

Parkview Health

Parkview Health Research Repository

Health Services and Informatics Research

Mirro Center for Research and Innovation

2-22-2023

Online Risks for Youth and Families

Brandon T. McDaniel PhD

Jessica Pater PhD

Follow this and additional works at: <https://researchrepository.parkviewhealth.org/informatics>



Part of the Health Information Technology Commons

Online Risks for Youth and Families

Brandon T. McDaniel, Ph.D., and Jessica A. Pater, Ph.D.

Executive Statement

Recent congressional attention has focused on the online risks of youth [1]. Parents, caregivers, and families are often unprepared to handle many of these risks, and parents/caregivers also experience some of these risks themselves. Although not an exhaustive list, risks can include cyberbullying, social comparisons, exposure to sexualized content, gambling addiction, Internet addiction, self-harm, and negative impacts on family and personal relationships [1]. Internal platform policies and design features are not enough to fully address key aspects of risky online behavior and potentially harmful digital habits. Additionally, current public policies and regulations have also proven to be insufficient in alleviating these risks. In this brief, we review our prior research that has focused on understanding potential harms associated with online activities, both for children themselves as well as their families. Our primary concerns are (1) key data are not accessible by the public and thus not enough is known about digital use and the varying adverse impacts on individuals due to their unique contexts, lived experiences, and mental health, and (2) policies that address risky online behavior among children that do not consider the home environment, including the struggles parents experience managing their own online and digital behavior, are not sufficient.

Key Recommendations

- **Recommendation 1:** Expand public funding and access to data as a means of supporting objective third-party research to assess the scope and impact of risky online behavior.
- **Recommendation 2:** Use legislation to encourage the development of comprehensive interventions targeting digital literacy and digital habits within families.

Digital Self-Harm (DSH)

Digital self-harm is the use of online communication and activity to inflict pain onto oneself [2]. DSH has been used to frame research on risky behaviors like self-cyberbullying [3] and the promotion/consumption of eating-disorder content online [4]. Messaging applications, social media, and video games are common places where DSH behaviors occur. The problem is not isolated to one platform, as youth and adults routinely use numerous technology tools to connection to others in their everyday life [5].



Research Findings and Conclusions

We have conducted several research studies to understand characteristics of DSH within embedded communities of individuals struggling with eating disorders. Through this research, we have characterized eating disorder support online [4], assessed influences within eating disorder networks on Twitter [7], and measured how interventions on Instagram impacted the publication of eating disorder content on that platform [8]. We collected over 1,400,000 public social media posts from Instagram, Twitter, Facebook, and Tumblr and analysed them using computational and qualitative assessment methods. Finally, we validated findings from online assessments of DSH activities within a group of eating disorder patients to understand how individuals engage with DSH and how it adversely impacted their mental health [9].

Key findings include:

- People often use multiple platforms to self-inflict or seek-out harmful online content and communication [5]. Thus, a multi-platform approach would be required for any intervention or policy to be effective.
- DSH content is most often generated by specific, key influencers (individuals with extensive viewership/connections) rather than by the broader community-at-large [7].
- When platforms moderate behaviors that go against their community norms or terms of service, people find a way to circumvent these measures [8].
- Many forms of DSH are conflated with each other, further exacerbating the issue [4].
- Individuals in recovery from eating disorders reported they did not create DSH content during various stages of their disease, but rather were avid consumers of DSH content, and described that engagement with DSH was like “throwing gasoline on a fire” as it related to their disease. Therefore, it is critical for healthcare providers to understand how to address the online activity of their patients that may impede recovery [9].

Due to the limitations of data access, most of our research was strictly focused on public-facing aspects of digital use. Even with this restricted view, we have shown that DSH is pervasive across social media platforms and that this content has direct impacts on mental health and wellbeing. **The magnitude of the impact of risky online behaviors could be much deeper, however this information is trapped within proprietary company data.** The companies that run digital platforms where DSH and other harmful behaviors occur should be more transparent about these types of activity and offer access to comprehensive data to third-party independent researchers and evaluators for analysis.

Recommendations:

1. Youth and parents need expanded public communication and education for them to understand the breadth and depth of online risky behaviors and potential consequences.
2. Public funding is needed for objective assessment (independent of the platforms and companies themselves) to fully understand the impact of digital activities/behaviors on everyday mental health.

Healthy Digital Habits

Healthy parent-child interactions are critical for children’s wellbeing, the development of relationships, and health behavior and habit formation. This begins early in development as a parent or caregiver responds to their child’s needs in ways that are sensitive, timely, and appropriate. This is true for both offline and online needs. However, parents and caregivers often struggle with their own online and digital behaviors, such as social media use and utilization of devices to escape parenting stress [10]. The prevalence of use can also create technoference, or distractions due to device use during parenting or parent-child time [11]. These behaviors and potential distractions can influence the quality of parenting their children receive and become the model of digital/online behaviors their children may replicate over time in their own lives [10].

Research Findings and Conclusions

At Parkview Health, we have spent two years conducting a research study in Indiana funded by the NIH (Grant # R21NR019402) to identify different patterns of parent smartphone use (including various online behaviors, such as social media use) and parent mental health. We also sought to understand parent/caregivers’ feelings about, needs, and desires concerning their phone use and their parenting. Our team of multidisciplinary scholars (in psychology, family science, and human-computer interaction) recruited and collected data on almost 300 parents, including in-depth surveys, objective phone use measurement across 8 days, one-on-one interviews, and focus groups.

Key findings include:

- Heavy users are at higher risk of experiencing depression [12] and exhibit more struggles with controlling use [13].
- 80% of parents show some difficulty controlling their phone use, with almost 50% demonstrating a low sense of control [13].

- Over 80% of parents desire to change their phone habits [14], and the desire to change is not an issue solely experienced by those with heavy phone use but even extends to low users.
- Parents express barriers to change and experience difficulties making and sustaining changes [13].
- Unintended and prolonged use of social media is common. Many parents express negative feelings of lost time, regret, and negative impacts on their mental health due to social media activity [13].
- Parents show conflicted feelings about their phone use—both seeing it as empowering at times but also often guilt inducing [13]—presenting a barrier to change and the development of healthy habits.

Parents are at risk of drowning in unintended or non-purposeful smartphone use and online behaviors that do not fit into their desired, happy life with their family. Children/adolescents are not the only ones experiencing struggles with their online behaviors – parents also struggle. As a society, we are experiencing the effects of a natural experiment consisting of continuous and easy access to online content and the unmitigated persuasive design by social media and other companies.

Recommendations:

- Policies must be implemented which support parents/caregivers in their efforts to manage the social media use and risky online habits in both themselves and their children. Furthermore, these policies should meaningfully address persuasive design tactics (embedded in social media and other platforms) which often undermine the user’s autonomy and the alignment of use with personal values and goals.
- Behavioral interventions and public education initiatives are also necessary (but not sufficient without policy changes).

Recommendation 1: Objective, third party research is needed to understand the adverse impacts of online activity and digital behavior on mental health and wellbeing.

A sizeable amount of the research focused on the impacts of digital activities on mental health and wellness is either directly or indirectly funded by technology companies. State and federal funds are needed to support collaborative research between healthcare professionals and researchers, allowing for (1) expanded understanding of the connection between online behavior and negative health outcomes, and (2) the testing of the impacts of technology interventions and policies developed to address online risks and harmful behaviors.

Recommendation 2: Interventions are needed to support parents/caregivers and their families as they work to manage online risks and digital habits.

Technology platforms have begun to address some online risks and harmful behaviors. However, the internal platform policies and design features will never be sufficient to fully address the underlying behavioral and psychological issues related to online behavior and digital habits that often adversely affect individuals. Thus, further work is needed to translate research findings into interventions that are easily accessible by parents and caregivers, families, and children and that consider individuals’ and families’ lived experiences and values. For example, simple behavioral or technological interventions—such as setting screen or app time limits—are often not enough as effects dissipate quickly over time or individuals are dissatisfied with these interventions as they do not meet their needs in their daily lives.

Acknowledgements

Thank you to Parkview Health, Georgia Institute of Technology, Pennsylvania State University, and the NIH for funding the research led by the authors of this document and to our hundreds of research participants that made it possible.

References

- [1] Centers for Disease Control and Prevention. (2023, February). Youth Risk Behavior Survey: Data Summary and Trends Report. Division of Adolescent and School Health. [Link](#).
- [2] Pater, J., & Mynatt, E. (2017, February). Defining digital self-harm. In Proceedings of the 2017 ACM Conference on Computer Supported Cooperative Work and Social Computing (pp. 1501-1513). [Link](#)
- [3] Patchin, J. W., & Hinduja, S. (2017). Digital self-harm among adolescents. *Journal of Adolescent Health*, 61(6), 761-766. [Link](#)

- [4] Pater, J. A., Haimson, O. L., Andalibi, N., & Mynatt, E. D. (2016, February). "Hunger Hurts but Starving Works" Characterizing the Presentation of Eating Disorders Online. In Proceedings of the 19th ACM Conference on Computer-Supported Cooperative Work & Social Computing (pp. 1185-1200). [Link](#)
- [5] Pater, J. A., Miller, A. D., & Mynatt, E. D. (2015, April). This digital life: A neighborhood-based study of adolescents' lives online. In Proceedings of the 33rd Annual ACM Conference on Human Factors in Computing Systems (pp. 2305-2314). [Link](#)
- [6] Vogels, E. A., Gelles-Watnick, R., & Massarat, N. (2022). Teens, social media and technology 2022. Pew Research Center. [Link](#)
- [7] Nova, F. F., Coupe, A., Mynatt, E. D., Guha, S., & Pater, J. A. (2022). Cultivating the community: inferring influence within eating disorder networks on twitter. Proceedings of the ACM on Human-Computer Interaction, 6(GROUP), 1-33. [Link](#)
- [8] Chancellor, S., Pater, J. A., Clear, T., Gilbert, E., & De Choudhury, M. (2016, February). #thyhgapp: Instagram content moderation and lexical variation in pro-eating disorder communities. In Proceedings of the 19th ACM conf. on computer-supported cooperative work & social computing (pp. 1201-1213). [Link](#).
- [9] Pater, Jessica A., Brooke Farrington, Alycia Brown, Lauren E. Reining, Tammy Toscos, and Elizabeth D. Mynatt. "Exploring indicators of digital self-harm with eating disorder patients: A case study." Proceedings of the ACM on Human-Computer Interaction 3, no. CSCW (2019): 1-26. [Link](#)
- [10] McDaniel, B. T. (2019). Parent distraction with phones, reasons for use, and impacts on parenting and child outcomes: A review of the emerging research. *Human Behavior and Emerging Technologies*, 1, 72-80. [Link](#)
- [11] McDaniel, B. T., & Radesky, J. (2018). Technofence: Parent distraction by technology and associations with child behavior problems. *Child Development*, 89, 100-109. [Link](#)
- [12] McDaniel, B. T., Radesky, J., Pater, J., Drouin, M., Cornet, V., Kerrigan, C., Reining, L., & Schaller, A. (2022, November). *Latent profiles of objective parent smartphone use and associations with depression, sleep, stress, and parenting*. Presentation at the National Council on Family Relations Conference. Minneapolis, MN. [Link](#)
- [13] McDaniel, B. T., Pater, J., Radesky, J., Drouin, M., Cornet, V., Kerrigan, C., Reining, L., & Schaller, A. (2022, November). *Parent attitudes and feelings regarding their smartphone use around their child and around parent bedtime*. Presentation at the National Council on Family Relations Conference. Minneapolis, MN. [Link](#)
- [14] McDaniel, B. T., Pater, J., Cornet, V., Mughal, S., Reining, L., Schaller, A., Radesky, J., & Drouin, M. (submitted for publication). *Parents' desire to change phone use: Associations with objective smartphone use and feelings about problematic use and distraction*. [Link](#)

Author and publication details

Brandon T. McDaniel, Ph.D., Senior Research Scientist, Health Services and Informatics Research, Parkview Mirro Center for Research and Innovation, brandon.mcdaniel@parkview.com.

Jessica A. Pater, Ph.D., Senior Research Scientist, Health Services and Informatics Research, Parkview Mirro Center for Research and Innovation, jessica.pater@parkview.com.

©[Health Services and Informatics Research](#), Parkview Health, February 2023.

Disclaimer

The views expressed in this publication are those of the author(s) and should not be attributed to Parkview Health, Georgia Tech, Pennsylvania State University, or the National Institutes of Health.