The Family Media Plan

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The majority of children and adolescents engage with digital media. Most young children are daily media users, and children of all ages are eager adopters of devices and interactive platforms.[1] Among adolescents, ∼45% describe that they are online almost constantly.[2] Children's frequent and consistent media use has both benefits and risks. Benefits include opportunities for learning, creative expression, and social support. Risks include several negative health consequences. First, media use can negatively affect sleep by delaying bedtime, as well as through screen light exposure disrupting melatonin levels.[3,4] Second, decreased physical activity has been associated with the sedentary nature of most media use.[5] Finally, children's media behaviors and experiences are complex, and have been linked to child and adolescent emotion regulation, school success, and a variety of mental health characteristics.[6]

An important component of digital media use today is recognizing the role of parents. Parents are also digitally connected, and >75% use social media.[7] Studies have suggested that digital media use by parents may have potential negative impacts on children. Parents may direct their attention toward their digital media at the expense of verbal and emotional engagement with their children, also called "technoference."[8] Approaches and guidance for media use in the home optimally will address both children and their parents. Family media use is closely intertwined with other factors, including access to opportunities such as child care or afterschool programming, social support, family stress, and other structural determinants of well-being.[9] At some times, family media use is a resource that supports family functioning, whereas at other times, it can detract from family goals and connectedness. Therefore, approaches to supporting healthy digital habits must be adaptable to different lived experiences, resource levels, and parent bandwidth.

Toward the goal of fostering healthy digital media use in families, the American Academy of Pediatrics' (AAP's) 2016 media policy statements[10,11] encouraged the use of a newly developed Family Media Plan (FMP). The FMP provides families with an interactive online tool that allows them to consider and select specific rules and guidance that meet their family's needs, consistent with the guidelines and recommendations from the AAP media policies. Previous research has demonstrated that pediatricians play

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an important role in encouraging healthy media use. The social media counseling they provide leads to enhanced communication between children and parents.[12]

The FMP was launched in 2016 and serves as a comprehensive tool that pediatricians can recommend to families. This Pediatrics Perspectives outlines the link between the FMP and AAP policies, collaborative design approach, and strong evidence base that informed the development of the FMP and its rerelease in 2022. Our goal is to provide this foundational information to enhance pediatricians' knowledge, trust, and use of the tool. Although the FMP remains the AAP's primary tool for promoting healthy media use in families, research still lags in its evaluation. Thus, we conclude with suggestions for its future, including research opportunities.

BACKGROUND: THE INITIAL FAMILY MEDIA PLAN

Team and Process

The initial FMP was created and launched on the AAP's parenting Web site, HealthyChildren.org, in 2016. The tool was designed by members of the AAP's Council on Communication and Media (COCM) executive committee who had been involved in the development of the media policy statements. The development and writing of AAP policy statements involve a comprehensive literature review to inform recommendations, and this literature review also informed the FMP.

Input from the AAP Healthy Children virtual parent panel was sought during the development process and incorporated into the final product. This panel is an online community of parents and caregivers made up of registered users of HealthyChildren.org who have actively opted in to receive e-mail invitations to participate in surveys and polls designed to ensure the Web site continues to meet the needs of parents and families. Participation is optional. Contact information and responses are kept confidential. This group collaborated with the AAP digital communications team to integrate feedback and evidence into a user-friendly design.

Evidence-Based Content

The content was developed to mirror the evidence-based recommendations for parents that were provided as a part of the 2016 AAP guidelines. These recommendations centered on the available evidence around media rules focused on time, content, and coviewing. The recommendations highlighted critical health behaviors and guidelines to protect children and teens from media interference, including getting a minimum of 1 hour per day of physical activity and age-appropriate hours of sleep each night.

The guidelines were accompanied by the Children and Adolescents and Digital Media Technical Report,[13] which described key elements of the evidence. For example, the technical report described an older study that found the odds of obesity were lower in a study population watching <2 hours a day of television.[14] This study greatly influenced previous AAP recommendations for 2 hours or less of screen time daily. The technical report then provided updated evidence showing variation in screen time risks and obesity, a study that found that 1.5 hours per day was a risk factor, and another that reported a range of between 1 and 3 hours per day as a risk.[15,16] This updated evidence, and variation in screen time amounts and risk, led to the updated recommendations in AAP guidelines focused on prioritizing health behaviors such as physical activity, rather than screen time limits.

User Experience

The final product's user experience for the 2016 FMP was a Web-based interactive tool. The tool led users through different categories of media rules, example categories included "screen-free zones" and coviewing. These categories were intended to encourage families to consider a menu of what rules best fit their needs and circumstances, rather than a 1-size-fits-all approach. Previous AAP media policies had focused on a single recommendation of 2 hours or less of media exposure a day across all ages of children,[17] which had been criticized for being overly blunt and inflexible. The FMP tool provided prompts for a user to check boxes for specific rules and guidance around media use that they wanted to use in their family. The list of FMP rules and recommendations was separated by child age category. There was no capacity for users to save content, and no identifying information was able to be entered. However, the final FMP could be printed. These design features were purposeful at the time, because protecting parent and child confidentiality when using the tool was a priority.

To complement the FMP tool, a media time calculator was also created and housed on the HealthyChildren.org Web site. The media time calculator had 2 purposes:

1. to help visualize other types of daily activities the AAP recommends and prioritizes (eg, sleep duration, family meals, physical activity) that typically fill a child's day; and
2. to illustrate that, once those activities are completed, most children have smaller amounts of free time remaining, including media time.

The calculator helped illustrate how each family's media limits may vary on the basis of their other daily activities, rather than recommending a strict 2-hour limit from previous AAP guidelines.

Influence on Other Tools

In 2019, not long after the initial launch of the FMP, its reach and impact were noted when the Behavioral Insights

(BI) team approached the AAP. The BI team was from within the Behavioral Sciences group of the Interministerial Directorate for Public Transformation within the French government. The BI team supported the Interministerial Mission to Combat Drugs and Addictive Behavior and to improve and optimize Faminum, a digital family mediation tool to help families better manage their children's use of screens.[18] At that time, there were other online information resources available to support families in navigating the digital environment, such as an online printable contract called the Family Media Agreement.[19] There were no other online interactive tools, so the Faminum was intended to be the second tool of this type to support families.

One creator of the 2016 AAP tool (J.R.) met with designers to discuss FMP content and the approach the French team hoped to develop and test. After conducting fieldwork with families in France, the BI team decided on an approach that:

1. avoided a 1-size-fits-all set of recommendations: Parents would complete an initial questionnaire to help identify their family's media use style and key priority plan areas;
2. generated a longer list of media plan recommendations than the AAP FMP currently included: Each describing the scientific rationale for the plan and a practical tip for how to implement it; and
3. produced an algorithm-driven provision of plan components to each parent, from which parents would choose up to 8 to put on a poster and work on with the family.

Additionally, parents could create an account and receive tips/recommendations through a Web application or mobile application. Faminum published a report of the process they used to inform the plan, which included testing their tool with 100 families before launch.[20]

Updates and Revisions

Team and Process

In 2020, >200 parents on the HealthyChildren.org Virtual Parent Panel completed surveys. They were asked to share their opinions of the use and features of the FMP, current media management strategies, as well as their comfort and confidence in managing their family's media use after using the tool. After this assessment, the AAP digital communications team led the review and revision effort. They collaborated with 3 pediatrician content experts (J.R., S.T., M.M.) from COCM to review the state of the current evidence and the survey data. This information helped the team to prioritize enhancements, features, and functionality of the tool. During the revision process, input was sought from other COCM members and the Faminum team, as well as from collaborators at Common Sense Media, a nonprofit focused on providing information and education related to digital media.

Evidence-Based Content

Several areas of literature and evidence review, and experience with the previous FMP, as well as Faminum's plan, informed updates. The literature review identified a 2021 study that used the initial 2016 FMP as an intervention, and found that it did not lead to enhanced media rule engagement.[21] Possible explanations for this finding included the lack of support or oversight during the online intervention, suggesting that an in-clinic intervention would be more effective, and a lack of reminders or reinforcement of the FMP. Further, the plan could only be printed and not reaccessed online. Another possible explanation for that finding was the data showed that families in both the intervention and control groups selected large numbers of rules for incorporation into their FMP. Thus, families may have selected so many rules that it became challenging to remember, monitor, or enforce those rules. This study's findings led to elemental changes in how the content within the FMP is organized and presented. Rather than 1 long Web page with a list of plan ideas, the start of the revised FMP now encourages families to choose only a few areas of focus at each visit to avoid becoming overwhelmed, to concentrate on priority areas for their family, and to return to update their plan as needed. Ensuring the revised plan could be reaccessed and updated online was also a priority feature in the revised FMP.

The literature review also included review articles summarizing key issues in media use and recommendations for parent involvement and engagement in communicating about media use.[22] We sought articles from other fields to align recommendations across health care fields that intersected with pediatric-age patients, such as psychology[22] and pediatric and adolescent gynecology.[23] The review included an article describing concerns of parents around how to craft rules,[24] which highlighted the need to provide enhanced teaching and rationale to parents in selecting rules.

The team also conducted an extensive review to understand what other tools were available at that time. This review included other existing Family Media Agreements, including the Commonsense Media Family Agreement,[19] the Education Development Center PromotePrevent resources,[25] and the Growing Wireless Family Rules Template.[26] All of these existing tools were meant to be printed and completed, and not able to be completed or reaccessed online. It was also noted that the majority of the tools focused on the adolescent experience, and did not address needs of families with younger children using media.

Enhanced User Experience

The FMP user experience was a priority area for updates based on input from the parent panel, Faminum, and AAP members. This input identified several technical improvements to the platform. A first priority was enhancing messaging and support within the FMP to ensure families, and

individuals within families, had agency to select elements of a plan that worked for them. Language in the updated FMP intentionally sought to increase parent and child agency and decision-making, rather than a list of "do's" and "don'ts." The content was also organized into categories, to help families pick the area of rules and guidelines they want to focus on in a particular visit to the site. Categories include: Media balance, communicating about media, kindness and empathy, digital privacy and safety, screen-free zones and times, choosing good content, and using media together.

The new design allows for individual selection of an avatar and adding one's name to their selections for each member of a family. Each individual can input their age, so age-specific recommendations are also aligned for each family member, from infants to adults. The addition of adults as FMP members was new in the 2022 revision, to emphasize that goals and technology boundaries should also apply to parents and caregivers. In addition, specific recommendations for children aged <2 years were included to reflect the growing digital media exposures in this age group.

The new tool also allows users the ability to create an account to be able to save and revisit the FMP over time. The FMP, now available in English and Spanish, includes video tutorials on how to use the plan, in addition to setting up safety settings. The revised tool was also created as a progressive Web app, which allows the option to use the tool like a native application. The FMP can be installed on a home screen or taskbar, and can be used offline for a fully mobile optimized experience.

A second priority for FMP updates was to enhance the transparency of the recommendations. Alongside available FMP rules and guidelines, additional explanations and rationales are now provided so that families can consider whether the rule meets their goals. Each FMP recommendation, when clicked, reveals a dialog box giving reasons why this recommendation was made and the evidence behind it. A final priority was to provide strategies and implementation tips for rules and guidelines, modeled off Faminum content. This approach allows families to reflect on their activities and use these practical tips to problem-solve around their media use.

Future Opportunities

A much-needed area of future opportunity for the FMP is to enhance interventional research, and there are several areas of potential opportunity. A first key area of future research is to study the effectiveness of the FMP. These studies may include the effect of the FMP on rule development and engagement within families, particularly which rules families find most feasible to maintain over time. Additionally, research on the effectiveness of the FMP on media-related outcomes such as physical activity, sleep, or mood is needed. Previous studies have found that open parent–adolescent communication can help promote healthy digital habits.[27]

Thus, paying particular attention to parent communication and engagement around the FMP may be important to understand. Studies are also needed to examine the rule of the FMP on critical health outcomes such as physical activity and sleep given their association with media.

A second area of research opportunity is around implementation and dissemination, determining the best practices in how pediatricians can incorporate the tool into busy clinical settings. For example, implementation studies could compare uptake when the FMP is simply provided in the after-visit summary, is demonstrated by a provider during an encounter, or is provided on an iPad while families wait.

Future areas of work may also endeavor to include the FMP as part of a focused intervention, such as enhancing sleep content in the FMP as an intervention for youth with sleep issues. Another potential area of enhancement would be to provide updates focusing on children not neurotypically developing, and testing whether recommendations should be provided on the basis of developmental stages rather than age.

There will also be opportunities to improve the FMP tool on the basis of user experience data and research. As artificial intelligence becomes easier to integrate into patient-facing health behavior tools, the AAP can consider how to personalize media tips on the basis of each family's unique lived experience. Caregivers might benefit from "just-in-time" designs that provide in-the-moment support, such as daily text messages or embedding media advice within smart home products. Further, the impact of artificial intelligence on media use among children will need to be better understood to inform adaptations of AAP policy or the FMP.

Other opportunities will emerge connected to AAP Center of Excellence on Social Media and Youth Mental Health. Launched in 2022, the center serves as a trusted source of evidence-based resources for families, as well as pediatricians and educators. One recently developed tool that aligns with the goals of the FMP is the 5 C's of Media Use tool. This approach provides a mnemonic to remember key aspects of media use in families. The 5 C's include:

1. child: Centering on the child and recognizing individual strengths and vulnerabilities that may impact media use;
2. content: Attending to content in what children play and watch in media;
3. calm: Supporting children to develop a range of coping mechanisms for dealing with strong emotions;
4. crowding out: Ensuring that media use doesn't crowd out other important activities such as sleep or in-person connection; and
5. communication: Promoting regular communication within families about their media experiences.

This approach is grounded in family relational health, early childhood socioemotional development, and teen mental health. It is meant to complement and reinforce the FMP through conversations during visits and a series of hand-outs that can be provided to families after well-checks. Future research is also needed to assess this tool and intervention possibilities.

Additionally, the Center of Excellence has engaged a Youth Advisory Panel. This diverse group of 20 teens aged 14 to 19 provide leadership, insights, and guidance to the center by sharing their experiences, feelings, and thoughts around social media and mental health. These youth advisers provide input on the kinds of resources and tools they find useful, and those that parents/caregivers, teachers, clinicians, school staff, and others might value. This panel could be tasked with reviewing tools such as the FMP to provide suggestions for additional updates and enhancements.

CONCLUSIONS

This article outlines the development, assessment, and refinement of the FMP. It is our hope that this background information will enhance transparency about this tool, and promote engagement by pediatricians toward supporting healthy media use for families.

ACKNOWLEDGMENTS

ABBREVIATIONS

AAP: American Academy of Pediatrics
BI: Behavioral Insights
COCM: Council on Communication and Media
FMP: Family Media Plan

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