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Original article

Youths' Health-Related Social Problems: Concerns Often Overlooked During the Medical Visit

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A B S T R A C T

Objective: The objectives of this study were to (1) measure the prevalence of health-related social problems among adolescent and young adult primary care patients; (2) estimate previous screening and referral experiences; and (3) examine participant attitudes toward screening and referral.

Methods: Data were collected as part of a cross-sectional study conducted in an urban young adult clinic. Patients aged 15 to 25 years completed a computerized questionnaire screening for health-related social problems in nine social domains. In addition, participants answered questions about their previous screening experiences, need for referrals, and their experience using the system.

Results: Seventy-six percent (304/401) of youth screened positive for at least one major problem, including healthcare access (37%), housing (34%), and food security (29%). Forty-seven percent (190/401) experienced major problems in two or more social domains. The prevalence of screening in the past year for each domain averaged 26%; 3% were screened in all nine domains in the previous 12 months and 33% were not screened in any domain. Overall, 75% needed a referral within the previous year, and 42% identified at least one unmet referral need. The majority (84%) of participants reported that it was acceptable to screen for these problems.

Conclusion: Prevalence of health-related social problems among youth is high. The majority needed at least one referral for a social need in the previous year. Primary care physicians would benefit from improved systems for screening and referral of health-related social problems in order to create a comprehensive medical home for their patients.

IMPLICATIONS AND CONTRIBUTION

Health-related social problems, such as food insecurity and housing instability, affect the health and development of adolescents and young adults. Primary care providers are well-positioned to screen their patients for these social needs and facilitate intervention. Among youth, the prevalence of health-related social problems is high, with a large majority reporting infrequent screening and at least one unmet social referral need. A computer system has been developed to assist with screening and identifying problems.

Increasing rates of health-related social problems (HRSPs) such as food insecurity and housing instability have become a significant public health concern [1,2]. A growing body of literature demonstrates that the presence of HRSPs is associated with negative health outcomes such as obesity, poorly controlled asthma, and higher hospitalization rates [3–7]. Lack of basic social needs can be especially detrimental to the health and

The authors have no conflicts of interest relevant to this article to disclose. "The Online Advocate" screening and referral tool has been revised since study completion and can be viewed at http://www.helpsteps.com.

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development of children and subsequently lead to long-term negative effects on their adult health and functioning [8,9].

Because of the association between HRSPs and health outcomes, medical settings are ideal venues for universal screening and prevention programs. Recognizing this, the American Academy of Pediatrics (AAP) recommends screening for major social problems in primary care settings [10]. However, screening rates are low in many pediatric studies (11%–33%) [11,12]. Among the barriers that may prevent screening are lack of time, low disclosure rate, and lack of knowledge of screening tools as well as resources for referral [13]. Automated screening programs may address many of these barriers including more time for in-depth patient-provider interaction and improved honest response rates to sensitive questions. Additionally, qualitative research has shown that adolescents and young adults not only perceive computer programs as confidential and nonjudgmental, but prefer computer screening over face-to-face questioning when asked about sensitive health information [14].

Little is also known about the prevalence of HRSPs in the adolescent and young adult population and the corresponding needs and desire for referral services. This information is crucial to the development of interventions to successfully address resource needs especially within the patient-centered medical home model, and as physicians coordinate management of patients' educational, developmental, and psychosocial needs [15].

The objectives of this study were to use a novel Web-based screening tool to (1) determine the prevalence of HRSPs among adolescents and young adults ("youth" here forward); (2) evaluate previous screening and referral experiences; and (3) examine participant attitudes toward screening and referral in outpatient medical care.

Methods

Design and participant selection

This descriptive study evaluates a convenience sample of youth's HRSPs and their experience and attitudes toward social service referrals. The study utilized a self-administered, Web-based system, known as *The Online Advocate*, which screens participants and provides referrals for a wide variety of HRSPs based on participant needs. This system was implemented as part of an intervention study conducted in an urban hospital-based adolescent and young-adult clinic.

Participant inclusion criteria included self-reported ability to read and speak English, aged 15 to 25 years, and ability to give consent or assent. Exclusion criteria included significant developmental delays or disabilities that would prevent comprehension of the tool or medical or emotional instability at time of visit. Participants were recruited from December 2008 to August 2010. Our study, along with several others, was listed on a research recruitment flag attached to the paperwork of age-eligible patients. Providers were encouraged to ask patients about participation in one or more studies. Those who expressed interest were referred to the clinic resource specialist, a staff member trained in social service referral, for more detailed information. This chart-flagging system precluded us from calculating an overall refusal rate because most providers did not record information about attempts made. Two of the main clinic providers tracked their patients and found that 20% declined further information. The resource specialist met with patients who expressed initial interest, provided an explanation of the study, obtained informed consent, and logged participants onto a laptop computer equipped with a privacy screen to begin the system. She remained available if participants had questions or technical difficulty with *The Online Advocate*.

Instrument and measurements

The Online Advocate screens participants for HRSPs and provides tailored feedback about the findings. The questionnaire was adopted from a previous study designed to assess families with young children [12]. It was composed of over 130 questions in English consisting of a combination of yes/no, multiple choice, fill in the blank, Likert scale, and "check all that apply" questions rated at a fifth- to sixth-grade comprehension level on the Flesch-Kincaid readability test. The branched questionnaire was programmed to ask questions based on previous answers; because the system used built-in logic, the actual number of questions answered varied depending on participant responses and ranged from 74 to 121. Participants were able to skip questions they did not feel comfortable answering. Confidentiality and the reason for asking these questions were emphasized throughout the questionnaire. Participants took an average of 25 minutes to complete the study, although this reflects time also spent on the referral portion of the tool, which is the focus of a different study. At the end, the system gave participants the option of having a summary of results e-mailed to their primary care provider. Participant responses indicating homelessness with no place to sleep, intimate partner violence in the last month, and food insecurity with hunger were automatically flagged by the system and addressed by the resource specialist that same day.

The survey was divided into nine health-related social domains: (1) exercise/nutrition; (2) education; (3) safety equipment use; (4) healthcare access; (5) housing; (6) food security; (7) income security; (8) substance use; and (9) intimate partner violence. We used previously validated questions and scales including questions from national surveys, such as the Youth Risk Behavior Survey, the Growing Up Today Study, and the Adolescent Longitudinal Study of Health, to identify problems in each area [16–18]. For example, the CRAFFT screen determined problematic substance use [19]. We used two versions of the USDA food security scale to determine food insecurity; one the iterative scale designed for adults (18–25-year-olds in our study) [20], the other targeting younger populations (15–17 years old) [20,21]. The housing domain included questions regarding housing hazards drawn from the American Housing Survey [22]. Participants answered a series of demographic questions regarding age, gender, race/ethnicity, educational attainment, and employment status; categories for both educational attainment and employment status were mutually exclusive (Table 1). A copy of this questionnaire is available upon request.

Within each domain, a series of potential HRSPs, some more serious than others, could be identified based on participant responses. *A priori* to the launch of the system, a multidisciplinary team divided problems into two groups. "Major" problems were considered to be priority issues that should be addressed with some sense of time urgency. The other potential problems screened within each domain were considered to be less of a priority or "minor" problems (Appendix Table A1); for the purpose of this paper, we have focused on major HRSPs only.