10-10-2025

The Relationship Between Telehealth and In-Person Visits and Patient Experience in Connecticut in 2021–2022

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This is to certify that the doctoral study by

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Walden University
2025

Abstract

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by

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MS, Post University, 2010

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Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Healthcare Administration

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Abstract

As the healthcare landscape continues to shift, so does the delivery of healthcare services. Health systems now offer in-person and telehealth visits to meet the consumer's needs. Healthcare stakeholders have been tasked with improving the quality of care and the patient's experience during their healthcare visits. The purpose of this retrospective quantitative study was to explore the relationship between telehealth and in-person visits and patient experiences. The theoretical framework used in this study was the Donabedian model. For the purpose of this study, the structure was the hospital setting for in-person visits and use of a computer or a device for telehealth meetings, the process was the patent provider visits, and the outcome was the patient experience. The research questions addressed the relationship between the independent variables of in-person and telehealth visits in medical and behavioral health services and the dependent variable of patient experience in an outpatient health center in Connecticut. The instrument used in this study categorizes patient experiences into three group ratings: 1 = detractor (0–6), 2 = passive (7–8), and 3 = promoter (9–10). Secondary data from individuals 18 and older that received in-person or telehealth services in an outpatient health center in Connecticut were used in this study. A chi-square test of independence was conducted to analyze the relationship between variables. In both medical ($\chi^2(2) = 0.469$, $p = .791$) and behavioral health ($\chi^2(2) = 1.01$, $p = .605$), there was no statistically significant relationship between in-person or telehealth visits and patient experience. This study contributes to social change by adding evidence on how telehealth and in-person visits impact the patient experience.

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Dedication

To my angels in heaven that watch over me, guiding my steps and giving me the strength to pursue and achieve my dream.

To every woman who has ever doubted her own brilliance- believe in yourself. You are far stronger, braver, and wiser than you ever imagined.

Acknowledgments

I would like to extend my deepest gratitude to my Committee Chairperson, Dr. Donna Clews. Over the past two years, she has believed in me and guided me through this journey. Her patience, encouragement, and the countless hours she dedicated to my success are truly remarkable. I will be forever grateful for her mentorship, support, and commitment to helping me achieve my dream of earning my doctorate degree. I would also like to express my gratitude to Dr. Liu, for her patience, knowledge, and support during the data analysis phase of this study. A heartful thanks goes to Dr. Nichole McGuire, my second committee member, for her support, thoughtful feedback, and kindness throughout this process.

I am also deeply appreciative of my place of employment for allowing me to use their data, for investing in my education and professional growth. To my colleagues, who generously gave their time to brainstorm ideas, proofread documents, and check in on me to ensure I stayed the course. Your encouragement and willingness to walk alongside me on this journey meant more than you know.

On a personal note, I am grateful to my husband for his support and patience over the years. To my family that supported my educational journey over the years. My mother, who always believed in me and offered her shoulder to lean on- your love gave me strength. To my closest friends and “the mamas,” my biggest cheerleaders —thank you for checking in, for understanding when I couldn’t be at every event, and for believing in me every step of the way. You never doubted that I could accomplish this goal, and your encouragement means more than words can ever express.

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Section 1: Foundation of the Study and Literature Review

Introduction

Understanding patient experience has been a primary focus for healthcare administrators and providers since the late 20th century. Within the last few decades, with the shift of healthcare delivery focusing on patient-centered care, healthcare stakeholders have been tasked to improve patients' experience within their health system. According to the Agency for Healthcare Research and Quality (AHRQ; 2025), evaluating patient experience requires healthcare organizations to gather information from patients about whether certain expected events occurred during their care and how frequently those events took place. Studies from AHRQ have demonstrated that positive patient experiences are correlated with improved health outcomes, reduced healthcare costs, and improved patient–provider relationships. Research has demonstrated that telehealth has been beneficial in improving engagement, communication, and convenience (Gajarawala & Pelkowski, 2021); however, there is little to no literature on the relationship between telehealth and in-person visits and the impact of how the type of service delivery impacts patient experience scores. In this quantitative study, I aimed to enhance the understanding of the relationship between telehealth and in-person experiences in Connecticut health centers while also contributing to positive social change in local communities.

In this section, I present background evidence of the identified problem. I also provide the problem statement, purpose of study, research questions, and hypotheses. The theoretical framework, nature of study, literature search strategy, and literature review related to key variables are included in this section. This section concludes with definitions, scope and delimitations, limitations, the significance of the study, and a summary and conclusion.

Background

As the landscape of healthcare continues to evolve, so does healthcare organizations' delivery of services. In healthcare today, patients can be seen in-person or through a telehealth platform. Even though service delivery has changed, the patient's experience is more essential than ever. Patient experience is vital to healthcare stakeholders because it directly correlates to the quality of care provided within a healthcare organization (AHRQ, 2025). One way that healthcare organizations collect this data is by using patient survey reports to see how the patient perceived their visit with their healthcare provider. One survey that is commonly used in acute settings is the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS), which is a national, standardized, publicly reported survey that collects patients' perspectives of the care they received in the hospital and is linked to financial incentives and reimbursement rates (Centers for Medicare & Medicaid Services [CMS], n.d.).

While researchers have demonstrated that telehealth has been beneficial in improving engagement, there is a gap in literature examining the relationship between telehealth and in-person visits in an integrated health system in Connecticut and the impact on how the type of service delivery impacts patient experience scores. Studies have shown that when patients receive high-quality care, healthcare organizations will see better health outcomes for their patient population, reduced healthcare costs, improved patient-provider relationships, and increased engagement (AHRQ, 2025). As healthcare systems work tirelessly to improve the quality of care provided and improve the patient experience, further understanding of how the type of service delivery impacts patient experience is needed.

Problem Statement

Patient experience is now recognized as an integral component of the overall quality of care provided at health centers. Understanding patient experience has become a key priority for healthcare administrators. Stakeholders in the healthcare industry are increasingly focused on enhancing patient experience because patients come to healthcare settings with high expectations regarding various aspects of care, such as access to care, wait times, communication with providers, care coordination, and technology. Understanding the patient's experience is complex because it is multilayered and multidimensional (Rao & Rao,2023). The AHRQ (n.d.) defined *patient experience* as gaining information from the patient about whether something that should happen in a healthcare setting actually occurred and how often it occurs.

Healthcare organizations measure patient experience to gain a better understanding of the services that are provided to meet the expectations of the patient. The patients' experience has been correlated with healthcare organizations providing quality health services. Using a combination of multidisciplinary methods and metrics assists health care leaders in measuring the dynamic and multidimensional nature of patient experiences in healthcare (Godovykh & Pizam, 2023). One common avenue that hospitals use to measure the quality of care provided and the patients' hospital stay experience is through the HCAHPS survey. The HCAHPS is also tied to Medicare and

Medicaid value-based payment (VBP) models. The VBP program was designed to promote the best patient outcomes, improve the quality of care, and improve the patient experience (Center for Medicare & Medicaid Services, n.d.). In addition, patients who report positive patient experiences with their providers are found to have a stronger relationship with their providers, are compliant with treatment, and are satisfied with the healthcare services they receive (Gray et al., 2021). As healthcare providers begin to understand the patient's expectations, they are one step closer to moving towards patient-centered care (AHRQ, n.d.).

Purpose of the Study

In this quantitative, quasi-experimental, retrospective study, I explored the relationship between telehealth and in-person visits and patient experience in Connecticut from 2021–2022. The independent variable was (a) in-person or (b) telehealth services, and the dependent variable was the patient's experience. The patient's experience is based on whether the patient had a better experience in person or through telehealth services. The dependent variable was measured on a numeric scale from 0–10, with 10 being the most likely to recommend and zero being not recommending services. The patient experience scores were then recoded into grouped ratings: 1 = detractor (0–6), 2 = passive (7–8), and 3 = promoter (9–10).

Although researchers have investigated these issues, there is very little to no literature that identifies whether there is a relationship between telehealth and in-person visits and patient experiences and on how patient experiences scores are impacted by the type of service delivery. In addition, there has not been any studies conducted at federally qualified health outpatient health centers within Connecticut exploring the relationship between telehealth and in-person visits to determine which delivery of service provided a positive patient experience and would lead the patient to recommend health care services from the health center.

Research Questions and Hypotheses

This study was guided by the following two research questions and corresponding hypotheses:

RQ1: What is the relationship between telehealth and in-person medical visits and patient experiences in Connecticut from 2021–2022?

$H_0$1: There is no statistically significant difference between telehealth and in-person medical visits and patient experiences.

H_a1: There is a statistically significant difference between telehealth and in-person medical visits and patient experiences.

RQ2: What is the relationship between telehealth and in-person behavioral health visits and patient experience in Connecticut from 2021-2022?

$H_0$2: There is no statistically significant difference between telehealth and in-person behavioral health visits and patient experience.

H_a2: There is a statistically significant difference between telehealth and in-person behavioral health visits and patient experience.

In this quantitative, quasi-experimental, retrospective study, the independent variables were telehealth and in-person services, and the dependent variable was the patient experience. Patient experience was measured using a 0–10 Likert scale, with 10 indicating the most likely to recommend services provided at the health center and zero indicating not recommending service at the health center. The patient experience scores were recoded into grouped ratings: 1 = detractor (0–6), 2 = passive (7–8), and 3 = promoter (9–10). I used a chi-square test of independence to examine the association between in-person and telehealth visits and patient experience scores.

Theoretical and Conceptual Framework

The concept that grounded this study was based on "Evaluating the Quality of Medical Care" in which Donabedian (1966) postulated the existence of interrelationships within a health care system between environmental factors, provider-to-provider transactions, and clinician effectiveness. Using Donabedian's model, this study contributes to positive social change by adding to the growing body of knowledge on improving the relationship between telehealth, in-person, and patient experience in clinic settings.

The Donabedian (1966) framework consists of three elements: structure, process, and outcome. For the purpose of this study, the *structure* is the clinic or patients' home for patient encounters with providers, the *process* is in relation to telehealth services or in-person visits with providers, and the *outcome* is in patient experience scores. Donabedian's framework is related to the study approach and research question because I conducted this study to examine if there is a relationship between telehealth and in-person visits and patient experiences in Connecticut from 2021–2022.

Nature of the Study

To address the research questions in this quantitative study, I used a quasi-experimental retrospective design with numerical data collection from a secondary data set obtained from the Information Technology (IT) department from an integrative outpatient health center in Connecticut from 2021–2022. The patient experience data was collected by the IT department using patient survey feedback from patients and clients after their visit with their provider or behavioral health clinician. Using a quasi-experimental design, I was able to evaluate the relationship between telehealth and in-person and patient experience in an integrated outpatient health center in Connecticut from 2021–2022. A chi-square test of independence was conducted to compare the mean scores of patients' experiences from two groups (a) in-person and (b) telehealth. The dependent variable, patient experience, was measured by a 0–10 Likert scale, with 10 being the most likely to recommend services provided at the health center and 0 being not recommending services at the health center. The patient experience scores were then recoded into grouped ratings: 1 = detractor (0–6), 2 = passive (7–8), and 3 = promoter (9–10).

Literature Search Strategy

Numerous studies have been conducted on telehealth, in-patient services, and patient experience in outpatient primary care settings. The peer-reviewed literature included in this review were sourced electronically from the Walden University Library and published from 2020 to 2024. To organize and synthesize articles, I compiled a literature review matrix using articles from *JAMA*, APA PsycNet, *PLos ONE*, *British*

Columbia Medical Journal, Directory of Open Access Journals, and BMC Primary Care. The key search terms used were *patient experience, telehealth, primary care, pediatrics, mental health, health equity, chronic conditions,* and *patient-centered care*.

Literature Review Related to Key Variables and/or Concepts

The purpose of this quantitative, quasi-experimental study was to explore the relationship between telehealth and in-person visits and patient experience in an integrated outpatient health system in Connecticut. The AHRQ (2024) emphasized the importance of healthcare leaders in fostering positive patient experience to achieve improved patient outcomes, adherence to medical advice, and lower utilization of unnecessary healthcare services. As I conducted the literature review, I focused on articles with independent variables, such as telehealth or in-person visits in the primary care environment, with patient satisfaction as the dependent variable. This literature review is centered on patient experience with the subtopics of telehealth and in-person services in primary care, language access services, marginalized communities in diverse geographical regions, and chronic disease management receiving in-person appointments. The methods used in the peer-reviewed articles included in this review were mixed methods or the quantitative approach. The peer-reviewed articles provided valuable insight into patient experiences in the healthcare environment.

Patient Experience and Telehealth Services in Primary Care

Pasat et al. (2024) examined the impact of digital health adoption on patient experiences in Ontario's primary care setting. The study included 2,692 adults and found that 63% accessed telehealth, 2.6% accessed their medical records online, and 3.6% used online appointment booking. The researchers' goal was to explore the relationships between patient experiences and digital health access. A retrospective cross-sectional design was employed, using responses from the Health Care Experience Survey, with multivariable logistic regression used to analyze the impact of digital health on patient experiences. The results indicated no statistically significant relationship between patient experience and telehealth access ($p = .45$), digital health record access ($p = 1.00$), or online appointment booking ($p = 0.46$). However, online booking was associated with a decreased patient experience for those with three or more primary care visits in the past 12 months [95% *CI* 0.02-0.56]. Factors, such as younger age, financial challenges, English as a second language, and shorter relationships with providers, were linked to poorer patient experiences. The authors emphasized the potential of digital health to personalize care and improve outcomes but noted limitations, such as focusing only on English- and French-speaking insured Ontarians. It is crucial to expand the study to a more diverse population to gain a broader understanding of how digital health impacts patient experience. Moreover, the researchers identified the need for more research to explore the potential benefits of digital health in improving patient experiences and increasing primary care engagement.

Gabrielsson-Jarhult et al. (2024) conducted a study exploring user experiences and care patterns related to telemedicine consultations with physicians in Swedish primary care from 2017–2019. The study aimed to capture various experiences, including first-time users, repeat users, and those with different healthcare needs for telemedicine. The researchers focused on individuals using telehealth services from public primary care organizations. Data were collected through phone interviews with Swedish-speaking participants from rural and urban areas. A mixed-methods design was employed in the study, combining 26 qualitative interviews (16 women and 10 men, aged 18–73) and a quantitative registry analysis of 10,400 telemedicine users from a Swedish region. The sample included 15,211 telemedicine consultations with physicians. The quantitative data study results indicated that only 2.9% had used telemedicine encounters with primary care providers and that 90% of telemedicine users had used telemedicine consultations with a physician, 76% had only one telemedicine consultation, 14% had more than one telemedicine encounter, and 10 individuals (0.09%) had > 20 telemedicine consultations. The users were between the ages of 0–30, with 68% being parents using the service for their children and 2.5 % being older 65 years old. The most common diagnoses were acute respiratory infections, rashes, and coughs. Three themes emerged from the qualitative findings: healthcare accessibility, users' competent choices, and overall satisfaction with telemedicine consultations. Telemedicine was favored for its accessibility, reduced wait times, and convenience, especially for nonsevere health conditions. However, some users noted a lack of continuity with their physicians. Another finding was that older patients used telemedicine consultations less often than other age groups. Furthermore, users of telemedicine consultations found them safe and trustworthy. The authors did not examine socioeconomic factors or health disparities, suggesting future research should explore these aspects and investigate the competencies needed by different user groups in primary care settings. These implications highlight the potential for further research to enhance the understanding of telemedicine usage and its impact on healthcare accessibility and user satisfaction. Additionally, since the study was conducted before the COVID-19 pandemic, users' experiences and reasons for utilizing telemedicine may have shifted, warranting updated research in a postpandemic context.

Mangalji et al. (2022) conducted a mixed-methods study during the COVID-19 pandemic, examining patients' experiences attending a multiphysician primary care office in Langley, British Colombia, between November 1, 2020, and February 15, 2021. The study included patients aged 18 and older who booked telemedicine or in-person appointments or followed up in-person after a telemedicine consultation. The Primary Care Patient Experience Survey, developed by Health Quality Ontario, was used for data collection, and descriptive statistics alongside nonparametric tests were applied for data analysis. Participant satisfaction levels were measured on a Likert scale from 1–5, 1 being *poor* to 5 being *excellent*, and a Wilcoxon signed-rank tests were used to compare telemedicine and in-person appointments. Additionally, researchers used open-text responses within the Patient Experience Survey to analyze and compare the experiences of telemedicine and in-person cohorts. Out of 777 contacted individuals, 426 participants (54.8%) completed the survey, with 65.4% of whom were female. The average age of respondents was 61.4 years. Out of the total number of participants, 49.8% had telemedicine visits, 45.5% had in-person consultations, and 4.7% had a combination of both visits. The researchers found a statistically significant difference between the telemedicine and in-person groups in terms of time between scheduling the appointment and seeing the physician ($p = 0.03$). However, there was no significant difference in overall patient satisfaction ($p = 0.49$), time spent with the practitioner ($p = 0.12$), or knowledge of medication history (*p* = 0.84). While 32.3% of patients had no preference between telemedicine and in-person visits, 54.9% preferred in-person consultations.

Mangalji et al. (2022) highlighted several pros and cons of both consultation types. In-person visits allowed for better physical examination, empathy, and nonverbal communication, while telemedicine was praised for its convenience, safety during the pandemic, and time efficiency. Telemedicine was particularly helpful for prescription and medication follow ups. The participants suggested improvements for telemedicine, such as offering video options instead of audio only and ensuring appointments start on time. The providers emphasized the potential of telemedicine to expand healthcare, especially for rural and marginalized communities but identified the need for better integration of billing workflows and electronic health records. Given that the study was conducted during the pandemic, it is crucial to conduct further research to determine if patient experiences and care quality have shifted postpandemic. This ongoing research will keep the healthcare field engaged and informed about the evolving landscape of healthcare delivery and the patient's expectations.

Language Access Services

Rodriguez et al. (2024) examined 24,453 adult participants from the California Health Interviews Survey 2021 data set, focusing on patients with limited English proficiency (LEP) and those proficient in English (EP). There were 10,735 male (49%) and 13,718 female (51%) participants. The research aimed to investigate differences in telehealth service use and patient experiences, with 9% of participants identified as LEP and 7% as telehealth users. The independent variable in the study was visit experience, which referred to how patients compared their experiences with telehealth visits, including video or telephone, to in-person visits. Rodriguez et al. (2013) used a bivariable comparison using weighted analysis and a multivariable logistic regression to determine the odds of having a worse experience with telehealth services after controlling for covariates. Through this analysis, they were able to identify significant disparities in telehealth experiences, particularly among LEP patients. The findings revealed that LEP patients were significantly less likely to use telehealth services compared to EP patients (37% vs. 50%, $p < .001$). Additionally, LEP patients reported poorer experiences with video visits in comparison to their EP counterparts (32% vs. 26%, $p = .04$) and indicated a preference for in-person visits over video (*OR* 1.42; [95% *CI*, 1.04-1.94]; $p = .03$). However, no significant differences were found for telephone visits ($p = .17$). The authors also identified various barriers, such as limited digital literacy, lack of translated materials, and challenges in integrating interpreters in telehealth. Nevertheless, the study had its limitations, including reliance on self-reported data and lack of control over clinician factors impacting patient experience. These results emphasize the need for targeted interventions to enhance telehealth access and experience for LEP patients.

Jones et al. (2022) conducted a mixed-methods study at the University Medical Center pediatric primary care clinic, where 80% of patients were covered by Medicaid and 40% were non-English speakers. The researchers aimed to assess the use of direct-to-patient telehealth, where patients initiate care via a personal computer or mobile device with a provider from the practice. REDCap surveys were completed for 258 (52%) telehealth visits. The independent variable telehealth was the completion of these surveys, which revealed a higher proportion of English-speaking encounters compared to the clinic's overall demographics. The study used a qualitative analysis approach, including two open-ended survey questions that covered provider type, platform, device, patient language, and interpreter use. The two open-ended questions aimed to gather (a) patient/families feedback on likes, dislikes, barriers, facilitators, and suggestions for improvement and (b) provider observations and frustrations families may experience. Results showed that 77% of patients used a mobile phone for telehealth visits, with English speakers significantly more likely to use the My Health at Vanderbilt platform ($p < .001$). English speakers also reported greater ease of use (85.6% vs. 49%, $p < .001$) and better video quality (81.8% vs. 49%, $p = .001$) compared to non-English speakers. The findings underscored health inequalities between English and non-English speakers, with disparities potentially worsened by unequal access to high-speed internet and digital literacy. The authors stressed the need for future research to gather direct patient feedback because this will provide more comprehensive insights into their experiences and help address these disparities.

Geographic Regions and Specialty Subgroups

Barwise et al. (2023) conducted a mixed-methods study over 9 months to assess the impact of COVID-19 on marginalized communities across diverse geographic regions. The study focused on patients living with HIV who participated in telehealth visits instead of in-person consultations. Participants answered survey questions regarding internet access, telehealth use, future telehealth preferences, and perceived benefits and concerns. The study took place across three U.S. regions: the Midwest, Arizona, and Florida. Data from 47 focus groups were analyzed, with 3,447 English and 146 Spanish-language responses. Statistical analysis included the Pearson X^2 test, with a significance level at $p < .05$. The authors found that over 90% of participants had internet access, with Southwest participants reporting 98% connectivity. However, internet access rates were lower among Black Hispanics, Indigenous, and White non-Hispanics comparted to non-Black and White Hispanic participants. Locations that showed statistically significant differences in telehealth included Florida, with the lowest rate of 88% (95% *Cl* 85.9%-90.6%, Arizona at 94% (95% Cl 92.3%-94.3%), followed by the Midwest being the highest at 97% (95 *Cl* 94.9% -98.2%). Black Hispanics had the highest use of telehealth at 97.7% (95% *Cl* 95.1%-99.9%), significantly greater than White non-Hispanics at 94.4% (95% *Cl* 92.3%-94.5%). Over half of the respondents (56.1%, 95% *Cl* 54.5%-57.8%) agreed or strongly agreed that telehealth was more flexible and fit into their schedules better than in-person visits. Indigenous respondents were significantly more likely to use telehealth than other groups except non-Hispanic White individuals at 65.8% (95% *Cl* 59.9%-71.7%). Furthermore, over half of all the respondents (48.2%, 95% *Cl* 46.5%-49.8%) felt that telehealth would hinder the ability of the provider to examine them well. Overall, 45.2% (95% *Cl* 43.5%-46.8%) of participants agreed or strongly agreed that they could not express themselves well via telehealth. The Indigenous population had more concerns regarding being able to express themselves via telehealth, with 60.2% (95*Cl* 54.3%-66.1%) and 94% using telehealth. While nearly half of all respondents saw a promising future for telehealth, citing its convenience and time-saving benefits, an equal number expressed concerns about their ability to communicate effectively and receive comprehensive examinations via telehealth. Indigenous participants were particularly worried about these issues. The study's advantages included the convenience and reduced travel for telehealth users, but it also raised concerns about being understood by providers, which could lead to potential medical errors and lower quality care. Barwise et al. highlighted the need to address disparities in internet access and connectivity, especially in marginalized communities. They recommended focusing on education, language, technological skills, health literacy, and enhancing the overall patient experience to ensure equitable access to telehealth services.

Puente et al. (2024) explored the relationship between innovation in healthcare services, hospital ambulatory accreditation, and patient perception of quality care in rural Columbia. Rural populations face many barriers that include receiving high-quality health services, limited resources, geographical challenges, and a shortage of a talented pool of healthcare professionals, which contribute to health disparities and health outcomes. The researchers examined how telemedicine and hospital accreditation influence patient experiences and satisfaction in these settings and conducted a comprehensive literature review using databases, such as PubMed, Scopus, and Google Scholar, to investigate whether accredited facilities, particularly those that adopted telemedicine, provided better patient experiences and quality care than nonaccredited facilities. The intervention in this study was the use of innovation (i.e., telemedicine) and the accreditation status of healthcare facilities. The researchers compared patient outcomes from accredited and nonaccredited facilities in Pueblo Nuevo and Playa

Hermosa, focusing on whether accreditation and telemedicine adoption improved patient satisfaction and health outcomes. Puente et al. emphasized that telemedicine offers a cleaner, safer environment and more efficient care, leading to quicker interventions, increased patient satisfaction, and better health outcomes. The study's design used a combination of descriptive statistics and inferential analyses, including the Mann-Whitney U test, Spearman's Rank Correlation coefficient, and multiple regression analysis. The sample consisted of patients from an accredited facility ($n = 16$) and a nonaccredited facility ($n = 16$). The researchers assessed patient engagement, health information technology use, and patient-reported outcomes. Statistical significance was set at $p < 0.05$, and the results showed a significant association between accreditation and improved health outcomes ($p = 0.039$), with patients in accredited facilities reporting higher satisfaction scores ($p = 0.001$). There were no significant differences in age, gender, or distance from the facility between the two groups. The results also showed that accredited facilities with telemedicine adoption scored higher patient satisfaction across various metrics, such as ease of scheduling, cleanliness, wait times, professionalism, and communication. Telemedicine was more effectively integrated into accredited facilities, as reflected by a mean score of 7.8 compared to 6.5 in nonaccredited facilities. This suggests that telemedicine and accreditation positively contribute to perceptions of care quality and patient satisfaction in rural settings. The study's findings were statistically significant, particularly in health outcomes ($p = 0.039$) and patient satisfaction ($p = 0.001$) for accredited facilities. However, no significant differences were found in demographic factors, like age or distance from facilities. The study also demonstrated that innovations, such as telemedicine, when combined with accreditation, positively influence patient experience. A vital strength of the study was its focus on rural healthcare, which is often underrepresented in the literature. This research highlights the importance of accreditation and innovation in improving patient satisfaction and care quality in rural settings. It contributes valuable insights for policymakers, who can use this data to develop strategies for improving rural healthcare access. However, a limitation is the relatively small sample size and self-reported satisfaction measures from participants, which may affect the generalizability of the finding and subject to bias and individual intervention. Additionally, the findings further emphasized the need for ongoing efforts in quality improvement and addressing specific patient concerns to enhance care in rural healthcare settings.

Davidson et al. (2022) conducted a study to explore the experiences and perceptions of patients with chronic conditions regarding interprofessional collaborative practice (IPCP) in primary care settings. IPCP teams encourage collaboration between patients and healthcare professionals, such as primary care providers, nurses, and support staff, to improve health outcomes and reduce costs for individuals with multimorbid chronic conditions. The independent variable in this study was the coordination of care through IPCP for patients diagnosed with chronic diseases. The researchers employed a comprehensive mixed-methods approach, utilizing both qualitative and quantitative analyses. Data were gathered from 48 studies comprising 3,803 participants, including patients and family members. These studies, sourced from databases, such as Medline, Embase, CINAHL, and Web of Science, covered a wide range of chronic conditions, including diabetes, mental health disorders, chronic pain, cardiovascular conditions, HIV/AIDS, asthma, dementia, and cancer. The analysis identified four key themes from the participants' feedback: interacting with healthcare teams, valuing convenient care, engaging in self-care, and receiving holistic support. Patients reported that interacting with IPCP teams broadened their healthcare network, giving them access to additional trustworthy and supportive professionals. The participants valued the availability of multiple communication methods and felt reassured by knowing they had a team consistently supporting them. Furthermore, they appreciated the holistic care they received, which went beyond addressing just their physical needs to include mental, social, and spiritual well-being. The participants also noted that the collaborative approach helped them manage chronic conditions' physical and social challenges. While the overall patient experience with IPCP was largely positive, the study revealed several areas for improvement. The response rate, while less than 50%, still provided valuable insights. Some participants reported a lack of clarity about their role within the IPCP team, indicating a need for better patient education. Additionally, while increased access to professionals did not always guarantee better quality care, the potential for improved care was evident. Concerns about inconsistent care among team members and lack of continuity were noted, highlighting the need for better coordination. A significant limitation was the lack of sufficient funding to fully implement IPCP as well as the disparity between the care plans' intentions and their practical application. The researchers emphasized the need for better clarification of the patient's role in the IPCP model and called for further efforts to ensure consistent and high-quality care across the team.

After conducting an exhaustive review of the current literature, I have examined, reviewed, and synthesized numerous academic peer-reviewed articles to identify recurring themes in telehealth and in-person services. Telehealth services highlighted several advantages, including accessibility, reduced wait times, and convenience. Gabrielsson- Jarhult et al. (2024) discussed time efficiency and effectiveness for addressing nonsevere health concerns or issues, such as infections, rashes, and coughs. However, disadvantages in telehealth include a lack of continuity with providers, comprehensive evaluations and accuracy, and patient confidence in their physicians. Rodriguez et al.'s (2024) findings revealed significant disparities in telehealth experiences with LEP, lack of translated materials, and challenges in integrating interpreters in telehealth. Additionally, researchers found limitations surrounding inequalities in race, digital literacy, technical limitations, and challenges in integrating interpreters into telehealth. In contrast, in-person visits were found to have unique strengths, such as allowing providers to conduct comprehensive physical assessments and fostering increased patient communication. Mangalji et al. (2022) found that in-person visits build trust, empathy, and continuity of care among patients and providers. However, disadvantages include travel time to and from appointments, access to care, long wait times, and busy waiting rooms. Furthermore, two significant dimensions were identified in both telehealth and in-person care: the patient's perceptions of the effectiveness of provider-patient communication and the quality of care received during their appointment.

Definitions

HCAHPS: The HCAHPS is a national, standardized survey designed to capture patients' perspectives of the care they received during their hospital stay. The CMS created the HCAHPS survey to measure how hospitals were performing through the patient's lens. HCAHPS has been around nationally for the past 20 years, was implemented in 2006, and has been reported publicly since 2008. The HCAHPS survey is disseminated twice after discharge, on Day 2, and again 42 days after discharge. The survey includes the patient's experience communicating with their care team, the responsiveness of hospital staff, communication regarding medications, cleanliness, and the hospital's environment. The HCAHPS survey brought transparency and accountability to the healthcare industry regarding patient experience. Hospitals now benchmark their performance against one another while focusing on the quality of care provided and individualized patient-centered care. Furthermore, the HCAHPS survey is also instrumental in the Hospital VBP program. The Hospital VBP program was introduced to reduce costs, increase efficiency, improve the quality-of-care for patients, and improve the patient experience. Hospitals are rewarded based on the quality of care provided, not just the quantity of services rendered (CMS, 2024).

Net Promoter Score (NPS): The NPS is a universal metric used across all industries, including healthcare, to assess patient experience and determine how likely an individual may recommend an organization to others (National Research Corporation

[NRC], n.d.). The question, "How likely are you to recommend a colleague, family member, or friend?" is commonly used in healthcare. The NPS is an 11-point Likert scale ranging from 0 (*not likely*) to 10 (*extremely likely*), which helps determine an individual's loyalty to the organization. Three areas fall into this category: detractor, passive, and promoters. The detractor is 0–6 on the 11-point scale. Consumers who select these numbers are unwilling to recommend the organization and show little to no loyalty. Passive is the selection between 7 or 8 on the 11-point scale, and these individuals present as natural and not actively engaged. The promoter is the selection of 9 or 10 on the 11-point scale and this individual is willing to recommend the organization (NRC, n.d.).

Patient Experience: The AHRQ (2024) defined patient experience as a vital aspect of healthcare quality. It incorporates several aspects of healthcare delivery that patients value, such as the care they receive, scheduling timely appointments, access to health records, and increased communication between provider and patient. According to AHRQ (2024), the patient experience viewpoint is what should have happened during their visit, did it happen, and how often does it happen. The dependent variable in this study was patient experience. I explored the relationship between telehealth and in-person visits and patient experiences in Connecticut from 2021 to 2022. Patient experience was measured by a 0–10 Likert scale that indicates the patient's willingness to recommend the organization, with 10 being the most likely to recommend.

Telehealth: According to the Health Resource and Service Administration (2022) there has been significant growth in telehealth services since the COVID-19 public health emergency. Telehealth is defined as the use of electronic information and telecommunication technologies to support long-distance clinical health care, patient and professional health-related education, health administration, and public health (Health Resource and Service Administration, 2022). The independent variable in this study was exploring what the relationship between telehealth and in-person visits and patient experiences in Connecticut from 2021–2022.

Assumptions

After a patient has been seen in person or through telehealth platform by a primary care provider within the clinic, the patient then completes a patient survey electronically. I assumed that the patient understood the questions and provided honest and accurate information regarding their experience during that visit with their healthcare provider. Another assumption was that the patient independently completed the survey without the assistance of a staff member influencing their responses. Additionally, I assumed that the patient answered honestly without fear of retribution by staff. My final assumption was that the results were entered accurately into the system and transcribed or downloaded accurately by our quality department.

The assumptions in this study were necessary because the more positive interactions patients have with their provider for in-person or through telehealth visits, the more likely they are to report higher patient experience levels and recommend the clinic's services to their family and friends. The assumptions were vital due to the study's aim of examining the relationship between telehealth and in-person visits and patient experiences within the health center. If there are lower positive patient experiences within the health center, there is no statistically significant difference between telehealth visits and in-person visits and patient experience.

Scope and Delimitations

The scope of this research study was limited to the primary and behavioral health services in an outpatient clinic in Connecticut. The population and data were collected from one organization in the state of Connecticut. Individuals that participated in the survey were 18 years old and older. The health center provides full-life span care to medical, behavior health, and psychiatric patients. The results from this study may not apply to other states or areas of the United States. Another delimitation was the time frame of the study. There were no challenges to access participants in this study or other data collection steps since I used a secondary data set that was collected in 2021–2022. The data were collected from my place of employment by the quality department.

This research study has the potential to be generalized to other outpatient primary care and behavioral health organizations in Connecticut. In this study, I focused on one outpatient organization within the state of Connecticut. Other health organizations within Connecticut use a combination of telehealth and in-person visits and solicit patient feedback on the services received to improve patient experience and improve the quality of care provided.

The specific aspects of the research problem were addressed in this study by examining the relationship between in-person and telehealth services and patient experience in an integrated health system. With this study, I aimed to help the health organization gain a better understanding of how well its services align with the expectations of the patients on what should occur within their health care visit. The focus of this study was chosen in response to the evolving landscape of healthcare delivery and the increased use of telehealth services within healthcare.

Limitations

There were several limitations to consider in this study. Secondary data from an outpatient clinic in Connecticut were used in this study. The secondary data set excluded factors, such as diagnosis, chronic diseases, comorbidities, or health literacy. The data set lacked insight into patient preferences, whether receiving telehealth visits or in-person visits with their provider.

A potential bias in this study was that the patients responding may have had a different patient experience of telehealth or in-person service than the nonresponders. Additionally, this study did not take into account the marginalized communities that the clinics serve within the state of Connecticut, where factors such as ethnicity or socioeconomic status may come into play for telehealth access and experiences.

Significance

Patient experience is a critical element of healthcare because it directly affects health outcomes and the overall quality of care provided. As the delivery of healthcare has evolved to include both in-person and telehealth visits, patients have a certain expectation going into that visit and expect to feel heard, respected, and actively play a role in their treatment plans. Healthcare stakeholders have found that patient experience is closely linked to continuous quality improvement efforts, key performance indicators, and reimbursement models (AHRQ, 2020). Patient experience plays an essential role in driving effective and patient-centered care. Therefore, having a clear understanding of how to improve that patient's experience will only benefit the healthcare organizations by creating sustainable quality improvements and be the driver of guiding conversations around policy reforms and policy initiatives. With this study, I aimed to provide insight to healthcare stakeholders to help understand the relationship between telehealth and in-person visits and the impact on patient experiences.

Summary and Conclusion

As the healthcare landscape continues to change, there continues to be a demand for telehealth and in-person visits. Surveys, such as HCAHPS, play a critical role in driving how healthcare administrators focus on the patient experience and quality of care. While in-person services excel in providing comprehensive, personalized care and physical assessments, telehealth offers opportunities around convenience, accessibility, and minor medical needs. However, in telehealth, there continue to be challenges around digital equality, language access, and the quality of virtual appointments. Nonetheless, research has shown that providers meeting patients' expectations will increase communication, improve patient engagement and trust, and improve health outcomes (Sharkiya, 2023). Additional studies are needed to identify if there is a relationship between telehealth and in-person visits and patient experience as well as the impact of the type of service delivery on patient experience scores in an outpatient behavioral health setting.

Section 2: Research Design and Data Collection

Introduction

The purpose of this quantitative, retrospective, quasi-experimental study was to examine whether there is a relationship between telehealth and in-person visits and patient experience in behavioral health visits. The independent variable was (a) in-person services and (b) telehealth, and the dependent variable was the patient's experience. The patient's experience was based on whether the patient had a better experience in-person or through telehealth services. After an extensive literature review, I found there was limited literature on whether there is a relationship between telehealth and in-person visits and patient experiences and the impact of the type of service delivery on patient experience scores. In addition, no studies had been conducted at a Connecticut outpatient health center exploring the relationship between telehealth and in-person visits to determine which service delivery provided a positive patient experience and would recommend health care services from the health center.

In Section 2 of the study, I describe the research design and rationale as well as the methodology, including population, sampling, and instrumentation and operationalization of constructs. Additionally, the section includes discussions of potential threats to the validity and ethical considerations of this study.

Research Design and Rationale

In this quantitative, quasi-experimental, retrospective study, I used secondary data from an outpatient health center in Connecticut collected from 2021 to 2022. The independent variable was (a) in-person or (b) telehealth services, and the dependent variable was the patient experience. The data used were from the NRC Health Patient Experience Real-Time Feedback (PERF) survey. The PERF survey has preexisting data from patient encounters, which collects patient experiences from their provider appointment. I received secondary data from the IT department of the integrative outpatient health center in Connecticut study site. The patient experience with in-person or telehealth services is measured by the question: "Would you recommend the health center to family and friends?"

I planned on conducting an independent *t* test to compare telehealth and in-person visits and the mean scores of patient experience from the two groups. After testing the assumptions required for the *t* test using Statistical Package for Social Science (SPSS), it was determined that the assumptions were not met, and the *t* test was not the appropriate test to use to answer the research questions. Instead, I selected a chi-square test of independence for this research study. There were no time or resource constraints with this retrospective, quasi-experimental, quantitative study.

Methodology

Population

The targeted population within this study was individuals 18 years old and above receiving primary care and behavioral health services within a health center located in Connecticut during the calendar years of 2021 and2022. The total population of medical and behavioral health for telehealth and in-person encounters consisted of $N = 4{,}209$ unique patients. Medical encounters for telehealth and in-person totaled $n = 1{,}383$ and behavioral health encounters for telehealth and in-person totaled $n = 2{,}826$.

Sampling and Sampling Procedures

The study site health center in Connecticut collected the sample for this study. The sample consisted of individuals living in Connecticut from 2021 to 2022. NRC Health is, a widely used tool in healthcare organizations to measure patient experiences. The NRC (2025) Health platform focuses on identifying areas of improving patient experience and enhancing the overall patient experience. Patients receive a PERF survey from NRC Health by email, text, or phone following their visit with their provider. The survey provides the patient with the opportunity to provide feedback on their experience during their visit. Once the patient completes the PERF survey, results are electronically logged into a database where the health center's IT department collects the patient experience data. The collected data are sent to the health center's quality department for review and analysis.

I used a data use agreement between the study site outpatient health center and Walden University to obtain permission to access this data. The data requested included the responses of health and wellness patients in medical and behavioral health who completed a PERF survey between April 2021 and October 2022 and had either an in-person or telehealth visit. The survey questions included: "Would you recommend the health center to family and friends?" Additional data retrieved from the NRC PERF survey from the IT department included the service line, site, age, race, and gender. To avoid duplicate encounters, the IT department pulled only the first recorded encounter for behavior health and medical in-person or telehealth appointments from April 2021 through October 2022. The data set was pulled from the electronic health records system used by the outpatient health center and included encounters that met predefined inclusion criteria for medical and behavioral health services delivered via either in-person or telehealth services.

In this study, the independent variable was (a) in-person services and (b) telehealth, and the dependent variable was the patient experience. The dependent variable, patient experience, was measured using a 0-10 Likert scale, with 10 indicating the most likely to recommend services provided at the health center and 0 indicating not at all likely to recommend. I performed a chi-square test of independence in place of the *t* test. A follow-up of a priori power analysis for the chi-square test indicated the parameters were the X^2 test (goodness-of-fit tests), an effect size of 0.3, an alpha error of 0.05, and a power of .80. The minimum required sample size was determined to be 88. The final data set comprised two independent samples of 48 in-person medical encounters and 42 telehealth encounters, totaling 90 unique medical encounters. Behavioral health had 235 in-person encounters and 235 telehealth encounters, totaling 470 unique behavioral health encounters. The data set's characteristics included the participants' service site, age, race, and ethnicity.

Instrumentation and Operationalization of Constructs

Operationalization of Published Instruments

The study information was reported using the PERF report. The National Research Corporation (NRC) was developed in 1981. The NRC platform does not publish validity and reliability estimates of this instrument.

Operationalization

The independent variable in this study was the type of encounter, defined as whether the visit occurred through telehealth or in-person. The dependent variable was patient experience. The operational definition of patient experience is the patient's likelihood of recommending services, measured by the PERF survey question for overall patient experience: Would you recommend services to family or friends?. This question uses a 0–10 Likert scale, which is then categorized into three group ratings: 1 = detractor (0–6), 2 = passive (7–8), and 3 = promoter (9–10).

I abstracted demographic variables, including age, race, ethnicity, and service site, from the electronic health record and categorized into age ranges. Race and ethnicity were measured as categorical variables based on self-reported data in the electronic health record. The site of service was coded by clinic location. I used these variables to explore whether patient experience varied across demographic or service characteristics.

Data Analysis Plan

I used the IBM SPSS Version 29.0.2.0 (20) to analyze the data associated with patient experience with either in-person or telehealth encounters. The data set in this study was provided by the IT department at the study site outpatient health center in Connecticut. The extracted data originated from the NRC PERF survey, specifically addressing the question, Would you recommend this health center to your family or friends? Once the population demographics were established, the IT department provided me with a Microsoft Excel file containing patient encounters from April 2021 through October 2022. The data captured the first visit in the identified time frame for patients who had either a medical or behavioral health encounter.

I reviewed the data set and identified no duplicate encounters. Each variable was coded to medical or behavioral health visits, telehealth or in-person encounters, age, race, gender, and site location. Data were then imported into SPSS. Data cleaning involved removing missing data from categories under gender and race, including nondisclose, other, unknown, and declined to answer.

The PERF report is a survey tool that healthcare organizations use to collect patient feedback through email, phone, or text messages within 48 hours of their visit encounter. The total population size in this study was 4,209 unique adult patients who received either medical or behavioral health services. The sample size for RQ1 included 1,383 unique encounters, with 1,341 being in-person and 42 being telehealth visits. The total population size for RQ2 included 2,826 unique patients, with 2,591 in-person visits and 235 telehealth visits.

The research questions and corresponding hypotheses for this study were:

RQ1: What is the relationship between telehealth and in-person medical visits and patient experiences in Connecticut from 2021–2022?

$H_0$1: There is no statistically significant difference between telehealth and in-person medical visits and patient experiences.

H_a1: There is a statistically significant difference between telehealth and in-person medical visits and patient experiences.

RQ2: What is the relationship between telehealth and in-person visits behavioral health visits and patient experience?

$H_0$2: There is no statistically significant difference between telehealth and in-person behavioral health visits and patient experience.

H_a2: There is a statistically significant difference between telehealth and in-person behavioral health visits and patient experience.

Descriptive statistics include age, race, ethnicity, gender, and site location. I conducted the chi-square test of independence for both research questions. This allowed for the inclusion of both medical and behavioral health encounters because the chi-square test had less restrictive assumptions, and the medical sample size met the necessary G*Power requirements for the chi-square test. A priori power analysis was conducted to determine the minimum required sample size for a chi-square test of independence. The input parameters were the X^2 test (goodness-of-fit tests), an effect size of 0.3, an alpha error of 0.05, and a power of .80; the minimum required sample size was determined to be 88.

To ensure an equitable comparison between medical and behavioral health, I used the SPSS statistical software analysis tool to populate a random sample size for both medical and behavioral health visits. The final data set comprised two independent samples: 48 in-person medical encounters and 42 telehealth encounters, totaling 90 unique medical encounters. The behavioral health random sample size resulted in 235 in-person encounters and 235 telehealth encounters. The randomization process ensured that the group sizes were comparable for statistical testing.

Threats to Validity

A potential threat to this study's external validity was the use of a single outpatient health organization in Connecticut. The data provided were limited to specific geographic regions of the state and did not consider the ethnicity or socioeconomic status of the state's total population. Another potential threat was the possibility of response bias, where patients responding to the survey questions alter their responses due to concerns that their providers would be aware of any negative feedback provided.

A potential internal validity issue in this study was the reliability of the abstraction process from NRC. A single IT staff member extracted survey results from the NRC PERF platform and integrated the responses into the study site organization's data system.

Ethical Procedures

I used a Data Use Agreement between the outpatient health center and Walden University to gain access to a secondary data set. The data set was collected through NRC Health's patient survey. Walden University's Institutional Review Board was approved on 02-06-25-1026399. Walden University Institutional Review Board approval was required before accessing, reviewing, and analyzing data to ensure the study meets the institution's ethical standards. I received Walden University's Institutional Review Board approval on 02-06-25 (Approval No. 02-06-25-1026399). No data were collected using human participants for the purpose of this study. There were no ethical concerns related to the recruitment process or the data collection process.

I used secondary, de-identified data with no patient information or direct identifiers in this study. Data were stored on a secure, password-protected laptop, and a flash drive was used as a backup. No other individuals have access to this laptop. Seven years after the completion of this study, all documents and files will be deleted from this laptop, and the flash drive will be destroyed.

Summary

I conducted this quantitative, quasi-experimental, retrospective study to examine the relationship between telehealth and in-person visits and patient experiences in Connecticut from 2021–2022. I used de-identified secondary data from a health center in Connecticut to examine patient experience based on service type: in-person or telehealth. In this section, I discussed population, sampling, instrumentation, and the operationalization of constructs. I also addressed potential threats to validity and ethical considerations. In Section 3, I will present the results of the study.

Section 3: Presentation of the Results and Findings

Introduction

The purpose of this quantitative, retrospective, quasi-experimental study, using a secondary data set, was to evaluate whether there was a statistically significant relationship between telehealth and in-person medical and behavioral health visits and patient experiences in Connecticut from 2021–2022. I also aimed to determine whether patients receiving medical or behavioral health services, through either in-person or telehealth, would recommend this health center to their family or friends. The research problem and the data collected guided the methods used for data collection and anlysis.

The research questions and hypotheses that guided this study were as follows:

RQ1: What is the relationship between telehealth and in-person medical visits and patient experiences in Connecticut from 2021–2022?

$H_0$1: There is no statistically significant difference between telehealth and in-person medical visits and patient experiences.

H_a1: There is a statistically significant difference between telehealth and in-person medical visits and patient experiences.

RQ2: What is the relationship between telehealth and in-person behavioral health visits and patient experience?

$H_0$1: There is no statistically significant difference between telehealth and in-person behavioral health visits and patient experience.

H_a1: There is a statistically significant difference between telehealth and in-person behavioral health visits and patient experience.

Section 3 includes discussions of the collection of the data set, results from the data analysis, and a summary.

Data Collection of Secondary Data Set

The secondary data set was collected from an outpatient clinic in Connecticut. The secondary data set was gathered from NRC Health PERF surveys and was abstracted by the study site's IT department. The timeframe for this data collection was April 2021 through October 2022, including a sample size of 4,209 unique clients receiving medical or behavioral health services through either in-person or telehealth visits. Patients receiving medical and behavioral health services received a survey within 48 hours after their visit with their provider. Surveys were completed by patients through email, phone, or text messages.

Initially, I chose an independent samples *t* test to compare the means of medical and behavioral health in-person and telehealth visits and patient experience. The assumptions for the *t* test were not met; therefore, a nonparametric chi-square test of independence was chosen.

The data set's demographic variables included the service site, age, race, and ethnicity within the medical and behavioral health sample size. The medical sample included 90 participants; 61 were female and 29 were male. Regarding age, 25 participants were young adults (18–34 years old), 56 were middle-aged (35–64 years old), and nine were classified as older adults (65 years old and above). 48 participants identified as White, 25 identified as Black, 15 identified as another race, one identified as Asian, and one identified as Native American. In terms of ethnicity, 55 participants identified as non-Hispanic, 30 identified as Hispanic, and five did not disclose. Across the five site locations: 33 were from Hartford, 25 from Bristol, 20 from Waterbury, 11 from New Britain, and one from Plainville.

The behavioral health sample consisted of 470 participants. There were 263 female and 207 males. Regarding age, 163 were young adults (18–34 years old), 261 were middle-aged (35–64 years old), and 46 were older adults (65 years old and above). By race, 275 identified as White, 97 identified as Black, and 83 identified as another race, six identified as Native American, and two identified as Hawaiian/Pacific Islander. In terms of ethnicity, 287 participants identified as non-Hispanic, 139 identified as Hispanic, and 44 did not disclose. Across the five site locations, 135 were from the Hartford site, 113 from Waterbury, 111 from New Britain, 64 from Bristol, and 47 from Plainville.

The use of the nonprobability sampling method in this study means that the sample does not represent the entire population of Connecticut; however, the data were collected from five different sites throughout Connecticut, supporting external validity within the outpatient health setting. No post-hoc analyses were warranted because no significant association was found between telehealth and in-person and patient experience.

Results

Table 1 displays the demographics of the medical sample ($N = 90$), which was predominantly female (67.8%) and middle-aged (35–64 years; 62.2%). Most participants identified as White (53.3%) and non-Hispanic (61.1%). Hartford was the most represented site (36.7%). A majority of medical participants (65.6%) indicated they would recommend the health center's services to family and friends.

Table 1

Medical: Descriptive Statistics for Frequencies and Percentages of Demographics Variables

Variables	*n*	%
Gender		
Female	61	67.8
Male	29	32.2
Age		
Young adults (18–34)	25	27.8
Middle-aged (35–64)	56	62.2
Older adults (65+)	9	10.0
Race		
Asian	1	1.1
Black	25	27.8
Hawaiian/Pacific	0	0
Native American	1	1.1
White	48	53.3
Other	15	16.7
Ethnicity		
Hispanic	30	33.3
Non-Hispanic	55	61.1
Nondisclose	5	5.6
Site		
Bristol	25	27.8
Hartford	33	36.7
New Britain	11	12.2
Plainville	1	1.1
Waterbury	20	22.2
Would You Recommend?		
Detractors	16	17.8
Passive	15	16.7
Promoters	59	65.6

Table 2 presents the demographics for the behavior health sample ($N = 470$), which was primarily female (56%) and middle-aged (35–64 years; 55.5%). The largest racial group was White (58.5%), while the most common ethnicity was non-Hispanic (61.1%). The Hartford site had the highest representation (28.7%). A majority (66.4%) of behavioral health participants responded positively to the question about recommending the health center's services to family and friends.

Table 2

Behavioral Health: Descriptive Statistics for Frequencies and Percentages of Demographics Variables

Variables	*n*	%
Gender		
Female	263	56.0
Male	207	44.0
Age		
Young adults (18–34)	163	34.7
Middle-aged (35–64)	261	55.5
Older adults (65+)	46	9.8
Race		
Asian	7	1.5
Black	97	20.6
Hawaiian/Pacific	2	0.4
Native American	6	1.3
White	275	58.5
Other	83	17.7
Ethnicity		
Hispanic	139	29.6
Non-Hispanic	287	61.1
Nondisclose	44	9.4
Site		
Bristol	64	13.6
Hartford	135	28.7
New Britain	111	23.6
Plainville	47	10.0
Waterbury	113	24.0
Would You Recommend?		
Detractors	82	17.4
Passive	76	16.2
Promoters	312	66.4

RQ1

To address RQ1, I conducted a chi-square test of independence to analyze the relationship between telehealth and in-person medical visits and patient experience. The findings of the chi-square test were not statistically significant, indicating that there was no relationship between telehealth and in-person medical visits and patient experiences. The association was not statistically significant, $\chi^2(2) = 0.469$, $p = .791$, $< .05$ (see Table 3 and Figure 1); therefore, the null hypothesis failed to be rejected.

Table 3

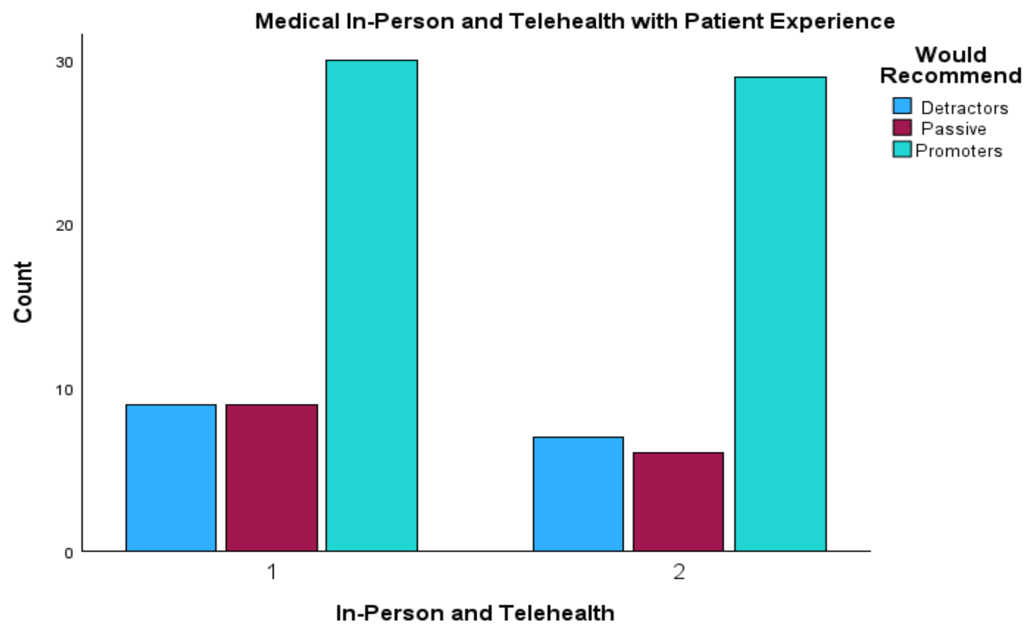
Chi Square Crosstabulation: Medical In-Person and Telehealth and Would You Recommend

	Would you recommend?			
Service line	1	2	3	*n*
In-person	9	9	30	48
Telehealth	7	6	29	42

Note. Value = 0.469. *df* = 2. Approximate significance = .791.

Figure 1

Histogram Categorized Into Three Group Ratings (Detractor, Passive, and Promoter) Showing the Relationship Between In-Person and Telehealth in Medical Visits and Patient Experience



RQ2

To address RQ2, I conducted a chi-square test of independence to analyze the relationship between telehealth and in-person behavioral health visits and patient experiences in Connecticut from 2021–2022. The findings of the chi-square tests were not statistically significant, indicating that there was no relationship between telehealth and in-person behavioral health visits and patient experiences. The effect size, measured by Cramér's V, was 0.605. The association was not statistically significant, $\chi^2(2) = 1.01$, $p = .605$ (see Table 4 and Figure 2); therefore, the null hypothesis failed to be rejected.

Table 4

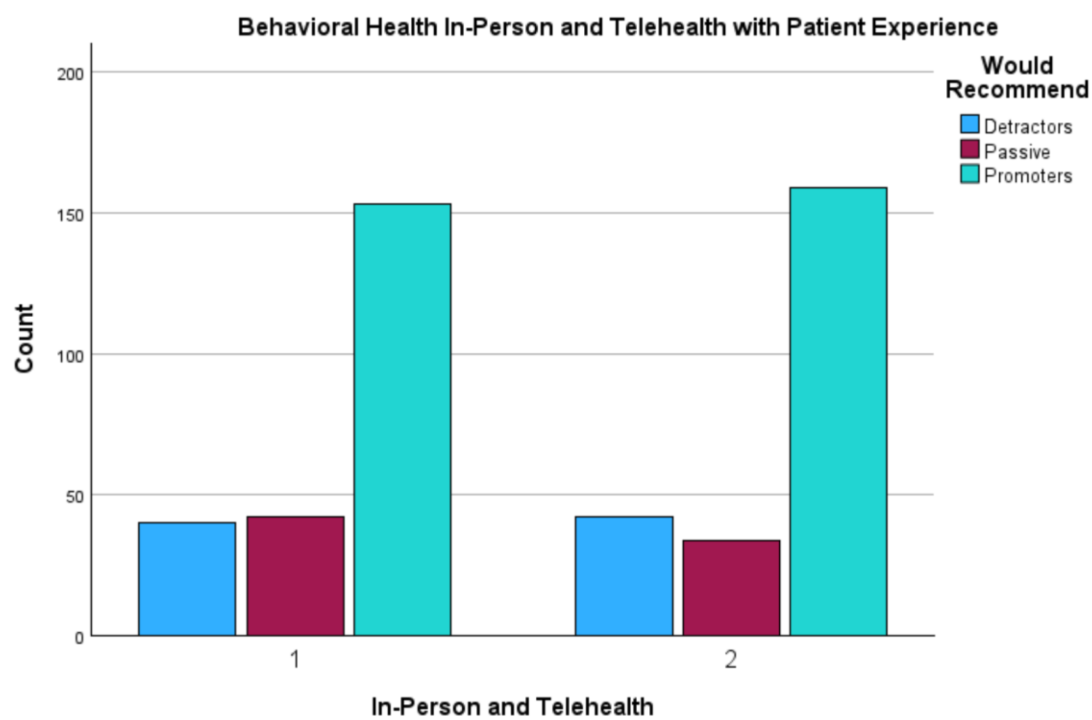
Chi Square Crosstabulation: Behavioral Health In-Person and Telehealth and Would You Recommend

	Would you recommend?			
Service line	1	2	3	*n*
In-person	40	42	153	235
Telehealth	42	34	159	235

Note. Value = 1.01 *df* = 2. Approximate significance = .605.

Figure 2

Histogram Categorized into Three Group Ratings (Detractor, Passive, and Promoter) Showing the Relationship Between In-Person and Telehealth in Behavioral Health Visits and Patient Experience



Summary

The purpose of this quantitative study was to determine if there is a relationship between telehealth and in-person medical and behavioral health visits and patient experiences. Chi-square tests were performed to analyze the relationship between variables. In this section, the findings of the data analysis were presented.

The findings of the chi-square tests for RQ1 were not statistically significant, indicating that there was no relationship between telehealth and in-person medical visits and patient experiences. $\chi^2(2, n = 90) = 0.469$, $p = .791$; therefore, the null hypothesis failed to be rejected. The findings of the chi-square tests for RQ2 were not statistically significant, indicating that there was no relationship between telehealth and in-person behavioral health visits and patient experiences. $\chi^2(2) = 1.01$, $p = .605$; therefore, the null hypothesis failed to be rejected.

The findings of this study suggest that there was no significant difference in patient experience between telehealth and in-person services for either medical or behavioral health visits in Connecticut during the 2021–2022 period. In both medical and behavioral health visits, patients reported high levels of having a good patient experience with the care they received in the outpatient health center. Among participants receiving medical visits, 65.6% ($n = 59$) reported being satisfied, while 66.4% of behavioral health patients ($n = 312$) also indicated a positive patient experience.

In Section 4, I will present my interpretation of the findings, the limitations of the study, my recommendations for further research, and the implications for professional practice and positive social change.

Section 4: Application to Professional Practice and Implications for Social Change

Introduction

The purpose of this quantitative, quasi-experimental, retrospective study was to determine whether there was a statistically significant relationship between telehealth and in-person visits and patient experience in Connecticut from 2021 to 2022. The independent variable was (a) in-person or (b) telehealth services, and the dependent variable was the patient's experience. I used a chi-square test of independence to determine the relationship between medical and behavioral health visits and patient experience. The findings were not statistically significant for either group, indicating that there was no relationship between telehealth and in-person medical visits or behavioral health visits and patient experiences. I conducted this study to enhance the understanding of how service modality in Connecticut health centers impact patient experience.

Interpretation of the Findings

The findings of this study suggest that there was no statistically significant difference in the relationship between telehealth and in-person visits for medical and behavioral health visits and patient experience. For medial visits, the association was not significantly significant, $\chi^2(2) = 0.469$, $p = .791$. Similarly, for behavioral health visits, the association was not statistically significant, $\chi^2(2) = 1.01$, $p = .605$. However, a separate analysis revealed a statistically significant relationship between ethnicity and patients recommending family and friends to the health center ($p > .001$). This finding suggests that culture or demographic factors may influence patient experience and service modality. The descriptive data showed 66.4% of behavioral health participants responded positively to the question: Would you recommend this health center to family and friends? In comparison, 65.6 % of medical participants indicated that they would recommend the health center to family and friends. These results suggest that there is higher overall satisfaction among behavioral health patients, although the difference is not statistically significant.

The findings disconfirm what has been found in the peer-reviewed literature. Previous studies have reported favorable patient experience with telehealth services, due to increase accessibility, reduced wait times, and convince (Gabrielsson-Jarhult et al., 2024). However, some studies, such as Mangalji et al. (2022), have found no significantly significant difference between the telemedicine groups and in-person groups in overall patient satisfaction.

Aligned with Donabedian's model of structure, process and outcomes, the current study findings suggest that while telehealth represents a structural change in service delivery, it may not solely drive positive changes in patient experience in an outpatient health center.

Limitations of the Study

This study had several limitations related to the use of secondary data. The data excluded factors, such as clinical information, including diagnosis, chronic diseases, comorbidities, or health literacy, which may all influence patient experience. The data set lacked insight into patients' preferences regarding which service delivery method they prefer: receiving telehealth visits or in-person visits with their provider.

During the data cleaning and coding of categories, there were demographics, such as ethnicity and race that had “other” or “unknown” that were excluded from the data analysis. Removing these categories reduced the sample sizes of medical and behavioral health visits and removed underrepresented individuals.

Moreover, the behavioral health telehealth visit sample was subject to a prescreening process prior to their appointment with their clinician. Patients identified for telehealth behavioral health services need to be deemed clinically stable by their clinician. Clinicians used a decision tree to determine if the client were clinically stable for behavioral health treatment via telehealth. The data lacked insight into preferences regarding whether patients prefer receiving telehealth visits or in-person visits with their provider. The prescreening selection may have introduced selection bias because only those deemed clinically stable were offered telehealth services, which potentially influenced the outcomes in this sample group.

This study did not account for the marginalized communities that the clinics serve within the state of Connecticut. Many of the health centers included in this study operate in underserved areas of Connecticut, where socioeconomic factors, digital access, and cultural or linguistic barriers may shape telehealth utilization and patient experience. These variables were not captured in the data set and represent an important area for future research.

Recommendations

Based on the research conducted in this study, I propose several recommendations for future investigations. Future research should involve a larger and more balanced sample of medical and behavioral health encounters to identify the differences between in-person and telehealth encounters. A larger representation of medical and behavioral health encounters would facilitate more robust comparisons and strengthen the study's findings.

Incorporating qualitative methods or a mixed-methods approach would provide a better understanding of patient experience and its influencing factors. While the current study focused on patient experience using NPS, qualitative feedback could help identify influencing factors of patient experiences.

Future researchers may also consider examining the differences in ethnicity, race, and gender in behavioral health and service delivery to better understand the disparities in patient experience. Given the significant association found between ethnicity and the would you recommend question, future research could provide a greater understanding to improve health care delivery and reduce disparities in the patient experience.

Implications for Professional Practice and Social Change

Professional Practice

Patient experience is a vital component of the quality of healthcare. Patient experience has been positively linked to improved health outcomes. According to AHRQ (2025), patient experience includes components that matter most to patients, such as timely access to services, clear communication with providers, and the overall ease of navigating the healthcare process. While the current study did not result in a statistically significant difference in patient experience between in-person and telehealth services for either medical or behavioral health visits, a statistically significant difference was found between ethnicity and the question of "Would you recommend this health center to family and friends?" Additionally, behavioral health patients reported a more positive patient experience compared to the medical patient sample. Healthcare administrators and providers should consider sustaining or expanding telehealth options within behavioral health as a means to improve the patient experience. The results of this study will add to the growing body of knowledge indicating the importance of behavioral health services and the type of service delivery.

Positive Social Change

This study supports positive social change by evaluating whether the mode of service delivery, telehealth versus in-person services, impacts patient experience in medical and behavioral outpatient settings. Healthcare administrators play a crucial role in understanding how patients perceive their visits with their healthcare provider. Gurfinkel et al. (2024) found that patient attitudes drive care-seeking behavior and treatment. When healthcare administrators understand what patients are looking for in their provider, they can implement the necessary policies to improve the quality of care, access to care, and equity of care, making it equitable for all patients. The findings can help guide healthcare leaders in refining service delivery models that prioritize patient-centered care, particularly in underserved or vulnerable populations. As defined in the Walden University (2025) *Student Handbook*, positive social change is "a deliberate process of creating and ideas positive social change results in the improvement of human and social conditions through ideas and actions and promotes growth in our communities" (p.40). By contributing to the Walden University social change mission, this study promotes healthcare practices that are more inclusive, culturally responsive, and accessible to all patients, regardless of the mode of service delivery.

Conclusion

In this study, I explored the relationship between telehealth and in-patient visits and patient experience within a health center in Connecticut, using secondary data collected from 2021 through 2022. Two research questions guided this study. In RQ1, I concluded that there is no statistically significant difference in the relationship between telehealth and in-person medical visits and patient experiences. Regarding RQ2, I found that there is no statistically significant difference in the relationship between telehealth and in-person behavioral health visits and patient experience. Nonetheless, these findings support the value of patient experience as a driver for quality improvement in healthcare.

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