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School-based health centers as a context to engage and serve communities

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Abstract

Purpose of review:
School-based health centers (SBHCs) primarily serve underserved students and families through removing barriers to care. The number of SBHCs have increased dramatically with investments from state- and federal-funding programs, including expanded funding from the American Rescue Plan. This article reviews findings on the perceived importance of school and community partnership. It also provides a critical review of the evidence base on impact on health, mental health, and education indicators.

Recent findings:
Recent findings underscore the importance of SBHCs engaging the school and community to build trust while identifying and responding to needs. Engagement supports planning, implementing, and sustaining SBHCs. Studies of impact find that SBHCs increase participation in preventative and routine health and decrease emergency department utilization and hospitalization. However, additional research needs to rigorously test for effects of SBHCs on symptoms and indicators of wellbeing, especially with respect to mental health and education.

Summary:
SBHCs increase participation of students from marginalized groups in preventative and routine care. School and community engagement are vital aspects of SBHCs, likely removing barriers related to trust. Additional rigorous evidence is needed testing efficacy of SBHCs when it comes to improving health, mental health, and education.

Keywords:
School-based health centers; Underserved children and families; Community partnership

School-based health centers as a context to engage and serve communities

Introduction

School-based health centers (SBHCs) are a means to engage underserved communities and provide comprehensive care to address persistent disparities in health, healthcare utilization, education, and wellbeing for children, youth, and families. This article describes SBHCs as a multidisciplinary approach to integrated care that addresses some barriers to routine care, especially with respect to access and building trust with students and families. I first present a basic orientation to the SBHC model and its growth in recent decades, highlighting schools with higher rates of Black/African American and Hispanic/Latinx students and with higher rates of students from families with low-income. While SBHCs commonly rely on subsidy programs for underserved communities, results from cost-benefit analyses affirming positive savings from multiple perspectives. I present findings that underscore the importance of ongoing engagement with the community to ensure that the SBHC is meeting local needs in a way that is responsive to and effective in the community context. I then briefly review the literature testing SBHCs impact on student health, mental health, and education indicators. I pay particular attention to recent studies to update conclusions from earlier systematic reviews.

School-based health centers: Positioning care to address disparities

Health disparities are well documented among children, youth and families based on income-level and race and ethnicity. Individuals from low-income and marginalized groups are more likely to be diagnosed with asthma, obesity, substance and alcohol use disorders, and mental health disorders including anxiety and depression (1). Furthermore, those who experience marginalization based on low-income and race or ethnicity are less likely to regularly engage in preventative care and health maintenance visits and regimens and more likely to utilize more costly forms of care such as emergency department visits and hospitalization (2). Reasons for these disparities are varied and complex, including low access to quality routine care in marginalized communities, a lack of trust of providers and the healthcare system, concerns about cost and non-enrollment in health insurance programs, transportation difficulties, and competing demands as families work to get basic needs met, among other reasons (2–4).

School-based health centers (SBHCs) generally look to address these barriers to increase access, utilization, continuity of care, and, ultimately, health and wellbeing among children and youth (5,6). SBHCs are usually located in a school building or nearby. They are typically open year-round and available to students, their families, and others in the community. A small-but-growing percentage of SBHCs offer telehealth appointments. A multidisciplinary team of providers offer services, though capacities differ between SBHCs. Primary care and fundamental behavioral health care are common, while other services might include dental care, vision services, reproductive health, social services, and health education and promotion on a variety of topics (e.g., nutrition and exercise). Meanwhile, Kessler and colleagues (7) describe establishing a medical-legal partnership in the context of SBHCs, an approach that is promising but not widespread. The purpose is to screen for and provide needed legal supports to adolescents facing problems with housing, disability, or other services that have implications for health.

SBHCs exist in communities across the United States, especially in schools serving many Black/African American and Hispanic/Latinx students. The SBHC approach has existed in the United States for over fifty years and the number of SBHCs has grown rapidly during the early 2000s, corresponding to increased federal- and state-level investments. Love and colleagues (6)

report that there are 2,584 SBHCs across 48 states, the District of Columbia, and Puerto Rico, as of the 2016-17 school year. SBHCs exist at every grade level (elementary, middle, and high schools). Consistent with the emphasis on improving access for underserved communities, SBHCs are more common in schools with higher enrollment of Black and Hispanic students, as well as schools with high rates of poverty based on Title I eligibility and student eligibility for the National School Lunch Program (for free or reduced-price meals).

Many SBHCs rely on special subsidy programs for providing care to underserved communities to be sustainable (6). These include state- and municipal-level investments and the health center / federally qualified health center program that includes support provided by the Affordable Care Act and recently expanded funding in the American Rescue Plan which allow funding to be spent on SBHCs. Federal programs, in part, rely on eligible students and families to be enrolled in public insurance programs like Medicaid and the Children Health Insurance Program (CHIP); Determining Medicaid/CHIP eligibility and enrolling clients is sometimes a challenge for SBHCs (8).

Planning, partnering, and engaging with communities.

Inherent to the SBHC approach is a close partnership with the hosting school and the community it serves. According to the model, SBHCs promote access when they earn the trust of students and families through being responsive to their needs and closely allied with both educators and other community agencies. Johnson and colleagues (8) describe a community engagement process in establishing and sustaining SBHCs in urban, semi-urban, and rural settings that demonstrate these commitments. They emphasize beginning with engaging local stakeholders in a community advisory group to inform SBHC planning activities. The planning phase simultaneously works towards earning community support for the SBHC while also completing a needs assessment to ensure the SBHC is responsive to the community. In addition, intentional parent and teacher engagement informs student needs and suggest effective operations. Meanwhile, the needs assessment also considers county and state data to build an informed strategy for providing care through the SBHC.

Community engagement and partnership continues to be vital when moving from the planning phase to initial SBHC implementation and, ultimately, to long-term sustainability. Working partnerships with the host school and district are clearly necessary for formal processes such as obtaining School Board approval and determining where the SBHC will be located. Close partnerships are also vital in sometimes less-formal ways, such as through buy-in from teachers and others in the community that the SBHC will rely on, in part, to refer students. Data-use can also reflect a commitment to shared goals as the SBHC can routinely prepare aggregate-level briefs demonstrating attention or progress in metrics prioritized by local stakeholders and families (8).

Qualitative findings based on key informant interviews emphasize that having the full support of the school system and community is critical, as is partner engagement and surmounting challenges in building trust with parents and the community (8). This is consistent with other findings from focus groups with teachers and with high school students regarding. Poor implementation of the SBHC, including non-responsiveness to school and community needs, can damage relationships between SBHC staff and teachers that are necessary for success (9). SBHCs are likely most effective when they have close partnerships with their host schools and communities in the service of shared goals. This allows SBHC providers to participate in the

trust that forms between schools, students, and parents, ultimately removing a barrier that otherwise would contribute to disparities in health and health care.

Testing for impact

The impact of SBHCs has been tested with respect to health outcomes, health-related behaviors, healthcare utilization, and education indicators, to varying degrees. Nearly three decades of research have tested for effects of SBHCs utilizing nonexperimental designs, often comparing students in schools with and without SBHCs, comparing outcomes for students before and after SBHCs were established in a school, and comparing students in the same school who utilize and do not utilize the SBHC. Early evidence has led to calls for studies that utilize more rigorous quasiexperimental designs, designs that consider mechanisms of impact, greater attention to more varied populations and differently-resourced communities, and greater attention to mental health and education outcomes (10,11). Even so, the weight of evidence supports positive effects for health, mental health, health behaviors, and healthcare access and utilization. SBHCs have been associated with higher participation in preventative and other forms of routine outpatient care, less emergency department utilization and hospitalization, higher contraception use and lower likelihood of pregnancy among females, and higher likelihood of receiving prenatal care and lower likelihood of low birth weight among pregnant teens (10,11).

Recent work generally affirms the positive impacts of SBHCs on preventative health care while expanding consideration to additional outcomes and predictors that may moderate effects. SBHCs may be more effective in promoting access, utilization, and health among urban children from minority racial and ethnic groups. Adams and colleagues (12) estimated effects of SBHCs on changes in health and utilization indicators using public health insurance claims. The design considers rates before and after three SBHCs were established compared to rates at three similar comparison schools without an SBHC. Overall, students in schools with an SBHC showed significant increases in well-child visits, influenza vaccination rates, and counseling for overweight or obese diagnosis, but not dental care, emergency department visits, nor hospitalizations. Significant effects were stronger for students at two schools that serve predominantly students from racial and ethnic minority groups in urban and semi-rural areas, and effects were not significant for the one school serving predominately white students in a rural area. The authors speculate that lower enrollment in public health insurance among eligible white children in the third school may constitute a notable barrier to appropriate routine health care, contributing to the pattern of findings.

Most SBHCs offer mental health services alongside other forms of health care, though there is little evidence that these services reduce symptoms or improve mental health outcomes in other ways. The SBHC emphasis on increasing access and providing services in a context of trust appears helpful in engaging youth otherwise underserved by mental health professionals. This is especially true for youth with significant mental health concerns as adolescent users of SBHCs are more likely to report depression, anxiety, suicidal ideation, and/or alcohol and substance use (13,14). Students who frequently use SBHCs are much more likely to be returning to access mental health services, and adolescent users of SBHCs are more likely to report discussing their mental health with a provider than non-users. However, the nature of this engagement appears to differ by gender with females reporting that they received needed mental health counselling and males more likely to report that they talked to a doctor or nurse about their moods and feelings (14). Rigorous evidence testing effects on mental health outcomes (e.g., symptom reduction), however, is scant. While SBHCs may be effective in engaging youth in

discussions of mental health concerns and interventions, without additional research it is not clear if this approach is ultimately effective.

The evidence base also is still developing with respect to SBHC impacts on education. Little can be reliably known based on extant findings. Studies that consider educational outcomes remain sparse and plagued by inconsistent methods and operationalization of key variables. A recent systematic review by Thomas and colleagues (15) summarizes progress in this area. Studies commonly considered various definitions of attendance and time-in-the-classroom, suggesting a positive effect of SBHCs on days-attended and classroom time. Findings also generally support positive associations between SBHCs and students' views of different aspects of school environments, such as academic expectations, communication, engagement, safety and respect, and feelings of connectedness. While this area would benefit from additional rigorous study, current findings are consistent with the view that SBHCs help encourage relationships and trust that may facilitate positive healthcare utilization and behaviors. Other studies considered milestones in high school, finding positive relations between students in schools with SBHCs and participating in college board exams, such as the SAT/ACT and Advanced Placement exams. However, the presence of a SBHC does not seem to significantly improve schools' dropout rates (16,17). School discipline (e.g., suspensions, expulsions) remains rarely studied despite many SBHCs offering behavioral health services (15).

SBHCs reduce health care costs, likely through increasing routine preventative and maintenance health care utilization and reducing more costly forms of care like emergency department visits and hospitalization. Cost, benefit, and cost-benefit analyses have found that SBHCs have positive impacts and produce positive returns from multiple perspectives (18). Studies utilizing a societal perspective find benefit-cost ratios ranging from 1.38:1 to 3.05:1, affirming the value of investing in SBHCs. Meanwhile, benefit studies have affirmed net savings to Medicaid ranging from $30 to $969 per visit; SBHCs were associated with reductions in hospitalizations and Medicaid costs. Even though additional research is needed on testing for symptom reduction and educational impacts and, perhaps, SBHCs need to innovate more efficacious mental health services, there are nevertheless clear financial benefits to investing in SBHCs for underserved communities.

Conclusion and call to action

SBHCs permit multidisciplinary approaches to integrated care in school settings, oftentimes representing concerted efforts to meet the complex needs of children, youth, and families from groups that have been socially marginalized on the basis of low-income or racial or ethnic identity. Not only do SBHCs appear to alleviate logistical barriers to care, like transportation, but many build trust through engaging in close school and community partnerships while being responsive to community needs. As a result, SBHCs have positive impacts on student participation in preventative health care, on preventing more costly forms of care like emergency department visits and hospitalizations (though a recent study failed to replicate this effect), and, ultimately, on healthcare system savings. Less clear is whether SBHCs show efficacy on improving indicators of student or family wellbeing, especially with respect to mental health and most education outcomes. Additional research is needed to rigorously test the efficacy of existing models. Meanwhile, further innovation in practice is likely warranted for different services already offered in the context of SBHCs as well as the addition of new services, such as medical-legal partnerships. The SBHC model attempts to address a challenging and persistent problem: disparities in health, mental health, and education for students and families that experience

usually longstanding and ongoing disinvestment, sometimes across many generations. The model's strength is evident in reducing disparities in healthcare utilization, in no small part through building trust via school and community engagement. SBHCs appear effective in bringing underserved students to care. Future research and innovations are needed to be sure that provider teams are effective in improving the lives of these students.

Key points:

- School-based health centers increase participation in preventative and other forms of routine care among underserved groups.
- SBHCs depend on school and community partnerships to overcome barriers related to trust while also identifying and responding to community needs.
- Rigorous studies of SBHCs impact on symptoms and other indicators of wellbeing are needed, especially with respect to mental health and education.

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Conflicts of interest:
None

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