Children's Hospital of Philadelphia
PolicyLab

Helping Parents Quit Smoking in Pediatric Settings

Statement of Problem

Secondhand smoke exposure is a significant public health problem. More than 40% of children in the U.S. are exposed to secondhand smoke, increasing their risk of respiratory infections, asthma flare-ups and premature death. When parents quit smoking, they not only increase their own life expectancy by an average of 10 years and eliminate the majority of their children's secondhand smoke exposure, they also decrease the likelihood of their children becoming smokers later in life.

Pediatricians are uniquely positioned to deliver intergenerational family services to educate and motivate parents to protect their children from secondhand smoke. Yet, very few parents who smoke and accompany their child to the pediatrician's office are offered treatment or given advice to help them quit. Electronic health records (EHRs) and clinical decision support (CDS) systems may improve the quality and standardization of clinical interventions for tobacco cessation. In pediatric settings, outpatient-based multilevel interventions are emerging to address these barriers; the interventions combine pediatric clinician advice and behavioral counseling with navigation to pharmacologic cessation aids approved by the U.S. Food and Drug Administration (FDA).

Description

To help pediatricians provide smoking cessation treatment to parents, Dr. Jenssen and colleagues developed a CDS tool that embeds in the electronic health record and prompts clinicians to ask about secondhand smoke exposure at all visits. For parents who smoke, the tool assists physicians in prescribing nicotine replacement therapy and coordinating referral to an adult tobacco treatment program. The tobacco treatment programs offered included the PA Free Quitline, a free, evidence-based tobacco cessation service available to all Pennsylvanians.

Phase One

In the first phase of this work, Dr. Jenssen tested and subsequently evaluated the CDS tool among pediatricians and pediatric clinicians in two settings: an urban pediatric primary care site and a pediatric inpatient unit. He found that at the primary care site, 80% of eligible pediatric clinicians used the CDS tool at 2,286 (76%) out of 3,023 visits. Ninety-four percent of clinicians surveyed were satisfied with the tool and rated its usability good to excellent. Additionally, follow-up surveys found that the majority of parents were advised to quit and offered nicotine replacement therapy, and 25% of parents were using medication to help them quit.

In the inpatient unit, clinicians used the tool for 49% (52 of 109) of patients. All clinicians surveyed found the tool acceptable and rated its usability good to excellent. 32% of parents were referred to the PA Free Quitline through the CDS tool's discharge instructions, and 14% of parents were prescribed nicotine replacement therapy.

These data demonstrate that the CDS tool to help pediatric residents and physicians/clinicians provide smoking cessation counseling is feasible, acceptable and usable in both hospital and primary care settings. The CDS tool also influenced clinical care in the primary care setting.

Phase Two

With these findings in mind, Dr. Jenssen and his team next sought to address a knowledge gap in pediatric preventive services by informing how to best implement parent referral to tobacco quitlines into real-world clinical practice. They compared quitline enrollment using an electronic referral (eReferral) process (parent

information sent electronically to the quitline and a quitline representative directly calling the parent) to the current standard manual process (giving the parent the quitline phone number).

They found that of the parents in the eReferral group, 10% enrolled in the quitline, compared with 2% in the group who were simply given the quitline phone number—a fivefold increase in parents starting evidence-based treatment. While parents in the eReferral group were more likely to connect to the Quitline initially, once contact was made, there was no difference in the overall number of calls to the Quitline between the eReferral group and the standard process control group.

The findings in this second phase demonstrate that a “warm-handoff” using the eReferral process is effective in helping parents engage in treatment at a higher rate. However, more research is needed to gain insight into how to increase engagement for the large portion of parents (90%) who did not engage with the quitline despite pediatric clinicians more directly connecting them to treatment.

Next Steps

While these results are promising, Dr. Jenssen plans to improve the design and effectiveness of the CDS intervention and the overall approach to treating parents that smoke.

For the next phase, building upon preliminary work with the support of a multidisciplinary mentoring team, Dr. Jenssen and his team will develop carefully framed messages using a theory-based approach in order to encourage initiation of tobacco cessation treatment for parent smokers. The underlying hypothesis is that messages that leverage parents’ concern for their child’s health and that are delivered by pediatric clinicians will increase the number of caregivers who start tobacco cessation treatment. The project is funded through a career development award from the National Cancer Institute. More details can be found on the Parents Quit IT PolicyLab project page.

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Related Tools & Publications

- Clinical Decision Support Tool for Parental Tobacco Treatment in Primary Care
  Article
  Apr 2016

- Clinical Decision Support Tool for Parental Tobacco Treatment in Hospitalized Children
  Article
  Aug 2016

- Electronic Nicotine Delivery Systems
  Article
  Nov 2015

- Tobacco Control and Treatment for the Pediatric Clinician: Practice, Policy, and Research Updates
  Article
  Mar 2017

- Adolescents and E-cigarettes: Trends and What Pediatricians Need to Know
  Webinars
  Dec 2017

- Parent Preferences for Pediatric Clinician Messaging to Promote Smoking Cessation Treatment
  Article
  Jun 2020

- Pediatrician Delivered Smoking Cessation Messages for Parents: A Latent Class Approach to Behavioral Phenotyping
  Article
  Jul 2020