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Where's the etiquette? Telehealth etiquette in health professions education and practice: A scoping review

Rachel Pittmann

MGH Institute of Health Professions, RPITTMANN@MGHIHP.EDU

Bobbie Ann Adair White

MGH Institute of Health Professions, bwhite2@mghihp.edu

Nicole Danaher-Garcia

MGH Institute of Health Professions, ndanaher-garcia@mghihp.edu

Anne Thompson

MGH Institute of Health Professions, athompson@mghihp.edu

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Abstract

Background: Past research on in-office provider professionalism has shown an association between patient-provider relationship, patient satisfaction, and healthcare outcomes. Less research has been conducted on the topic of professionalism and communication in telehealth. Telehealth etiquette, or the skills that combine professionalism and communication used during a virtual healthcare visit, has recently emerged in the literature. **Purpose:** The purpose of this study is to map the evidence of telehealth etiquette within health professions education and practice. **Method:** A full search using keywords and synonyms of “websites manner” and “telehealth” was conducted in PubMed, CINAHL, and PsycInfo. Search results initially identified 263 publications; 52 duplicates were removed, and 211 were screened for inclusion. Full-text review and data analysis resulted in a total of 49 publications. Publications related to telehealth etiquette use, training, guidelines, perspectives, and research in health professions written in English from across the globe over the past ten years were included. **Results:** Telehealth etiquette was published in medicine, nursing, and allied health professions, primarily within the United States since 2020, including articles on both professionals and trainees. Telehealth etiquette recommendations were largely based on authors’ opinions and personal experience. The association between telehealth etiquette, patient satisfaction, and healthcare outcomes was established in this study. Sources suggested additional training in telehealth etiquette is needed. **Conclusions:** Recommendations serve as guidance to promote positive patient-provider relationships and patient satisfaction in telehealth. Future studies are recommended to identify best practice guidelines for both healthcare professionals and patients themselves that will have a positive impact on healthcare outcomes.

Author Bio(s)

Rachel Pittmann, PhD, CCC-SLP, is an assistant professor in Communication Sciences & Disorders and an assistant dean in the Center for Interprofessional Education & Practice at MGH Institute of Health Professions.

Bobbie Ann Adair White, EdD, MA is an associate professor in Health Professions Education at MGH Institute of Health Professions. She is an educator, coach, and consultant. BA teaches in the following content areas: conflict management, teams in medicine, leadership, educational administration, and health professions education.

Nicole Danaher-Garcia, PhD is an assistant professor in the School of Healthcare Leadership at MGH Institute of Health Professions. She teaches quantitative analysis and predictive analytics courses in the Master of Healthcare Data Analytics program and the Master/PhD of Health Professions Education.

Anne Thompson, PT, EdD is Adjunct Faculty in the Master of Health Professions Education (MS-HPed) and PhD in Health Professions Education programs at MGH Institute of Health Professions.

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Rachel Pittmann
Bobbie Ann Adair White
Nicole Danaher-Garcia
Anne Thompson

MGH Institute of Health Professions

United States

ABSTRACT

Background: Past research on in-office provider professionalism has shown an association between patient-provider relationship, patient satisfaction, and healthcare outcomes. Less research has been conducted on the topic of professionalism and communication in telehealth. Telehealth etiquette, or the skills that combine professionalism and communication used during a virtual healthcare visit, has recently emerged in the literature. **Purpose:** The purpose of this study is to map the evidence of telehealth etiquette within health professions education and practice. **Method:** A full search using keywords and synonyms of “websites manner” and “telehealth” was conducted in PubMed, CINAHL, and PsycInfo. Search results initially identified 263 publications; 52 duplicates were removed, and 211 were screened for inclusion. Full-text review and data analysis resulted in a total of 49 publications. Publications related to telehealth etiquette use, training, guidelines, perspectives, and research in health professions written in English from across the globe over the past ten years were included. **Results:** Telehealth etiquette was published in medicine, nursing, and allied health professions, primarily within the United States since 2020, including articles on both professionals and trainees. Telehealth etiquette recommendations were largely based on authors’ opinions and personal experience. The association between telehealth etiquette, patient satisfaction, and healthcare outcomes was established in this study. Sources suggested additional training in telehealth etiquette is needed. **Conclusions:** Recommendations serve as guidance to promote positive patient-provider relationships and patient satisfaction in telehealth. Future studies are recommended to identify best practice guidelines for both healthcare professionals and patients themselves that will have a positive impact on healthcare outcomes.

Keywords: Bedside manner; patient satisfaction; health professions education; telehealth etiquette; website manner

INTRODUCTION

Telehealth, as defined by the National Institutes of Health, is “the use of communications technologies to provide and support health care at a distance.”¹ This modality of care has become increasingly popular over the past few decades and has been incorporated both into practice settings and the training programs of pre-licensure health professions students. Since the COVID-19 pandemic, there has been an acceleration in the adoption and use of telehealth modalities. The US Department of Health and Human Service’s Office of the Assistant Secretary for Planning and Evaluation found that as compared to data collected in 2019, Medicare telehealth visits in 2020 increased 63-fold.² Projecting beyond 2020, the American Telemedicine Association anticipates that by 2030, more than 50% of healthcare services will be conducted via telehealth.³ From an economic perspective, telehealth is expected to grow from an estimated \$38.3 billion in 2018 to \$130.5 billion by 2025.⁴ With this rapid acceleration, there has been an increase in the research and proliferation of knowledge in certain areas of telehealth delivery and education, as well as the populations best served by telehealth: “Telemedicine has been shown to improve patient financial burden, quality of life, and overall patient-important outcomes, including adherence to therapy, health care utilization, and disease activity, as well as reduce overall health care costs.”⁵ Also, telehealth can improve access to healthcare in rural and underserved communities by overcoming issues such as transportation.^{6,7}

Healthcare professionals, defined as licensed, registered, or certified persons that provide health care services, includes professionals such as doctors, nurses, physician assistants, physical therapists, occupational therapists, social workers, mental health providers, speech-language pathologists, audiologists, pharmacists, and dietitians. Healthcare professionals and trainees have developed new skills specific to the telehealth environment⁷, called telecompetencies. As one example, healthcare providers in a telehealth visit must achieve eye contact through a web camera rather than looking directly at the patient’s face during an in-person visit.⁸ Accreditation bodies, including the Association of American Medical Colleges, the American Nurses Association, and the Accreditation Council for Occupational Therapy Education, have begun to require telecompetency standards to be included in curricula and continuing professional development.⁹⁻¹¹

Professionalism is an encompassing term for the attributes of integrity, equity, respect, confidentiality, and trustworthiness.¹² Communication, both verbal and nonverbal, convey these important aspects of patient-provider interactions. The patient-provider relationship is one of the many factors that impact healthcare outcomes. Kelley and colleagues¹³ identified a small, yet statistically significant effect of patient-clinician relationship on healthcare outcomes. Patient adherence to treatment plans and physician recommendations are also impacted by how satisfied they are with their providers’ communication.^{14,15} Said differently, poor healthcare outcomes can stem from poor patient-provider relationships.¹⁶

While patient-provider relationships and healthcare outcomes research exist in the face-to-face healthcare setting, there is less research in the telehealth space. In fact, even the terminology used to represent the unique professionalism skills needed in telehealth is inconsistent, including such terms as “telehealth etiquette,”¹⁷⁻¹⁹ “netiquette,”^{20,21} and “webside manner.”²²⁻²⁷ For consistency, the phrase “telehealth etiquette” will be used in this paper.

Telehealth etiquette is broadly defined in the literature to include the unique behaviors needed to conduct an effective telehealth visit that extend beyond typical professional behaviors cited in the literature. These telehealth-specific behaviors might include guidelines around positioning the camera, environmental setups of the home or office, or noise management.¹⁸⁻²⁰ Within the past few years, some telehealth etiquette guidelines have emerged for interprofessional care, telepsychiatry, palliative care, and more.^{17,18,20,23,26-31} A systematic approach to understanding telehealth etiquette training in education and practice has not been mapped in the literature. The Institute for Healthcare Improvement developed an approach to optimize health systems known as the “Triple Aim,” one aspect of which focuses on the patient experience³² Understanding how telehealth etiquette impacts the patient experience, specifically the patient-provider relationship and patient satisfaction is critical. Given the rapid rise in telehealth and projected acceleration of current and future use, the aim of this scoping review is to determine the evidence for telehealth etiquette training, practice, and research within healthcare over the past ten years. With an increase in understanding of telehealth etiquette, the outcomes of this review can guide the development of best practice recommendations, identify areas in which additional research is necessary, and develop telehealth etiquette continuing education and pedagogical interventions.

STUDY PURPOSE

The research questions were: 1) which health professions report training and research related to telehealth etiquette in the literature? 2) what guidelines, best practices, and recommendations already exist in the literature? and 3) What gaps exist in the literature on the topic of telehealth etiquette in health professions fields?

METHODS

Inclusion and Exclusion Criteria

The scoping review and manuscript preparation were conducted in accordance with the updated JBI methodology for scoping reviews, using the Participant, Concept, Context framework to define inclusion criteria.³³ Participants included any healthcare professional and pre-professional (e.g., students, trainees) at any level of experience and practice. Concept terms were telehealth etiquette use, training, guidelines, perspectives, and research in health professions education and practice. Search results that focused primarily on e-professionalism, digital professionalism, or etiquette outside of health professions education and practice were labelled 'irrelevant' in the Preferred Reporting Items for Systematic Reviews-Scoping Review extension (PRISMA-ScR)³⁴ and were excluded from this review. Non-peer reviewed published literature providing training and guidelines was also excluded from this study. The context was publications (including all study designs, methodologies as well as non-research articles) published within the past ten years, in the English language, and specifically in the health professions fields and education across the globe.

Search Strategy

This exploratory study sought to understand the ways in which telehealth etiquette was used, trained, and researched in the field of health professions education and practice. In collaboration with two health sciences librarians, the first author established search terms and subject headings to answer the research questions. Keywords, database-provided subject headings, and the use of Boolean operators led to the final search strategy (seen in Appendix #1). An initial search of PubMed, CINAHL, and Google Scholar was conducted to identify articles on the topic of telehealth etiquette. The words contained in the titles and abstracts of relevant articles, and the index terms used to describe the articles, were used to develop a full search strategy (Table 1). The full search within PubMed, CINAHL, and PsycInfo was conducted between October 24th and November 19th, 2022. Specific terms were adapted slightly for each database to ensure the use of the specific subject headings or indices used by each search. Reference lists and hand searches of included sources of evidence were screened for additional articles which resulted in an additional eleven articles to be screened. The search included a comprehensive collection of medical and health professional sources to ensure that all relevant, unique references were identified.

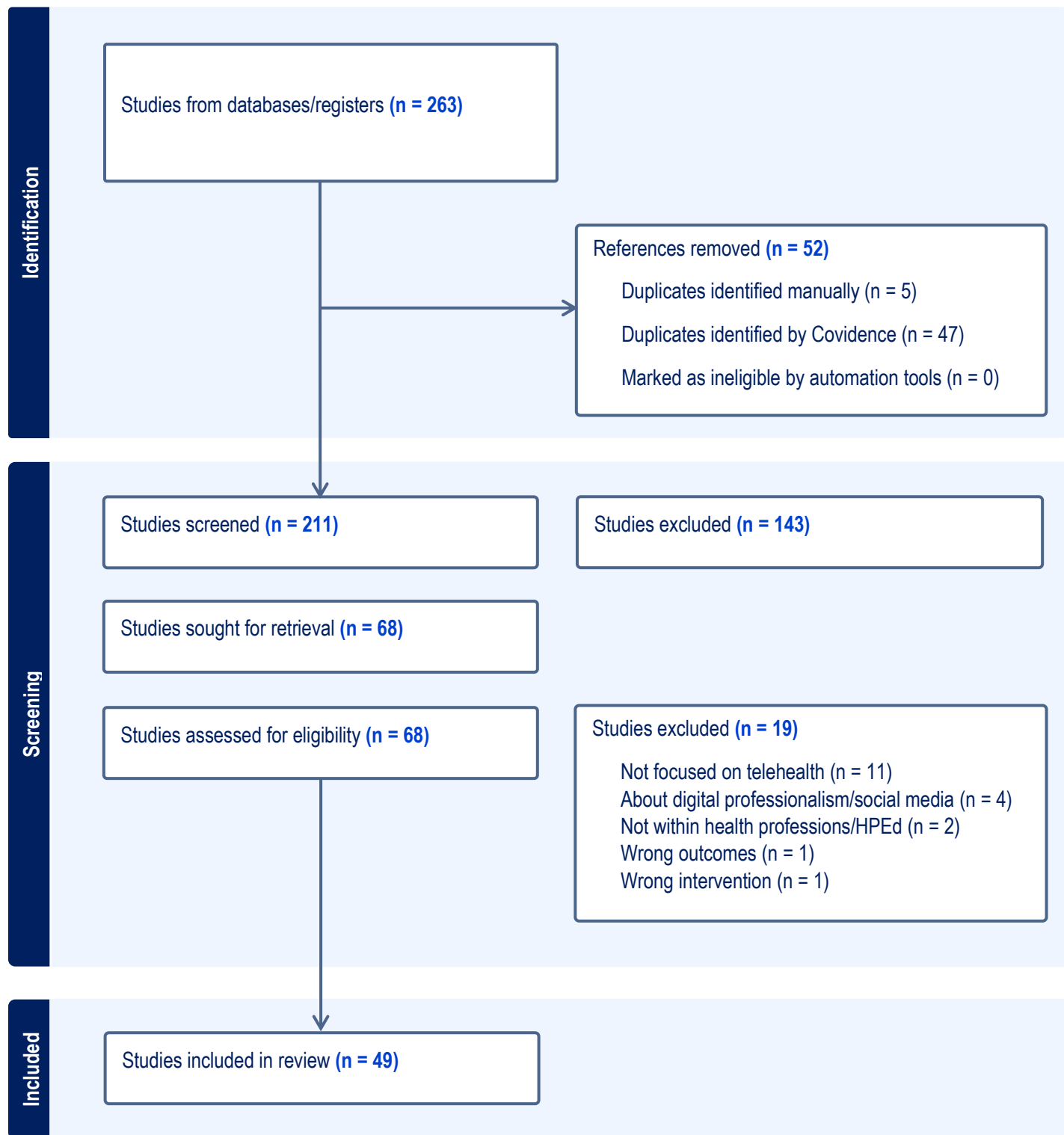
Study/Source of Evidence Selection

Following the searches, all identified citations (n= 263) were uploaded into Covidence, a "web-based collaboration software platform that streamlines the production of systematic and other literature reviews" and duplicates (n=52) were removed.³⁵ In the first stage, 211 titles and abstracts were screened by two independent reviewers for assessment against the inclusion criteria for the review. Irrelevant sources were removed (n=143) and potentially relevant sources (n=68) were moved to the second stage in Covidence, the full-text review. The full text of selected citations was assessed in detail against the inclusion criteria by the same two reviewers. Reasons for exclusion were recorded within Covidence (i.e., article was outside of the field of health professions, the focus was on digital professionalism rather than telehealth etiquette, etc.) and reported in the PRISMA-ScR³⁴ in Figure 1. When disagreements arose in the abstract and full-text screening stages, the reviewers discussed the sources and resolved 100% of the disagreements themselves. At the end of full-text review, 49 articles were moved to the extraction stage.

Table 1. Search Strategies

Database	Search Terms	Index Terms	Search Date
PubMed	("remote connections" OR "virtual care" OR "virtual visit" OR ("online" OR virtual) AND (health OR visit OR care)) OR "videoconference" OR "telemedicine" OR "telehealth" OR "tele-health" OR "online health" OR "on-line health" OR "ehealth" OR "e-health" OR "ehealth" OR "telepractice" OR "telerehabilitation" OR "tele*" OR "Remote Consultation"[Mesh] OR "Videoconferencing"[Mesh] OR "Telemedicine"[Mesh] OR "Telerehabilitation" [Mesh] OR "telehealth"[Mesh] OR "eHealth"[Mesh]) AND ("telehealth etiquette"[Title/Abstract] OR "websiteside manner"[Title/Abstract] OR "netiquette"[Title/Abstract] OR "etiquette"[Title/Abstract] OR "digital professionalism"[Title/Abstract] OR "virtual professionalism*"[Title/Abstract] OR "etiquette"[Title/Abstract] OR "web-side manner"[Title/Abstract] OR "e-professionalism"[Title/Abstract])	"Remote Consultation"[Mesh] "Videoconferencing"[Mesh] "Telemedicine"[Mesh] "Telerehabilitation" [Mesh] "telehealth"[Mesh] "eHealth"[Mesh])	October 24, 2022
CINAHL	(TI ("telehealth etiquette" OR "websiteside manner" OR "web-side manner" OR "netiquette" OR "etiquette" OR "digital professionalism" OR "virtual professionalism*" OR "etiquette" OR "web-side manner" OR "e-professionalism") OR AB ("telehealth etiquette" OR "websiteside manner" OR "web-side manner" OR "netiquette" OR "etiquette" OR "digital professionalism" OR "virtual professionalism*" OR "etiquette" OR "web-side manner" OR "e-professionalism")) AND ("remote connections" OR "virtual care" OR "virtual visit" OR ("online" OR virtual) AND (health OR visit OR care)) OR "videoconference" OR "telemedicine" OR "telehealth" OR "tele-health" OR "online health" OR "on-line health" OR "ehealth" OR "e-health" OR "telepractice" OR "telerehabilitation" OR "tele*" OR MH "Remote Consultation" OR MH "Videoconferencing+" OR MH "Telehealth+")	MH "Remote Consultation" MH "Videoconferencing+" MH "Telehealth+"	October 24, 2022
PsychInfo	("remote connections" or "virtual care" or "virtual visit" or ("online" or virtual) and (health or visit or care)) or "videoconference" or "telemedicine" or "telehealth" or "tele-health" or "online health" or "on-line health" or "ehealth" or "e-health" or "ehealth" or "telepractice" or "telerehabilitation" or "tele*") and ("telehealth etiquette" or "websiteside manner" or "netiquette" or "etiquette" or "digital professionalism" or "virtual professionalism*" or "etiquette" or "web-side manner" or "e-professionalism").ab.ti.		November 16, 2022

Figure 1: Preferred Reporting Items for Systematic Reviews flow diagram of article selection process³⁴



Flowchart that shows the article inclusion and exclusion diagram from Covidence.^{34,35}

Data Extraction

A data extraction tool was developed by the reviewers within the Covidence software and pilot tested on three full-text articles. Following discussion, the reviewers agreed on the tool, and data extraction was initiated. Tool refinement included reorganization of content, addition of extraction items, and efforts to ensure exporting the data would be efficient for the analysis stage. This iterative process is common in scoping reviews to ensure the extraction tool is best able to meet the objectives of the review.³³ Data extraction was performed by the first author for all forty-nine articles, then verified by the second. The following information was collected from each source: year of publication, author, title, country of origin, study aim, primary focus of the source, term used in the source related to telehealth etiquette, study design, disciplines involved, and specific details about telehealth etiquette related to the research questions. A critical appraisal of individual sources of evidence was not conducted, as it is generally not recommended for scoping reviews, where the aim of the review is to understand the available evidence rather than synthesize it.³³

RESULTS

Data Analysis and Presentation

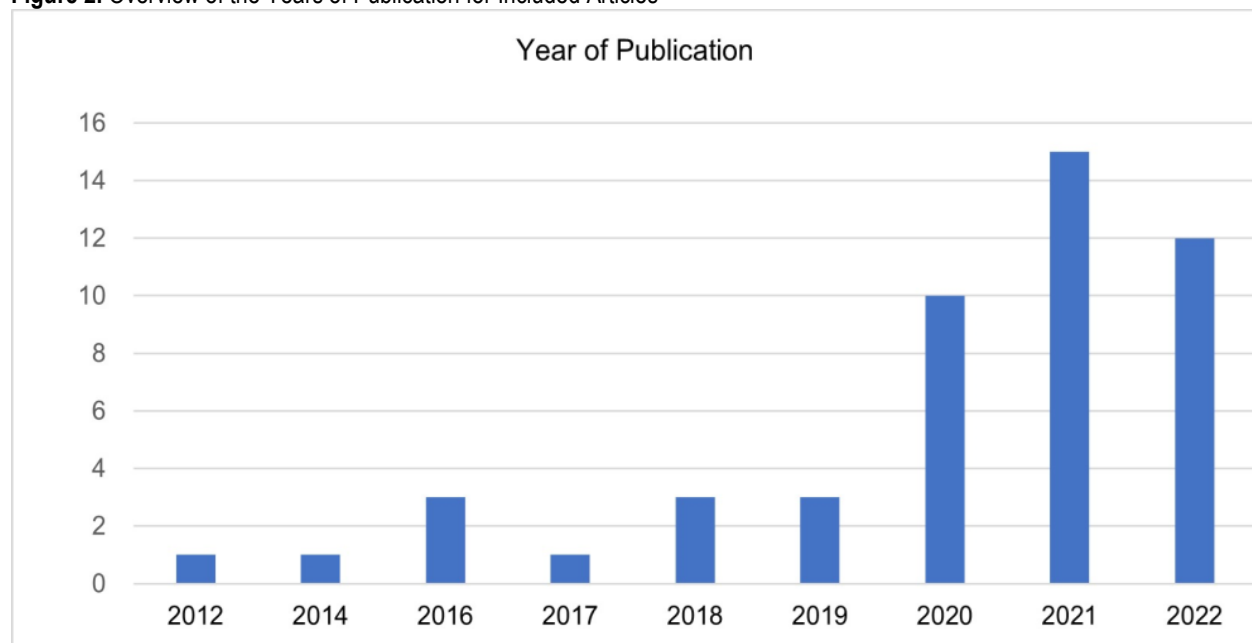
Sample Characteristics

The results of the extraction were synthesized using frequencies and percentages to gain an understanding of existing publications on telehealth etiquette over the past decade.

Dates of Publication

Figure 2 shows the number of articles published per year: 75% percent (37/49) of sources in this review were published since the beginning of the COVID-19 pandemic while the remaining 25% were published beforehand between 2012-2019.

Figure 2. Overview of the Years of Publication for Included Articles



Eighty percent (39/49) of included articles were published in the United States of America, 8% (4/49) in Canada,^{5,36-38} 6% (3/49) in the United Kingdom³⁹⁻⁴¹ with the remaining 6% (2/49) in India^{20,21} and Europe (1/49).⁴²

Aim and Focus of the Sources

As is seen in Appendix A, 45% (22/49) of articles focused specifically on telehealth etiquette, another 45% (22/49) primarily focused on telehealth and featured telehealth etiquette in the article and the remaining 10% (5/49) focused primarily on other topics such as teleprecepting,⁴³ objective structured clinical examinations,⁴⁴ nurse training programs,³⁷ videoconferencing,⁴⁰ and virtual trauma meetings.³⁹

The articles whose focus was primarily telehealth etiquette were written by or for clinicians in medicine and nursing, while the more general telehealth articles were from a more varied representation of disciplines, including physical therapy and speech therapy.

Terminology Used to Describe Telehealth Etiquette

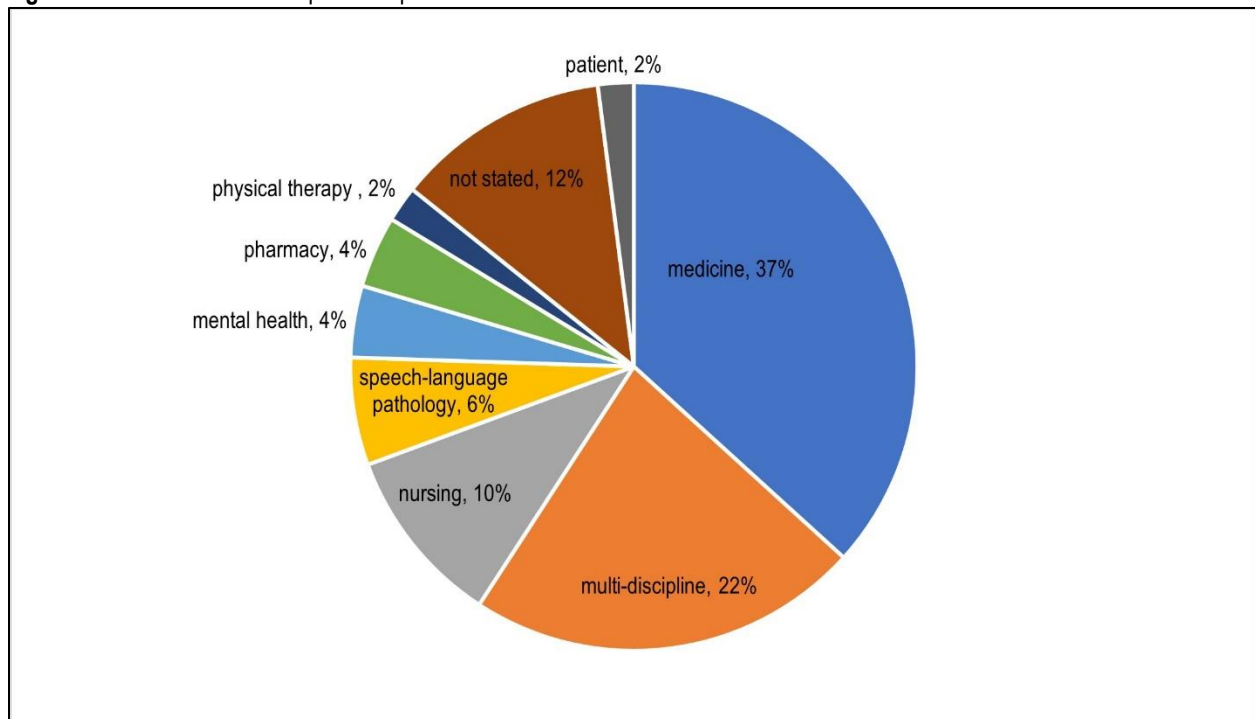
There was inconsistency in the terms used to describe telehealth etiquette. The most consistent term used by 39% of articles (19/49) was “websites manner,” which is a term adapted from “bedside manner” to be used in the virtual environment. “Telehealth etiquette” was used in 25% (12/49) of articles. An equal number of articles (12/49) either used the word “etiquette” alone or a phrase that included the word etiquette, such as “teledermatology etiquette.” When counting frequencies across all sources, in nearly half (24/49) of the articles, authors used the word “etiquette” in all or part of its description. Eight percent (4/49) described telehealth etiquette using the term “interpersonal communication,” while one article described “guideline domains”⁵ and another described “high impact tips for a successful telemedicine encounter.”⁴⁵ Appendix A contains a full list of the terms used and the sources from which they originate.

Research Question 1: Which health professions report training and research related to telehealth etiquette in literature?

Disciplines Represented

A primary aim of the scoping review was to capture all types of health professions using, educating, and researching telehealth etiquette in order to answer this question. The representation of the various disciplines in the review can be seen in Figure 3 and includes uniprofessional publications (e.g., medicine, nursing, speech-language pathology) as well as multi-discipline publications. In the following section, the articles from medicine, nursing, speech-language pathology, pharmacy, and multi-discipline groups are discussed. The largest proportion of articles came from the field of medicine, followed by multi-discipline groups, and nursing, as shown in the figure.

Figure 3. Overview of the Disciplines Represented in the Included Articles



Interpretation of Figure 3

1. Medicine (n=18)

Within the field of medicine, publications came from the following speciality areas: allergy-immunology,²³ dermatology,⁴⁶ neurology,⁴⁷ oncology,⁴⁸ pediatrics,^{25,36,49,50} and psychiatry.^{20,40}

1.1 Intended audience: Most of the publications within medicine that were directed toward physicians were opinion pieces that provided recommendations or tips to help physicians learn about and use telehealth etiquette skills (90%, 9 of 10). Seven

publications focused on health professions' students and trainees, including four quantitative studies that presented educational research findings related to trainees' responses to telehealth-specific training^{41,50,51} and the impact of a telemedicine OSCE.⁵² Three trainee-focused publications in medicine included opinion pieces related to telemedicine curricula^{53,54} and tips for using telehealth etiquette skills during virtual OSCEs.⁴⁴ One publication provided telehealth recommendations that addressed both intended audiences - physicians and trainees.⁵⁵

1.2 Association between telehealth etiquette and healthcare outcomes: Approximately half of the publications within medicine (n=9) noted this association.

1.3 Additional training: Approximately half of the publications (n=10) noted that additional training in telehealth etiquette was recommended while one, Finklestein et al. (2020) recommended additional research was needed.⁴⁹

1.4 Methodology: Of all the publications situated in the field of medicine, twelve were opinion pieces; five were quantitative studies, including a randomized control trial and a case report; one innovation report was included.

2. Multi-discipline (n=11)

Within the multi-discipline publications, several articles included two professions (e.g., nursing and physician assistant; physician and nursing), while others included a larger number of disciplines, such as audiology, counselling, dietetics, and nursing;³⁰ nurse practitioner and clinical nurse specialists, athletic training, clinical counselling, dental hygiene, medicine, social work, and pharmacy;⁵⁶ and pediatric teams from primary care, urology, ophthalmology, gynecology, cardiac surgery, psychiatry, neurosurgery, orthopedics, medicine, and surgery.⁵⁷

2.1 Intended audience: Within this group, six of the publications studied clinicians,^{26,57-61} two studied trainees,^{17,56} one was inclusive of both practitioners and trainees,³⁹ and two sources did not specify the learner group.^{5,30}

2.2 Association between telehealth etiquette and healthcare outcomes: Of the sources, 63% (n=7) reported this association.

2.3 Additional training: Approximately half of the publications (n=6) recommended additional training in telehealth etiquette.

2.4 Methodology: There were six quantitative studies with aims to (1) report outcomes of a model to conduct virtual trauma meetings,³⁹ (2) report outcomes of a telehealth etiquette and medicolegal awareness training,⁵⁹ (3) develop a valid and reliable checklist of observable interpersonal telehealth skills,³⁰ (4) provide an overview of an interprofessional telehealth educational program,⁵⁶ (5) describe a telehealth etiquette skills program,¹⁷ and (6) report outcomes of an educational intervention on telehealth etiquette.⁶¹ Also, there was a systematic review of existing best practice guidelines for conducting telehealth encounters,⁵ a literature review to inform the development of a virtual visit Communication Tip Sheet,²⁶ and two qualitative studies aimed at understanding and describing interpersonal and communication skills within telehealth from the perspective of clinicians and/or trainees.^{57,58}

3. Nursing (n=5)

3.1 Intended audience: Of the five nursing-specific publications, four were focused on nurses,^{37,43,62,63} including recommendations for telehealth etiquette as well as research on perceptions and outcomes of telehealth etiquette in the nursing field. One study was an overview of topics and techniques applicable to both nurses and nurse-trainees.⁶⁴

3.2 Association between telehealth etiquette and healthcare outcomes: While one of the publications⁶⁴ noted this association, the association between telehealth etiquette and access to healthcare, particularly in vulnerable populations, was highlighted by Frey & Chiu (2021) and Austin (2021): "Increased telehealth etiquette knowledge can result in greater telehealth patient delivery leading to improved healthcare access for the vulnerable and rural population."⁶²

3.3 Additional training: Three articles noted the need for additional training to be conducted in telehealth etiquette.

3.4 Methodology and aims: Three were opinion pieces which provided telehealth etiquette recommendations for both nurses and nursing students, one was a qualitative study which explored nurse practitioners' perceptions and ability to identify telehealth etiquette behaviors,⁶² and another was a quantitative study which explored remote symptom support training programs provided to nurses in ambulatory oncology programs.³⁷

4. Speech-Language Pathology (n=3)

4.1 Intended audience: All the publications were inclusive of multiple learner groups – faculty, students, and telepractice clinicians.

4.2 Association between telehealth etiquette and healthcare outcomes: Overby & Baft-Neff (2017) noted this association.⁶⁵

4.3 Additional training: Two of the articles (Lowman et al., 2022; Overby & Baft-Neff, 2017) recommended additional training in telehealth etiquette.^{65,66}

4.4 Methodology: Of the three speech-language pathology publications, there was an opinion piece, a quantitative study, and a qualitative study.⁶⁵⁻⁶⁷

5. Pharmacy (n=2)

5.1 Intended audience: Both publications were focused on pharmacy students.^{19,68}

5.2 Association between telehealth etiquette and healthcare outcomes: Noted by Schroeder & Lengel (2022).

5.3 Additional training: Frenzel & Porter (2021) commented that additional training in telehealth etiquette was recommended.

5.4 Methodology: Frenzel & Porter (2021) presented an opinion piece on the need to educate pharmacy students in telehealth and Schroeder & Lengel (2022) conducted a quantitative study aimed at evaluating a rubric for assessing a telehealth simulation.

6. Patient-focused (n=1)

Agosta and colleagues (2022) wrote a case series aimed at presenting three case examples from virtual palliative care that they felt could inform future telehealth care guidelines. They discussed the association between telehealth etiquette and healthcare outcomes. The authors wrote, “non-verbal communication is one of the most significant factors toward helping to build the relationship between the provider and the patient...These critical factors are all in jeopardy when a patient or a clinician is not in a conducive environment, fostering private, sensitive communication free from distractions, and able to focus solely on the video visit such as the challenges experienced with the first patient.”⁶⁹ The authors recommended that additional training in telehealth etiquette was warranted.

Figure 4. Summary Of The Experience Levels Of The Intended Audiences From Health Professions Trainees To Practitioners In Included Articles

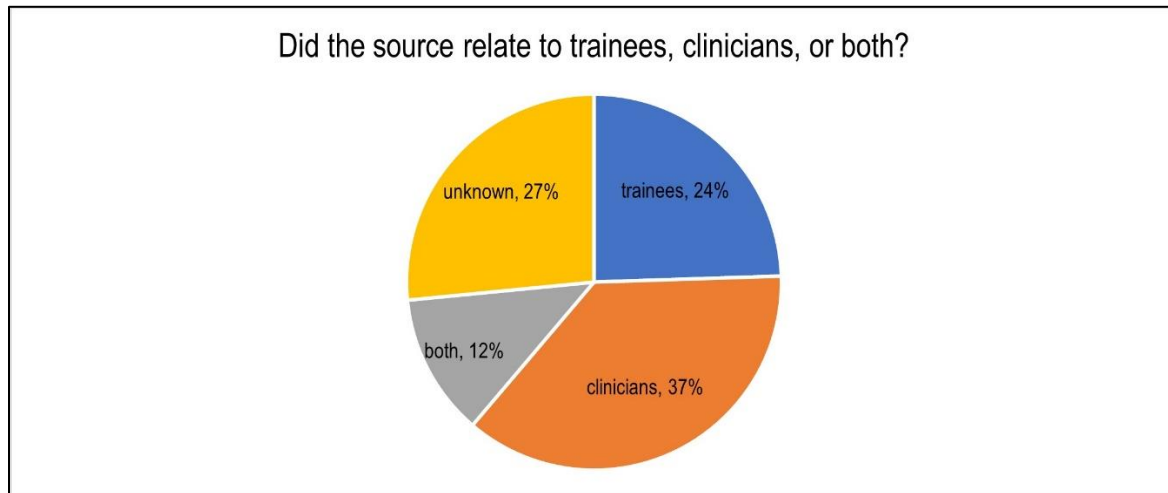
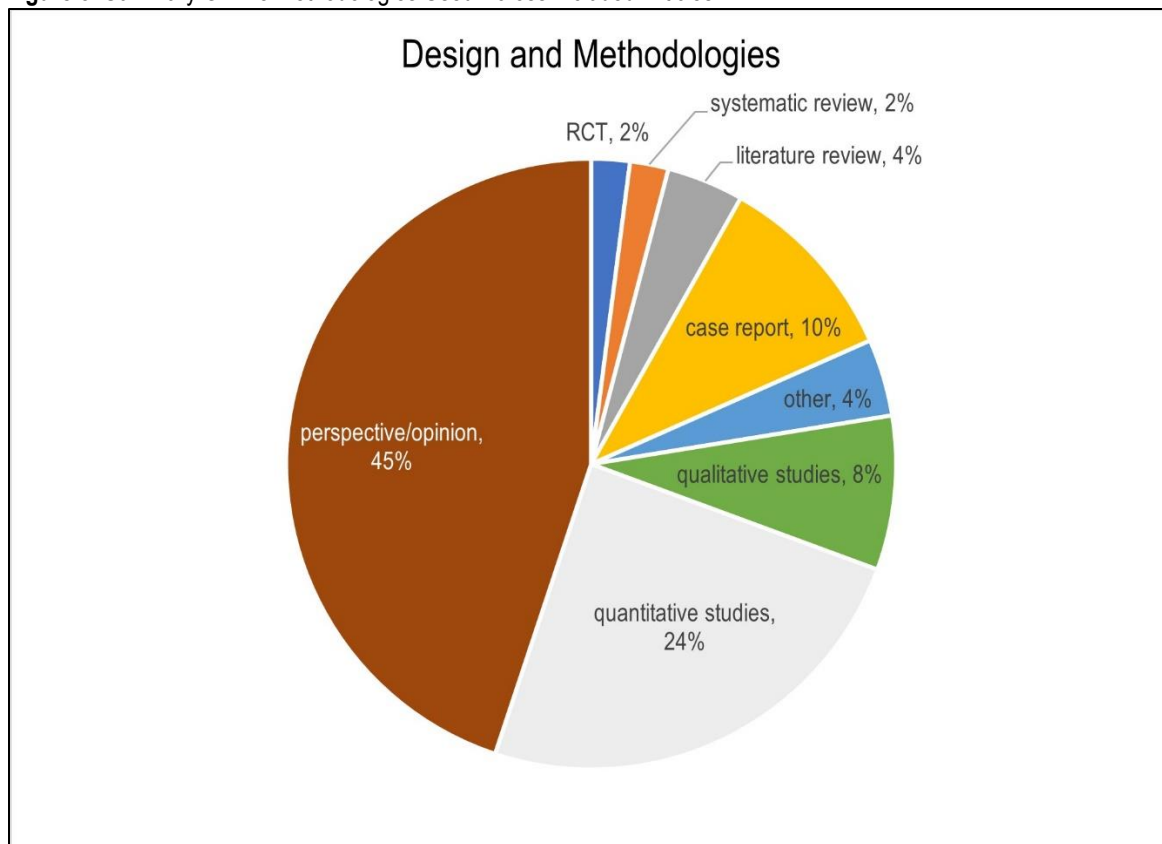


Figure 5. Summary Of The Methodologies Used Across Included Articles



Research Question 2: What guidelines, best practices, and recommendations already exist in the literature from 2012-2022?

The guidelines were published using various levels of evidence, as seen in Figure 5. Among the quantitative and qualitative research studies and review papers, three sources were published on telehealth best practices, each of which included sections on telehealth etiquette. In 2020, Modic et al. developed the virtual visit Communication Tip Sheet based on their review of the literature on relationship formation in telehealth. The tips pertaining to telehealth etiquette included looking at the camera,

requesting that everyone present during the visit introduce themselves, introducing the technology, acknowledging the unique situation of 'entering' into the patient's home, demonstrating verbal empathy and nonverbal behaviors, as well as concluding the virtual visit using specific language. In 2021, Henry et al published the Teaching Interpersonal Skills for Telehealth Checklist, which offered the evaluation of healthcare professionals' interpersonal skills using an evidence-based checklist of telehealth skills with many of the same tips (e.g., making eye contact, keeping positioning facing the camera), as well as suggestions such as specifically inviting patients to ask questions and staying visually attentive. Anvari et al (2022) published "Best Practices for the Provision of Virtual Care: A Systematic Review of Current Guidelines." Here, the telehealth-etiquette recommendations included ensuring privacy on the provider and patient end, identifying all individuals present during the visit, obtaining consent, minimizing technological challenges, providing a technical troubleshooting guide to patients ahead of the visit, using verbal and nonverbal communication strategies strategically (e.g., speaking slowly and narrating physical exam maneuvers), and angling the camera to engage in eye contact.

In addition to the evidence-based healthcare provider recommendations published by Modic et al, 2020, and Henry et al, 2021, Anvari et al, 2022, also published recommendations for patients (see Tables 2 & 3). Many opinion pieces published since 2020 also offered recommendations for healthcare professionals. While the recommendations were not consistent from the various sources, there were several skills cited most frequently, as can be seen in both Figure 6 and Table 4. Fifty-seven percent of the publications noted the following top three recommendations for healthcare professionals conducting a telehealth visit: (1) hold the visit in a private space, (2) engage in eye contact through the webcam, and (3) angle the camera to ensure the healthcare professional is optimally visible to the patient via webcam. Other skills frequently recommended included reducing distractions (42%), ensuring adequate lighting (40%), simplifying the visual background behind the healthcare professional (41%), ensuring adequate audio (39%), troubleshooting the technology prior to the visit (39%), and dressing appropriately for the visit (37%). Less commonly stated skills were acknowledging the importance of nonverbal communication (41%), obtaining identifying information and consent from patients (32%), expressing empathy in non-touch, virtual ways (31%), using verbal communication skills specific for a telehealth visit (narrating what the healthcare professional is doing) (31%), and using screensharing with patients carefully (10%).

Several publications also provided recommendations for patients themselves. The two main recommendations for patients were to identify all people in attendance during the telehealth visit (22%) and to hold the visit in a private location (18%).

Table 2. Evidence-Based Recommendations for Healthcare Professionals

Authors	ask patient for ID	private space	camera angle	eye contact	good audio	reduce distraction	nonverbal comm.	verbal comm.	test tech.	exhibit empathy
Modic et al.			X	X	X		X	X		X
Henry et al., 2021		X	X	X		X	X			X
Anvari et al.	X		X	X			X		X	

Table 3. Evidence-Based Recommendations for Patients

Authors	pre-appt. info provided	dress for appt.	join in private space	Identify caregivers in the room	good audio	reduce distractions	be provided tech support
Anvari et al.	X	X	X	X	X	X	X

Figure 6. Summary of the Telehealth Etiquette Features Discussed in the Included Articles

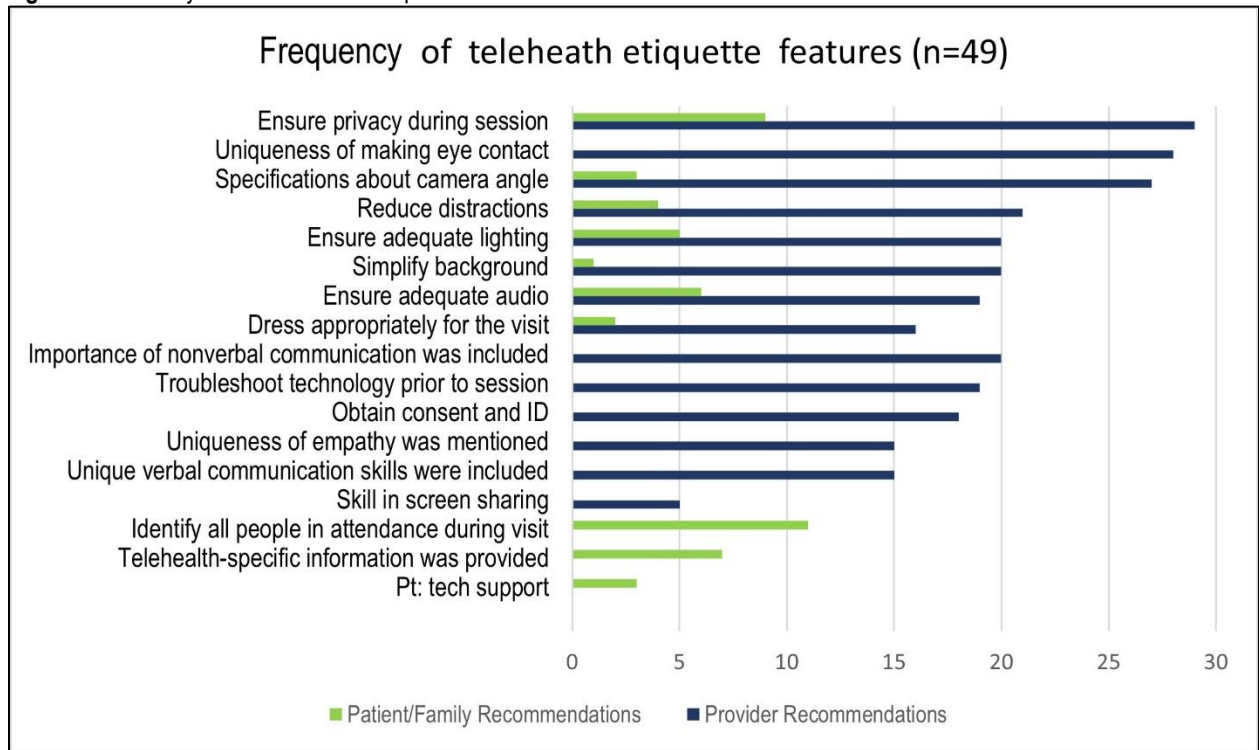


Table 4. Overview of the Most Frequently Cited Telehealth Etiquette Skills by Included Article

Authors	ask pt. for ID	profess. dress	private space	camera angle	eye contact	screen share safety	good audio	reduce distraction	good lighting	simple background	nonverbal comm.	verbal comm.	test tech.	exhibit empathy
Rutledge et al. ⁶²		X		X	X			X						X
Mehta & Matthews ²²				X	X				X	X	X			X
*Elliott et al. ²¹		X	X	X	X	X	X		X	X		X	X	X
McConnochie ²³												X		X
Chua et al. ²⁰				X	X					X	X	X		X
*Modic et al. ²⁴				X	X		X				X	X		X
Kumar et al. ¹⁹	X	X	X		X			X	X	X	X		X	
*Finkelstein et al. ⁵⁵			X											
Gunner et al. ³⁹				X			X		X	X				
West ⁴⁶			X											
*Simpson et al. ⁴⁰		X	X		X		X			X	X	X		
*Kholsa ⁴³			X	X	X	X	X	X	X				X	
Burchette et al. ³⁷							X	X						
Teichert ⁷¹							X		X	X				
*Finkelstein et al. ⁴⁷			X	X	X			X	X	X				
*Frenzel & Porter ⁶⁶	X	X	X		X			X					X	
*Habib et al. ²⁷		X	X	X	X	X	X	X		X	X	X	X	X

Authors	ask pt. for ID	profess. dress	private space	camera angle	eye contact	screen share safety	good audio	reduce distraction	good lighting	simple background	nonverbal comm.	verbal comm.	test tech.	exhibit empathy
Samuels et al. ⁴⁸	X		X											X
Rutledge et al. ⁵⁴		X												
Blamoun et al. ⁴²				X				X			X		X	X
*Gustin et al. ¹⁵	X	X	X	X	X		X	X	X		X	X	X	X
Jonas et al. ⁵¹														
Bolster et al. ⁵³		X	X	X	X			X	X	X	X			X
*Agosta et al. ⁶⁷			X	X				X	X		X	X		
McCrary et al. ³⁴														
Lawrence et al. ⁵⁰				X	X		X		X		X	X		
Rehman et al. ⁴⁴			X											
Stacey et al. ³⁵														
Schroeder & Lenge ¹⁷	X	X	X		X		X	X	X	X	X	X		
*Austin ⁶⁰		X		X	X					X	X	X	X	X
*Frey & Chiu ⁶¹	X	X	X	X	X		X	X		X			X	
*Wong et al. ³⁶	X		X	X			X		X	X			X	
*Rethorn, et al. ²⁵	X	X	X	X		X	X		X			X	X	
Naik et al. ⁵⁷														
*Henry et al. ⁵⁶			X	X	X					X	X	X	X	X

Authors	ask pt. for ID	profess. dress	private space	camera angle	eye contact	screen share safety	good audio	reduce distraction	good lighting	simple background	nonverbal comm.	verbal comm.	test tech.	exhibit empathy
*Haney et al. ¹⁶	X	X	X	X	X		X	X					X	
de Weger et al. ³⁸	X	X	X	X			X	X	X	X			X	
*Cornes et al. ⁴⁹	X	X	X	X	X	X		X	X		X		X	
Overby ⁶⁵					X								X	
Johnson et al. ⁴¹														
Overby & Baft-Neff ⁶³				X							X			
Tewksbury et al. ⁵⁸	X			X	X		X	X	X	X			X	
Lowman et al. ⁶⁴			X		X		X		X	X	X	X		
*Spindler et al. ⁴⁵	X	X	X		X			X	X					
Green ⁵⁹			X	X	X			X		X		X		X
Henry et al. ²⁸			X	X	X			X			X			X
*Grover ¹⁸	X	X	X	X	X		X	X	X	X			X	
*Anvari et al. ⁴	X			X	X						X		X	

* denotes the publications that provided tips for healthcare professionals and for patients.

Research Question 3: What gaps exist in the literature on the topic of telehealth etiquette in health professions fields?

Based on this review, there are several telehealth etiquette-related topics that warrant further research. First, given this broad scoping review, there are few recommendations written about patient telehealth etiquette. Given the connection between telehealth etiquette and patient-provider relationships, it will be important to understand which recommendations patients could be offered that could help with patient-provider relationships via telehealth. The guidance could differ for consultations and evaluations as compared to regular follow-up visits, where relationships are often established. Second, of the telehealth etiquette skills recommended for healthcare professionals, which has the greatest impact on patient-provider relationships and patient satisfaction? Given that there is no standard set of recommendations for healthcare professional training in telehealth etiquette and that 45% of the included articles in this review were opinion pieces, further research is recommended to develop such a set. Representatives across disciplines and reflecting various levels of practice, from trainees to advanced practitioners, would be needed. Additional research is also warranted in the allied health fields, since pharmacy, physical therapy, mental health and speech-language pathology represented approximately 25% of the included sources, collectively.

DISCUSSION

This exploratory scoping review provided an overview of how and where telehealth etiquette is taught, used, and researched among the health professions fields; the recommendations within it; and its connection to healthcare outcomes. The results of this review suggest an explosion in the number of publications in telehealth etiquette since the COVID-19 pandemic began. This is likely because much of healthcare quickly pivoted to a virtual platform as a result of the COVID-19 outbreak,⁷⁰ creating an urgent demand by healthcare providers for telehealth etiquette guidelines. Because most of the articles were published so recently, it is reasonable to find inconsistent terminology used to describe these unique telehealth professionalism skills, as well as inconsistency in defining a core skill set. Though the topic gained popularity since the COVID-19 outbreak, nearly half of the total publications identified in the database searches were opinion pieces. This suggests that healthcare professionals needed guidance to support their swift pivot to telehealth in this unprecedented healthcare emergency crisis, even in the absence of rigorous evidence-based guidelines.⁷¹ Another outcome of this review is that authors highlighted the provider's telehealth etiquette as a contributing factor to patient satisfaction and healthcare outcomes. This suggests that the education and practice of telehealth etiquette on healthcare practitioners and trainees could be a critical factor in healthcare outcomes conducted via telehealth. There is substantial literature to support the impact of patient satisfaction in face-to-face visits on healthcare outcomes suggesting that the topic of telehealth etiquette and healthcare outcomes should be further researched.^{13-16,43} Given the rapid adoption of telehealth since COVID-19, many trainees and healthcare professionals need additional training in telehealth; specifically, 53% of sources in this review highlighted the need for additional education and practice in telehealth etiquette.⁷²

This study also identified the most frequently cited recommendations for the healthcare professional and trainee during the telehealth visit, to promote a positive patient-provider relationship. While the list is not uniform, it includes recommendations to ensure privacy during the telehealth visit, position the camera for visibility, engage in eye contact, reduce distractions, and ensure adequate lighting during the telehealth visit. Fewer recommendations were made for the patient themselves, though some mirrored those for the healthcare professional, such as ensuring privacy and adequate lighting during the visit.

The results of this review reveal that this new area of professionalism, telehealth etiquette, is included in the training of healthcare professionals and trainees across a variety of healthcare fields, yet there is a stated need for additional training. This will require additional resources to ensure healthcare professionals and trainees are skilled in telecompetencies that are critical for the successful provision of telehealth, particularly as this area of healthcare grows.⁴

Future research should be conducted to identify a core common set of guidelines or recommendations, standardize the terminology used to describe this area of professionalism, and better understand the relationship between telehealth etiquette, patient satisfaction, and healthcare outcomes. While the scoping review was intentionally broad, a limitation of the study is that sources such as web-based recommendations were not identified through traditional database searches. Unfortunately, these resources would have contributed to the depth of this review; however, they were excluded because they were not peer-reviewed and fell outside of the database search criteria. Secondly, the review included only studies in English, resulting in a potential cultural bias. Additionally, the telehealth landscape continues to change in a post-COVID era, and sources published since November of 2022 may shed light into the current guidelines which were not captured in the searches that were conducted.

CONCLUSIONS

In this scoping review of telehealth etiquette, forty-nine articles across various health professions practice and education from the past decade were included and analyzed to identify how telehealth etiquette is used and researched. Among these sources, the majority were opinion pieces, which suggested telehealth etiquette skills such as camera positioning, privacy, and audio-visual recommendations should be used by healthcare professionals and trainees. While best practice guidelines for telehealth etiquette do not exist, three of the sources provided evidence-based recommendations for telehealth best practices. The association between telehealth etiquette, patient satisfaction, and healthcare outcomes found in this study aligns with the previous studies which documented the association between patient-provider relationships in face-to-face visits and healthcare outcomes. Future studies are recommended to identify a core set of best practice guidelines for both healthcare professionals and patients that will have a statistically significant impact on patient satisfaction.

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CONFLICTS OF INTEREST

There is no conflict of interest in this project.

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