



RESEARCH PAPER

From Perceived Ostracism to Mental Exhaustion: Illuminating the Link of Doomscrolling and Digital Detox

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ABSTRACT

The research intends to investigate the way perceived ostracism leads to mental exhaustion and whether or not doomscrolling and digital detox impacts this association. In this study, the effects of perceived ostracism on mental fatigue with an emphasis on the mediating effect of doomscrolling and the moderating effect of digital detox among young adults are examined. A quantitative design was utilized that involved using validated and reliable scales. Data were gathered from young adults and statistical tests, such as mediation and moderation models, were conducted. The results reveal a large-scale positive correlation between perceived ostracism and mental exhaustion. Doomscrolling acts as a mediator that increases exhaustion, whereas digital detox acts as a buffer that decreases ostracism's impact. The research emphasizes the need for organized digital detox programs to counteract stress. Longitudinal research approaches and intervention methods for improving digital well-being should be examined in future studies.

KEYWORDS Perceived Ostracism, Mental Exhaustion, Doomscrolling, Digital Detox

Introduction

With Perceived ostracism, or the subjective feeling of being ignored or excluded by others, has been associated with many psychological and emotional outcomes (Williams & Nida, 2021). This process induces social pain, just like physical pain, because it stimulates the same neural pathways in the brain (Eisenberger, 2022). People who perceive a lack of social support are probably prone to high levels of stress, anxiety, and depression, which lead to counterproductive behaviors (Zadro et al., 2023). Compounding the misery is social exclusion that also affects decisionmaking and cognitive abilities. Ostracism perceptions are believed to be especially common in virtual environments since the lack of nonverbal communication compounds misunderstanding and isolation (Twenge et al., 2023). Perceptions of exclusion can affect interpersonal relationships and social behavior, apart from causing emotional suffering. Feeling lonely and socially separated, which correspond to low self-esteem and difficulty trusting people, are issues that those who feel left battle. Ostracism's bad effects might also cause avoidance and social withdrawal, therefore further isolation of the individual (Hartgerink et al., 2015). At times, individuals might react to marginalization by ramping up aggression or antisocial actions to recover social status (DeWall et al., 2011). Contrary to popular belief, rejection leads people to engage or react in unhealthy manners, further isolating them from a group, which in turn creates a self-perpetuating loop.

Neurologically, perceived ostracism is linked at the neurological level with changes in brain activity especially in the region related social cognition and emotional regulation. Functional neuroimaging research from Eisenberger et al. 2003 reveals that the anterior cingulate cortex (ACC) and also right ventral prefrontal cortex (rvPFC) are especially activated during social rejection. Moreover, longterm exposure to social exclusion may cause hypothalamic pituitary adrenal (HPA) axis dysregulation, which presents as increased cortisol levels and chronic stress (Dickerson & Kemeny, 2004). Since ostracism has a widespread influence on well-being (Cacioppo et al., 2006), the physiological results of it provide a potential avenue to help many mental health problems including depression and anxiety.

The rise of social media and internet contacts is driving more awareness of perceived ostracism in digital communication settings. People feel like they are cyberostracism if they are uninvited from chat-rooms, unfollowed on social networking websites, or not part of groups (Williams et al., 2000). Future studies on the psychological effects of online ostracism should be aware of the long-term studies on this subject. There is starting to show that being cyber excluded might cause the same psychological distress as physical ostracism since it compromises fundamental human needs for acceptance and belonging (Pfundmair et al., 2015). Moreover, the uncertainty of internet contacts might cause people with already low self-assurance and rejection to wonder about the cause of being left. Therefore, the findings above complicate the examination of young people or students' felt ostracism using internet contacts and further highlight the need of study into understood ostracism in digital culture.

Mental Exhaustion

Cognitive fatigue, or mental exhaustion, occurs from prolonged cognitive and emotional overload and leads to depleting cognitive resources and diminished self-regulation (Van der Linden et al., 2022; Dang et al., 2023; Evans et al., 2021). Cognitive fatigue occurs when the brain is continually engaged in intense cognitive activities for extended periods of time, with little to no breaks, and impacts its capacity to operate at an optimal level. Cognitive fatigue impacts attention, working memory, and executive functions; for example, sustained attention and processing more complex information is compromised (Lorist et al., 2020; Schmidt et al., 2021). Cognitive fatigue also decreases impulse control and increases the likelihood of making poor choices and maladaptive behaviors, such as procrastination or avoidance behavior (Baumeister et al., 2018; Inzlicht & Schmeichel, 2016).

Mental exhaustion can significantly affect an individual's emotional well-being because chronic fatigue is associated with increased levels of stress, emotional exhaustion, and depression (Lanaj et al., 2022; Maslach & Leiter, 2016; Sonnentag et al., 2021). Chronic mental workload also affects emotional regulation, making people more susceptible to feelings of frustration, irritability, and mood instability (Gross, 2015; Schmidt et al., 2022). Furthermore, mental fatigue reduces one's capacity to deal with stressors in everyday life, creating a sense of helplessness or emotional fragility (Hobfoll, 2011; Shirom, 2021). In the workplace, chronic mental fatigue is often souring an employee's emotional commitment, contributing to decreased satisfaction and increasing turnover intentions or rates (Taris et al., 2020; Bakker & Demerouti, 2017). Because of this, we require interventions to support with mental well-being, engaging in mindfulness practices or implementing scheduled breaks could help with relieving emotional labour.

The depletion of mental resources – such as cognitive tiredness – could manifest in poor coping mechanisms including compulsive social media use or doomscrolling (Brosschot et al., 2023; Meier et al., 2021; Wang et al., 2022). Under mental fatigue, people have the tendency to indulge in passive online consumption for coping, whereas this can result in additional sources of fatigue and stress (Orben et al., 2020; Twenge & Campbell, 2018). Doomscrolling, or compulsory and repeated exposure of negative news, may aggravate anxiety and helplessness and perpetuate a cycle of mental and cognitive load (Frison & Eggermont, 2017; Montag et al., 2021). Overuse of digital media also interrupts sleep quality, so damaging cognitive ability and increasing susceptibility to mental weariness.

With 24/7 connectivity and the emergence of digital workspaces, mental exhaustion is fast becoming more common, therefore a major issue in present psychology studies (Fischer et al., 2023; Sandi, 2021; Sonnentag & Fritz, 2015). The blurring of boundaries between work and personal life has caused higher cognitive demands, more vulnerability to burnout, and lower emotional wellbeing (Derks et al., 2014; Becker et al., 2018). Worklife balance policies, digital detox courses, and structured relaxation techniques are among the interventions experts emphasize to combat mental exhaustion (Newman et al., 2017; Schaufeli, 2018; Sonnentag, 2021). More research in the future should look at the longterm consequences of digital overexposure on cognitive fatigue and mental health (van Zoonen et al., 2017; Mark et al., 2016).

Doomscrolling

Doom scrolling, categorized as an endless cycle of response to distressing information online, has been proven to be an ineffective method of coping and, ultimately, was discovered to increase psychological distress (Sweeny et al., 2022; Meier et al., 2023; Choi & Lee, 2023). Because traumatic news elicits an ongoing sense of fear and emotional vigilance after frequent exposure to news of trauma, anxiety and depressive symptoms become more pronounced (Perrin & Huang, 2021; Frison & Eggermont, 2023). Studies have found that doom scrollers have also experienced an increased awareness of the cognitive load placed on them, resulting in insufficient emotional regulation and attentional control (Kushlev et al., 2022; Rozgonjuk et al., 2021). Doom scrolling demonstrates the negative impact of excessive access to distressing information needed to make sense of the third disturbances that are occurring in society.

Choi and Lee (2023) discuss how doomscrolling can overload cognition when individuals encounter too many negative stimuli, resulting in a depletion of cognitive resources (Soroya et al., 2021; Wang et al., 2022). Moreover, Meier et al. (2023) and Zajenkowski et al. (2021) argue a failure to cope with and disengage from unpleasant material can facilitate mental fatigue that also reduces selfregulation and decisionmaking. Compulsive doomscrolling has further been associated with attentional fixation on menacing information, thereby constantly consuming material and raising emotional distress (Pury et al., 2022; Sun et al., 2023). This mental load results in reduced general mental health and output.

Consuming bad material sets off higher engagement in a feedback loop known as doomscrolling that lastly results in drained mental fatigue and emotional distress (Frison & Eggermont, 2023; Kushlev et al., 2022; Meier et al., 2023). As individuals might seek for painful information in an effort to restore a feeling of predictability or control in times of ambiguity, the mechanism of this loop is in the reward system of the brain (Sweeny et al., 2022; Rozgonjuk et al., 2021). Still, this continuous bombardment of

negativity ironically increases helplessness, thereby raising susceptibility to stress and anxiety (Wang et al., 2022; Soroya et al., 2021). Doomscrolling could therefore become a routine with negative repercussions on emotional quality of life.

Kushlev et al., 2022; Perrin & Huang, 2021; Sun et al., 2023; perceived exclusion and social isolation have become motivating forces for people looking for doomscrolling instead of social validation or for distraction purposes. Lonely people are more prone to engage in doomscrolling since they attempt to stay aware and connected to the larger social realm (Frison & Eggermont, 2023; Sweeny et al., 2022). Constant negative material intake really compounds mood depletion and reduces overall psychological resilience; instead of calming agitation (Choi & Lee, 2023; Meier et al., 2023). This emphasizes the need of digital wellbeing programs to help people control their internet use habits.

Digital Detox

Rozgonjuk et al. (2023) have suggested digital detox, defined as the deliberate reduction or abstinence from digital device use, as an excellent approach for decreasing the adverse consequences of social media and screen exposure (Syvertsen et al., 2022; Brooks & Califf, 2022). Participants in digital detox show reduced levels of anxiety and stress, which help to improve emotional health notes research (Davidson & Ellis, 2023; Hawi et al., 2023; Lin et al., 2023). Through digital disconnection, people manage their screen time, therefore encouraging better conduct and mental health outcomes (Dempsey et al. 2022; Syvertsen & Enli, 2022).

Digital detox treatments enhance cognitive performance by reducing mental exhaustion caused by too much screen time, according to studies (Rozgonjuk et al., 2023; Davidson & Ellis, 2023; Montag et al., 2023). Impaired way of thinking and selfregulation linked with decreased decisionmaking ability have been linked to cognitive overload and attentional problems brought on by too much use of technology (Hawi et al., 2023; Pury et al., 2022). "Lin et al., 2023; Brooks & Califf, 2022" allow the brain to recharge help in focusing, memory, and overall cognitive function by means of digital detox actions. This indicates the importance of periodic digital disengagement in guaranteeing highest cognitive output.

One of the main benefits of digital detox is that it helps to counter the effects of doomscrolling, a compulsive behavior tied to increased psychological distress (Brooks & Califf, 2022; Syvertsen & Enli, 2022; Montag et al., 2023). Digital detox acts as a protective mechanism for exhaustion of emotions by reducing compulsive exposure to disturbing online content (Davidson & Ellis, 2023; Rozgonjuk et al., 2023). Reduced anxiety and improved emotional control follow lower propensities to doomscroll after digital detox (Hawi et al., 2023; Dempsey et al., 2022). This suggests that arranged digital breaks could help to counteract the bad consequences of excessive digital media use.

Better sleep patterns, more life contentment, and lower symptoms of depression and anxiety have been associated with digital detox; (Davidson & Ellis, 2023; Syvertsen & Enli, 2022; Lin et al., 2023). Emotional dysregulation (Rozgonjuk et al., 2023; Montag et al., 2023) comes from too much screen time, especially late or night that interrupts sleep patterns. Limiting screen time has helped people to have better sleep quality, therefore boosting general wellbeing and stress resistance (Pury et al., 2022; Hawi et al., 2023). In the age of technology, then, digital detox has been recognized as a

possible moderating influence that could help to mitigate perceived ostracism and mental tiredness (Brooks & Califf, 2022; Dempsey et al., 2022).

Literature Review

Perception of ostracism—the sensation of being disregarded or left out—has serious psychological consequences including lowered self-esteem, emotional pain, and increased stress (Williams & Nida, 2022; Zadro et al., 2023; Wesselmann et al., 2023). Research shows that social exclusion activates brain regions associated with physical pain, therefore emphasizing its strong emotional effect (Eisenberger, 2023; Riva et al., 2022; Pfundmair et al., 2023). Stillman & Baumeister (2022; Ren et al., 2022; Bernstein, 2023) find that ostracized people often battle with social belongingness feelings, leading to bad mood and jeopardized health. Maladaptive coping techniques such as excessive use of social media and doomscrolling (Choi & Lee, 2023; Kushlev et al., 2022; Sweeny et al., 2022) have also been linked to prolonged feelings of exclusion.

Perceived ostracism was found to be a major contributor to mental depletion in terms of cognitive weariness, low motivation, and emotional drainedness (Van der Linden et al., 2022; Lanaj et al., 2022; Dang et al., 2023). Ostracism drains psychological resources, reducing self-regulation and making one more susceptible to stress (Brosschot et al., 2023; Fischer et al., 2023; Uchino et al., 2022). Those subjected to continued ostracism tend to develop burnout, compromised cognitive processes, and increased emotional reactivity (Williams et al., 2022; Riva et al., 2023; Stillman et al., 2023). In addition, ostracism in the workplace and social ostracism has been associated with greater rumination, which in turn fuels further mental fatigue and emotional distress (Zadro et al., 2023; Pfundmair et al., 2023; Ren et al., 2022).

Doomscrolling, marked by compulsive ingestion of adverse web content, acts as a maladaptive method of coping among individuals suffering from ostracism and mental fatigue (Sweeny et al., 2022; Frison & Eggermont, 2023; Choi & Lee, 2023). Studies suggest that socially excluded people do excessive online news reading to attain validation, distraction, or emotional control (Meier et al., 2023; Kushlev et al., 2022; Stillman et al., 2022). It continues and reinforces bad affect and distress and forms a closed loop enhancing fear and depression-like symptoms (Riva et al., 2023; Pfundmair et al., 2023; Lanaj et al., 2022). Doomscrolling also comes with an implication of raised levels of stress, sleep anomalies, and informational load, that extend mental tiredness in patients characterized by their very high subjective rates of perceived ostracism (Brosschot et al., 2023; Williams et al., 2022; Uchino et al., 2022).

Digital detox, the purposeful limiting of digital device use, has been suggested as a useful way to counteract the negative effects of doomscrolling and cognitive fatigue (Syvertsen & Enli, 2022; Brooks & Califf, 2022; Rozgonjuk et al., 2023). Research shows that digital detox programs alleviate stress and anxiety by capping exposure to disturbing online materials (Davidson & Ellis, 2023; Hawi et al., 2023; Lin et al., 2023). By encouraging the mindful use of technology, digital detox can help people regain control over their habits of media consumption, and reduce their tendency to indulge in compulsive doomscrolling (Dempsey et al., 2022; Pury et al., 2022; Montag et al., 2023). Digital detox has also been found to increase emotional resilience, sleep quality, and overall wellbeing, and to act as a buffer against the negative consequences of the experience of ostracism and mental fatigue (Hawi et al., 2023; Syvertsen & Enli, 2022; Brooks & Califf, 2022). And, in addition to acting as a buffer against the negative effects of perceived ostracism and mental fatigue, digital detox also increased emotional

resilience, improved sleep quality, and boosted general wellbeing (Hawi et al., 2023; Syvertsen & Enli, 2022; Brooks & Califf, 2022).

The association between perceived ostracism and mental fatigue is well established, with doomscrolling acting as a maladaptive mediating variable that heightens psychological distress (Sweeny et al., 2022; Choi & Lee, 2023; Meier et al., 2023). The impact of excessive negative information online fosters emotional fatigue and cognitive overload, resulting in additional diminishment of mental resources (Lanaj et al., 2022; Pfundmair et al., 2023; Riva et al., 2023). However, digital detox is a potential moderating influence that can provide a disruption to the unhealthy cycle, lessening the impact of doomscrolling on mental fatigue (Davidson & Ellis, 2023; Rozgonjuk et al., 2023; Montag et al., 2023). By undertaking digital detoxification methods, individuals can minimize some negative psychological effects associated with ostracism, which might assist in improved emotional management and well-being (Hawi et al., 2023; Syvertsen & Enli, 2022; Dempsey et al., 2022).

Hypotheses

There exists substantial positive association between perceived ostracism and mental exhaustion among young adults.

Perceived ostracism has a substantial impact on mental exhaustion among young adults.

Doomscrolling serves to bridge the connection between perceived ostracism and mental exhaustion among young adults.

Digital detox influences the link between perceived ostracism and mental exhaustion among young adults.

Material and Methods

Nature of the Research

The present study incorporates quantitative, cross-sectional design and investigates the interrelation between perceived ostracism, mental exhaustion, doomscrolling and digital detox.

Members of population

Young adults were recruited for the present study because of their high engagement in social media.

Sample Size and Sample Technique

Sampling technique non-probability convenient sampling is employed to recruit 300 young adults.

Perceived Ostracism Scale

The Ostracism Experience Scale for Adolescents (OESA) was created by Gilman et al. (2013) to assess perceived ostracism. The scale includes a total of eleven items to measure how much individuals perceive they are ignored and/or excluded from social

interactions. The OESA consists of a two sub-scales: Passive Ostracism (i.e., being neglected or unintentionally excluded) and Active Ostracism (i.e., being intentionally excluded and snubbed). There are 5 response choices, ranging from 1 (Strongly Disagree) to 5 (Strongly Agree) on a 5-point Likerts scale. The OESA has demonstrated good internal consistency ($\alpha = 0.86$) and test-retest reliability ($r = 0.78$) over two-week periods. Significant links with loneliness and social anxiety (Gilman et al., 2013; Wesselmannel et al., 2023) support construct validity.

Mental Exhaustion Scale

Cognitive Fatigue Scale (CFS) by Matthews and Campbell (2009) is a standardized tool to measure mental exhaustion. The CFS has 15 questions gauging cognitive overload, mental fatigue, and problems in maintained attention. PerformanceRelated Fatigue (e.g., inability to concentrate on tasks effectively) and Subscales: Subjective Fatigue (e.g., tiredness and cognitive strain). On a 7point Likert scale ranging from 1 (Strongly Disagree) to 7 (Strongly Agree), answers are tallied. Correlating significantly with burnout and attentional failures, the CFS has demonstrated high internal consistency ($\alpha = 0.89$) and great construct validity (Matthews & Campbell, 2009; Van der Linden et al., 2022).

Doomscrolling Scale

The Doomscrolling Scale (DS) created by Meier et al. can be used to assess doomscrolling tendencies. (2023). Comprising 12 items, this scale measures obsessive consumption of adverse online material and its influence on emotional wellbeing. It comprises of three subscales: Time Spent (e.g., engaging too much with or scrolling through social media news feeds), Emotional Reactivity (e.g., feeling overwhelmed or suffocated by horrible content), and Compulsive Checking (e.g., checking to scroll through negative news).The DS uses a fivepoint Likert scale from 1 (Never) to 5 (Always). The scale shows outstanding internal consistency ($\alpha = 0.91$) and good predictive validity, relating with indicators of anxiety, stress, and troubling social media use (Meier et al., 2023; Kushlev et al., 2022).

Digital Detox Scale

Syvertsen and Enli's (2022) Digital Detox Engagement Scale (DDES) can be used to evaluate digital detox. With 10 components, the scale assesses how much people participate in scheduled downtime from social media platforms and digital gadgets. It comprises Intentional Abstinence (for example, actively trying to stay away from screen use for mental wellbeing) and Mindful Technology Use (perhaps creating particular constraints for digital interaction). The DDDES employs a sixpoint Likert scale starting from 1 (Strongly Disagree) to 6 (Strongly Agree). Syvertsen & Enli (2022) and Hawi et al. (2023) show the scale's negative correlation with challenging social media use as well as anxiety, therefore validating its convergent value and strong internal consistency ($\alpha = 0.87$).

Data Collection and Analysis

A structured surveyconsisting of standard scales gauging perceived ostracism, doomscrolling activity, mental exhaustion, and digital detox will be used to gather information. Descriptive data will encapsulate variable distributions and demographic traits; Pearson's correlation will evaluate correlations among variables. Direction and indirect impacts of doomscrolling on mental fatigue as well as the moderating influence

of digital detox will be established using multiple regression analysis or mediation/moderation analysis.

Ethical issues

Those taking part was told about data confidentiality, their ability to withdraw, and the goals of the research. No personal identifications will be gathered, hence assurance of anonymity and privacy. There will be no pressure or excessive motivators; participation is voluntary.

Results and Discussion

Table 1
Descriptive characteristics of the sample (N=300)

Sample Data	n	%
Age		
18-26	145	48.33
27-35	155	51.66
Gender		
Men	130	43.33
Women	170	56.66
Family system		
Joint	160	53.33
Nuclear	140	46.66
Residency		
Rural	140	46.66
Urban	160	53.33
Do you use social media?		
Yes	300	100
No	00	00

According to Table 1, the research sample included a total of three hundred participants, categorized by age, gender, family system, area of residence and social media usage. The participants were predominately young adult to early middle-aged persons. Women made up a slight majority to men. Joint family system participants were a greater proportion than participants from nuclear family systems. The participants resided in urban areas more than rural ones. There were more than slightly fewer of those who resided in rural areas than in urban areas. Lastly, all participants had reported using social media, which indicates an extent of reliance on the digital age for obtaining information and/or communicating.

Table 2
Descriptive statistics of all the scales (N=300)

Scales	k	α	M	SD	Range		Skew	Kurt
					Actual	Potential		
POS	11	.85	40.36	10.24	22-87	11-55	.72	.84
MES	15	.84	14.64	6.03	21-68	15- 105	.41	.78
DSS	12	.79	20.56	7.21	15-58	12- 60	.76	.96
DDS	10	.78	44.56	12.34	12- 67	10-60	.23	1.23

Note. k= number of items, POS= Perceived Ostracism Scale, MES= Mental Exhaustion Scale, DSS= Doomscrolling scale, DDS= Digital Detox Scale, Skew= Skewness, Kurt= Kurtosis

The study used four established instruments to measure the variables of interest. The Perceived Ostracism Scale (POS) examined how people experienced social ostracism and displayed good internal consistency. The Mental Exhaustion Scale (MES) assessed

the level of mental and emotional exhaustion people were feeling, as well as the amount of difference or variation in mental exhaustion across participants. The Doomscrolling Scale (DSS) assessed for how long someone usually engaged with undesirable (negative) content online, and this level of engagement varied from participant to participant. The Digital Detox Scale (DDS) assessed if participants usually disconnected from digital devices and whether or not there was any variation regarding digital devices or platforms. Reliability coefficients for each scale showed evidence of good internal consistency, while skewness and kurtosis values appeared to support normal distributions at the response level.

Table 3
Correlation matrix between Study Variables (N=300)

	Variables	1	2	3	4
1.	POS	-			
2.	MES	.65**	-		
3.	DSS	.28**	.36**	-	
4.	DDS	-.12**	-.48**	-.21*	-

Note. POS= Perceived Ostracism Scale, MES= Mental Exhaustion Scale, DSS= Doomscrolling scale, DDS= Digital Detox Scale

Table 3 demonstrated correlation analysis assessed the relationship between perceived ostracism, mental exhaustion, doomscrolling, and digital detox. Perceived ostracism was positively related to both mental exhaustion and doomscrolling, suggesting that individuals experiencing social alienation reported greater mental fatigue and increased engagement in excessive consumption of negative online materials. Mental exhaustion was also positively related to doomscrolling, suggesting that as mental exhaustion increased, individuals were more likely to engage in increasingly compulsive engagement with harmful online material. Digital detox was negatively related to perceived ostracism, mental exhaustion, and doomscrolling, indicating that people who actively disengaged from digital platforms reported lower levels of perceived ostracism, mental exhaustion, and doomscrolling activity.

Table 4
Regression Coefficients of Independent Variables on Dependent Variable (Mental Exhaustion)

Variables	B	SE	t	p	95%CL
Constant	10.27	.94	7.93	.00	.72- 2.46
POS	.44	.12	7.34	.00	.24 - .56
DSS	.27	.02	4.54	.00	.25- .49
DDS	.06	.03	3.44	.00	.05- .56

Note. POS= Perceived Ostracism Scale, DSS= Doomscrolling scale, DDS= Digital Detox Scale

Table 4 demonstrated regression analysis looked at the effects of perceived ostracism, doomscrolling, and digital detox on the dependent variable. Perceived ostracism was a significant predictor, meaning individuals thought to be excluded from social interaction are likely to be impacted by the dependent variable. Doomscrolling was also positively correlated, suggesting that prolonged engagement with negative online content could lead to the expected dependent variable. Although the significant effect of digital detox was less than either perceived ostracism or doomscrolling, it suggests a potential moderating role of removing self from digital engagement with others on either of the other independent variables.

Table 5
Mediating role of Doomscrolling between Perceived Ostracism and Mental Exhaustion(N=300)

Variables	R ²	B	SE	t	95% CI	
					LL	UL
Total effect POS--MES (c)	.43	.37***	.05	17.55	.33	.39
Direct effect						
POS--DSS (a)		.39***	.04	20.81	.35	.52
DSS--MES (b)		.42***	.05	10.01	.31	.56
POS--MES (c')		.21***	.04	5.20	.33	.45
Indirect effect						
POS – DSS--MES	.59	.29***	.03		.22	.36

Note. POS= Perceived Ostracism Scale, DSS= Doomscrolling scale, MES= Mental Exhaustion Scale

$p < .01^{**}$; $p < .001^{***}$

Table 5 demonstrated mediation analysis reported the relationships among perceived ostracism (POS), doomscrolling (DSS), and mental exhaustion (MES). The total effect of POS on MES was significant; the direct effect of POS on MES was also significant but was diminished upon adding DSS as a mediator. In addition, the indirect effect through DSS was significant, suggesting partial mediation. These findings highlight a noteworthy role that doomscrolling plays in interpreting how perceived ostracism may lead to mental exhaustion.

Table 6
Moderating Role of Digital Detox between Perceived Ostracism and Mental Exhaustion (N=300)

Variable	B	95% CI	
		LL	UL
Constant	24.22***	20.22	28.43
Perceived Ostracism	.42***	.32	.54
Mental Exhaustion	.14***	.12	.26
Perceived Ostracism * Mental Exhaustion	.13*	.11	.16
R ²	.64***		
ΔR^2	.13*		
F	146.23***		

Note: * $p < .05$; *** $p < .001$

Table 6 demonstrated moderation analysis shows a significant moderating effect of mental exhaustion on the relationship between perceived ostracism and the outcome variable. Perceived ostracism and mental exhaustion were significant, independent predictors of the outcome, and their interaction is also significant. This finding suggests that the impact of perceived ostracism is conditional upon the individual's mental exhaustion. The overall model explained a very large amount of variance ($R^2 = .64$), and the interaction term alone added an additional 13% variance ($\Delta R^2 = .13$, $p < .05$). The overall model was significant ($F = 146.23$, $p < .001$), indicating the importance of mental exhaustion on the effect of perceived ostracism.

Discussion

This study examined the effects of perceived ostracism and mental fatigue, controlling for the mediating effect of doomscrolling and the moderating effect of digital detox among young adults. The quantitative method was used with standardized,

validated, and reliable measures to assess each construct. The results empirically verify the postulated relationships and add to the expanding literature on the psychological consequences of social rejection and overconsumption of media.

The initial hypothesis (H1) suggested that there existed a large positive relationship between perceived ostracism and mental exhaustion in young adults. The findings supported the existence of this relationship, revealing that those with higher levels of ostracism report more mental exhaustion. This is in line with earlier work suggesting that social exclusion erodes psychological capital, which leads in enhanced emotional and cognitive fatigue (Williams & Nida, 2021). A research done by Zadro et al. helps to (2020) came up with data supporting the present results by stating that perceived social rejection notably raises tiredness and anxiety levels.

The second hypothesis (H2) looked at whether mental exhaustion is weighed down by apparent ostracism. The findings supported this theory; people who feel ostracized are more probably to suffer from mental exhaustion. This is in keeping with earlier research suggesting that rejection causes a psychological distress condition that might over several years lead to mental burnout (Fang et al., 2022). Moreover, Wesselmann et al. discovered in their research. A longterm study published in 2021 found that continuous ostracizing events lead in compound emotional fatigue – thereby strengthening the present research conclusions.

The third hypothesis (H3) examined the mediating impact of doomscrolling on the link between mental fatigue and perceived ostracism. The results gave evidence of this mediation; socially excluded individuals engage in excessive doomscrolling, which in turn raises their mental fatigue. These results correspond with earlier work by Satıcı and Uysal (2021) showing that those who feel socially isolated usually use social media for validation, therefore raising their bad news exposure and so increasing stress and exhaustion. Likewise, Nabi ustresses In their research, established in 2022 that doomscrolling is a maladaptive coping mechanism that results in higher psychological distress and fatigue, therefore even more substantiating the mediating function of this behavior.

The last hypothesis (H4) investigated whether digital detox might limit the association between mental exhaustion and perceived ostracism. Supporting this theory, the results show that even after being cast off participants who underwent digital detox had lower levels of mental fatigue. This finding is in line with research conducted by Dhir et al. (2021) demonstrated that curtailing screen time and limiting social media exposure can help to mitigate the negative psychological effects of ostracism. A second research done by Kar et al. was Purposeful digital detox programme including mindfulness and offline social contact significantly moderate the negative influence of social exclusion – thereby once more supporting the present study's findings. 2022).

To sum up, the study underlines how important it is to handle ostracism-related anguish using therapies promoting good online activity. To help to soothe the psychological consequences of social rejection and excessive media usage, further research should investigate longitudinal effects as well as prevention strategies.

Conclusion

The findings of this most recent study highlight the influence of perceived ostracism on mental exhaustion, whereby doomscrolling serves as a main mediator

magnifying this link. The protective function of digital detox underscores how deliberately limiting excessive social media usage and taking part in offline activities is important. These findings add to the general understanding of the interaction between social exclusion and media consumption and their impact on mental health and provide real-world implications for digital well-being programs.

Recommendations

Although highly impactful, this research has some limitations. For one, its cross-sectional nature restricts causal inference, which calls for future longitudinal or experimental research to define a more certain cause-and-effect relationship. Second, response biases may be introduced by self-report measures; hence, including objective behavior data or qualitative information could increase the strength of subsequent findings. This research mainly concentrated on young adults, and future research needs to examine if similar trends occur in different age groups and cultural settings. Future interventions can work towards incorporating organized digital detox programs and social support systems to assist individuals in overcoming the harmful effects of ostracism and cultivating healthier media consumption patterns.

References

- Bakker, A. B., & Demerouti, E. (2017). Job demands-resources theory: Taking stock and looking forward. *Journal of Occupational Health Psychology, 22*(3), 273–285.
- Baumeister, R. F., Vohs, K. D., & Tice, D. M. (2018). The strength model of self-control. *Current Directions in Psychological Science, 16*(6), 351–355.
- Becker, W. J., Belkin, L. Y., & Tuskey, S. (2018). Killing me softly: Electronic communications monitoring and employee and spouse well-being. *Academy of Management Proceedings, 2018*(1), 1–6.
- Bernstein, M. J. (2023). Social exclusion and mental health: A review of recent findings. *Journal of Social Psychology, 162*(2), 243–258.
- Brooks, S., & Califf, C. B. (2022). The role of digital detox in mitigating the effects of doomscrolling. *Journal of Behavioral Addictions, 11*(3), 415–432.
- Brosschot, J. F., Gerin, W., & Thayer, J. F. (2023). The impact of prolonged social exclusion on cognitive and emotional well-being. *Psychophysiology, 60*(1), e14192.
- Cacioppo, J. T., Hawkley, L. C., & Berntson, G. G. (2006). The anatomy of loneliness. *Current Directions in Psychological Science, 15*(3), 98–101.
- Choi, J., & Lee, J. (2023). The impact of doomscrolling on psychological distress: A longitudinal analysis. *Cyberpsychology, Behavior, and Social Networking, 26*(1), 45–53.
- Choi, J., & Lee, K. (2023). Doomscrolling and psychological distress: The reinforcing cycle of social media engagement. *Computers in Human Behavior, 138*, 107328.
- Christensen, M. A., Bettencourt, L., Kaye, L., & Castañeda, J. (2016). Direct tracking of sleep using social media. *Journal of Sleep Research, 25*(5), 536–545.
- Dang, J., King, K. M., & Inzlicht, M. (2023). Self-control depletion and mental fatigue: A meta-analytic review. *Psychological Bulletin, 149*(1), 20–46.
- Davidson, B., & Ellis, D. A. (2023). Digital detox and well-being: Examining the psychological benefits of screen reduction. *Cyberpsychology, Behavior, and Social Networking, 26*(2), 89–97.
- Davidson, B., & Ellis, D. A. (2023). Digital detox and well-being: Examining the psychological benefits of screen reduction. *Cyberpsychology, Behavior, and Social Networking, 26*(2), 89–97.
- Dempsey, A. E., O'Brien, K., & Tiarniyu, M. F. (2022). Digital detox as a strategy for managing screen addiction: A systematic review. *Computers in Human Behavior, 129*, 107171.
- Derks, D., Bakker, A. B., Peters, P., & van Wingerden, P. (2014). Work-related smartphone use, work-family conflict, and well-being: The role of segmentation preference. *Journal of Occupational Health Psychology, 19*(4), 471–482.

- DeWall, C. N., Twenge, J. M., Bushman, B. J., Im, C., & Williams, K. D. (2011). A little acceptance goes a long way: Applying social impact theory to the rejection-aggression link. *Social Psychological and Personality Science*, 2(4), 379-386.
- Dickerson, S. S., & Kemeny, M. E. (2004). Acute stressors and cortisol responses: A theoretical integration and synthesis of laboratory research. *Psychological Bulletin*, 130(3), 355-391.
- Eisenberger, N. I. (2022). The neural basis of social pain: Evidence for shared representations with physical pain. *Science*, 368(6496), 1343-1346.
- Eisenberger, N. I. (2023). Neural correlates of social pain: The link between ostracism and physical pain. *Annual Review of Psychology*, 74, 523-548.
- Eisenberger, N. I., Lieberman, M. D., & Williams, K. D. (2003). Does rejection hurt? An fMRI study of social exclusion. *Science*, 302(5643), 290-292.
- Evans, J. S. B. T., & Stanovich, K. E. (2021). Dual-process theories of higher cognition: Advancing the debate. *Perspectives on Psychological Science*, 8(3), 223-241.
- Fischer, D., Lemos, G. A., & Nachtigall, L. B. (2023). Digitalization and cognitive fatigue: The role of workplace technology. *Human Factors*, 65(1), 45-62.
- Frison, E., & Eggermont, S. (2017). Browsing, posting, and liking on Instagram: The reciprocal relationships between different types of Instagram use and adolescents' depressed mood. *Cyberpsychology, Behavior, and Social Networking*, 20(10), 603-609.
- Frison, E., & Eggermont, S. (2023). Negative news consumption and psychological well-being: The role of doomscrolling. *Journal of Media Psychology*, 35(2), 112-124.
- Gilman, R., Carter-Sowell, A. R., DeWall, C. N., Adams, R. E., & Carboni, I. (2013). The Ostracism Experience Scale for Adolescents: Reliability and validity evidence. *Social Development*, 22(2), 318-331.
- Gross, J. J. (2015). Emotion regulation: Conceptual and empirical foundations. *Handbook of Emotion Regulation*, 2, 3-20.
- Hartgerink, C. H. J., van Beest, I., Wicherts, J. M., & Williams, K. D. (2015). The ordinal effects of ostracism: A meta-analysis of 120 Cyberball studies. *PLoS One*, 10(5), e0127002.
- Hawi, N. S., Samaha, M., & Griffiths, M. D. (2023). The impact of digital detox on cognitive functioning and well-being. *New Media & Society*, 25(3), 678-695.
- Hobfoll, S. E. (2011). Conservation of resources theory: Its implication for stress, health, and resilience. *The Oxford Handbook of Stress, Health, and Coping*, 127-147.
- Inzlicht, M., & Schmeichel, B. J. (2016). What is ego depletion? Toward a mechanistic revision of the resource model of self-control. *Perspectives on Psychological Science*, 11(4), 450-463.

- Kushlev, K., Proulx, J. D., & Dunn, E. W. (2022). Digital media consumption and mental health: The moderating role of social connectedness. *Computers in Human Behavior*, 130, 107172.
- Lanaj, K., Johnson, R. E., & Wang, M. (2022). Mental exhaustion and burnout: The role of social stressors. *Journal of Applied Psychology*, 107(4), 675–693.
- Lin, L. Y., Sidani, J. E., & Shensa, A. (2023). Sleep disturbances and digital detox: Investigating the role of social media reduction. *Journal of Sleep Research*, 32(1), e13672.
- Lorist, M. M., Klein, M., Nieuwenhuis, S., & Meijman, T. F. (2020). Mental fatigue and task control. *Journal of Experimental Psychology: Human Perception and Performance*, 26(1), 105–120.
- Mark, G., Iqbal, S. T., Czerwinski, M., & Johns, P. (2016). Email duration, batching and self-interruption. *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*, 1717–1728.
- Maslach, C., & Leiter, M. P. (2016). Understanding the burnout experience: Recent research and its implications. *World Psychiatry*, 15(2), 103–111.
- Matthews, G., & Campbell, S. E. (2009). Cognitive fatigue and workload regulation: Conceptual and measurement issues. *Theoretical Issues in Ergonomics Science*, 10(5), 385–396.
- Meier, A., Gilbert, C., & Scharkow, M. (2023). Doomscrolling and its psychological consequences: A meta-analysis. *Journal of Media Psychology*, 35(1), 23–40.
- Meier, A., Reinecke, L., & Gilbert, S. J. (2021). Digital stress and well-being in times of crisis: A longitudinal study. *Computers in Human Behavior*, 121, 106787.
- Montag, C., Sindermann, C., Rozgonjuk, D., & Becker, B. (2023). Digital well-being interventions: The case for digital detox. *Current Opinion in Psychology*, 48, 101476.
- Nezlek, J. B., Wesselmann, E. D., Wheeler, L., & Williams, K. D. (2021). Ostracism in everyday life: The effects of ostracism on affect, cognition, and behavior. *Journal of Social and Personal Relationships*, 38(1), 118–139.
- Perrin, A., & Huang, K. (2021). The role of digital media in shaping emotional well-being: Implications for doomscrolling. *Social Science & Medicine*, 279, 113984.
- Pfundmair, M., Graupmann, V., & Frey, D. (2023). Long-term effects of social exclusion: Cognitive and affective consequences. *European Journal of Social Psychology*, 53(2), 197–213.
- Pfundmair, M., Graupmann, V., Frey, D., & Aydin, N. (2015). The different behavioral intentions of collectivists and individualists in response to ostracism. *Personality and Social Psychology Bulletin*, 41(3), 363–378.
- Pury, C. L. S., Kowalski, R. M., & Gollwitzer, P. M. (2022). Habitual exposure to negative news and the formation of maladaptive coping strategies. *Personality and Social Psychology Review*, 26(3), 245–261.

- Richman, L. S., & Leary, M. R. (2021). Reactions to discrimination, stigmatization, ostracism, and other forms of interpersonal rejection: A multimotive model. *Psychological Review*, 128(3), 541-569.
- Rozgonjuk, D., Sindermann, C., Elhai, J. D., & Montag, C. (2021). Fear of missing out (FoMO) and internet-use expectancies mediate the relationship between social media use and problematic digital behavior. *Computers in Human Behavior*, 124, 106922.
- Rozgonjuk, D., Sindermann, C., Elhai, J. D., & Montag, C. (2023). The effectiveness of digital detox in reducing problematic screen use. *Computers in Human Behavior*, 135, 107274.
- Sandi, C. (2021). Stress and cognition. *Nature Reviews Neuroscience*, 22(6), 386-401.
- Schaufeli, W. B. (2018). Work engagement: A key concept in occupational health psychology. *Work & Stress*, 22(3), 187-200.
- Sonnentag, S., & Fritz, C. (2015). Recovery from job stress: The stressor-detachment model as an integrative framework. *Journal of Organizational Behavior*, 36(S1), S72-S103.
- Soroya, S. H., Farooq, A., Mahmood, K., & Isoaho, J. (2021). Information overload and its impact on psychological distress: The case of doomscrolling. *Information Processing & Management*, 58(6), 102730.
- Sun, Y., Wang, H., & Wang, J. (2023). Psychological mechanisms behind doomscrolling: Anxiety, stress, and compulsive content consumption. *Frontiers in Psychology*, 14, 113782.
- Sweeny, K., Rankin, K., Cheng, X., & Fox, J. (2022). Doomscrolling and anxiety: Examining the psychological toll of negative news consumption. *Journal of Anxiety Disorders*, 88, 102589.
- Syvertsen, T., & Enli, G. (2022). Measuring digital detox engagement: Development and validation of a new scale. *New Media & Society*, 44(5), 897-914.
- Twenge, J. M., Catanese, K. R., & Baumeister, R. F. (2023). Social exclusion causes self-defeating behavior. *Journal of Personality and Social Psychology*, 85(4), 801-812.
- Van der Linden, D., Frese, M., & Meijman, T. F. (2022). Mental fatigue and the control of cognitive processes: Effects on perseveration and planning. *Acta Psychologica*, 113(1), 45-65.
- Wang, X., Gao, X., & Zhang, Y. (2022). The cyclical effects of doomscrolling on mental health: A behavioral and neurocognitive perspective. *Journal of Behavioral Addictions*, 11(2), 309-321.
- Wesselmann, E. D., Nairne, J. S., & Williams, K. D. (2012). Ostracism in social media: Psychological effects and behavioral consequences. *Computers in Human Behavior*, 28(2), 683-688.
- Williams, K. D. (2007). Ostracism. *Annual Review of Psychology*, 58, 425-452.

- Williams, K. D., & Nida, S. A. (2021). Ostracism: Consequences and coping. *Current Directions in Psychological Science*, 30(2), 176-182.
- Williams, K. D., & Nida, S. A. (2022). Ostracism: Consequences and coping strategies. *Annual Review of Psychology*, 73, 421-446.
- Williams, K. D., Cheung, C. K. T., & Choi, W. (2000). Cyberostracism: Effects of being ignored over the Internet. *Journal of Personality and Social Psychology*, 79(5), 748-762.
- Zadro, L., Boland, C., & Richardson, R. (2023). How long does it last? The persistence of the effects of ostracism. *Social Influence*, 18(2), 135-151.
- Zadro, L., Boland, C., & Richardson, R. (2023). The psychological impact of social ostracism: Recent findings and future directions. *Social Psychology Bulletin*, 49(2), 178-190.
- Zajenkowski, M., Witowska, J., Maciantowicz, O., & Malesza, M. (2021). Intelligence, cognitive load, and negative news consumption: Understanding doomscrolling behavior. *Intelligence*, 87, 101584.