignored, excluded, or overlooked in online spaces (Sacino et al., 2024; Tang & Duan, 2023; Wolf et al., 2015). These experiences may occur through not receiving replies, receiving fewer likes, or being left out of group interactions. Although these experiences may appear minor, research suggests that even minimal forms of social exclusion or being ignored can threaten individuals' need for belonging, self-esteem, control, and meaningful existence (Williams, 2007, 2009; Williams & Nida, 2011; Wesselmann et al., 2023). Therefore, online exclusion should not be treated as a trivial digital experience, but as a psychologically meaningful form of social disconnection.

Cyber ostracism refers to interpersonal neglect or social exclusion across digital platforms (Williams et al., 2000; Williams & Nida, 2011). It represents an extended form of ostracism, a wider term where individuals are singled out, denied recognition or acknowledgement and are neglected by peers (Wesselmann et al., 2023; Williams, 2009). Research also highlights that cyber ostracism can occur through ordinary features of everyday social media use including not receiving digital 'likes', replies, comments or any other forms of online acknowledgement (Sacino et al., 2024; Tang & Duan, 2023; Wolf et al., 2015). For instance, studies conducted via ostracism online paradigm demonstrated that participants who receive minimal likes or limited feedback report stronger feelings of exclusion and poorer emotional responses than those who receive inclusion cues (Tang & Duan, 2023; Wolf et al., 2015). Sacino et al. (2024) similarly added that cyber ostracism leads to negative psychological consequences and poses threats to basic human socialization needs such as belongingness, self-esteem, control and meaningful existence. These studies consistently highlight that online exclusion, whether subtle or direct, can be psychologically harmful.

The harmful effects of ostracism are commonly explained through the Temporal Need-Threat Model, which proposes that ostracism threatens four fundamental psychological needs: belongingness, self-esteem, control and meaningful existence

(Williams, 2007, 2009). This model further highlights that ostracism's initial outcome is social pain and negative affect, followed by attempts to restore threatened needs. When exclusion is prolonged or repeated, it may result in deeply rooted psychological consequences like helplessness, social withdrawal, and reduced well-being (Williams, 2009; Williams & Nida, 2011, 2022). This theoretical model specifically relates to cyber ostracism considering that online platforms provide continuous opportunities for social feedback and social comparison. When expected digital feedback is absent, students may interpret this absence as a sign of rejection, invisibility, or reduced social value (Sacino et al., 2024; Tang & Duan, 2023; Wesselmann et al., 2023). Wesselmann et al. (2023) further note that social exclusion broadly involves being kept apart from others physically or emotionally, and that ostracism-based exclusion is especially painful because it communicates social invisibility rather than direct confrontation.

University students may be especially vulnerable to cyber ostracism because university life is a period of social transition, peer evaluation, and identity development. Students are often required to form new social networks, adjust to academic expectations, and manage their sense of belonging within both offline and online communities (Assylbekova et al., 2024; Hards et al., 2022; Tang & Duan, 2023). Evidence suggests that ostracism and social exclusion in educational settings are associated with isolation, reduced engagement, psychological distress, and poorer emotional well-being (Assylbekova et al., 2024; Hards et al., 2022; Kaya & Cenkseven Önder, 2025). Assylbekova et al. (2024), for instance, found that social ostracism and bullying among university students affected academic, social, and emotional well-being, contributing to decreased engagement, isolation, and psychological distress. In college-student samples, cyber-ostracism has also been shown to mediate the relationship between perceived stress and emotional well-being, suggesting that online exclusion may be a meaningful psychological pathway through which stress is translated into poorer emotional outcomes (Tang & Duan, 2023).

Mental well-being refers to positive psychological functioning, including positive affect, satisfying relationships, meaning, engagement, and the ability to function effectively in daily life (Tennant et al., 2007). Unlike distress-based indicators such as depression or anxiety, mental well-being captures the positive dimension of mental health. This distinction is important because cyber ostracism may not only increase negative emotions but may also weaken the positive psychological resources that support students' functioning. Prior research has linked ostracism

and cyber ostracism with lower emotional well-being, reduced life satisfaction, negative affect, psychological distress, and impaired need satisfaction (Sacino et al., 2024; Tang & Duan, 2023; Wang et al., 2025; Williams & Nida, 2011; Wesselmann et al., 2023). For instance, Wang et al. (2025) found that cyber ostracism was negatively associated with life satisfaction among adolescents, with self-esteem explaining part of this association and rumination strengthening the indirect pathway. Broader social exclusion literature further adds that exclusion is experienced as a psychological pain while being associated with negative emotions like anger, rage, agony, sadness, humiliation and shame as well as threatened basic psychological needs (Wesselmann et al., 2023). Together, these findings suggest that online exclusion may undermine mental well-being by disrupting core social and psychological needs.

Another important but relatively underexamined mechanism through which cyber ostracism may affect well-being is social alienation. Alienation refers to a subjective state of disconnection from others, society, or the self. Classic theoretical accounts describe alienation through several dimensions like powerlessness, meaninglessness, normlessness, isolation and self-alienation (Dean, 1961; Seeman, 1959). From a psychological lens, alienation is not seen as absent social contact, but it broadly portrays a deeper sense of separation, marginality, and reduced meaningful connection with others. Taş (2022) explains that alienation includes dimensions such as powerlessness, anomie, and isolation, further arguing that internet related problems weaken offline, physical relationships and increase social withdrawal hence contributing to intensified alienation. Theoretically, this presents social alienation as a meaningful mediator between cyber ostracism and mental well-being.

The established link between cyber ostracism and alienation is consistent with the need-threat model. Social connection is a basic human need, if ostracism threatens that, repeated or salient online exclusion may lead students to feel socially invisible, disconnected, or peripheral to their peer groups (Williams, 2009; Williams & Nida, 2011; Wesselmann et al., 2023). Such feelings are central to social alienation. Once students experience alienation, their mental well-being may decline because social connection is a core component of psychological health and positive functioning (Baumeister & Leary, 1995; Hards et al., 2022; Tennant et al., 2007). Research on loneliness and social isolation supports this argument, showing that perceived social disconnection is associated with poorer mental health, including anxiety, depression, psychological distress, and reduced well-being (Brandt et al., 2022;

Hards et al., 2022; Loades et al., 2020). Brandt et al. (2022) also describe social isolation and discrimination as public health concerns associated with poor physical and mental health, reduced quality of life, and increased vulnerability to affective and other mental-health difficulties.

Although the literature has increasingly examined cyber ostracism in relation to emotional well-being, life satisfaction, depression, social anxiety, aggression, and social media addiction, the role of social alienation remains insufficiently developed (Sacino et al., 2024; Tang & Duan, 2023; Turan et al., 2024; Williams & Nida, 2022). Existing studies demonstrate that cyber ostracism is harmful, but there remains a need to clarify the psychological process through which online exclusion becomes associated with lower positive mental health. Social alienation is a promising explanatory mechanism because it captures the broader relational and existential consequences of being ignored or excluded. Rather than focusing only on immediate emotional reactions, social alienation reflects the possibility that cyber ostracism may gradually weaken students' perceived social integration and sense of meaningful connection.

The present study addresses this gap by examining whether social alienation mediates the relationship between cyber ostracism and mental well-being among university students. Drawing on the Temporal Need-Threat Model and previous evidence on cyber ostracism, social exclusion, alienation, and well-being, it was expected that cyber ostracism would be associated with higher social alienation and lower mental well-being. It was also expected that social alienation would be negatively associated with mental well-being. Most importantly, the study tested whether social alienation explains the association between cyber ostracism and mental well-being after controlling for age, gender, and daily social media use. By identifying social alienation as a potential pathway, the study contributes to a more precise understanding of how online exclusion may undermine students' positive mental health.

Accordingly, the following hypotheses were proposed:

H₁: Cyber ostracism will be positively associated with social alienation.

H₂: Cyber ostracism will be negatively associated with mental well-being.

H₃: Social alienation will be negatively associated with mental well-being.

H4: Social alienation will mediate the relationship between cyber ostracism and mental well-being.

Methodology

❖ Research Design

The present study used a quantitative, cross-sectional correlational design to examine the association between cyber ostracism, social alienation, and mental well-being among university students. A cross-sectional design was appropriate because the study aimed to examine relationships among naturally occurring psychological variables at a single point in time, without manipulating the study conditions. Cyber ostracism was treated as the independent variable, social alienation as the mediating variable, and mental well-being as the outcome variable.

❖ Participants

The sample consisted of 213 university students aged 18 to 30 years ($M = 21.58$, $SD = 2.32$). Participants were recruited using convenience sampling. The sample included 50 males (23.5%) and 163 females (76.5%). Most participants were undergraduate students (84.0%).

❖ Measures

• Cyber Ostracism

Cyber ostracism was measured using the Cyberostracism Scale developed by Hatun and Demirci (2022). The scale was designed to assess perceived social exclusion in online environments and includes 14 items reflecting experiences such as being ignored, blocked, unfollowed, or excluded from online interactions. Hatun and Demirci developed the scale to measure university students' perceptions of virtual social exclusion and reported a three-factor structure comprising direct exclusion, indirect exclusion, and being ignored. The response format uses a 5-point Likert scale, with higher scores indicating higher perceived cyber ostracism. In the present study, the total cyber ostracism score was used, and the scale showed excellent internal consistency, Cronbach's $\alpha = .924$.

• Social Alienation

Social alienation was assessed using the Margins of Society Alienation Scale, also known as the MOS Alienation Scale, developed by Travis (1993). The scale was developed as an alternative to Srole's Anomia Scale and is grounded in concepts

related to anomie and social isolation. It assesses subjective feelings of alienation, marginality, loneliness, aspiration, and normlessness. The scale contains 14 items rated on a 5-point Likert scale, with some items reverse scored. Higher scores indicate greater perceived social alienation. In the present study, the total social alienation score was used. The internal consistency of the scale in the present sample was modest, Cronbach's $\alpha = .621$. Although this value is below the conventional .70 threshold, it may be considered acceptable with caution for exploratory work and for scales assessing broad multidimensional constructs. Therefore, findings involving social alienation should be interpreted carefully.

- **Mental Well-being**

Mental well-being was measured using the Warwick–Edinburgh Mental Well-being Scale (WEMWBS; Tennant et al., 2007). WEMWBS is a 14-item measure of positive mental health covering both hedonic and eudaimonic aspects of well-being, including positive affect, interpersonal relationships, and psychological functioning. Participants rate their experiences over the previous two weeks on a 5-point Likert scale ranging from 1 = none of the time to 5 = all of the time. Total scores are calculated by summing the items, with higher scores indicating greater mental well-being. The original validation study reported strong internal consistency, with Cronbach's alpha values of .89 in a student sample and .91 in a population sample. In the present study, the scale demonstrated good internal consistency, Cronbach's $\alpha = .881$. WEMWBS was developed by the Universities of Warwick, Edinburgh and Leeds in conjunction with NHS Health Scotland. © University of Warwick, 2006, all rights reserved.

- ❖ **Procedure**

Data were collected using an online self-report questionnaire. Participants were informed about the purpose of the study before completing the questionnaire. Participation was voluntary, and informed consent was obtained before data collection. Participants were assured that their responses would remain confidential and would be used only for academic research purposes. The questionnaire included demographic information followed by measures of cyber ostracism, social alienation, and mental well-being. Completion of the questionnaire took approximately 7–10 minutes.

Ethical Considerations

Ethical principles for research involving human participants were followed. Participants were informed about the voluntary nature of participation, their right to withdraw, and the confidentiality of their responses. No personally identifying information was collected. Data were stored securely and used only for research purposes.

Data Analysis

Data were analyzed using SPSS. Preliminary analysis included frequencies, percentages, means, standard deviations, skewness, kurtosis, and reliability analysis using Cronbach's alpha. Because the internal consistency of the social alienation scale was modest, findings involving this construct were interpreted cautiously. Bivariate associations among cyber ostracism, social alienation, and mental well-being were examined using Pearson correlation analysis. Hierarchical regression analysis was then conducted to examine whether cyber ostracism and social alienation predicted mental well-being after controlling for age, gender, and daily social media use. In the first step, age, gender, and daily social media use were entered as control variables. In the second step, cyber ostracism was added. In the third step, social alienation was added.

Finally, mediation analysis was conducted using PROCESS Model 4 to test whether social alienation mediated the relationship between cyber ostracism and mental well-being. Age, gender, and daily social media use were included as covariates. Daily social media use was treated as an ordinal covariate based on reported hours of use per day. The indirect effect was tested using 5,000 bootstrap samples and 95% confidence intervals. Mediation was considered significant when the bootstrap confidence interval for the indirect effect did not include zero. PROCESS is a widely used regression-based approach for testing mediation, moderation, and conditional process models (Hayes, 2022).

Results

As shown in Table 1, the sample consisted of 213 university students. Participants' age ranged from 18 to 30 years, with a mean age of 21.58 years and a standard deviation of 2.32. The sample included 50 males (23.5%) and 163 females (76.5%), indicating that the majority of participants were female. Most participants were undergraduate students, $n = 179$, 84.0%, followed by MPhil students, $n = 15$, 7.0%, postgraduate students, $n = 13$, 6.1%, and PhD students, $n = 6$, 2.8%. Regarding social

media platform use, Instagram was the most commonly reported platform, $n = 79$, 37.1%, followed by WhatsApp, $n = 73$, 34.3%, TikTok, $n = 38$, 17.8%, others, $n = 20$, 9.4%, and Snapchat, $n = 3$, 1.4%. In terms of daily social media use, most participants reported using social media for 4–6 hours per day, $n = 97$, 45.5%, followed by 1–3 hours, $n = 50$, 23.5%, and 7–9 hours, $n = 41$, 19.2%. Most participants belonged to nuclear families, $n = 100$, 46.9%, and the majority were living with their parents, $n = 153$, 71.8%.

Table 1: Demographic Characteristics of the Participants

Variable	Category	<i>n</i>	%
Gender	Male	50	23.5
	Female	163	76.5
Education	Undergraduate	179	84.0
	MPhil	15	7.0
	Postgraduate	13	6.1
	PhD	6	2.8
Preferred/used social media platform	WhatsApp	73	34.3
	Snapchat	3	1.4
	TikTok	38	17.8
	Instagram	79	37.1
	Others	20	9.4
Daily social media use	1–3 hours	50	23.5
	4–6 hours	97	45.5
	7–9 hours	41	19.2
	10–12 hours	19	8.9
	More than 12 hours	6	2.8

Family system	Nuclear family	100	46.9
	Joint family	77	36.2
	Living away from family	36	16.9
Residence type	Living with parents	153	71.8
	University hostel	36	16.9
	Private hostel	15	7.0
	Rented accommodation	9	4.2

Note. N = 213.

Table 2: Descriptive Statistics for Main Study Variables

Variable	N	M	SD	Minimum	Maximum	Skewness	Kurtosis	α
Cyber ostracism	213	1.96	0.79	1.00	4.71	0.75	-0.02	.924
Social alienation	213	2.81	0.42	1.36	3.86	-0.47	0.74	.621
Mental well-being	213	3.23	0.67	1.00	5.00	-0.00	1.17	.881

Note. α = Cronbach's alpha.

Descriptive statistics and internal consistency values for the main study variables are presented in Table 2. Cyber ostracism showed excellent internal consistency, $\alpha = .924$, and mental well-being showed good internal consistency, $\alpha = .881$. Social alienation showed modest internal consistency, $\alpha = .621$. Skewness and kurtosis values were within acceptable ranges, supporting the use of parametric analyses.

Table 3: Pearson Correlations Among Cyber Ostracism, Social Alienation, and Mental Well-being

Variable	1	2	3
1. Cyber ostracism	—		
2. Social alienation	.273***	—	

3. Mental well-being	-.195**	-.548***	—
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Note. N = 213. **p < .01. ***p < .001.

Pearson correlation analysis was conducted to examine bivariate associations among the study variables. As shown in Table 3, cyber ostracism was positively associated with social alienation, $r = .273$, $p < .001$, and negatively associated with mental well-being, $r = -.195$, $p = .004$. Social alienation showed a stronger negative association with mental well-being, $r = -.548$, $p < .001$. These findings provide initial support for the proposed mediation model.

Table 4: Hierarchical Regression Analysis Predicting Mental Well-being

Predictor	B	SE B	β	t	p	95% CI for B	VIF
Model 1							
Constant	2.501	.524	—	4.775	< .001	[1.469, 3.534]	—
Age	.050	.020	.175	2.526	.012	[.011, .089]	1.066
Gender	-.070	.108	-.045	-.650	.516	[-.284, .143]	1.064
Daily social media use	-.103	.045	-.154	-2.290	.023	[-.191, -.014]	1.005
Model 2							
Constant	2.944	.532	—	5.538	< .001	[1.896, 3.993]	—
Age	.051	.019	.177	2.616	.010	[.012, .089]	1.067
Gender	-.152	.109	-.097	-1.395	.164	[-.367, .063]	1.127
Daily social media use	-.085	.044	-.128	-1.929	.055	[-.173, .002]	1.021
Cyber ostracism	-.180	.057	-.215	-3.163	.002	[-.293, -.068]	1.078
Model 3							
Constant	5.029	.531	—	9.468	< .001	[3.982, 6.076]	—
Age	.034	.017	.117	1.970	.050	[.000, .067]	1.083

Gender	-.058	.096	-.037	-.602	.548	[-.247, .131]	1.144
Daily social media use	-.031	.039	-.047	-.796	.427	[-.109, .046]	1.052
Cyber ostracism	-.058	.052	-.069	-1.117	.265	[-.161, .045]	1.177
Social alienation	-.797	.098	-.500	-8.093	< .001	[-.991, -.603]	1.164

Note. N = 213. Dependent variable = mental well-being. Model 1 included age, gender, and daily social media use, $R^2 = .064$, adjusted $R^2 = .051$, $F(3, 209) = 4.777$, $p = .003$. Model 2 added cyber ostracism, $R^2 = .107$, adjusted $R^2 = .090$, $\Delta R^2 = .043$, $\Delta F(1, 208) = 10.002$, $p = .002$. Model 3 added social alienation, $R^2 = .322$, adjusted $R^2 = .305$, $\Delta R^2 = .215$, $\Delta F(1, 207) = 65.489$, $p < .001$. Final model: $F(5, 207) = 19.635$, $p < .001$. CI = confidence interval; VIF = variance inflation factor.

A hierarchical regression analysis was conducted to examine whether cyber ostracism and social alienation predicted mental well-being after controlling for age, gender, and daily social media use. As shown in Table 4, the control variables significantly predicted mental well-being in Model 1, explaining 6.4% of the variance, $F(3, 209) = 4.777$, $p = .003$. In Model 2, adding cyber ostracism significantly improved the model, $\Delta R^2 = .043$, F change (1, 208) = 10.002, $p = .002$, with cyber ostracism negatively predicting mental well-being, $B = -.180$, $\beta = -.215$, $p = .002$. In Model 3, social alienation added substantial explanatory power, $\Delta R^2 = .215$, F change (1, 207) = 65.489, $p < .001$. The final model explained 32.2% of the variance in mental well-being, $R^2 = .322$, adjusted $R^2 = .305$, $F(5, 207) = 19.635$, $p < .001$. Social alienation emerged as the strongest predictor, $B = -.797$, $\beta = -.500$, $p < .001$, while cyber ostracism became non-significant, $B = -.058$, $\beta = -.069$, $p = .265$. This pattern suggests that social alienation may account for the association between cyber ostracism and mental well-being. Multicollinearity was not a concern, with VIF values ranging from 1.005 to 1.177.

Table 5: Mediation Analysis of Social Alienation in the Association Between Cyber Ostracism and Mental Well-being

Effect/path	<i>B</i>	<i>SE</i>	<i>t</i>	<i>p</i>	95% CI
Path a: Cyber ostracism → Social alienation	.153	.035	4.372	< .001	[.084, .223]
Path b: Social alienation → Mental well-being	-.797	.098	-8.093	< .001	[-.991, -.603]

Total effect, c: Cyber ostracism → Mental well-being	-.180	.057	-3.163	.002	[-.293, -.068]
Direct effect, c': Cyber ostracism → Mental well-being	-.058	.052	-1.117	.266	[-.161, .045]
Indirect effect, ab: Cyber ostracism → Social alienation → Mental well-being	-.122	.036	—	—	[-.196, -.057]
Completely standardized indirect effect	-.146	.041	—	—	[-.228, -.068]

Note. N = 213. Mediation was tested using PROCESS Model 4 with 5,000 bootstrap samples and 95% bootstrap confidence intervals. Age, gender, and daily social media use were entered as covariates. Cyber ostracism was entered as the independent variable, social alienation as the mediator, and mental well-being as the outcome variable. The indirect effect was significant because the bootstrap confidence interval did not include zero.

A mediation analysis was conducted using PROCESS Model 4 to examine whether social alienation mediated the relationship between cyber ostracism and mental well-being, controlling for age, gender, and daily social media use. Cyber ostracism significantly predicted social alienation, $B = .153$, $SE = .035$, $p < .001$. Social alienation significantly predicted mental well-being, $B = -.797$, $SE = .098$, $p < .001$. The total effect of cyber ostracism on mental well-being was significant, $B = -.180$, $SE = .057$, $p = .002$; however, the direct effect became non-significant after social alienation was included, $B = -.058$, $SE = .052$, $p = .266$. The indirect effect was significant, $B = -.122$, $Boot SE = .036$, 95% CI [-.196, -.057], indicating that social alienation significantly mediated the association between cyber ostracism and mental well-being.

Discussion

The present study examined whether social alienation mediates the relationship between cyber ostracism and mental well-being among university students. Overall, the findings supported the proposed model. Cyber ostracism was positively associated with social alienation and negatively associated with mental well-being, while social alienation was strongly and negatively associated with mental well-being. Most importantly, mediation analysis showed that social alienation significantly mediated the relationship between cyber ostracism and mental well-being. This indicates that students reporting higher levels of online exclusion were

more likely to experience social alienation, which in turn was associated with lower mental well-being.

The findings supported the first hypothesis as cyber ostracism had significant and positive association with social alienation. That is further consistent with the broader ostracism literature, which proposes that being ignored or excluded is a threat to the fundamental human need for belonging and social recognition. (Williams, 2007, 2009; Williams & Nida, 2011). In contemporary student life, online platforms are central spaces for building and maintaining peer relationships and social visibility, which highlights the relevance of cyber ostracism. Being ignored during online interactions, receiving limited responses, or feeling excluded from digital communication may evoke feelings of social unimportance or marginality. This perspective supports Wesselmann et al.'s concept of social exclusion as being distant from others; emotionally or physically, and with their discrepancy between rejection based and ostracism-based exclusions, where being ignored can create a painful sense of invisibility.

The positive association between cyber ostracism and social alienation also concludes that online exclusion may not be limited to temporary discomfort. Rather, it may extend into a wider subjective state of disconnection. This is essential, as alienation is much more than just loneliness, it reflects feeling separated, marginal and powerless. Moreover, alienation reflects weakened meaningful connection with others. Taş (2022) described alienation through dimensions such as powerlessness, anomie, and social isolation, and argued that internet-related problems can intensify alienation by weakening offline social relationships and increasing withdrawal from social life. The present findings extend this logic to cyber ostracism by showing that online exclusion is associated with students' alienation from their social environment.

The second hypothesis was also supported, as cyber ostracism was negatively associated with mental well-being. This finding is consistent with previous research showing that online exclusion can undermine emotional and psychological outcomes. Tang and Duan (2023), for example, found that cyber-ostracism mediated the relationship between perceived stress and emotional well-being among college students, indicating that online exclusion can function as a psychologically meaningful stressor rather than a minor digital inconvenience. Similarly, research using cyber-ostracism paradigms has shown that limited online feedback, such as receiving few likes, can threaten psychological needs and produce negative emotional responses. Sacino et al. also reported that cyber-ostracism threatens

belonging, self-esteem, meaningful existence, and control, which are central needs in the ostracism literature.

This result is theoretically consistent with the Temporal Need-Threat Model, which explains that ostracism undermines well-being because it threatens belonging, self-esteem, control, and meaningful existence (Williams, 2009; Williams & Nida, 2011). In the context of university students, these threatened needs may be particularly important because students are often negotiating new friendships, academic belonging, and peer acceptance. When exclusion occurs online, it may affect not only immediate mood but also students' broader perception of being socially valued. This interpretation is supported by research on university ostracism and bullying, where students exposed to exclusion reported difficulties in academic, social, and emotional well-being, including decreased engagement, isolation, and psychological distress.

The third hypothesis was supported, as social alienation was negatively associated with mental well-being. This was the strongest relationship in the study, suggesting that alienation is a particularly important correlate of students' positive mental health. This finding is consistent with literature showing that social disconnection, loneliness, and perceived isolation are linked with poorer mental health and well-being. Hards et al. found that loneliness is associated with anxiety and depression both cross-sectionally and prospectively among children and young people with mental-health difficulties. Brandt et al. similarly described social isolation and discrimination as growing public-health concerns associated with poor mental and physical health, reduced quality of life, and increased vulnerability to mental-health difficulties.

The strong negative association between social alienation and mental well-being is also conceptually meaningful. According to Tennant et al., (2007), mental well-being is not merely the absence of distress; it also involves positive functioning, meaningful relationships, emotional balance, and engagement with life. Social alienation is at odds with all the mentioned components as alienated students may be socially disconnected, less integrated and unable to nourish a sense of belonging. Therefore, social alienation may reduce well-being by weakening the interpersonal and existential foundations of positive mental health.

The fourth hypothesis was supported by the mediation analysis. Social alienation significantly mediated the relationship between cyber ostracism and mental well-being. The indirect effect was significant, while the direct effect of cyber ostracism

on mental well-being became non-significant after social alienation was included. This pattern suggests that cyber ostracism may be linked to poorer mental well-being primarily because it increases students' sense of social alienation. In other words, the harm of online exclusion may lie not only in the exclusionary event itself, but in the way such experiences contribute to feelings of social disconnection and marginality.

This finding is one of the main contributions of the study. Prior research has already established that cyber ostracism is associated with several negative outcomes, including lower emotional well-being, reduced life satisfaction, psychological distress, social anxiety, and impaired need satisfaction (Sacino et al., 2024; Tang & Duan, 2023; Wang et al., 2025; Williams & Nida, 2011). However, less attention has been given to social alienation as a mechanism linking online exclusion with positive mental health. The present study therefore extends cyber-ostracism research by showing that alienation may be a key explanatory pathway. This is important because alienation captures the broader relational and existential consequences of exclusion. It explains why online exclusion may become psychologically harmful even when it appears subtle or indirect.

The mediation finding also aligns with related evidence showing that social ostracism can operate as a mediator in digital-behavior and well-being models. For instance, Çiftci et al. found that social ostracism mediated the effect of social media addiction on loneliness among adolescents, showing that ostracism can function as an intermediate process linking digital experiences with social-emotional difficulties. Similarly, Tang and Duan's experimental work showed that cyber-ostracism explained the association between perceived stress and emotional well-being among college students. Together with these studies, the present findings suggest that exclusion-related experiences may be central mechanisms through which digital environments influence mental health.

The present findings also emphasize the significance of the mediation effect after the use of control factors for age, gender and routine social media activity. This strengthens the interpretation that the findings are not simply explained by the amount of time students spend on social media. Rather, the quality of students' online social experiences appears to matter. It is possible for students with high online social activity to not experience any exclusion, while another student with relatively very low social media activity to experience instantaneous exclusionary indications affecting their sense of belonging on the long run. This distinction shifts the focus from screen time to the social and emotional quality of online interactions.

The hierarchical regression results further support this interpretation. When cyber ostracism was entered before incorporating social alienation, it significantly predicted mental well-being. On the contrary, when it was entered after the incorporation of social alienation, its effect lost its significance. This adds that a very substantial part of association is accounted between cyber ostracism and well-being by social alienation. Given that, the prime predictor in the final regression model was also social alienation. This pattern is important because it offers a coherent psychological mechanism: cyber ostracism is associated with students' perception of alienation from their social world, which in turn is associated with poorer well-being.

Implications of the Study

The findings have practical implications for university student-support services, particularly because digital forms of exclusion are often less visible than face-to-face bullying or peer rejection. The present study emphasizes that subtle digital exclusions may still matter, especially when they contribute to alienation. The present study emphasizes that subtle digital exclusions may still matter, specifically; when it leads towards alienation. Student support services, wellbeing programs and all the concerned institutes should address students' negative online experiences, including being ignored, excluded, or made to feel digitally invisible. Interventions may consider strengthening belongingness, peer inclusion, digital empathy and productive virtual communication. Assylbekova et al. accentuated that students may be unaware of university support mechanisms. The visibility and accessibility of support services are the pivot points to address and acknowledge ostracism-related obstacles face by students. The results also suggest that psychoeducational interventions should help students differentiate between ambiguous online communication and intentional exclusion. Digital communication often lacks context and fails to convey the original essence and nuance of messages. Hence leading to online ambiguities, students may interpret delayed responses or low engagement as rejection, which may or may not be the original case. That said, repeated or patterned exclusion may bear real or long-term psychological consequences. Summing up, Interventions can combine digital literacy with student centered wellbeing strategies to bridge the gap between students' digital ostracism and offline support networks to strengthen students' sense of belonging and online inclusion. This is consistent with the broader studies proposing that social support, connections and cohesion protect mental health, particularly among young people experiencing digital isolation or social exclusion.

Limitations and Future Directions

Despite its contributions, this study has some limitations. First, the cross-sectional design does not allow causal conclusions. Although the mediation model was theoretically grounded, it cannot establish whether cyber ostracism leads to social alienation and reduced mental well-being over time. Second, the study relied on self-report measures, which may be influenced by recall bias, social desirability, or common-method variance. Future studies may incorporate behavioral indicators and experimental paradigms alongside self-reports. Furthermore, the social alienation measure demonstrated modest internal consistency; hence, findings involving this construct should be interpreted with caution. Future studies should replicate this work with improved and revised, multidimensional measures of alienation. Moreover, this sample was confined to university students only; therefore, a generalization for adolescents, working adults or older populations is not possible. Future research should test the model across different age groups and cultural contexts. Finally, the study controlled for daily social media use but did not distinguish between types of online activity. Different online activities may have different implications for cyber ostracism and mental well-being. Future studies should examine whether platform type, activity scope and perceived importance of digital connections influence the impacts of cyber-ostracism.

Conclusion

In conclusion, the present study provides evidence that social alienation is a mediating factor between cyber ostracism and mental well-being of university students. The findings suggest that cyber ostracism may undermine students' well-being not only by producing immediate negative emotions, but also by contributing to a deeper sense of social disconnection. By positioning social alienation as an explanatory element, the study adds to cyber ostracism research and emphasizes the importance of belonging, social connection, and social inclusion in students' digital as well as psychological lives.

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