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Social Media Addiction and Health Habits: A Review of Physical, Eating, And Sleeping Habits

Nashwan Karkhi Abdulkareem

Assistant Professor, Department of Basic Sciences, College of Medicine, Hawler Medical University, Erbil, Kurdistan Region-Iraq.

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Abstract

Background: Across the last decade, digital spaces have quietly but powerfully rewired the way people relate to one another, shaping moments of closeness and moments of stress in equal measure, which indicates that the emotional fallout of this shift is not easily categorized. Research suggests that these platforms can bolster psychological well-being when used intentionally, yet compulsive behaviors often lead individuals toward anxiety, depression, impulsive tendencies, and difficulty making thoughtful decisions, especially among younger users who interact deeply with their online environments.
Objective: to explore how different forms of digital use, including social media scrolling, generalized internet immersion, and habitual smartphone engagement, intersect with dietary choices, movement patterns, sleep routines, and broader mental health outcomes among varied demographic groups.
Methods: The review synthesizes findings from peer-reviewed studies that focus on social media or internet addiction alongside research on physical activity, eating behaviors, and sleep quality, that shows how these behaviors converge.
Results: A growing body of evidence points to excessive digital involvement as a notable contributor to disordered eating behaviors, nighttime eating episodes, orthorexic traits, and a heightened intake of sugar-sweetened or ultra-processed foods that shows the subtle ways digital patterns seep into daily habits. Physical activity frequently declines when social media addiction intensifies, although structured interventions and fitness-focused applications appear capable of buffering some negative outcomes. Sleep quality tends to erode under heavy screen exposure, social media fatigue, and gaming addiction, and this decline becomes more pronounced when poor impulse regulation or late-evening device use is present. Adolescents show striking vulnerability given their developmental stage and social pressures, though adults also encounter addiction-like symptoms including compulsive engagement and nomophobia. Cultural norms and socioeconomic conditions further shape how these factors interact.
Conclusion: Digital engagement carries substantial influence over lifestyle behaviors and psychological well-being, which indicates urgent need for interventions that promote digital literacy, regular movement, balanced nutrition, and supportive sleep habits. These strategies must remain culturally adaptable in order to prevent harmful patterns of digital dependence and sustain holistic health across age groups.

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Correspondence:
Nashwan Karkhi Abdulkareem
E-mail: nashwan.abdulkareem@hmu.edu.krd

Background

During past decade, digital platforms have transformed how people communicate and share their lives, generating both meaningful opportunities for connection and subtle risks to emotional stability [1]. Some studies suggest these tools may slightly diminish well-being under specific circumstances, while others describe how platform use can deepen a sense of belonging when approached thoughtfully [1]. Interestingly, compulsive engagement online often reflects an unconscious attempt to dodge uncomfortable decisions, which indicates that reliance on social media may align with anxiety, impulsivity, and a preference for distraction over problem-solving [2].

Younger populations feel these effects intensely, as social technologies shape their emotional development, amplify depressive symptoms, and encourage anxiety, while also enabling a kind of peer-driven mental health contagion that travels quickly across friendship networks [3]. Older adults encounter a different trajectory because their adoption is slower and their motivations often differ, which shows that intentional engagement can support well-being even though research on this age group remains inconsistent and methodologically incomplete [4].

Beyond emotional concerns, social networks now serve as rapid-fire distribution systems for education and public health information, allowing users to access accurate content that may strengthen health literacy in ways older media could not achieve [5].

The dramatic expansion of digital connectivity has brought equal parts promise and peril [6]. Social media addiction now affects millions, though estimates depend heavily on assessment criteria: stricter measures place prevalence near 5%, while broader diagnostic approaches suggest numbers reaching 25% [6]. Adolescents appear particularly exposed, as lockdown periods pushed their screen time upward and platforms such as TikTok, Instagram, and YouTube became central to identity expression, which indicates heightened vulnerability to depression, anxiety, disrupted sleep, and intrusive body-image concerns [7].

Across globe, digital dependency spans many domains: smartphone addiction affects roughly 27% of populations, social media addiction affects 17%, and internet addiction affects around 14%, while cybersex and gaming addictions follow at 8% and 6% respectively [9]. Cultural context plays a decisive role because collectivist societies show nearly double rate of social media addiction compared to individualist ones (31% vs 14%) [6]. Gender differences also emerge, as males demonstrate higher susceptibility to gaming and internet-based compulsions, and overall prevalence has surged during the past two decades, accelerating sharply throughout pandemic [9]. Adults too are pulled into addictive cycles that resemble substance-related disorders, displaying compulsive behavior, fear of disconnection, and persistent fear of missing out [8]. These patterns signal a global shift toward digital dependency, demanding carefully designed, culturally relevant prevention strategies and mental health support systems [6–9].

Adopting health-supportive habits remains crucial for preventing disease and enhancing well-being, yet the concept of a “healthy lifestyle” remains layered and often misunderstood [10]. Food choices carry deep physical and psychological consequences, but many people have an incomplete understanding of what a balanced diet truly involves, while socioeconomic inequality strongly influences dietary adherence [11]. Obesity, defined by excess body mass, has risen dramatically worldwide due to complex interactions between genetics, environmental pressures, and behavior, and it brings substantial social and medical burdens [12].

Sleep routines, although essential, are frequently overlooked in behavior-change interventions, which indicates that definitions vary widely across studies even though factors such as light exposure, timing, and environmental consistency stand at the core of restorative rest [13]. Programs like Lifestyle Redesign® illustrate how intentional changes in daily habits and occupations can produce significant improvements in health across different populations [14]. Functional foods add yet another dimension, offering preventive benefits through bioactive compounds, although public knowledge and consumption remain surprisingly low [15].

Cultural and contextual forces deeply shape these behaviors. For example, older African American women managing diabetes and hypertension face substantial obstacles when maintaining active routines and balanced dietary patterns because motivation, environmental support, and everyday structure influence adherence [16].

Given the unprecedented rise of digital engagement and the clear evidence linking online behavior with mental health, lifestyle patterns, and overall well-being, examining how social media, internet use, and smartphone reliance affect dietary habits, physical activity, and sleep quality across diverse populations has become essential. This priority becomes particularly pressing for adolescents and young adults who are uniquely susceptible to digital addiction and the psychosocial consequences that accompany it.

Methods

This study employed a literature review to identify and synthesizing empirical research that examined the relationships between social media addiction including social media, internet, and smartphone use and key lifestyle behaviors such as dietary patterns, physical

activity, and sleep quality, with particular emphasis on mental health outcomes; databases such as PubMed, Scopus, and Web of Science were queried using a combination of controlled vocabulary and keyword searches, including terms such as "social media addiction," "digital engagement," "physical activity," "dietary habits," and "sleep disturbances," while inclusion criteria prioritized peer-reviewed studies with quantitative or mixed-methods designs, clearly defined populations, and validated behavioral or psychological measures, and exclusion criteria eliminated studies with insufficient methodological rigor, non-English publications, or those focusing exclusively on clinical populations unrelated to digital behavior, with data extraction focusing on sample characteristics, measurement instruments, behavioral outcomes, and reported associations, followed by thematic synthesis to identify consistent patterns and gaps in the literature.

Dietary Habits

The studies collectively indicate a consistent relationship between social media or digital use and altered dietary habits among adolescents and young adults. High levels of social media addiction are associated with disordered eating behaviors, orthorexic tendencies, and lower body image, while frequent exposure to nutrition-related content can further increase eating behavior risks [17, 18, 26, 25, 23]. Smartphone or internet use correlates with preferences for sugar-sweetened beverages, reduced meal sizes, and skipped meals, highlighting how digital engagement influences both the quality and pattern of dietary intake [19, 24]. Additionally, digital addiction is linked with night eating and consumption of ultra-processed foods among university students [26]. Overall, these findings suggest that excessive engagement with social media and digital devices can indirectly and directly shape unhealthy eating behaviors, emphasizing the need for awareness, screening, and interventions targeting digital habits to support healthier dietary patterns in youth populations [17–26].

Table 1. Summary of Studies on Social Media, Digital Use, and Dietary Habits

Study	Population	Dietary Focus	Key Finding
Mohsenpour et al., 2023 [17]	Adolescents, young adults	Eating behavior sub-scales	SM addiction → disordered eating, via body image
Yılmazel, 2021 [18]	Candidate doctors/nurses	Orthorexic tendencies	High SM addiction → higher orthorexia tendency
Nurnaningsih et al., 2022 [19]	Female university students	Sugar-sweetened beverages	Smartphone use, BMI, meal habits → higher SSB intake
Albayrak & Demirel, 2025 [20]	High school adolescents	Dietary Inflammatory Index	Skipping meals → higher DII; breakfast → lower DII
Peréz-Jiménez et al., 2025 [21]	Adolescents	Disordered eating risk	More SM use → higher eating disorder risk
Piko et al., 2024 [22]	Young women	Orthorexic tendency	ON tendency linked to diet, SM addiction, sports
Panea-Pizarro et al., 2020 [23]	Women with ED	Not specified	ED presence not linked to internet addiction
Joseph et al., 2024 [24]	Junior college students	Meal size, appetite	Internet addiction → smaller meals, lower appetite
Yurtdaş-Depboylu et al., 2022 [25]	Adolescents	Eating attitudes, ON	SM addiction → ON risk, disordered eating
Eroğlu et al., 2025 [26]	University students	Night eating, ultra-processed foods	Digital addiction → night eating, ultra-processed food intake

SM (Social Media), EB (Eating Behavior), BI (Body Image), ON (Orthorexia Nervosa), SSB (Sugar-Sweetened Beverages), BMI (Body Mass Index), DII (Dietary Inflammatory Index), ED (Eating Disorder), and NES (Night Eating Syndrome).

Physical Activity Habits

The evidence from the summarized studies indicates that physical activity habits among adolescents and young adults are closely linked with social media use, digital engagement, and mental health factors. Adolescent girls and rural adolescents generally exhibit moderate levels of physical activity, which are inversely associated with social media addiction and positively related to physical literacy and body appreciation [27,29]. In university populations, physical exercise is shown to enhance overall well-being, improve sleep quality, and reduce social media dependence, anxiety, and depression [31,33]. Musicians and other young adults demonstrated relatively stable physical activity levels regardless of instrument type, although problematic social media and gaming use unexpectedly

correlated with higher activity levels in some cases [28,32]. Interventions such as fitness apps can effectively increase physical activity but may not necessarily reduce social media addiction [33]. Overall, these findings suggest that promoting structured physical activity and digital literacy could mitigate the negative impacts of excessive social media use while supporting healthy lifestyle habits in youth and young adults [27–33].

Table 2. Summary of Physical Activity Habits Across Studies

Study ID	Population	Physical Activity Measure	Key Finding on Physical Activity
Sönmez Sari et al., 2025 [27]	Adolescent girls, Türkiye	CBPAQ	Moderately-active; negative correlation with social media addiction
Narin & Kecelioglu, 2023 [28]	Musicians	CBPAQ	No difference between instrument groups; physical activity stable
Watkins et al., 2025 [29]	Rural adolescents, USA	CAPL-2, IPAQ	Physical literacy positively linked to body appreciation
Wang et al., 2025 [30]	Chinese adolescents	Self-report	Higher activity linked to lower social media dependence
Che et al., 2025 [31]	College students, China	Self-report	Physical exercise improves sleep; negatively correlated with addiction
Huang et al., 2022 [32]	University students, Taiwan	IPAQ-SF	Problematic social media/gaming linked to higher activity
Liu, 2024 [33]	Chinese university students	Keep app (fitness app)	App increased activity scores; social media addiction unchanged

PA (Physical Activity), CBPAQ (Cognitive Behavioral Physical Activity Questionnaire), CAPL-2 (Canadian Assessment of Physical Literacy, 2nd edition), IPAQ/IPAQ-SF (International Physical Activity Questionnaire / Short Form)

Across diverse populations—from high school to adult university students—social media addiction consistently associates with poorer sleep quality, reduced sleep efficiency, and higher risk of disturbances [34–39]. Internet gaming disorder similarly correlates with poor sleep, often mediated by impulse control and bedtime procrastination [35]. Negative consequences of excessive online engagement, including social media fatigue, contribute to disrupted sleep patterns [36]. Personality traits, such as low emotional stability, can further exacerbate sleep problems [37]. Evening screen time amplifies these effects, suggesting timing of digital engagement is a critical factor [38].

Table 3. Sleep Outcomes and Associations with Internet Gaming and Social Media Addiction

Study ID	Population & Sample	Sleep Measure	Key Sleep Findings
[34] Wong et al., 2020	HK university students, n=300	PSQI	IGD & SMA linked to poor sleep quality
[35] Krishnan & Chew, 2024	Adults 18-53, n=221	PSQI	Impulse control mediates SMA/IGD → poor sleep
[36] Zhu et al., 2023	Univ. students, n=2744	PSQI	SMF & SMA associated with sleep disturbances
[37] Berdida, 2025	Filipino nursing students, n=823	PSQI	Poor sleep linked to low emotional sability
[38] Hjetland et al., 2021	Norwegian students, n=49,051	Sleep duration & efficiency	Evening screen use & SMA worsen sleep
[39] Sümen & Evgin, 2021	Turkish high school, n=1274	SQS, SVQ	SMA reduces sleep efficiency

IGD (Internet Gaming Disorder), SMA – Social Media Addiction), PSQI (Pittsburgh Sleep Quality Index), SMF (Social Media Fatigue), FoMO (Fear of Missing Out), SVQ (Sleep Variables Questionnaire), SQS (Sleep Quality Scale)

Discussion

Our review confirms the significant and complex interplay between digital engagement, including social media, internet, and smartphone use, and fundamental lifestyle behaviors and mental health outcomes, largely aligning with the burgeoning body of research summarized in the selected literature [40-46]. Consistent with meta-analytic findings indicating small but statistically significant positive associations between social media use and depression and anxiety [40], and broader systematic reviews highlighting the detrimental impact of excessive digital use on mental well-being, particularly among youth [41, 43, 45], our results demonstrate that compulsive digital engagement is linked to heightened risks for anxiety, depression, impulsivity, and poor decision-making. Furthermore, the detrimental effects on sleep identified in our review, stemming from factors like excessive screen time, social media fatigue, and gaming addiction, resonate strongly with systematic reviews that explicitly link high social media usage to poorer sleep quality and find evidence of mediation between social media use and negative mental health via sleep problems in adolescents and young adults [41, 46], as well as cross-sectional studies reporting associations between evening device use and compromised sleep [40]. This sleep disruption, in turn, can exacerbate mental health issues, a reciprocal relationship hinted at in the literature [40, 41]. While our review noted the heightened vulnerability of adolescents, findings from studies examining older populations, such as adults, also reveal concerning parallels with substance addiction, including compulsive use patterns and nomophobia, suggesting these mechanisms are not age-exclusive.

Beyond mental health and sleep, our findings support the notion that excessive digital engagement negatively impacts dietary habits, a point bolstered by research that links social media use to body image concerns, internalization of ideal standards, and subsequent disordered eating, night eating, and preferences for sugar-sweetened and ultra-processed foods [43, 45], alongside umbrella reviews acknowledging the pervasive nature of this influence [42]. The observed tendency for physical activity to decline with higher social media addiction aligns with meta-analytic evidence suggesting a potential association between social media use and health risk behaviors, including reduced physical activity [45], although beneficial effects from structured interventions or fitness apps are noted. Importantly, our conclusion advocating for targeted interventions promoting digital literacy, structured physical activity, balanced dietary habits, and sleep hygiene is grounded in this convergent evidence. The literature also highlights the significant problem of health misinformation propagated online [44], often reaching high engagement rates, particularly concerning topics like vaccines, drugs, and diets, which directly impacts decision-making related to diet and health behaviors, further emphasizing the need for critical digital literacy. While our review synthesizes these diverse impacts, the need for higher-quality longitudinal studies [40, 41, 45] and deeper exploration of content types and cultural moderators, as suggested by the literature [42, 44], remains critical to establish causality and inform culturally sensitive, evidence-based strategies for mitigating digital risks and promoting holistic well-being across all age groups.

Conclusion

The findings of this study demonstrate that digital engagement, while offering substantial opportunities for connection, information exchange, and health promotion, also exerts profound and often detrimental influences on lifestyle behaviors and psychological well-being across a wide range of populations. Excessive or maladaptive use of social media, smartphones, and internet platforms consistently correlates with disordered eating patterns, reduced physical activity, poorer sleep quality, heightened anxiety, and increased vulnerability to addictive behaviors, with adolescents and young adults emerging as the most affected groups.

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