Unplugging: An Evidence-Based Project to Reduce Screen Time and Improve Healthy Media Use in the Adolescent Population

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Background

Recommendation by the American Academy of Pediatrics (AAP) for adolescent recreational screen time: **Less than 2 hours per day**

Excess screen time is correlated with:
- Obesity
- Cardiovascular disease
- Impaired sleep
- Depression, anxiety, & low self-esteem
- Cyberbullying
- Exposure to unsafe content
- Breach in privacy
- Low academic performance

Media-related behaviors developed in adolescence persist into adulthood

Evidence for Problem

- Only 16% of providers are assessing media use at annual pediatric well-visits nationally
- Average recreational screen time for 13 to 18 year old: 7-9 hours per day
- Parents report feeling unprepared to deal with their adolescent and the ever-changing world of media

Evidence-Based Interventions

- Assessing screen time at well-visits improves provider understanding of patient overall health
- Provider-led education concerning healthy media use reduces screen time
- Including families in behavior changes fosters sustainable modifications
- AAP recommends the Family Media Plan (FMP) toolkit to:
  - Teach families how to use media thoughtfully, intentionally, and creatively
  - Create personalized goals that meet the needs of the family
  - Cultivate healthy media use as a family

Purpose & Methods

**Purpose:** Discuss media use & utilize the Family Media Plan at 13 to 18 year well-child visits to
- Reduce recreational screen time
- Educate on the benefits & risks associated with media use
- Equip families with evidence-based interventions to make behavior changes at home
- Improve depression scores (PHQ-2)

**Methods:**
- Assess baseline screen time, PHQ2, & review willingness for behavior change
- Discuss risks/benefits of media use & current guidelines
- Review FMP & give handout of FMP or online access card
- Receive permission for 30 day-follow-up phone call
- Enter project template into patient chart
- Administer follow-up survey to assess use of FMP, family feedback, & post-intervention screen time & PHQ2
- Educational posters placed around office

Survey Feedback Themes

- Created open discussions
- Found toolkit helpful
- Feel better equipped to address media use
- Screen time was higher than initially perceived
- Discussed social media accounts & safety
- More face-time with kids now
- Time for new hobbies
- Enjoyed talk at well-visit with provider
- Feel they understand risks now

Implications for Clinical Practice

- Follow AAP guidelines to assess screen time & educate families and patients on healthy media use
- Connect families with evidence-based resources
- Mitigate negative health-related sequelae over lifetime & reduce overall burden of healthcare related costs
- Better provider understanding of patient health
- Encourage open, non-judgmental family dialogue

Results

- 33 of 44 patients responded at follow-up
- 100% providers (2) assessing screen time at well-visits and offering FMP by October 2019
- Recreational Screen time Average:
  - Pre-intervention: 3.7 hours
  - Post-intervention: 3.0 hours

  \[ \text{Screen time reduction}=18\% \]

- 93% Reported family satisfaction with well-visit discussions & utilizing the FMP
- Adolescents spent 1.3 less hours/day on devices during week vs. weekends
- 21 patients completed follow-up PHQ2: Unable to establish correlation (0.32) between reduction in daily screen time & lower PHQ2 scores

Task | Date of Completion
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Project Proposal Meeting | April 18, 2019
Letter of Approval | April 30, 2019
Creation of EMR Charting Template | May 1, 2019
USD IRB Approval | May 7, 2019
Chart Audits for Well Adolescent Visits | May 14, 2019
Project Roll-out | May 14, 2019
Weekly Chart Audits | May 2019-October 2019
Address barriers/process changes | June 2019
Follow-up phone calls | June 2019-October 2019
Data Synthesis | November-December 2019

Conclusions

**Barriers:**
- Lack of time during well-visits; discussions took 3-5 minutes on average
- Unable to speak with child during follow-up phone call
- Family does not feel screen time is a problem & no desire to change behaviors
- Life is busy...forgot to utilize FMP after appointment

**Benefits:**
- Reproducible & cost-effective intervention to mitigate health consequences as the child grows into adulthood
- Helps patients and families respond to the growing problem of media use
- Improves provider understanding & management of the holistic health of pediatric population
Background: Excessive media use is an emerging health concern amongst the pediatric population. The American Academy of Pediatrics recommends adolescents spend less than 2 hours per day on recreational screen time, yet the national average is between 7 to 9 hours per day. A media-saturated lifestyle has consequences on a child’s mental, physical, and emotional health. Despite guidelines stating media use should be assessed at annual well-visits, only 16% of providers are following this recommendation. This gap in care leaves many families with a limited understanding of the impact of media use on their child's health and represents a missed opportunity to provide education on how to manage screen time at home.

Aims of Service Change: This project utilizes the Family Media Plan at the 13 to 18 year-old well-child visits to reduce daily recreational screen time, cultivate media awareness, and reduce lifetime risk of depression.

Details of Innovation: To reinforce provider adherence with this project, an informal educational presentation was held to review pertinent information. Providers assessed adolescent recreational screen use at all 13 to 18 year well-visits, reviewed risks associated with excessive screen time, and educated on guidelines regarding healthy media habits. The Family Media Plan, an evidence-based toolkit created by the American Academy of Pediatrics to create sustainable media-related behavior changes, was offered to families at the visit in either a printed or online access card version. The provider reviewed the intent of this project with the family and asked for verbal consent to receive a follow-up phone call in thirty days to determine if the intervention was meaningful. Additionally, posters highlighting healthy media behaviors were placed around the office to further support provider-led education.

Outcomes: The average baseline recreational screen time was 3.7 hours, and the average post-intervention time was 3.0 hours for the 33 patients that responded at the 30 day follow-up. This demonstrates an 18% reduction in recreational screen time correlated with implementing well-visit discussions on media use and the Family Media Plan. Via the follow up survey, there was 93% family satisfaction with utilizing the Family Media Plan. Two providers agreed to participate in this project, and by October 30, 2019 both were assessing adolescent screen time and incorporating the Family Media Plan at well-child visits as demonstrated via charting audits. Only 21 patients responded with pre and post-intervention Patient Health Questionnaire 2 scores, which does not allow for a correlation between reduction in screen time and reduction in depression scores to be determined due to such a small sample size. Notably, it was also found that there is an average of 1.3 less hours spent on media devices during the week than on weekends amongst these adolescents.

Discussion of Implications to Practice: This reproducible and cost-effective intervention can help health care professionals, patients, and families respond to the growing problem of unhealthy media use. By assessing screen time, providers can connect families with resources, encourage open discussions, and gain a better understanding of their patients’ health. Empowering youth to positively engage media can mitigate negative sequelae as patients grow into adulthood and reduce the burden of healthcare related costs.

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