Children's Hospital of Philadelphia PolicyLab

A Clinical Decision Support System for Motivational Messaging and Tobacco Cessation Treatment for Parents: Pilot Evaluation of Use and Acceptance

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Research is needed to identify how clinical decision support (CDS) systems can support communication about and engagement with tobacco use treatment in pediatric settings for parents who smoke. We developed a CDS system that identifies parents who smoke, delivers motivational messages to start treatment, connects parents to treatment, and supports pediatrician-parent discussion. The objective of this study is to assess the performance of this system in clinical practice, including receipt of motivational messages and tobacco use treatment acceptance rates. The system was evaluated at one large pediatric practice through a single-arm pilot study from June to November 2021. We collected data on the performance of the CDS system for all parents. Additionally, we surveyed a sample of parents immediately after the clinical encounter who used the system and reported smoking. Measures were: (1) the parent remembered the motivational message, (2) the pediatrician reinforced the message, and (3) treatment acceptance rates. Treatments included nicotine replacement therapy, quitline referral (phone counseling), and/or SmokefreeTXT referral (text message counseling). We described survey response rates overall and with 95% confidence intervals (CIs). During the entire study period, 8,488 parents completed use of the CDS: 9.3% (*n* = 786) reported smoking and 48.2% (*n* = 379) accepted at least one treatment. A total of 102 parents who smoke who used the system were approached to survey 100 parents (98% response rate). Most parents self-identified as female (84%), aged 25 to 34 years (56%), and Black/African American (94%), and had children with Medicaid insurance (95%). Of parents surveyed, 54% accepted at least one treatment option. Most parents recalled the motivational message (79%; 95% CI: 71-87%), and 31% (95% CI: 19-44%) reported that the pediatrician reinforced the motivational message. A CDS system to support parental tobacco use treatment in pediatric primary care enhanced motivational messaging about smoking cessation and evidence-based treatment initiation.

Journal:

Applied Clinical Informatics

Authors: Jenssen BP, Kelleher S, Karavite DJ, Nekrasova E, Thayer JG, Ratwani R, Shea JA, Nabi-Burza E, Drehmer JE, Winickoff JP, Grundmeier RW, Schnoll RA, Fiks AG