Caregiver Health Promotion in Pediatrics: A Novel Opportunity to Enhance Adult and Child Health

Maya Venkataramani, MD, MPH, and Barry S. Solomon, MD, MPH

In 2003, the American Academy of Pediatrics (AAP) published the recommendations of its Task Force on the Family, an initiative borne of the recognition that pediatricians have an important role in promoting well-functioning families as a means of ultimately promoting pediatric health.[1] Among the various facets of "family pediatrics" discussed in these recommendations was the practice of addressing caregiver health or health behaviors which directly impact children's health. "Pediatricians have both opportunity and reason to take note of the health of their young patients' parents," declared the Task Force.[1] Now, 15 years later, despite growing evidence to support the promotion of caregiver health as a means to improve child health, pediatric providers continue to face challenges in successfully fulfilling this aspect of family pediatrics, challenges that we believe deserve the attention of adult providers and health systems.

Benefits Beyond Pediatric Preventive Care

Drawing upon evidence showing that caregiver health or health behaviors impact children's health (the "reason" to intervene), current guidelines identify several caregiver-related issues on which pediatric providers are encouraged to focus their caregiver health promotion efforts. Specifically, *Bright Futures*, the AAP's comprehensive evidence-driven resource for guidance regarding pediatric preventive care in the United States, highlights several caregiver health-related issues to be addressed during pediatric primary care visits.[2] For example, in recognition of the multiple detrimental effects secondhand tobacco smoke exposure has on child health,[3-5] the AAP recommends pediatrician-led parental tobacco use screening, counseling, and support of cessation efforts (including prescription of nicotine replacement therapies), practices that are also supported by the American Medical Association.[2,3,5] Similarly, in order to promote the protection of children against pertussis and influenza, *Bright Futures* recommends screening and encouraging caregiver immunization against these diseases.[2] Pediatricians are encouraged to routinely screen for maternal depression, given the far-reaching implications of caregiver mental health on children's health,[2,6,7] and more recently the AAP has recommended screening fathers for depression in the perinatal period as well.[8] Screening and appropriate referral for caregivers (and thereby children) exposed to intimate partner violence is another practice highlighted by the guidelines.[2]

Efforts have been made to expand the framework to other issues with similar potential to impact current and future generations of children, such as caregiver family planning.[2,9,10] And there exist still other issues which may be particularly well-suited to being addressed through the caregiver health promotion framework, such as follow-up care for mothers with gestational diabetes. These mothers are at high-risk for the development of type 2 diabetes and having subsequent pregnancies affected by poor glycemic control, but traditionally have had poor follow-up rates in the postpartum period and beyond.[11] Their regular interactions with pediatric providers resulting from the frequent visits required for their infants presents an important, and as yet untapped, opportunity to re-engage them in recommended medical care and prevent adverse outcomes for their future children as well as themselves.

The maternal gestational diabetes example highlights an important point: caregiver health promotion in pediat-

From the Division of General Internal Medicine (Dr. Venkataramani), and the Department of Pediatrics (Dr. Venkataramani and Dr. Solomon), Johns Hopkins University School of Medicine, Baltimore, MD.

ric settings can have direct health benefits for *caregivers*. As such, there are arguably additional reasons for health systems and adult providers to support the practice of caregiver health promotion in pediatric settings. First, it may represent one of the only exposures to the health care setting and health promotion activities for certain caregivers. Caregivers are often younger adults, an age-group that is less likely to have a usual source of care or access preventive services, and low-income caregivers of any age are more likely to have limited health care access. Given the frequency of routine care (12 health maintenance visits in the child's first 3 years of life),[2] caregivers are likely to have more consistent access with the pediatric health care system than with the adult health care system. Therefore, pediatric visits represent an important touchpoint for these adults that could be leveraged to deliver services and further engage them with the adult health care system. Improving the reach of these services is particularly important in the era of population health where health systems, and particularly accountable care organizations, assume responsibility for the health-related outcomes of communities at large.

Second, studies exploring caregiver perspectives on pediatricians addressing their depression or tobacco use suggest that caregivers appreciate and welcome pediatrician engagement in their care.[12,13] Thus, supporting these efforts enables patient-centered care delivery. And third, caregivers may be more motivated to address their own health issues or behaviors (such as substance use) when counseled on the implications of their actions on their children's health. To the extent such counseling is more routinely (and effectively) delivered in the pediatric setting, supporting pediatrics-based counseling efforts is also in the best interest of adult health care providers.

Challenges to Caregiver Health Promotion in Pediatric Settings

Studies suggest that a fairly broad scope of caregiver health promotion activities do occur in pediatric practice. In our survey of a nationally representative sample of children's primary care physicians (including pediatricians, family medicine physicians, and medicine-pediatrics physicians), over three-quarters of respondents reported addressing at least 3 caregiver health issues (including maternal depression, tobacco use, family planning, influenza immunization status, intimate partner violence exposure, and caregiver health insurance status) during well-infant or well-child visits.[14] At the same time, we found limited depth in practice in terms of the regularity with which caregiver issues are addressed at visits or, when applicable, services beyond screening are offered to caregivers. For example, we found that only 36% of physicians addressed caregiver exposure to intimate partner violence in at least half of the well-infant or well-child visits they conducted.[14] And while the vast majority of our respondents addressed parental tobacco use with some regularity, less than 15% reported assisting parents with cessation efforts by prescribing cessation therapies. Other studies exploring practices surrounding maternal depression, intimate partner violence screening, or tobacco cessation counseling have revealed similar patterns with regards to the reach of caregiver health promotion in practices across the country.[15-18]

Such variability in practice seems to stem primarily from structural and/or organizational barriers to caregiver health promotion in pediatric primary care settings, such as limited time, inability to bill for services provided to caregivers, and lack of efficient systems to refer caregivers to adult providers or services. These structural barriers could lead to attitudinal barriers (ie, pediatric physicians' reluctance to address caregiver health). Attitudinal or physician-associated barriers may arise in instances when the caregiver health issue's relevance to child health is less clear or expected actions are perceived as being beyond the scope of pediatric practice, raising concerns about personal effectiveness and liability. But it appears that when caregiver health issues clearly impact child health, and the role of the pediatrician is to screen and counsel in the context of pediatric implications of caregiver health or health behaviors, the majority of pediatric providers do endorse a sense of personal responsibility to address these issues. In our survey, for example, the vast majority of pediatric primary care physicians endorsed maternal depression and caregiver tobacco use as relevant to child well-being, and also endorsed a sense of personal responsibility to address these issues.[19]

Structural or organizational barriers thus appear to play a larger role overall in influencing caregiver health

promotion practices. Various studies have characterized these barriers as they relate to caregiver health promotion, and lack of time is a paramount concern.[14,20] This is not surprising, given the multiple competing interests for a pediatrician's time during already time-constrained well-child visits (which include growth and development assessment, anticipatory guidance provision, delivery of children's preventive care services, and addressing any acute concerns). The time constraints may be even more acutely felt if the results of screening necessitate additional action, such as referral to relevant services. We found that a lack of referral resources or complex referral mechanisms were cited by over half of children's primary care physicians as general barriers to caregiver health promotion, and in particular by pediatricians (versus medicine-pediatrics or family medicine physicians).[14]

This highlights the key difference between family medicine and caregiver health promotion in pediatrics: the latter involves addressing adult health issues in a setting where care for adults is often not provided. While some practices that see children may provide care to adults (such as family medicine or medicine-pediatrics clinics) or are co-located with adult health care providers, most pediatric practices are not integrated with adult health care settings. As a result, the "next steps" in caregiver health promotion can prove challenging to pursue, thereby limiting the beneficial impact of these activities on both child and adult health. For example, in the absence of such integration, pediatricians may find it challenging to connect mothers with positive depression screens to appropriate mental health care or parents who smoke to tobacco cessation services. In addition to leading to missed opportunities to comprehensively address caregiver health issues, such obstacles may also discourage pediatric providers from pursuing caregiver health promotion activities to begin with.

The Way Forward

How can health systems and adult health care providers support the caregiver promotion activities of pediatric primary care providers? There are several ways to enhance integration with adult practices and adult health care services. The co-location and integration of relevant caregiver-related auxiliary services at pediatric clinics is one way. In fact, when asked to identify facilitators to caregiver health promotion, pediatricians who responded to our survey most frequently endorsed the co-location of relevant providers, such as mental health professionals or social workers, as facilitators for addressing caregiver depression or intimate partner violence.[14] For example, at the Harriet Lane Clinic at Johns Hopkins, the integration of a comprehensive maternal mental health team (including a part-time licensed therapist, part-time psychiatrist from an affiliated psychiatric practice, and full-time maternal case manager) has proven to be an effective, patient-oriented approach to providing services for mothers with depression.[21] The role of health systems and adult health care providers/practices in advancing such models of care delivery is two-fold: to provide necessary staff and financial support. The latter is particularly important as many of the relevant caregiver-related services (eg, social work or case manager visits) may not generate the revenue required to support their sustained presence at pediatric sites.

Pediatric practices would also benefit from enhanced mechanisms for referral to appropriate services that are not co-located, such as tobacco cessation "quitlines." Adopting protocolized interventions that focus on connecting parents with existing resources for their own health, such as the CEASE intervention developed for parental tobacco control in pediatrics,[22,23] is one way to streamline the referral process for pediatric practices. Another is by advancing a truly integrated electronic medical record (EMR), which enables caregiver health screenings and referral to additional services to be completed during pediatric encounters.

Finally, while only a relative minority of physicians we surveyed suggested that a lack of reimbursement for their activities served as a general barrier to caregiver health promotion, ensuring that pediatric providers are adequately compensated for their efforts on behalf of parents and guardians would undoubtedly help support their activities. Integrated EMRs could be one way to support this, particularly for services that are traditionally billed for (eg, depression screening or tobacco cessation counseling). Novel ways to reimburse pediatric providers for their contribution to adult health indicators could also be considered; for example, to the extent caregiver health promotion activities contribute to adult quality indicators

(eg, postpartum depression screening rates and completion of postpartum visits) that are associated with financial rewards, health systems could consider sharing these "bonuses" among pediatric providers.

From Family Pediatrics to Family-Oriented Care

While caregiver health promotion has long been considered part of the practice of "family pediatrics," it should more accurately be seen as an integral component of the delivery of family-oriented primary care, as it represents a novel opportunity to advance the health of not only children, but also their caregivers. Following existing preventive care guidelines, pediatricians currently engage in a variety of activities to promote child and caregiver health, but require support to more consistently and effectively address issues such as caregiver tobacco use or maternal depression. The barriers faced by pediatricians could be most effectively addressed with the engagement of adult health care providers and health systems; this includes the development of an integrated EMR that would support screening activities and referral to connect caregivers with necessary follow-up resources. Further characterizing the barriers faced in pediatric settings, and exploring how health systems could provide the necessary support to address these barriers, is crucial to realizing the potential of caregiver health promotion to have multi-generational impacts on well-being.

Corresponding author: Maya Venkataramani, MD, MPH, 2024 E. Monument St., Suite 2-502, Baltimore, MD 21287; mvenkat2@jhmi.edu.

Financial disclosures: None.

References

1. Schor EL, American Academy of Pediatrics Task Force on the Family. Family pediatrics: report of the Task Force on the Family. Pediatrics. 2003;111:1541-1571.
2. Hagan JF, Shaw JS, Duncan PM, eds. Bright Futures: Guidelines for Health Supervision of Infants, Children, and Adolescents. 4th ed. Elk Grove Village, IL: American Academy of Pediatrics; 2017. 4
3. Best D, Committee on Environmental Health, Committee on Native American Child Health, Committee on Adolescence. From the American Academy of Pediatrics: Technical report--Secondhand and prenatal tobacco smoke exposure. Pediatrics. 2009; 124:e1017-1044.
4. Treyster Z, Gitterman B. Second hand smoke exposure in children: environmental factors, physiological effects, and interventions within pediatrics. *Rev Environ Health*. 2011;26:187-195. 5.
American Medical Association. H-490.917: physician responsibilities for tobacco cessation. Adopted by House of Delegates, Chicago, IL: American Medical Association.
6. Committee on Environmental Health, Committee on Substance Abuse, Committee on Adolescence, and Committee on Native American Child Health. Tobacco use: a pediatric disorder. Pediatrics. 2009;124;1474. http://pediatrics.aappublications.org/content/pediatrics/124/5/1474.full.pdf. Accessed October 9, 2018.
7. Earls MF, Committee on Psychosocial Aspects of Child and Family Health American Academy of Pediatrics. Incorporating recognition and management of perinatal and postpartum depression into pediatric practice. *Pediatrics*. 2010;126:1032-1039.
8. Yogman M, Garfield CF, Committee on Psychological Aspects of Child and Family Health. *Pediatrics*. 2016;138(1):e20161128.
9. Cheng TL, Kotelchuck M, Guyer B. Preconception women's health and pediatrics: an Opportunity to address infant mortality and family health. *Acad Pediatr*. 2012;12:357-359.
10. Zuckerman B, Nathan S, Mate K. Preventing unintended pregnancy: a pediatric opportunity. *Pediatrics*. 2014;133:181-183.
11. McCloskey L, Bernstein J, Winter M, et al. Follow-up of gestational diabetes mellitus in an urban safety net hospital: missed opportunities to launch preventive care for women. *J Womens Health*. 2014;23:327-334.
12. Groner J, Ahijevych K, Grossman L, Rich L. Smoking behaviors of women whose children attend an urban pediatric primary care clinic. *Women Health*. 1998;28:19-32.
13. Kahn RS, Wise P, Finkelstein MD, et al. The scope of unmet maternal health needs in pediatric settings. *Pediatrics*. 1999;103:576-581.
14. Venkataramani M, Cheng TL, Solomon BS, Pollack CE. Caregiver health promotion in pediatric primary care settings: results of a national survey. *J Pediatr*. 2017;181:254-260.e2.
15. Kerker BD, Storfer-Isser A, Stein RE, et al. Identifying maternal depression in pediatric primary care: changes over a decade. *J Dev Behav Pediatr*. 2016;37:113-120.
16. Collins BN, Levin KP, Bryant-Stephens T. Pediatricians' practices and attitudes about environmental tobacco smoke and parental smoking. *J Pediatr*. 2007;150:547-552.
17. Borowsky IW, Ireland M. Parental screening for intimate partner violence by pediatricians and family physicians. *Pediatrics*. 2002;110:509-516.
18. Olson AL, Kemper KJ, Kelleher KJ, et al. Primary care pediatricians' roles and perceived responsibilities in the identification and management of maternal depression. *Pediatrics*. 2002;110:1169-1176.
19. Venkataramani M, Cheng TL, Solomon BS, Pollack CE. Addressing parental health in pediatrics: physician perceptions of relevance and responsibility. *Clin Pediatr*. 2017;56:953-958.
20. Horwitz SM, Kelleher KJ, Stein RE, et al. Barriers to the identification and management of psychosocial issues in children and maternal depression. *Pediatrics*. 2007;119:e208-218.
21. Kimmel MC, Platt RE, Steinberg DN, et al. Integrating maternal mental health care in the pediatric medical home: treatment engagement and child outcomes. *Clin Pediatric*. 2017;56:1148-1156.
22. Winickoff JP, Nabi-Burza E, Chang Y, et al. Implementation of a parental tobacco control interventionin pediatric practice. *Pediatrics*. 2013;132:109-117.
23. Winickoff JP, Nabi-Burza E, Chang Y, et al. Sustainability of a parental tobacco control intervention in pediatric practice. *Pediatrics*. 2014;134:933-941.