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Exploring the Use of Telehealth in a School-Based Health Center

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Introduction

Telehealth is an innovative and practical approach to primary care. Through telehealth, providers use information technologies, video imaging, and telecommunication to provide off-site care at both provider and patient convenience. The ability of technology to be utilized in the medical community has created a way for patients to obtain primary care services quickly and more frequently. Weinstein et al. (2014) note that telehealth has successfully provided service coverage to rural areas, increased the availability of urgent care services, offered efficient care to correctional facilities, and improved the ease of incorporating the interprofessional care team into a patient's care.

Solutions to care in medically-underserved areas for the pediatric population can be remedied using school-based health clinics incorporating telehealth services. School-based health clinics have a variety of benefits for the people it serves, including improved well-being, self-esteem, attendance rates, academic performance, and connectivity (Sherwood, 2017). Disturbances in health care availability for children in underserved areas can lead to a lack of necessary preventative care and screenings. Providing funding for the use of telehealth technologies can provide essential health care services to these patients in a new and innovative way (Burke & Hall, 2015; Leininger & Levy, 2015).

Access to health services is often described as the timely use of personal health services to achieve the best health outcomes. Barriers preventing or limiting access to health care services increase the risk of poor health outcomes and disparities (Healthy People 2020, 2020). The limited availability of health care resources, such as lack of healthcare providers, inaccessible clinics and hospitals, and inadequate insurance coverage, in some areas are also barriers that may

reduce access to health services as well as increase the risk for poor health outcomes (Douthit et al., 2015). Expanding access to health services is a crucial step in reducing health disparities.

Literature Review

Telehealth

The World Health Organization (WHO) recognizes telehealth services as an innovative delivery of healthcare services, where distance is a critical factor. The growth of telehealth and its utilization within school-based health centers have effectively expanded access to necessary specialists and resources for students and their families. However, many barriers surround this innovative service and its integration into current practices. Obstacles include establishing the necessary technical, operational, and administrative procedures, staffing issues, knowledge deficits surrounding telehealth, and lack of funding (Olson et al., 2018). School-based health centers in underserved communities especially experience these barriers. When establishing telehealth services in underserved communities, school-based health centers must consider obtaining the funding to provide these resources if they wish to deliver at-home telehealth services for their community (Olson et al., 2018).

Discussion

School-based health centers and telehealth services are feasible solutions for decreasing barriers to care in medically-underserved areas. School-based health centers have improved the students' physical health and have helped strengthen their educational endeavors (Keeton et al., 2012). Providing access to healthcare professionals through school-based health centers can enable students in medically-underserved areas to more easily access a variety of health care services that otherwise may be unavailable to them based on their physical location or their family's ability to pay.

The adoption of telehealth services in school-based health centers makes care even more accessible to their students and can offer several health services. Telehealth allows an off-site provider to provide health care services only when needed. These healthcare providers may be located near or far from the school, but can be easily accessible for the students when necessary. Additionally, providing telehealth in school-based health centers benefits the community by decreasing unnecessary emergency department visits, preventing the spread of sexually transmitted diseases through timely education and treatment, and reducing school absences (Ran et al., 2016).

Project Methods

This project aimed to demonstrate the expansive capabilities of telehealth medicine by obtaining portable telemedicine kits and exhibiting the potential for future use at the Collinsville School District, as well as familiarizing DNP students with the telehealth process. We met with members of the Collinsville School District to explore the possibility of a school-based health clinic. Staff and board members of the Collinsville School District believed that a school-based health clinic was a potential avenue to gain access to healthcare for their student population. However, the district was lacking in funding and expertise in the subject. This project was determined to jumpstart the financing of this initiative and explore the various portable telemedicine kits available. With portable telemedicine technology, school nurses can communicate with a contracted nurse practitioner to provide care in real-time to students needing consultation. School nurses can use telemedicine to collaborate with nurse practitioners to assess students, determine a diagnosis, and recommend a treatment plan. The Covid-19 pandemic has demonstrated the importance of telemedicine capabilities during its necessary social distancing practices and intermittent shutdowns. Unfortunately for some, this new normal has caused

disturbances in healthcare availability and further puts them at risk of failing to receive the necessary preventative care and screenings (Burke & Hall, n.d.).

To initiate funding for the portable telemedicine kits, locating grants, scholarships, and awards was necessary. We focused on searching for funding intended for health clinics, schools, and community improvement. National, statewide, and local awards were researched. The search included Health Resources and Services Administration (HRSA), the Grant Healthcare Foundation, and others, but no appropriate funding resources were found. Ultimately, one local award was sought through the Southern Illinois University Edwardsville's Meridian Society, and $2,750 was awarded.

With this funding, the TytoCare portable telemedicine kit was purchased. Its usefulness was demonstrated to the Collinsville School-Based Health Clinic staff and DNP students at the Southern Illinois University of Edwardsville. The school-based health clinic is now on its way toward assisting students and their families with healthcare assistance, despite the Covid-19 pandemic.

Evaluation

Participants who completed the telehealth equipment training consisted of 11 school nurses from the Collinsville School District and 58 Doctor of Nursing Practice students (DNP). Of those who participated, 100% of trainees completed the pre-survey, but 11 trainees failed to complete the post-survey. Therefore, there was an attrition percentage of 19%. Participants were asked to complete a six-question assessment before the presentation of the TytoCare telehealth equipment, as well as a follow-up seven-question survey. After an interactive demonstration, the assessment results were analyzed to gather information about the participants' knowledge.

Anonymous surveys were completed and submitted by participants using a web-based survey platform.

The survey outcomes suggest that the interactive demonstration impacted the participants positively. In the pre-survey, only five (7.25%) respondents reported being very familiar with the process of providing telehealth. However, 53 (76.81%) reported being very or somewhat familiar with telehealth's benefits. After the participants completed the interactive demonstration, the post-survey revealed 53 (91.38%) participants felt comfortable using telehealth in their future practice. Furthermore, 56 (96.55%) participants felt confident they could use the skills from the demonstration in future practice.

Limitations

Limitations of this project included incomplete participation of respondents and unknown perceptions of benefits among practicing providers and patients. Additionally, since the Collinsville School District clinic did not open within the timeframe of our project, limitations exist in evaluating the use of telehealth equipment in real-time. An improvement to the project in the future would be to assess the perceived benefits of telehealth equipment among providers and patients following a period of use with the equipment.

Impact on Practice

In recent years, it has been revealed that school-age children are suffering from increased difficulty with connecting to a healthcare provider when in need of well-child physicals or illness consultations. The potential use of telemedicine kits was exhibited to the Collinsville School District utilizing funds provided by the Meridian grant. This technology may represent a new and innovative method of reaching students who may not otherwise receive healthcare. Additionally, SIUE DNP students had the opportunity to practice telehealth visits utilizing portable

telemedicine kits. In collaboration with Southern Illinois University of Edwardsville School of Nursing, the Collinsville School District seeks to bring telemedicine capabilities to current and future students.

The long-term impacts of this project will be seen in the participants' willingness to engage in the expanding world of health care through telehealth. The Collinsville School District was made aware of the potential of telehealth in their school setting to provide more comprehensive care to their students. Future DNP students will benefit from practicing with the equipment in a simulated environment throughout their program, thus creating healthcare providers competent in all aspects of healthcare, including telehealth.

Conclusion

School-based health centers and the use of telehealth services are feasible solutions for decreasing barriers to care in medically-underserved areas. The adoption of telehealth services in school-based health centers makes care more accessible to their students and can offer several health services. Telehealth allows an off-site provider to provide health care services when needed. Through the Tytocare equipment demonstration, telehealth was found to be a viable option for school-based health centers in medically-undeserved areas.

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