

Telehealth in Rural Communities

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Abstract: *The use of telehealth by healthcare employees provides an alternate method for healthcare administrators to address the disparities faced by African Americans in rural communities during the COVID-19 pandemic. During the COVID-19 pandemic, the use of telehealth by healthcare employees provided for improved patient outcomes and increased patient satisfaction with their care providers. The systematic review aimed to determine whether telehealth among hospital employees providing services to rural African American patients during the COVID-19 pandemic increases access to services and improves patient outcomes. A search of the literature transpired using CINAHL and EBSCOhost following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses guidelines. Data from 20 relevant articles were thematically analyzed using a screening process of constant comparing of notes from two reviewers, using a final consensus, and categorizing statements that related directly to our research question: does the use of telehealth among hospital employees providing services to rural African American patients during the COVID-19 pandemic increase access to services and improve patient outcomes? Seven themes emerged from the literature review during the data analysis process. The themes included living in rural areas increase the risk for healthcare disparity (30%), rural African Americans are at greater risk (25%), enabling healthcare workers is a necessary component of telehealth effectiveness (35%), hospital workers using telehealth improves the care delivery of healthcare workers to rural populations (25%), during COVID-19, access to care among rural communities improved by using telehealth 30%, during COVID-19, access to care among rural populations improved access to care across the spectrum of healthcare provided services by using telehealth (35%), and an increase in satisfaction among patient for the effectiveness of telehealth in managing their health (10%). The findings indicate that the use of telehealth by hospital employees does increase access to healthcare services for African Americans living in rural communities. The results demonstrated improved outcomes and satisfaction for patients able to receive healthcare during the COVID-19 pandemic. The implications of these findings provide healthcare leaders with insight into hospital workers' ability to use telehealth to address the disparities of African Americans in rural communities improve access and outcomes for this population.*

Keywords— Telehealth, African American, COVID-19, rural communities, hospital employees

1. INTRODUCTION

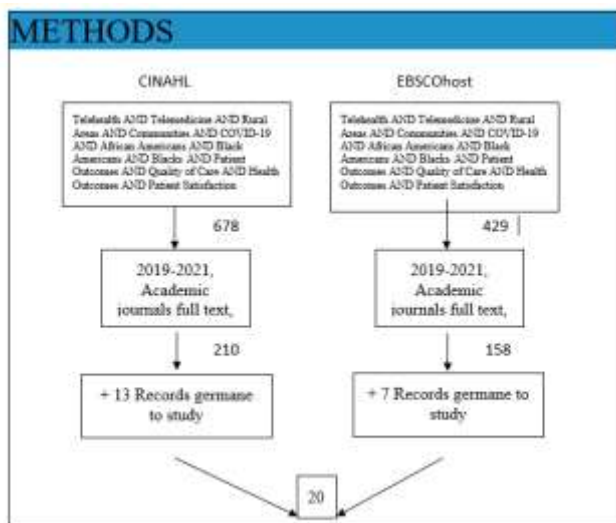
The risk for healthcare disparities exists at a higher rate for minorities living in rural areas when compared to the general population (Henning et al., 2021). The African American population living in rural areas suffers from chronic medical conditions that leave them at greater risk for disparity related to limited provider access, services, and resources than the general population (Henning et al., 2021). Healthcare administrators have not successfully provided solutions for these disparities in the rural population and need to seek innovative solutions to address these concerns. Healthcare disparities have increased during COVID-19 placing the African American population in rural areas at even greater risk (Henning et al., 2021). Telehealth is an alternate approach to providing care. Still, it is unknown if this method will adequately increase access to providers and improve patient outcomes for African Americans during the COVID-19 pandemic. The purpose of this study is to determine whether the use of telehealth among hospital employees providing services to rural African American patients during the COVID-19 pandemic increases access to services and patient outcomes.

Methods

After utilizing Google Scholar to narrow the research topic choice, the articles chosen were in line with the research question: Does the use of telehealth among hospital employees providing services to rural African American patients during the COVID-19 pandemic increase access to services and improve patient outcomes? The literature search was conducted using CINAHL Plus with Full Text and EBSCOhost databases following the Preferred Reporting Items for Systematic Reviews and Meta-Analysis guidelines (The BMJ, 2009). The Methods phase included (a) searches for relevant studies, (b) screening based on the criteria for inclusion and exclusion, (c) data extraction based on the screening criteria, (d) synthesis of the data to follow key themes, and (e) reporting and dissemination of the findings (The BMJ, 2009). Searching the academic databases utilizing the keywords, *telehealth, telemedicine, rural areas, rural communities, COVID-19, African Americans, black Americans, blacks, patient outcomes, quality of care, health outcomes, and patient satisfaction* provided consistent parameters in choosing the best articles to review the topic and answer the research question.

For inclusion, the articles reviewed had to meet the following criteria (a) works published between 2019 and 2021, (b) written in English, (c) a published peer-reviewed journal article, (d) full-text articles, and (e) with focus on whether the use of telehealth among hospital employees providing services to rural African American patients during the COVID-19 pandemic increase access to services and improve patient outcomes? The first academic database resulted in thirteen articles with the applied filters in place. The second academic database resulted in seven articles when the applied filters were in place. Excluded from this review are any articles that do not meet the inclusion criteria.

Figure 1
Flow diagram



Results

The primary research question was, does the use of telehealth among hospital employees providing services to rural African American patients during the COVID-19 pandemic increase access to services and improve patient outcomes? An in-depth literature search and review using two academic electronic databases CINAHL Plus with Full Text, and EBSCOhost was conducted. We used an established literature search, selection, and data analysis process (Kotz & Cals, 2013).

Based on the data from one thousand one hundred and seven studies chosen, twenty of the articles were relevant to the research question. A final decision transpired by comparing and finalizing the summary findings from each article (see Table 1). Table 1 lists the title of the articles and key summation finding from these twenty articles.

The data retrieved from the twenty articles connect to categorizing the frequency of occurrence regarding telehealth, telemedicine, rural areas, rural communities, COVID-19, African Americans, black Americans, blacks, patient outcomes, quality of care, health outcomes, and patient satisfaction, which led to the development of seven main themes. Each theme directly relates to the research

question and include the following: (a) living in rural areas increase the risk for healthcare disparity, (b) rural African Americans are at greater risk, (c) enabling healthcare workers is a necessary component of telehealth effectiveness, (d) hospital workers using telehealth improves the care delivery of healthcare workers to rural populations, (e) during COVID-19, access to care among rural populations improved by using telehealth (f) during COVID-19, access to care among rural populations improved access to care across the spectrum of healthcare provided services by using telehealth, (g) there is a reported increase in satisfaction among patient for the effectiveness of telehealth in managing their health.

Table 1
Summarized findings of the literature.

Title	Findings
[1] Unequal Distribution of COVID-19 Risk Among Rural Residents by Race and Ethnicity.	The disparities in healthcare are unequally distributed to individuals in rural areas vs. urban and the African American population. COVID-19 placed these communities at even greater risk by emphasizing the lack of providers and services to provide quality care. Change to improve care delivery in rural areas will come from enhanced healthcare infrastructure, including education, telehealth, and economic opportunity.
[2] Racial, Economic, and Health Inequality and COVID-19 Infection in the United States.	Evidence that African Americans in rural communities face health inequity and increased mortality from COVID-19. The inequalities and increased mortality directly correlate to lack of access to care, poverty, and other essential services. While rural areas in this study faced a lower infection rate, rural areas witnessed higher death rates because of lower levels of mobility and higher rates of comorbidities and disability that COVID-19 only emphasized.
[3] Being African American and Rural: A Double Jeopardy from COVID-19	COVID-19 disproportionately affected the rural African American population compared to urban and non-African American citizenry. The COVID-19 variable increases susceptibility and vulnerability from social determinants such as limited resources and access, comorbidities, and exposures. Selective interventions that target these vulnerabilities are needed to eliminate

	barriers to fight against COVID-19 and future health concerns.	Center Setting	competency, and technology needed to deliver effective care.
[4] The impact of COVID-19 on allied health professions	Telehealth may serve as a possible solution to healthcare systems that are already stressed and looking for ways to increase clinical volume and reduce cost. The study highlighted the ability of telehealth to be a versatile and practical in-service delivery for patients with the potential for disparities in rural communities.	[9] Designing a multifaceted telehealth intervention for a rural population using a model for developing complex interventions in nursing.	Telehealth provides cost-effective care, education, and communication between patients and providers to overcome the disparities faced by rural America. Further design and implementation of telehealth programs will only improve the evidence-based approach to improved care provision in rural communities.
[5] Rural Healthcare and Telehealth: The Importance of Social Work Departments at HBCUs in Developing a Competent Workforce in the Rural South	Rural communities face a unique set of barriers and inequalities related to racial diversity, lower incomes, and scarce healthcare options. A competent workforce is needed to address the issues surrounding the rural African American community that is culturally competent by implementing telehealth as an alternative option. Telehealth use by healthcare workers and the importance of developing a skilled workforce to enhance telehealth delivery are discussed.	[10] Bringing Chronic-Pain Care to Rural Veterans: A Telehealth Pilot Program Description	The use of telehealth as a quality measurement tool increases the availability of providers to rural communities in American. The scope of telehealth is explored and discussed, including providing services for chronic pain management through education and therapy groups.
[6] Healthcare Experiences in Rural Remote and Metropolitan Areas of Australia	Disparities for healthcare exist in rural areas related to lack of providers and large distances between communities. These disparities can be addressed by telehealth, enabling healthcare workers to bridge these gaps by improving access to healthcare economically.	[11] Percentage of Black Population and Primary Care Shortage Areas Associated with Higher COVID-19 Case and Death Rates in Georgia Counties	Rural counties have a higher percentage of Black residents at higher risk for coronavirus disease during COVID-19 in 2019 and suffered a shortage of primary care health providers. There is a need to increase the availability of primary care health providers through recruitment and retention of services.
[7] Factors affecting the provision of care services for patients with cancer living in the rural area: an integrative review.	Influencing factors to healthcare in rural areas include socioeconomic status, health literacy, and self-efficacy. By enhancing the education of caregivers and patients, their decision-making process begins to shift towards understanding their wellbeing. The facilitation of access to health education through innovations such as telehealth works to balance the disparities faced by rural patients.	[12] Health Disparities and Access to Healthcare in Rural vs. Urban Areas	Telehealth provides a variable to successfully increase healthcare services in rural areas through availability and affordability. Rural communities face unique challenges including, long-distance between patient and provider, lower income, and inadequate health literacy. Because all these problems need addressing, telehealth provides a smart option that may bring the patient and provider together at an affordable rate.
[8] Clinician Telehealth Attitudes in a Rural Community Mental Health	Telehealth can show favorable results that examined the responses of health care personal using this method of care provision. The next step by trainers and researchers is to ensure the use of telehealth among providers is sustainable by increasing their knowledge,	[13] A systematic review of patient	Telehealth increases healthcare delivery to individuals who would

and caregivers' satisfaction with telehealth videoconferencing as a service delivery model in managing patients' health.	otherwise be unable to see a provider related to long distances. Telehealth improves access to health care related to rural patients' ability to avoid the inconvenience and provides positive outcomes for patients in rural America.	rural areas in Australia.	practice. Redesigning care delivery in these areas to include telemedicine helped achieved evidence-based standards; however, more resources are needed to continue its use and expansion.
[14] Rural Mental Health Care During a Global Health Pandemic: Addressing and Supporting the Rapid Transition to Tele-Mental Health	Telehealth is an option for healthcare services that address the individuals' physical and mental needs, providing a holistic approach to patient care. With the recent adoption of telehealth into the mental health field, patients in rural areas can potentially provide well-rounded health care because of the COVID-19 pandemic. Telehealth has increased access to healthcare for patients in rural areas during the COVID-19 pandemic.	[19] Patient preference and Satisfaction with the Use of Telemedicine for Glycemic Control in Patients with Type 2 Diabetes: A Review	Telehealth is effective in the management of chronic medical conditions such as diabetes. The success of telemedicine has shown patient satisfaction for improving care delivery through continued and increased monitoring during the COVID-19 pandemic, improved access to their providers, and decreased wait times.
[15] Telemedicine Services in Central Virginia during COVID- A Systematic Review of the Literature	Telehealth provided an increase in healthcare services during the COVID-19 pandemic to rural populations and provided safe alternatives by allowing social distancing during care. Telehealth offers services to individuals at higher risks during the COVID and provided increased access to routine care.	[20] Community Tele-pal: A community-developed, culturally-based palliative care tele-consult randomized controlled trial for	Telehealth continues to expand and provide options to ensure patients receive holistic care. The threat faced by rural communities of geography, racial inequities, and older age presents challenges for end-of-life care. Developing telehealth programs that meet the needs of life-limiting illness but are culturally sound is essential for effective telehealth delivery.
[16] Telemedicine to deliver diabetes care in low- and middle-income countries: a systematic review and meta-analysis.	Telehealth is effective in improving the outcomes of a variety of patients, those who have diabetes. Since diabetes is one of the most prevalent chronic medical conditions, telehealth's effectiveness in delivering care shows positive results to increase its use in rural areas.		
[17] Tele-Mental Health with Marginalized Communities in Rural Locales: Trainee and Supervisor Perspectives	COVID-19 increased the need for and use of telehealth, allowing providers to maintain continuity of care during the pandemic. Telehealth allows the provider to continue being an advocate, provides services with multicultural competence, and promotes flexibility and fidelity.	Theme 2 Rural African Americans are at greater risk.	
[18] Challenges of delivering evidence-based stroke services for	Rural communities present specific challenges to implement adequate stroke care guidelines and solutions for the delivery of evidence-based	Theme 3 Enabling hospital workers is a	

Table 2
Frequency of occurrence in the literature.

Benefits	Occurrences	Instances of Attribute s (n)	Percentage (%)
Theme 1: Living in rural areas increases the risk for healthcare disparity.	1,2,3,5,11,12	6	30%
Theme 2 Rural African Americans are at greater risk.	1,2,3,5,11	5	25%
Theme 3 Enabling hospital workers is a	1,4,8,15,17,18,20	7	35%

necessary component of telehealth effectiveness.				the effectiveness of telehealth in managing their health.
Theme 4 Hospital workers using telehealth improves the care delivery of healthcare workers to rural populations.	1,6,7,15,16	5	25%	<p>From the research findings, 30%, six out of twenty articles mentioned theme one, rural areas increase the risk for healthcare disparity, which included articles 1,2,3,5,11 and 12. From the results, 25%, five out of twenty articles mentioned theme two, rural African Americans are at greater risk, including articles 1,2,3,5, and 11. From the results, 35%, seven out of twenty articles mentioned theme three, enabling healthcare workers is a necessary component of telehealth effectiveness, which included articles 1,4,8,15,17,18, and 20. From the results, 25% five out of twenty articles mentioned theme four, telehealth improves the care delivery of healthcare workers to rural populations, which included articles 1,6,7,15, and 16. From the results, 30%, six out of twenty articles mentioned theme five, telehealth improves access to care in rural populations, including 4,5,7,12,13, and 15. From the results, 35% seven out of twenty articles mentioned theme six; telehealth improves access to care across the spectrum of healthcare, which includes articles 1,7,10,12,13,14, and 15. Also, the findings show 10%, two out of twenty articles mention theme seven, and there is reported satisfaction among patients for the effectiveness of telehealth in managing their health, including articles 19 and 20.</p> <p>Discussion</p> <p>The study aimed to determine whether telehealth among hospital employees providing services to rural African American patients during the COVID-19 pandemic increases access to services and improves patient outcomes. Twenty peer-reviewed articles published between 2019 and 2021 were considered in the study, which allowed for a current analysis on Telehealth and Telemedicine, Rural Areas and Communities, COVID-19, African Americans, Black Americans, Blacks, Patient Outcomes, Quality of Care, Health Outcomes, and Patient Satisfaction. The data results shown in Table 2 display the main themes that emerged from the literature analysis. The seven main themes found throughout our research included (a) rural areas increase the risk for healthcare disparity in articles (1,2,3,5,11, &12), (b) rural African Americans are at greater risk in articles (1,2,3,5, &11), (c) enabling healthcare workers is a necessary component of telehealth effectiveness in articles (1,4,8,15,17,18, & 20), (d) telehealth improves the care delivery of healthcare workers to rural populations in articles (1,6,7,15, & 16), (e) telehealth improves access to care in rural populations during COVID-19 in articles (4,5,7,12,13, & 15), (f) telehealth improves access to care across the spectrum of healthcare during COVID-19 in articles (1,7,10,12,13,14,& 15), and (g) there is reported satisfaction among patient for the effectiveness of telehealth in managing their health in articles (19 & 20).</p>
Theme 5: During COVID-19, access to care among rural populations improved by using telehealth	4,5,7,12,13,15	6	30%	
Theme 6: During COVID-19, access to care among rural populations improved access to care across the spectrum of healthcare provided services by using telehealth	1,8,10,12,13,14,15	7	35%	
Theme 7: There is a reported increase in satisfaction among patients for	19,20	2	10%	

Theme one generated data on rural areas, and living in specific regions increases healthcare disparities among the population. The increased risk for healthcare disparities in rural areas was the result of insufficient providers as compared to urban communities, inequality and increased morbidity, race, lower incomes, and the novel coronavirus were demonstrated by a percentage, 30% of the articles in the literature review (1,2,3,5,11, & 12). The demographics of rural communities in America place individuals at higher risk for healthcare disparities that continue to increase from the COVID-19 pandemic. Researchers' findings indicated that a high percentage of rural occupants are at increased risk of suffering from these disparities compared to other communities and intensified during the COVID-19 pandemic (1,2,3,5,11, & 12). No contrast was observed in the reading from authors that rural areas suffer disparity; each community suffers individual differences based on demographics such as income, education, or gender. The overall result of this study indicated the authors, 30%, demonstrate rural areas are at an increased risk for healthcare disparities compounded by the effects of COVID-19 and lead healthcare to understand a solution to reach these underserved communities is necessary (1,2,3,5,11, & 12). Healthcare disparities in rural areas adversely affect African Americans compared to other racial minorities living in rural communities, as noted in theme 2.

Theme two generated data on African Americans living in rural communities and how these individuals are at an increased risk for healthcare disparities during the COVID-19 pandemic. The increased risk of healthcare disparities for African Americans during the COVID-19 pandemic were demonstrated by 25% of the articles in the literature review (1,2,3,5, & 11). Being African American and living in a rural community increased the individual risk for healthcare disparity during the COVID-19 pandemic. Researchers' findings indicate that a high percentage of disparities in rural communities disproportionately affected African Americans and led to a higher incidence of mortality (1,2,3,5, & 11). In contrast, some authors believed the result of mortality and disparities resulted from the rural community demographics that caused the disparity, such as income and lack of providers and not specifically race (2 & 3). However, the overall results indicate that a majority of the authors, 60%, demonstrated that the disparities faced were seen in higher numbers based on the populations' race compared to other factors. These results show the necessity to effectively combat healthcare disparities for rural communities and African Americans.

Theme three generated data on healthcare workers and the necessity to provide effective telehealth services to rural America. The ability to enable healthcare providers with the necessary resources to use telehealth in a way that improves provider access, increases patient education, and provides holistic services were demonstrated by 35% of the articles in the literature review (1,4,8,15,17,18, & 20). Telehealth is a means to provide an increase in services to combat healthcare disparities in rural America when healthcare workers are enabled with proper resources to improve the delivery of these services. Researchers indicate

that a high percentage of healthcare workers, when provided the ability to allow telehealth services in a rural community, sufficiently provide the service to improve healthcare outcomes for rural Americans (1,4,8,15,17,18, & 20). In contrast, some authors indicate the unpredictability of the novel coronavirus may affect the healthcare worker performance for telehealth when comparing data from services dispensed pre-COVID-19 (4,8, & 15). However, the overall results indicate that a majority of the authors, 57% demonstrate healthcare workers are using telehealth to increase access and improve patient outcomes to rural African American patients during the COVID-19 pandemic.

Theme four generated data on care delivery and how telehealth improved the care delivery of healthcare workers to those living in rural areas. The improved care delivery of healthcare workers using telehealth to Black Americans living in rural communities were demonstrated by 25% of the articles in the literature review (1,6,7,15, & 16). By using telehealth to improve care delivery, healthcare workers met the needs of rural communities. Researchers' findings indicated a high percentage of rural communities witnessed an improvement in the care delivery of healthcare workers because of the use of telehealth medicine (1,6,7,15, & 16). Only one author noted that the extent to which telehealth improved care delivery was superficial, related to the necessity for this type of care driven by COVID-19 and if the results can be maintained with a staff shifting focus to traditional medicine after the pandemic wanes (8). However, the results indicated that most authors, 80%, demonstrated improved care delivery for rural communities during the COVID-19 pandemic. The enhanced care delivery of healthcare workers to rural areas may relate to telehealth's ability to improve access to healthcare services.

Theme five generated data on telehealth and improved access to care in rural populations during the COVID-19 pandemic. The enhanced access to healthcare in rural areas during the COVID-19 pandemic were demonstrated by 30% of the articles in the literature review (4,5,7,12,13, & 15). With improved access to healthcare via telehealth, rural areas saw an increase in care provision during the COVID-19 pandemic. Researchers indicate an improvement in the entrance to care to rural areas has a positive effect on the African American population suffering from healthcare disparities during the COVID-19 pandemic by increasing the availability of providers and services (4,5,7,12,13, & 15). In contrast, some authors indicate the advent of telehealth during the COVID-19 pandemic was not initiated specifically towards the African American but rather in response to the COVID-19 population. The improvement to their health was coincidental (13 & 15). Overall, the results indicate most of the author's evidence, 66% suggests telehealth improves the health and outcomes of African Americans in rural populations regardless of the reason for implementation and promises future improvement in care provision. As telehealth continues to expand into rural areas, it becomes apparent that telehealth provides an array of services across the healthcare spectrum.

Theme six generated data on telehealth and its ability to improve access to care across the spectrum in rural areas during the COVID-19 pandemic. The power of telehealth to provide care for patients across the spectrum from primary care to mental health was demonstrated by 35% of the articles in the literature review (1,8,10,12,13,14, & 15). Telehealth improved care access to patients in rural areas. It showed the ability to meet a patient's needs holistically by providing an opportunity for mental health needs and addressing physiological concerns. Researchers' findings indicate a high percentage of rural areas suffer from the lack of mental health practitioners, and telehealth provides an opportunity to begin addressing the needs of these communities (1,8,10,12,13,14, & 15).

In contrast, some authors add that telehealth is not as effective for mental health care as the need for in-person assessments and interaction are necessary to adequately treat mental health concerns (8). However, the overall results indicate that most authors 85%, demonstrated that telehealth has a positive impact on the mental health needs of rural communities during the COVID-19 pandemic. Telehealth provides an alternate approach to meeting the care needs of rural communities, and consumer satisfaction positively impacts their satisfaction with their healthcare.

Theme seven generated data on telehealth and reported patient satisfaction among those in rural areas that utilized telehealth to manage their healthcare. The use of telehealth in rural areas provided patients with an alternative during the COVID-19 pandemic that adequately met their needs and supported customer satisfaction during use were demonstrated by 10% of the articles in the literature review (19 & 20). The alternative method of healthcare delivery provided residents of rural areas a way to utilize healthcare services their geographic location had previously limited. Researchers' findings indicated a high percentage of patients were pleased with the overall ease of use and positive outcomes when telehealth use during COVID-19 was discussed (19 & 20). In contrast, some authors feel telehealth use before and during the is too new to determine if these satisfaction levels will remain or a short-term outcome. However, the overall results show that authors cite evidence demonstrating while the COVID-19 pandemic may have propelled the use of telehealth forward, these outcomes will be sustained.

Despite the findings described above, our review had some limitations that included the limited time of study with COVID-19 and how telehealth can improve rural healthcare during a pandemic. While African American healthcare improved, telehealth was not explicitly designed for the black community. We conducted research over a period of twelve weeks. We excluded non-English language articles removing certain publications from the review. The literature review involved conducting searches using a preliminary search strategy using Google Scholar first. A secondary search strategy incorporated CINAHL and EBSCOhost for reviewing peer-reviewed journal articles. Keywords guided the database searches, and it is possible that we missed a few

articles that could have used different terminology while searching the databases. The last limitation is the subjective nature of the readers reviewing the articles and may have interpreted the information obtained from the articles differently.

Minimizing the limitations listed above transpired by following the PRISMA-based systematic review guidelines and protocol. We triangulated and filtered down the information collected starting at 20 articles from CINAHL and EBSCOhost until data saturation occurred and no additional information for developing themes. Ensuring the readers reviewed each article and providing the articles were in line with the research question helped minimize these limitations' effect. Despite the limitations of this study, the evidence to support telehealth was instrumental in addressing the health disparities and improving patient outcomes of the rural African American population when healthcare workers are enabled.

Researchers can use the results of this literature review as a steppingstone for future scholars and researchers conducting a different type of study, i.e., mixed-method research design study incorporating data collection processes utilizing qualitative interviews of participants and quantitative survey, to help further shed light on the research question. Also, healthcare leaders can use these findings to improve and enable healthcare workers to provide telehealth options, expand telehealth, and provide research showing the effectiveness of telehealth to rural communities and people of color during the COVID-19 pandemic and beyond.

Conclusion

The purpose of this systematic literature review was to determine whether the use of telehealth among hospital employees providing services to rural African American patients during the COVID-19 pandemic increase access to services and improve patient outcomes. The review analysis produced seven themes for how telehealth benefits the rural communities served specifically during COVID-19 and for African Americans. The main themes included living in rural areas increase the risk for healthcare disparity, rural African Americans are at greater risk, enabling healthcare workers is a necessary component of telehealth effectiveness, healthcare workers using telehealth improves the care delivery of healthcare workers to rural populations during COVID-19, access to care among rural populations improved by using telehealth, during COVID-19, access to care among rural populations improved access to care across the spectrum of healthcare provided services by using telehealth, and an increase in satisfaction among patient for the effectiveness of telehealth in managing their health. The findings demonstrated that healthcare workers provide telehealth services to rural African American patients during the COVID-19 pandemic, increase access to services, and improve patient outcomes.

Further research can include studies on healthcare worker's ability to provide telehealth to African Americans living in rural areas post COVID-19 and how the outcomes

change or persist. The implications of these findings provide healthcare leaders with insight into healthcare workers' ability to use telehealth to address the disparities of African Americans in rural communities improve access and outcomes for this population.

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