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# **Establishing Guidelines to Promote Best Practice for Common** Ailments in School-Based Health Clinics

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# Establishing Guidelines to Promote Best Practice for Common Ailments in School-Based Health Clinics

The COVID-19 pandemic exposed the gap in access to medical care for school-age children and identified a need for community-based health clinics to aid in its minimization. The creation of school-based health clinics (SBHCs) in public school districts provides a pathway for students to receive high-quality care in an easily accessible manner. SBHCs operate as standalone clinics, in conjunction with local communities, ensuring access to care for all students regardless of their socioeconomic status. Public Health experts predict COVID-19 will continue to be a prevalent threat to public health for the foreseeable future, therefore, it is imperative to mitigate the gaps in receiving timely and accurate diagnostic medical care (Illinois Department of Public Health, 2021). To increase access to medical care for school-age children, a local federally qualified healthcare center (FQHC) has partnered with public school districts in southern Illinois to build, staff, open, and oversee the operations of several SBHCs. There are 6,183 students attending a local public school district (PSD) K-12 schools; of these 6,183 students, 42.3% (2,615) are economically disadvantaged and 48.3% (2,983) either do not have a primary care physician or use urgent care or emergency room visits in place of primary care visits (U.S. News & World Report, 2021). The school district has 1,450 Hispanic students of which 1,230 (85%) do not have a primary care provider. Developing guidelines for common ailments seen in school-based health clinics has the potential to improve patient outcomes and streamline patient care visits, through the use of clear, evidence-based practices for providers in SBHCs. The goal of this DNP project was to develop patient care guidelines for eight common ailments seen in school-based health clinics.

#### **Literature Review**

The Centers for Disease Control has weighed in on the use of SBHCs, recommending "implementation and maintenance of SBHCs in low-income communities, based on sufficient evidence of effectiveness in improving educational and health outcomes" (Community Preventive Services Task Force, 2016). Three areas that receive additional benefits in communities with SBHCs are immunization compliance, access to dental care, and access to mental health care. Nearly all SBHCs participate in the federal Vaccines for Children program, allowing for higher vaccination rates by ensuring SBHCs are able to provide vaccines to underinsured or uninsured children who often have the lowest rates of vaccine compliance (Daley et al., 2009). Over 70% of all SBHCs provide mental health services via licensed professionals and have high rates of student use (Arenson et al., 2019). Estimates suggest that one in five students meet the clinical diagnostic criteria for a mental health disorder with severe impairment, yet up to 70% of these children and adolescents do not receive mental health services, with lower socioeconomic youths and minorities disproportionately not receiving treatment (Larson et al., 2017). Keeton et al. (2012) report that SBHCs increase access to comprehensive health assessments leading to improvements in preventative health care across all age groups. General health examinations and prevention services including efforts to decrease adolescent risk behaviors (tobacco, alcohol, marijuana use in vehicle safety), obesity, and asthma made up 93% of the total services provided. Additionally, more than 83% of SBHCs provide chronic health condition management (Arenson et al., 2019).

Literature shows SBHCs have a positive impact in multiple areas including physical health, mental health, and improved educational outcomes for all those served. Certified healthcare providers in areas of pediatric health, mental health, and if possible, dental health

should be included to provide the greatest benefit in creating an accessible means to healthcare for those otherwise without.

#### **Project Methods**

The goal of this DNP project was to develop patient care guidelines for utilization in school-based health clinics in several public schools located in southern Illinois. A secondary goal for this DNP project was to streamline patient visits in SBHCs for providers to see the maximum number of patients while maintaining quality patient outcomes. The initial phase of this process began in May 2021, with a stakeholder and team member meeting. The team included a representative from the FQHC, a superintendent from the school district interested in opening a SBHC, and the Director of Nurse Practitioner Specializations, Dr. Valerie Griffin at Southern Illinois University Edwardsville (SIUE) who was asked to be a part of this process. The FQHC expressed their desire to have patient care guidelines created for common ailments seen in SBHCs at this time. The project was granted exempt status from Institutional Review Board approval, as there was no risk of harm to any subjects and participation was voluntary.

The next phase began in early October 2021, and consisted of meetings with FQHC representatives, the SIUE's Dr. Valerie Griffin, and a nurse practitioner (NP) who developed and manages a SBHC in Carbondale, Illinois. Documents and testimony from the NP resulted in a list of 15 common ailments seen in SBHCs, and further discussion with the FQHC representatives narrowed down the list of priority-specific guidelines. Eight common ailments were selected. The care guidelines developed include: COVID-19, Conjunctivitis, Physical Exams for Public School Attendance, Immunization Requirements for Public School Attendance, Streptococcus Pharyngitis, Influenzas, Evaluation for Ankle Fractures, and Infectious Mononucleosis.

The initiation phase began in mid-October 2021. The team began to analyze evidence-based practice for each ailment. Published research and policies from the American Academy of Pediatrics (AAP), American Pediatric Association (APA), and the American Pediatric Society (APS), among others, and UptoDate for the analysis of peer-reviewed articles were used to establish evidence-based practices for each condition. The team then created flow chart algorithms that promoted clarity and legibility to allow for easy interpretation for the providers. Both flow chart algorithms and treatment option tables were provided in the patient care guidelines in accordance with evidence-based practices. The content expert for this DNP project, a pediatric nurse practitioner (NP), then reviewed the patient care guidelines created and provided feedback on the accuracy of the information and confirmation of following evidence-based practices. Once approved for accuracy, the patient care guidelines were sent to the NP at the consulted SBHC and FQHC representatives. At this time, the FQHC had begun to hire NPs for their SBHCs, who were also provided the guidelines for review. Data was collected via survey to evaluate the likelihood of use of the guidelines in practice in the SBHCs.

#### **Evaluation**

The project was evaluated by the FQHC staff including the Operations Director of the mobile SBHC and collaborating physicians from Washington University School of Medicine. The assessment was conducted via survey after the FQHC partner and outside consultants had reviewed the guidelines to garner feedback on the objectives of legibility, the accuracy of the guidelines, and the likelihood of use in SBHCs. The strengths of the guidelines were discussed, along with recommendations for future use. Guideline strengths were that they followed the most up-to-date practice information, used credible resources for reference materials, and were easy to follow. Feedback on the algorithm layout for the guidelines was positive. The algorithms were

easily understood by clarifying where yes/no decision points could be added, instead of relying on the understanding of providers to know which arm of the algorithm to follow. Both the FQHC Operations Director of the mobile SBHCs and a collaborating physician from Washington University School of Medicine agreed the patient care algorithms were relevant to their work, were presented in an engaging and informative way, helped them to obtain a basic level of knowledge of common school-aged complaints, serve as a helpful, quick reference guide for the management of common school-aged complaints, and intend to use this information in future practice.

The FQHC will be using a mobile clinic based out of the SBHCs to treat members of the communities they serve of all ages. The FQHC and their collaborating physician agreed it would be beneficial to have reference materials, such as those created for SBHC patients, for the adult population. Additionally, the FQHC and their collaborating physician provided a list of conditions they would like to see guidelines for, including preventative health screenings, adult wellness visits, STI testing guidelines, and hypertension. The Operations Director of the Mobile School-Based Health Clinic expressed gratitude for this DNP project and acknowledged the guidelines created will be of benefit to their SBHC operations.

# **Strengths and Limitations**

The project had several limitations. Local public schools decided to go with another partner to open their SBHC late into the project development phase. This limited potential feedback on the patient care guidelines and their effectiveness in SBHCs. Another limitation was the extended period required for the FQHC to open local SBHCs, reducing the possibility for actual use in practice during the timeframe of this DNP project. Strengths of the project include the adaptability of the created patient care guidelines for use in future SBHCs outside of

Southern Illinois, as the FQHC has expressed the desire to expand its presence in SBHCs to all areas they serve. This DNP project has the potential for further development by evaluating the actual use of the patient care guidelines once local SBHCs open.

# **Impact on Practice**

The desired impact on practice for this project is for clinicians in SBHCs to be able to use the guidelines as reference materials, reducing the time it would take looking for treatment protocols. As the FQHC has not yet opened any of its SBHCs, the impact is theoretical at this time. Based on feedback from the FQHC's collaborating physician and the Operations Director, these guidelines would be useful in their SBHCs and will be adapted as reference materials. Moving forward, the implementation and utilization of these guidelines in the FQHC's school-based mobile clinics could be further evaluated for effectiveness in reducing the time spent with patients, while promoting positive outcomes, through another DNP project. The creation of guidelines for the adult population could serve as another DNP project as well.

#### **Conclusions**

This DNP project resulted in eight patient care guidelines created for use as evidence-based practice reference tools for common ailments seen in SBHCs. Algorithms created have the potential to enhance efficiency and streamline patient care, while maintaining positive patient outcomes. Several limitations were faced during the implementation of use of the guidelines in SBHCs, including changing guidance regarding COVID-19 protocols and the FQHC remaining in the building and development phase of their local clinics. Overall, the project was successful in creating patient care guidelines and has the potential to be continued in future projects.

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