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Women as Architects of Safe Digital Childhood: A Healthy and Regulatory Analysis of Maternal Digital Parenting

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Abstract

The explosion of digital technologies has transformed children's development contexts, and mothers and other female caregivers are key gatekeepers of children's digital lives. This review examines the complex role of women as the architect of safe digital childhoods, drawing on evidence from health sciences, regulation, developmental science, and gender studies.

This article explores the impact of mothers' digital parenting on children's physical health and cognitive, psychological, and social development based on more than 120 peer-reviewed studies spanning 2010-2024. We assess current regulatory frameworks and processes—from national laws and platform policies to school policies and global treaties—through a gender lens, uncovering regulatory gaps that place a disproportionate responsibility on mothers to ensure digital safety for their children in the absence of institutional support.

The review also explores intersectional factors, including socioeconomic inequalities, cultural factors, and the digital literacy gap among mothers. The findings indicate that maternal digital parenting is a complex and dynamic practice, shaped by competing demands, limited resources, and evolving technological landscapes. Our paper concludes with recommendations for co-regulatory approaches that share digital safety responsibilities between families, platforms,

governments, and civil society, as well as building maternal digital literacy and effective policy mechanisms through evidence-based research.

Keywords: Maternal digital parenting, screen time regulation, child digital health, internet safety, women caregivers, digital well-being, and online child protection

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1. Introduction

The communication and information landscape have shifted dramatically over the last decade, due to the creation and rapid adoption of new portable devices such as smartphones and tablets, which may enable instant access to the internet from any location. According to the market research report (2025-2026), 73% of children aged 9-16 in India own a smartphone, while 59% own a tablet. Up to 64% of children aged 12 to 15 own three or more devices. Along with rising ownership rates, multifunctionality has grown; a child's phone can now support internet browsing, gaming, applications, learning, online communication, and social networking. The increasing usage of these devices has generated worries about how exposure patterns may affect adolescents' well-being, as mental health disorders are one of the most common health problems within this age group. Increased digital gadget usage is thought to be responsible for the secular trend of greater internalizing symptoms, decreased well-being, and suicidal behavior in adolescent populations. It is estimated that 10 to 20% of teenagers worldwide suffer from a mental health problem, and up to 50% of mental problems begin before the age of 15. According to a recent meta-analysis, the prevalence of any depressive disorder in children and adolescents is 2.6%, and the prevalence of any anxiety disorder is 6.5%. According to recent research, adolescents who use mobile devices may be more likely to experience melancholy, anxiety, and behavioral issues. Specific patterns of smartphone-related behavior, known as 'problematic smartphone use,' may be to blame for poor mental health outcomes. Initially, research concentrated on the physiological effects of exposure to mobile phones or wireless devices (MP/WD) that emit radiofrequency electromagnetic

fields. According to the Stewart Report, adolescents and kids may be particularly vulnerable to exposure because of their developing neurological systems, higher average RF deposition in the brain than adults, and longer lifetime exposures. It is currently unknown whether exposure to RF-EMF from MP/WD affects cognitive and emotional development in children and adolescents. Adolescence is physiologically characterized by a delay in bedtime and a decrease in sleep duration with age, with sleep abnormalities being extremely common. Given the importance of sleep in adolescent health and development, researchers have looked into the links between bedtime MP/WD usage, sleep disturbance, and poor mental health outcomes. To date, studies have found increasing evidence of the negative impact of these technologies on sleep, though the specific relationship with mental health is not fully understood. Potential mechanisms include (1) displacement of sleep by directly interrupting sleep time, (2) impact on circadian rhythm due to exposure to blue and bright light from screens, and (3) sleep disturbance due to the content of messages received prior to bedtime. Because of these unfavorable results, parents are concerned about their children's digital use. As a result, digital competence is becoming increasingly important for teenagers and parents. Parents, particularly mothers, are children's initial role models, teaching them new behaviors and skills. Children copy their parents, a process known as social learning that applies to all children. Bandura (1965) proposed the social learning theory, which states that people learn behavior through observation, imitation, and modeling. Children's social learning capabilities allow them to observe and copy what adults do, eventually leading to their behavior. Similarly, youngsters study their parents' attitudes and dispositions when using digital media tools and

programs and begin to emulate them. There is a link between the frequency of smartphone and tablet computer use among parents and children. In other words, children of parents who frequently use digital media tools have a strong interest in the medium. Mothers play a key part in parenting. In addition to serving as role models for children's healthy development and promoting desired habits, they are expected to be aware of digital hazards and opportunities, take essential safeguards, and raise children's knowledge. Mothers' digital parenting competencies as informal instructors are vital in this regard. To ensure the safe use of digital content, both mothers and adolescents must become more conscious of digital media literacy. Mothers should be aware of their digital competences when guiding children. and seek to obtain certified digital competencies.

Our review paper aims to fill this research gap by undertaking a comprehensive review of maternal digital parenting through the dual perspectives of health analysis and regulatory critique. We explore: What are the reported health effects of different patterns of children's digital use? What role does maternal digital parenting play in these outcomes? What policies are in place, and how effective are they in supporting women as digital safety parents? What intersectional factors impact maternal digital parenting? And what are the policy and practice implications?

1.1 Scope and Objectives

This review seeks to synthesize literature from diverse disciplines, such as pediatric health sciences, developmental psychology, communication studies, public health, law, gender studies, and education. Our main objectives are:

- The study aims to describe the health impacts (physical, psychological, and developmental) of the use of digital technology throughout childhood.
- Examine the impact of maternal digital parenting on health.
- Assess existing regulatory frameworks from a gender-sensitive approach to determine strengths and gaps.
- Explore intersectional components of maternal digital parenting, including class, race, culture, and geography.

- Develop a holistic policy and practice framework to assist female carers to provide safe and healthy digital experiences for children.

2. Methodology: Systematic Literature Review Approach:

This paper is a systematic narrative review that adheres to guidelines for the systematic synthesis of literature. The protocol for this review was developed based on the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) statement with adjustments made for narrative synthesis given the cross-disciplinary nature of the inquiry.

2.1 Search Strategy

PubMed/MEDLINE, PsycINFO, Scopus, Web of Science, ERIC, and Google Scholar were searched using a combination of controlled terms and free text. The search terms were "maternal," "mother*," "caregiver*," "digital parenting," "screen time," "internet safety," "child*," "pediatric," "adolescent," "health," "well-being," "development," "regulation," or "policy." Bibliographies of relevant articles were searched for further articles. The grey literature (WHO reports, UNICEF reports, government policy, and NGO reports) was also searched.

2.2 Inclusion and Exclusion Criteria

We included studies if they were (1) published from January 2010 to December 2024; (2) discussed maternal or female caregiver roles in children's digital participation; (3) reported health outcomes, digital parenting, or regulatory aspects; and (4) were written in English. Studies were excluded if they only discussed parenting from a paternal perspective without comparison to maternal parenting; if they only discussed aspects of digital health among adults without addressing child development; or if they were not peer-reviewed (or had no reputable institutional backing in the case of grey literature). After review and critical appraisal, 127 studies and reports were included.

2.3 Analytical Framework

We adopted a thematic analysis framework to synthesize the data, which defined four main themes: (1) health impacts of children's use of digital technology, (2) the effects of maternal digital parenting and its moderating role, (3) regulatory analysis, and (4) intersectional and

contextual considerations. The synthesis of each domain was used to compare and contrast findings, highlight areas of consensus and controversy, and identify gaps in knowledge.

3. Children's Digital Technology Use and Health

3.1 Physical Health Dimensions

3.1.1 Screen time, sedentary behaviour and obesity

The association between children's digital technology use and physical health outcomes has received a lot of attention. Excessive screen time is associated with physical inactivity, sedentary behaviour and the risk of childhood obesity. A recent meta-analysis (Stiglic and Viner, 2019) involving 23 studies has shown strong associations between screen time and obesity, unhealthy dietary habits, and low levels of fitness, with strong dose-response relationships across all ages. The displacement hypothesis, which suggests screen time displaces physical activity, offers a plausible mechanistic account, although bidirectional associations are also present.

The youngest children (two to five years) are particularly susceptible. The World Health Organisation (WHO) guidelines recommend no sedentary screen time for those under two years of age and no more than one hour a day for three- to four-year-olds. But survey findings from multiple countries indicate poor adherence to these guidelines, with mothers in particular reporting difficulty adhering to these guidelines, especially in contexts where screens are used to facilitate other caregiver responsibilities (for example, completing chores while watching children).

3.1.2 Sleep and Circadian Rhythm Disturbance

Digital technologies in children have perhaps the most well-studied impact on sleep. Meta-analyses demonstrate an association between bedtime screen use, sleep latency, sleep duration, and sleep quality in children. Blue light inhibits melatonin production, exciting media content promotes alertness, and sleep time is lost. Carter et al. (2016) also discovered a correlation between poor sleep quality and the presence of a media device in the bedroom, regardless of screen time.

These findings have considerable implications for children's health, as sleep is vital to brain development, immunity, mood, and learning. Therefore, mothers'

control over device-free bedtime practices has important health implications; however, many mothers report it is a source of stress and conflict.

3.1.3 Musculoskeletal and Eye Health

There is emerging evidence of musculoskeletal problems linked to extended device use, including neck pain, posture problems, and RSI in school children. Likewise, screen time is associated with myopia progression, with epidemiological evidence from countries in East Asia, where screen time is highest, shows a significant increase in childhood myopia over the past 20 years. Mothers' management of posture and distance and required breaks adds to the digital parenting load.

3.2 Educational Outcomes

3.2.1 Language and Literacy

Digital technology's impact on language is complex and dependent on the content. High-quality educational content on digital media, such as Skype calls with relatives, can provide vocabulary support (particularly when adults co-view and discuss the content). Passive screen time and background television viewing in early childhood have been found to harm parent-child verbal exchanges, vocabulary development, and early literacy.

Zimmerman et al. found 6-8 fewer words in the vocabulary of 2-year-olds for every extra hour of television watched per day in early infancy (8-16 months). The mediating factor seems to be the displacement of responsive parenting interaction, rather than the technology itself, suggesting that parental interaction is an essential factor in the development of children.

3.2.2 Attention

Evidence of the impact of digital technology on children's executive function, such as attention, inhibitory control, and cognitive flexibility, has generated further interest. High-stimulus, high-speed digital media may desensitise children to a high-stimulus environment, making it difficult for them to focus on slower-paced educational tasks. Longitudinal research has identified associations between high levels of television viewing in early childhood and attention deficits in middle childhood, though the effect sizes are small and there are many confounds.

Educational digital content, and digital games in particular, requiring problem-solving and self-control, may enhance executive functions. Thus, mothers' choice of educational content plays an important role, placing considerable demands on maternal digital literacy.

3.2.3 Academic Achievement

The relationship between screen time and academic achievement is U-curved, where moderate use of educational technology is linked to positive outcomes and high levels of noneducational/entertainment screen time are linked to poor academic performance. Adelantado-Renau et al. (2019) found compliance with the WHO screen time recommendations was associated with better cognitive performance and academic achievement in 8-11-year-old children. This has important implications for mothers' digital parenting.

3.3 Psychological and Mental Health

3.3.1 Social Media and Youth Mental Health

One of the most controversial and publicised aspects of children's digital health is social media and adolescent mental health. There have been reports of links between excessive social media use and mental health issues, such as depression and anxiety, low self-esteem, and body image concerns, particularly for girls. Twenge et al.'s large-scale survey data reveal parallel increases in adolescent depression and social media use since 2012, but causal inferences are difficult to draw.

Longitudinal studies provide a more complex picture, including evidence of bidirectionality (mental health problems can lead to greater social media use and vice versa) and that effect sizes are often small. Qualitative studies show considerable variation in adolescents' social media use patterns (passive use vs. active communication) and increased risk of poor mental health with passive use. Mothers' monitoring of adolescents' social media use and supporting healthy online connections present an important potential avenue for mental health promotion.

3.3.2 Cyberbullying and Online Victimization

Cyberbullying is a critical public health concern, with estimates of between 10% and 40% of school-aged children and adolescents affected. Cyberbullying disproportionately affects young women, who experience higher levels of relational aggression, sexual

harassment, and revenge porn. Psychological effects include depression, anxiety, school refusal, and, in extreme cases, suicide ideation.

Mothers who know about cyberbullying, communicate effectively with their children about online matters, and monitor their activities can identify issues early and improve outcomes for victims. Parents' lack of digital literacy and awareness of apps and platforms often hinder effective monitoring, leaving a technological gap.

3.3.3 Viewing Inappropriate Content

Exposure to violent, sexually explicit, and extremist content is a safety risk for children online. The "rabbit hole" effect of recommendation algorithms can quickly expose children to increasingly extreme content. Tech-savvy teens can easily bypass parental controls and content filters, which less tech-literate parents inconsistently adopt.

4. Maternal Digital Parenting: Strategies, Barriers, and Mediation

4.1 Typologies of Maternal Digital Parenting

The literature defines a number of parental digital mediation styles, with implications for children. Based on Valkenburg et al.'s original framework, revised for the digital era, there are three main types of maternal mediation: restrictive, co-engagement, and instructional.

Restrictive mediation involves setting rules about the content and duration of technology use, such as limiting the content and screen time. This cuts screen time, but inflexible, restrictive approaches without explanation and alternative activities can be conflictual and counterproductive during adolescence. Involved co-use mediation, where mothers view or engage in digital media with their children and support conversations, has been found to lead to better cognitive and social development. Instructional mediation, which involves discussing cyberthreats, teaching children to critically assess online information, and promoting digital literacy, has been associated with improved online safety and reduced susceptibility to online risks.

A fourth strategy, supervisory monitoring, which includes tracking online behavior with technological tools, has gained popularity and raised many ethical questions regarding privacy, trust, and autonomy issues, especially for teens. Evidence indicates that monitoring

in combination with positive communication is more effective than monitoring alone.

4.2 Maternal Digital Literacy

Mothers' digital literacy (their digital skills, critical assessment of digital media, algorithmic awareness, and online safety) is a foundation for digital parenting. Research indicates a strong association between mothers' digital literacy and digital mediation. But there are important digital literacy gaps among female caregivers, especially older ones and those in low socioeconomic and rural or marginalized communities.

The growing complexity of the digital environment has created a steep learning curve for mothers' digital literacy practices. Learning about TikTok algorithms, Roblox in-game purchases, Discord server moderation, and methods to bypass age verification requires constant learning—which many mothers perceive as stressful and anxiety-provoking. Mothers' digital anxieties (concerns about their capacity to protect their children online) have been recognised as a unique construct negatively impacting parenting confidence and efficacy.

4.3 Digital Parenting Labor

Several cross-national studies demonstrate that mothers are more likely to monitor children's online activity than fathers. A UK survey by Internet Matters found mothers were far more likely to limit screen time, talk about online safety, and deal with online crises like cyberbullying than fathers. This trend is reflective of larger patterns of gendered parenting labor and "mental load," with women taking on most of the "thinking work" of digital safety—the anticipating, monitoring, and managing of the digital world.

This division has consequences for the health of mothers and children. Mothers experiencing higher levels of digital parenting stress interact less effectively and consistently with their children's digital lives. The reproduction of digital parenting inequity results in poor child digital health outcomes.

4.4 Maternal Well-being and the Digital Parenting Paradox:

Studies have uncovered a shocking paradox of maternal digital parenting: the digital technologies mothers seek to restrict for their children are often used by mothers as "time-outs," resulting in hypocrisy and maternal

ambivalence. Mothers' use of smartphones for work, social, and personal self-care is valid and important but presents modeling and enforcement challenges.

Moreover, digital parenting adds to maternal cognitive load and stress, particularly for working mothers juggling teleworking and digital parenting. Research has demonstrated a relationship between maternal digital parenting stress and maternal anxiety, which affects family well-being. This research greatly supports systemic approaches to support maternal self-reliance.

5. Government Action: A Gender-Sensitive Analysis

5.1 International Frameworks

The United Nations Convention on the Rights of the Child (UNCRC), adopted by 196 states, defines children's rights to protection, provision, and participation in a way that is entirely relevant to the digital environment. The 2021 General Comment No. 25 on children's rights in the digital environment provides a critical expansion of these principles and stresses the need to design and govern the digital environment in the best interests of children. General Comment No. 25 explicitly acknowledges the role of parents and caregivers in facilitating safe child participation in the digital environment and places responsibilities on states and corporations.

The OECD Recommendation on Children in the Digital Environment (2021) also calls for multi-stakeholder strategies for digital child safety, including investments in parent digital literacy. These global standards set important norms, but national implementation differs.

5.2 National Legislative Frameworks

5.2.1 USA: COPPA and KOSA

The Children's Online Privacy Protection Act (COPPA, 1998, amended 2013) set the groundwork for children's online privacy by mandating parental consent for collecting information from children under 13 years of age. COPPA was pioneering in its vision, but it has been criticized for its inadequate implementation, with the age of 13 easily bypassed, weak enforcement, and the responsibility for consent management shifted to parents rather than to companies. The Kids Online Safety Act (KOSA, proposed) and COPPA 2.0 are legislative proposals to increase protections, including safety by

default for children and stronger data minimization requirements.

5.2.2 United Kingdom: Age-Appropriate Design Code

The UK's Age-Appropriate Design Code (also known as the Children's Code, 2021) is the most important regulatory development in the area of children's online safety, with it requiring digital services that children are likely to access to adopt the highest privacy settings by default, practice data minimization, and take the best interests of children into account when designing products. The Code adopts a proactive, design-focused approach that increases the responsibility of platforms rather than parents, leading to a power shift. Preliminary evidence suggests that major platforms will significantly enhance children's privacy after implementation.

5.2.3 European Union: DSA and GDPR

The EU General Data Protection Regulation (GDPR) set the age of consent for data processing at 16 (although EU countries can lower it to 13), with major consequences for children's privacy. The Digital Services Act (DSA, 2022) further regulates massive online platforms, including risk assessments for systemic risks to children and prohibitions on targeted advertising to minors. These regulations create a dense regulatory landscape that may be overwhelming for parents.

5.2.4 India: IT Act Reforms and New Developments

India's regulatory landscape for child online safety is rapidly growing, mirroring its position as the second-largest number of internet users in the world, with a large number of young people. The Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules 2021 provide for child safety through measures requiring social media intermediaries to deploy age verification tools and content moderation. The Digital Personal Data Protection Act 2023 introduces verifiable parental consent for processing children's personal data, building on COPPA in the Indian context. But there are challenges in implementation and enforcement.

Rapid uptake of smartphones along with traditional family dynamics results in complex contexts where mothers must negotiate family members' digital practices, the new risks of online harm, and a lack of

institutional support for mothers. Cultural strategies are needed to engage diverse maternal communities in digital safety education.

6. Intersectional Analysis: Socioeconomic, Cultural, and Contextual Dimensions

6.1 Single Motherhood and Increased Digital Parenting Burden

Single mothers face unique digital parenting challenges, including increased time and financial pressures, less social support, and sole responsibility for digital media governance. Children of single parents have consistently higher screen time due to both increased time constraints on single mothers and the use of digital media as a form of monitoring. Policies have overlooked the special digital parenting needs of single parents.

6.2 Geographic and Rural Divide

There are geographic disparities in internet access, digital literacy, and access to digital safety training, which impact maternal digital parenting capacity. Rural mothers may experience connectivity issues (which impact children's access to educational digital technologies) and lack access to digital safety training programs (which are largely urban-focused). Ironically, rural communities can offer protective factors such as social support and opportunities for outdoor exercise, which compete with screen time. *New Technologies and Future Challenges of Maternal Digital Parenting.*

7. Emerging Technologies and Future Challenges for Maternal Digital Parenting

7.1 Algorithms and Artificial Intelligence

The integration of artificial intelligence into children's digital spaces—through recommendation algorithms, AI-generated content, conversational AI, and AI-powered advertising—is a source of emerging challenges for digital maternal parenting. Algorithmic personalization creates personalized streams of content that are difficult for parents to see, making parenting practices obsolete. Recent research by the Centre for Humane Technology illustrates how recommendation algorithms can introduce children to increasingly extreme and potentially damaging content.

Dialogic AI systems are particularly challenging as they can develop long-term social attachments with children, which may alienate them from family dynamics. Mothers

need technical understanding of these systems, as well as models for talking about them with their children—a need that extends beyond the digital literacy programs currently offered.

7.2 Metaverse and Immersive Technologies

The budding metaverse environment that includes virtual reality, augmented reality, and immersive gaming presents both promising opportunities and risks for child development. Health risks (excessive virtual reality use and vestibular stimulation, eye strain, and social isolation) and unique child safety challenges (avatar grooming, virtual bullying, and desensitization to risk-taking) present a complex challenge for mothers.

Existing regulatory approaches are ill-equipped to address immersive technologies, and parental controls for immersive technologies are basic. Women parents are likely to find it challenging to manage their children's metaverse use, which calls for platform-level solutions.

7.3 Live Streaming and Creator Culture

The emergence of live-streaming platforms and children's involvement in the digital creator economy on platforms such as YouTube, TikTok, and Twitch has led to complex intersections between children's digital media participation as both consumers and creators. Child influencer culture has significant issues with exploitation and privacy, as well as the monetization of childhood. In many countries, laws surrounding child labour in the digital sphere remain inadequate, and the practices of mothers who support their children in becoming creators may inadvertently put their children at risk.

8. Towards an Integrated Framework: Helping Women Be Digital Safety Managers

8.1 Proposed Co-Regulatory Model

This review proposes a comprehensive co-regulatory approach to digital safety, distributing responsibilities among various parties instead of solely burdening mothers. This operates at four levels: platform level, regulatory and public investment level, school and community level, and family level.

At the platform level, the framework recommends mandatory safety-by-design principles for all services that can be accessed by children, bans on engagement-maximizing platforms. This review proposes a comprehensive co-regulatory approach to digital safety,

distributing responsibilities among various parties instead of solely burdening mothers. This operates at four levels: platform level, regulatory and public investment level, school and community level, and family level.

At the platform level, the framework recommends mandatory safety-by-design principles for all services that can be accessed by children, bans on engagement-maximizing platform design (infinite scroll, autoplay, push notifications) for children under 18, secure and independently audited age assurance mechanisms, algorithmic transparency and accountability for algorithmically recommended content for children, and substantial financial investment in digital safety education.

At the state level, the framework calls for broad legislative frameworks that set children's digital rights and platform responsibilities; substantial public investment in maternal digital literacy programs; integration of digital safety education into health visitor and early years services; employer obligations for family-friendly working to reduce digital parenting time pressures; and dedicated digital safety support for single parents and those living in economic disadvantage.

8.2 Investing in Maternal Digital Literacy

This review recommends substantial public investment in digital literacy for mothers as a public health priority. Evidence-informed maternal digital literacy programs should be embedded in and delivered through existing health and social care programs, including antenatal and postnatal health care, health visitor services, children's centers, and primary health care. They should be culturally safe, language-appropriate, and accessible through multiple mechanisms—online, community, and peer support.

The program content should include not just skills (parental control settings and privacy) but also critical knowledge of the business models of platforms and apps, age-appropriate development of children's digital autonomy, open and transparent digital communication, recognition of online harm, and digital parenting strategies to manage anxiety. Peer-based approaches, where digitally literate mothers mentor mothers with low digital literacy, hold particular promise for reaching a range of mothers. 8.3 The Shared Responsibility for Digital Parenting

Above all, this review calls for a shift in culture and policy to reframe digital parenting as a shared responsibility instead of an individual mother's responsibility. Mothers' vigilance does not predict children's online safety, but rather the actions of technology companies, government policies, school-based education programs, employer policies, and community programs that support parents.

This shift does not undermine the importance of maternal digital parenting but simply positions it in the ecosystem of shared responsibility. To alleviate the disproportionate impacts on mothers, corporate and government stakeholders need to take responsibility for creating safe digital spaces for children.

Conclusion

This review has highlighted the pivotal role of women, especially mothers, in facilitating children's digital participation and safeguarding their digital health. Digital parenting is an intricate, challenging, and under-resourced practice with profound implications for the physical, cognitive, and mental health of children.

Regulation is in transition but remains inadequate to cope with the range and complexity of issues facing children in their digital lives. Regulation continues to underinvest in supporting women as primary caregivers and overinvest in individualized maternal responsibility to address deficiencies in platform design and regulation. The 'maternal responsibility gap' identified in this review is a gender equity and child health policy problem, as it assumes that mothers will be responsible for their children's digital safety without the necessary support.

To address this, digital child safety policy needs to move toward co-regulatory approaches that prioritize maternal digital literacy, uphold platform responsibility for safety by design, build robust regulatory frameworks that prioritize children's rights, and recognize the societal nature of children's digital health. Mothers who create safe digital childhoods need the institutional, educational, and structural equity support to do their job.

The support we give to women managing their children's digital safety in increasingly complex digital environments will shape children's digital health in the future. Support for maternal digital parenting is not only a gender equity issue but also a child health policy priority.

Footnotes:

Declaration: The authors hereby declare that the manuscript submitted for consideration is an original work and has not been published or submitted elsewhere for publication. The authors take full responsibility for the integrity, accuracy, and ethical compliance of the work presented in the manuscript, including all revisions made in response to reviewer comments.

AI Usage Statement: Authors declare that AI tools, if used, were solely employed to improve the clarity, grammar, and language of the manuscript (as indicated in the reviewer's comments). No data, results, or scientific content were generated or altered using AI.

Conflict of Interest and Ethical Compliance: All authors confirm that:

- i. Any potential conflicts of interest, whether financial or non-financial, have been fully disclosed. – Yes
- ii. All sources of funding and financial support received for the conduct of the study have been appropriately acknowledged, including any updates made during revision. – Yes
- iii. Necessary ethical approvals have been obtained from the relevant institutional or regulatory bodies for studies involving human participants, animals, or sensitive data, wherever applicable, and are clearly stated in the manuscript. – Not Applicable

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