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Characterizing Key Components of a Medical Home Among Rural Adolescents

Sarah K. Dixon, M.D., M.P.H. [a], Andrea J. Hoopes, M.D., M.P.H. [b], David Benkeser, M.P.H. [c], Aaron Grigg, M.D. [a,d], and H. Mollie Grow, M.D., M.P.H. [a,*]

[a] *Department of Pediatrics, University of Washington, Seattle, Washington*
[b] *Department of Pediatrics, University of Colorado School of Medicine, Aurora, Colorado*
[c] *Department of Biostatistics, University of Washington, Seattle, Washington*
[d] *Yakima Valley Farm Workers Clinic, Toppenish, Washington*

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A B S T R A C T

Purpose: Adolescents in rural areas have higher unmet medical needs and receive fewer preventive health care visits than their urban counterparts. This community health assessment aimed to describe adolescent experiences of key components of a medical home in rural Washington.
Methods: A cross-sectional survey using questions from two validated measures was created with input from a community advisory group using community-based participatory research principles. The survey was administered to a convenience sample of high-school students in one rural town. Responses within each medical home domain were grouped to create composite scores. Linear and logistic regression analyses identified characteristics associated with receiving medical home services.
Results: A total of 217 adolescents aged 13–19 years completed the survey. Eighty-five percent identified as Latino/Hispanic. Respondents described usually or always feeling listened to by providers (80%), respected by providers (89%), and welcomed at their clinic (79%). Fewer reported having a personal health provider (56%), meeting alone with a provider (56%), or knowing the visit was confidential (60%). Those who identified having a primary provider had 2.48 greater odds (95% confidence interval = 1.13–5.45) of reporting a well visit in the previous year and had higher composite scores for compassionate and patient-centered care.
Conclusions: This sample of rural adolescents reported receiving many characteristics of a medical home but had limited experience with personal providers and confidential services. Improving adolescent access to confidential care may be especially important in small, rural communities. The association of a primary provider with improved medical home experience highlights this key characteristic in an adolescent medical home.

IMPLICATIONS AND CONTRIBUTION

This sample of rural adolescents reported positive experiences with many medical home components but reported less care with a personal provider and confidential services. The study found an association between identifying a personal provider and improved medical home experience, suggesting the importance of a specific primary provider in creating an adolescent medical home.

Approximately 19% of the United States population lives in a rural area [1]. Adolescents in rural areas of the United States have higher unmet medical and dental needs and receive fewer preventive health care visits than their urban counterparts [2–5]. In addition, rural youth are faced with higher rates of obesity, early sexual initiation, smoking, and alcohol and substance use [6].

Conflicts of Interest: None of the authors have conflicts of interest to disclose.

* Address correspondence to: H. Mollie Grow, M.D., M.P.H., Department of Pediatrics, University of Washington, 4800 Sand Point Way NE, O.C.7.830, Seattle, WA 98015.
E-mail address: mollie.grow@seattlechildrens.org (H.M. Grow).

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Minority adolescents in rural areas are more likely to have worse health outcomes and less likely to have insurance, recent preventive care visits, or a usual source of health care compared with white adolescents [2,6]. Small towns in rural settings make health care privacy even more challenging for adolescents to seek the care they need [7].

Access to high-quality health care services is of utmost importance for addressing risk factors and cultivating wellness during adolescence [8] as well as preventing poor health outcomes in adulthood [9]. The patient-centered medical home has been recommended as an optimal form of primary care by pediatricians, internal medicine, and family medicine providers [10]. The American Academy of Pediatrics (AAP) defines the medical home as "medical care of infants, children, and adolescents that ideally should be accessible, continuous, comprehensive, family centered, coordinated, compassionate, and culturally effective [11]."

Experiencing components of a medical home can be important for improving health care delivery. Young adults and adult patients who report a usual source of health care are more likely to receive recommended preventive services such as exercise and diet counseling, vaccinations, and appropriate screening tests [12,13]. Despite the recommendations and benefits of experiencing care in a medical home setting, two national studies estimate that only about half of all children have access to a medical home [14,15]. Groups who are less likely to have a medical home are adolescents, Hispanic children, and children living in poverty and children in homes where English is a second language [14]. Those without a medical home are more likely to have unmet medical and dental needs [14].

Little is known about which characteristics of a patient-centered medical home rural adolescents experience. Understanding the health care experience of young people is an important aspect of creating a developmentally appropriate patient-centered medical home [16], especially those who are at risk for poor health outcomes such as rural youth [17]. Insights from adolescents allow providers, health care delivery systems, and advocates to focus on the certain areas of a medical home that are recommended and potentially influential for wellness but are lacking in the health care experience [16,17]. This community health assessment aimed to describe adolescent experiences of key components of a medical home in a rural, underserved Washington community. We sought to better understand how youth in that community seek and receive health services and to determine what demographic and medical home characteristics may influence receipt of care.

Methods

This study was conducted through a partnership between the University of Washington Resident Education and Advocacy in Child Health residents, local community members, and community health officials in a rural town in eastern Washington. A community advisory board including community members from local organizations, schools, a health center, and one youth representative has maintained a longitudinal role in informing resident projects and contributed to the development and implementation of this study.

Survey design

We conducted a cross-sectional survey of a convenience sample of adolescents attending the local public general and alternative high schools in a small, rural farming community in Washington State using Community-Based Participatory Research (CBPR). CBPR is defined as "a partnership approach to research that equitably involves community members, organizational representatives and researchers in all aspects of the research process [18]." The Institute of Medicine supports the use of CBPR to promote the community as a full partner in determining relevant research questions for their population [19].

Phase one. We chose components of a medical home as defined by the AAP (patient-centered care, compassionate care, culturally effective care, and comprehensive care) and sought to measure these using questions adapted from the Young Adult Health Care Survey (YAHCS) and the National Survey for Children's Health (NSCH). These components of the medical home use patient input to determine the quality of the patient experience. The YAHCS is a validated and reliable survey for adolescents that assesses adherence to adolescent preventive service guidelines [16]. The NSCH is a survey instrument used by the National Center for Health Statistics at the Center for Disease Control and Prevention to characterize the receipt of primary care in a medical home and is typically administered to parents [20]. The YAHCS does not include questions that pertain to recent visits, so the questions from NSCH regarding recent care were used.

Phase two. We then conducted a focus group discussion with the community advisory board to determine the suitability of the questions in addressing adolescent need for a medical home. The youth representative on the community advisory board was not available for this discussion. The community advisory board selected three additional questions that were pertinent to the local community related to compassionate adolescent care and health privacy (Table 1). The final survey was reviewed by the community advisory board before administration. Institutional Review Board exemption was obtained from Seattle Children's Human Subjects Division based on the nature of the community health assessment.

Patient recruitment

We conducted a cross-sectional survey of a convenience sample of adolescents attending the local public general and alternative high schools in a small, rural farming community in Washington State. Students were approached during advisory and class periods on two separate days (November 14 and 15, 2013). The primary author (S.K.D.) was also present during two lunch periods on the same 2 days. Students were approached at each table during lunch, and students could also approach the booth to take the survey. The lead author read the adolescents a brief verbal description of the survey and its objectives, explained that their participation was entirely voluntary and anonymous, and would not influence their academic standing. Those who chose to participate then completed a paper survey. Students were eligible to receive a $5 gift card on completion of the survey.

Outcome variables

The primary outcome variables were the desirable characteristics of a medical home, which were grouped into five domains: medical home, preventive care, compassionate care, patient-centered care, and health privacy (Table 2). The