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Screening for Social Determinants of Health

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Pediatricians are increasingly recognizing the importance of the conditions in which children are born, live, age, and go to school. These conditions are collectively referred to as social determinants of health (SDH) and range from fundamental material needs such as food security, transportation, and housing conditions to toxic stressors such as postpartum depression (PPD) and intimate partner violence (IPV) (World Health Organization, n.d.). Poverty is intricately linked to many SDH needs and has been shown to have an adverse effect on birth weight, infant mortality, language development,

chronic illness, and injury (Fierman et al., 2016). It is estimated that social factors are responsible for 24% of health outcomes while medical care is responsible for only 11% (Choi & Sonin, 2018). As such, it is critical for the medical community to consider whether we can have a larger impact on health and health disparities if we incorporate addressing SDH into medical practice.

The American Academy of Pediatrics (AAP) highlights opportunities to address the socioeconomic needs of children through recommendations for SDH risk factor screening during patient encounters (Council on Community Pediatrics [COCP], 2016). In general, screening for sensitive topics is best done with a written or electronic screening instrument rather than verbally interviewing caregivers in front of their

Special Points of Interest:

- *The conditions in which children are born, live, age, and go to school are important factors in their health and wellbeing.*
- *The AAP recommends screening for SDH factors such as food insecurity during patient encounters and maternal depression in health supervision during the first year of life*
- *Several individual screening tools exist for common needs such as food insecurity and postpartum depression. There are also comprehensive screening instruments.*
- *To implement screening in clinical practice, pediatricians should identify available resources, choose a screening tool, and determine the screening process for their practice.*

children (Gottlieb, Hessler, Long, Amaya, & Adler, 2014). Evidence is currently lacking on which specific SDH factors have the biggest impact on child health outcomes; therefore, pediatricians are encouraged to tailor their SDH screening based on their patient needs and available community resources.

Two SDH that are becoming more commonly addressed are food insecurity and PPD. Both are ideal for screening programs given that validated screening tools already exist, these SDH are frequently identified, and they can be addressed by local community resources.

Food insecurity, which impacts 20% of U.S. children, negatively affects a child's health outcome as well as his or her school performance. The AAP has recommendations for routine screening for food insecurity in high-risk patient populations (COCP, 2016). Resources include a validated two-item questionnaire (Hunger Vital Sign) (Hager et al., 2010) and multiple community resources, such as the Supplemental Nutrition Assistance Program, the Women, Infant, and Children's Nutrition Program, and local food banks.

The AAP also recommends screening for maternal or postpartum depression (PPD) at every health supervision visit during the child's first year of life. PPD affects an estimated 11% of women in the U.S. and increases the risk of mental illness and suboptimal early brain development in children (Children's Hospital of Philadelphia [CHOP], PolicyLab, n.d.). Children whose parents reported parental depressive symptoms had an 18% increased risk of an emergency department visit and a 36% increased risk of a school absence (CHOP, PolicyLab, n.d.). Validated screening tools used for PPD include the Edinburgh Postpartum Depression Scale and the Patient Health Questionnaires 2 and 9. Resources available include education and support from the pediatrician's office (including access to social

workers when feasible), local community support groups, and mental health providers (including local mental health safety net providers). There is increasing evidence to support approaching children's health with the mindset that parental health directly impacts health outcomes in children.

Intergenerational family services that focus on screening, implementing, and evaluating programs that meet the needs of both parents and children in the pediatric setting have been successful in addressing multiple SDH factors, such as parental depression (CHOP, PolicyLab, n.d.).

Screening tools exist for individual SDH as well as for combinations of multiple SDH. Table 1 provides further information on individual screening instruments for food insecurity and PPD as well as multiple comprehensive screening tools.

Comprehensive screening tools usually identify both common and high-risk social needs. Examples of common needs are employment resources, graduate equivalent degree programs, and smoking cessation classes (Garg et al., 2007). Sensitive and high-risk SDH factors include IPV, alcohol abuse, and substance abuse.

Research efforts have examined the use of comprehensive screening tools in community practices. Implementation of a brief standardized screening tool has been associated with increased referrals and receipt of community resources (Colvin et al., 2016; Garg, Toy, Tripodis, Silverstein, & Freeman, 2015), as well as reduced child maltreatment (measured by child protective services reports, possible medical neglect (documented as treatment nonadherence, delayed immunizations, and harsh punishment reported by parents) (Dubowitz, Feigelman, Lane, & Kim, 2009). Comprehensive screening instruments include WE CARE, Health Leads, PRAPARE, IHELLP, ACE-Q, and SEEK. These cover a varying breadth of needs as displayed in Table 1.

Table 1. Screening Tools for Social Determinants of Health

Category	Tool	Topics included	Number of items	Completion time	Administration	Cost	Validation	For more information
Comprehensive SDH	A Safe Environment for Every Kid (SEEK) Questionnaire	Corporal punishment Food insecurity IPV Maternal depression Parental stress Substance abuse	15	3 minutes	Caregiver completes written or online questionnaire	Multiple payment options	Multiple studies completed and in progress. Sensitivity ranges from 13% for substance abuse to 74% for depression. Specificity ranges from 80% for maternal depression to 96% for substance abuse.	http://pediatrics.aapublications.org/content/123/3/858?sso=1&sso_redirect_count=1&nfstatus=401&nfstatus=000000-0000-0000-0000-000000000000&nfstatusdescription=ERROR%3a+No+local+token
	Accountable Health Communities Core Health-Related Social Needs Screening Tool (Centers for Medicare & Medicaid Services)	Food insecurity Housing Interpersonal safety Transportation Utility needs	10	3 minutes	Caregiver completes written questionnaire	Free	Compilation of questions from other validated tools.	https://nam.edu/wp-content/uploads/2017/05/Standardized-Screening-for-Health-Related-Social-Needs-in-Clinical-Settings.pdf
	Center for Youth Wellness ACE Questionnaire (CYW ACE-Q)	Community Violence Family incarceration Family mental health IPV Parental stress School safety Substance abuse	17	5 minutes	Provider administers the survey	Free	Not available	https://centerforyouthwellness.org/cyw-aceq/
	Health Leads Screening Tool	Financial stress Food insecurity Housing Interpersonal safety Transportation	10	2 minutes	Caregiver completes written or online questionnaire	Free	Not available	https://healthleadsusa.org/wp-content/uploads/2016/07/Health-Leads-Screening-Toolkit-July-2016.pdf
	Health Steps/ The Online Advocate	Access to healthcare Education Food insecurity Housing Income security IPV Nutrition and fitness Safety equipment Substance abuse Other (sexual health, mental health, parenting needs)	99-166	25 minutes	Caregiver completes online questionnaire	Free	Compilation of questions from other validated tools.	http://www.ajpmonline.org/article/S0749-3797(15)00207-X/pdf

Category	Tool	Topics included	Number of items	Completion time	Administration	Cost	Validation	For more information
Comprehensive SDH	IHELLP	Education Food insecurity Housing Income Legal status Literacy Personal safety	11-24	5 minutes	Provider asks caregiver questions	Free	Not available	https://www.aap.org/en-us/Documents/IHELLPPocketCard.pdf
	iScreen	Childcare need Food security Housing Immigration Income security Neighborhood safety Public benefits School safety	14-23	10 minutes	Caregiver completes written or online questionnaire	Free	Not available	http://pediatrics.aapublications.org.ezproxyhost.library.tmc.edu/content/134/6/e1611.long
	Protocol for Responding to and Assessing Patients' Assets, Risks, and Experiences (PRAPARE)	Emotional health Employment Housing Income Insurance Social services Optional questions on incarceration, immigration status, IPV, and safety	17-21	<10 minutes	Provider asks caregiver questions	Free	Not available	http://www.nachc.org/research-and-data/prapare/
	Well-Child Care, Evaluation, Community Resources, Advocacy, Referral, Education Survey Instrument (WE CARE)	Childcare need Education Employment Food insecurity Housing IPV Maternal depression Smoking Substance abuse	10	< 5 minutes	Caregiver completes written or online questionnaire	Free	Adapted from the Bright Futures Pediatric Intake Form. Focus groups assessed face validity, test-retest reliability = 0.92.	http://pediatrics.aapublications.org/content/120/3/547
Food insecurity	Hunger Vital Sign	Food insecurity	2	< 2 minutes	Provider asks caregiver questions or caregiver completes written or online questionnaire	Free	Sensitivity of 97% and specificity of 83% compared to the U.S. Department of Agriculture 18-item Household Food Security Survey.	http://childrenshealthwatch.org/public-policy/hunger-vital-sign/
Maternal depression	Edinburgh Postpartum Depression Scale (EPDS)	Maternal depression	10	5 minutes	Caregiver completes written questionnaire	Free	Sensitivity of 86% and specificity of 78%.	http://onlinelibrary.wiley.com/doi/10.1111/j.1600-0447.2009.01363.x/full

Category	Tool	Topics included	Number of items	Completion time	Administration	Cost	Validation	For more information
Maternal depression	Patient Health Questionnaire -2 (PHQ-2)	Maternal depression	2	3 minutes	Provider asks caregiver questions or caregiver completes written questionnaire	Free	Sensitivity of 83% and specificity of 90%.	http://www.cqaimh.org/pdf/tool_phq2.pdf
	Patient Health Questionnaire -9 (PHQ-9)	Maternal depression	9	5 minutes	Provider asks caregiver questions or caregiver completes written questionnaire	Free	Sensitivity and specificity of 88%.	http://www.phqscreeners.com/sites/g/files/g10016261/f/201412/PHQ-9_English.pdf

To implement a successful screening program, we suggest a step-wise approach. First, perform an inventory of available resources such as federal public benefit programs and community-based or local government resources (e.g., food banks, home visiting programs, and head start programs) (Fierman et al., 2016). Next, choose individual screening tools or a comprehensive survey to implement. To choose a tool, consider what is known about the most commonly identified issues in your community, families’ perspectives on what resources should be available (Chung et al., 2016), high-risk needs that you do not want to miss, and what resources you have available to address needs identified. The third step is to determine who will perform the screening, where this will fit best in your practice workflow, and how it will be documented.

We suggest that a nurse, social worker, advanced-level practitioner, or physician perform the screen (on paper or electronically at intake or during the encounter) and chart in the medical record. Of note, practitioners should use an abbreviation when documenting intimate partner violence, such as “IPV”, due to caregiver ability to access the chart and potential for victim repercussions. Finally, providers can start the screening process and refer caregivers to needed services based on issues identified in the SDH

screen. Serious conditions should be addressed urgently, and providers need to ensure there is a safety plan in place. As providers gain more experience with the needs of their population and the screening workflow in their practice, they can continue to modify the process. It is highly encouraged for pediatric offices to form partnerships with local community resources to help facilitate a smooth referral procedure.

Existing data demonstrate that pediatricians have the opportunity to provide intergenerational support to families and maximize the impact pediatric medical care can have on children’s health outcomes by acknowledging and addressing SDH in medical practice. Further research is needed, however, to identify optimal methods of addressing social needs as well as the long-term outcomes of screening and addressing social needs in the pediatric setting.

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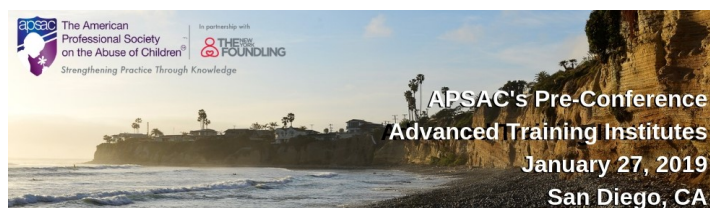
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