Cross-Sectional Association of Patient Language and Patient-Provider Language Concordance with Video Telemedicine Use Among Patients with Limited English Proficiency

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BACKGROUND: Telemedicine’s dramatic increase during the COVID-19 pandemic elevates the importance of addressing patient-care gaps in telemedicine, especially for patients with limited English proficiency.

OBJECTIVE: To examine the associations of patient language and patient-provider language concordance with telemedicine visit type (video versus telephone visit).

DESIGN: Cross-sectional automated data study of patient-scheduled primary care telemedicine appointments from March 16, 2020, to October 31, 2020.

SETTING: Northern California integrated healthcare delivery system.

PARTICIPANTS: All 22,427 completed primary care telemedicine visits scheduled by 13,764 patients with limited English proficiency via the patient portal.

MEASUREMENTS: Cross-sectional association of electronic health record–documented patient language (Spanish as referent) and patient-provider language concordance with patients’ choice of a video (versus telephone) visit, accounting for patient sociodemographics, technology access, and technology familiarity factors.

RESULTS: Of all patient-scheduled visits, 34.5% (n = 77,747) were video visits. The top three patient languages were Spanish (42.4%), Cantonese (16.9%), and Mandarin (10.3%). Adjusting for sociodemographic and technology access and familiarity factors and compared to patients speaking Spanish, video visit use was higher among patients speaking Cantonese (OR = 1.33, 95% CI: 1.18–1.52), Mandarin (OR = 1.33, 95% CI: 1.16–1.52), or Vietnamese (OR = 1.27, 95% CI: 1.09–1.47), but lower among patients speaking Punjabi (OR = 0.75, 95% CI: 0.75, 0.62–0.91). Language concordance was associated with lower video visit use (OR = 0.86, 95% CI: 0.80–0.93) and moderated associations of speaking Spanish, Cantonese, and Korean with video visit use. In addition, for all language groups, those with prior video visit use were more likely to re-use video visits compared to those with no prior use (p < .05 for all languages except Hindi with p = 0.06).

CONCLUSIONS: Among linguistically diverse patients with limited English proficiency, video telemedicine use differed by specific language. Disaggregating patient subpopulation data is necessary for identifying those at greatest risk of being negatively impacted by the digital divide.

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INTRODUCTION

In response to the COVID-19 pandemic and the need for social distancing, healthcare systems rapidly expanded telemedicine services to safely deliver patient care.1 Because video or telephone visits can offer patients real-time access to a clinician without the need to go in for an office visit, telemedicine has the potential to expand healthcare access and increase healthcare equity for patients that face substantial barriers to traditional in-person care2 or who otherwise do not have access to primary care services.3 For example, pre-pandemic data suggests patients facing longer travel distances or parking hassles at their clinic were more likely to choose telemedicine over in-person visits.4 Telemedicine has also been associated with increased access to care for both chronic and acute conditions,5–7 suggesting the potential for telemedicine to bridge patient-care gaps for a wide set of medical concerns.

Despite the potential for telemedicine to bridge patient-care gaps, telemedicine may inadvertently widen existing care disparities8,9 for the over 25 million people living in the USA who have limited English proficiency (LEP).10 These patients have a limited ability to read, speak, write, or understand English, which constrains their ability to interact effectively with the healthcare system.11 Overlap between LEP, low digital literacy, and low health literacy12 also raises LEP patients’ vulnerability to being negatively affected by the digital divide. Indeed, pre-pandemic data shows that LEP patients had lower frequency of reporting any telemedicine use compared to their non-LEP counterparts13 and recently published data show that LEP patients are less likely to use...
video telemedicine to access care during the pandemic. Inequitable use of video telemedicine is important to examine, as video visits offer key advantages over telephone visits by enabling physicians to visually evaluate patients’ physical and mental status and environment, and provide a depth of interaction not feasible by audio alone. These key features of video telemedicine may be particularly important for LEP patients, with one pre-pandemic trial showing Spanish-speaking LEP patients better retain clinical information delivered via video compared to audio alone.

The LEP population is increasingly diverse in terms of language (over 350 languages other than English are spoken in the USA), yet little is known about how patients from different language groups differ from one another in telemedicine use. Disaggregating data from LEP populations to examine potential disparities in how patients who speak different languages are using telemedicine to access care during the COVID-19 pandemic is needed to inform strategies to increase telemedicine equity. In patients self-scheduling a primary care visit within an integrated delivery system during the COVID-19 pandemic, our first objective was to examine the association of patient language with telemedicine visit type (video versus telephone visit). Our second objective was to explore three potential moderators of the patient language-telemedicine visit type association. We hypothesized video visits would be higher among (1) patients with language-concordant personal primary care providers and (2) patients who have prior video visit experience.

METHODS

Setting

We examined patient-scheduled primary care telemedicine visits scheduled via the patient portal within Kaiser Permanente Northern California (KPNC), an integrated healthcare system serving more than 4 million linguistically diverse patients that are representative of the insured Northern California region except at the lowest end of income. Within KPNC, telephone visits have been used widely in clinical care since 2008 and patient-physician video visit became available in late 2014. In response to the COVID-19 pandemic, KPNC enacted a Virtual First strategy on March 16, 2020, at the start of a regional shelter-in-place policy, wherein all patient self-scheduled primary care visits were via telemedicine. During this study period, patients could choose to schedule visits with their personal primary care provider or with any available provider, and providers were still able to schedule in-person clinic visits, as needed (i.e., after the telemedicine visit). The Institutional Review Board of the Kaiser Foundation Research Institute approved the study protocol and materials and waived the requirement for written informed consent for patients in this data-only study. This study followed the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) reporting guidelines for cross-sectional studies.

Study Population and Measures

Using electronic health record (EHR) and administrative data sources, we identified all completed patient-initiated primary care appointments scheduled via the patient portal from March 16 to October 31, 2020, and identified whether patients chose to schedule the visits as a video visit or telephone visit. We included only patients with an EHR-documented need for a language interpreter, which was used as a proxy for limited English proficiency.

For each visit, patient characteristics extracted from the EHR were language (categorized into the following groups in order of frequency: Spanish as referent, Cantonese, Mandarin, Vietnamese, Punjabi, Russian, Korean, Hindi, Farsi, and another language), age (categorized as under 18, 18–64 as referent, and 65 and above), and gender (women/men). Provider language was extracted from administrative sources and matched to the patient’s language. Neighborhood socioeconomic status (SES) was calculated using 2010 US census measures at the census block group level; low SES was determined if ≥20% of residents have household incomes below the federal poverty level or ≥25% of residents 25 years of age or older have less than a high school education.

As measures of technology access, we identified neighborhood residential high-speed internet access level (not low/low) using FCC census tract level data. Low neighborhood internet access level was defined as having <80% of households with a residential fixed high-speed connection at least 10 Mbps download and at least 1 Mbps upload speeds in the given census tract. We also identified patients’ mobile portal use in the last 12 months (no/yes) as a measure of mobile device access. Video visit use in the prior 12 months (no/yes) was used to measure prior video visit experience.

Statistical Analysis

We used logistic regression to examine the association of patient language and patient-provider language concordance with scheduling a video telemedicine visit (versus telephone) in two steps. First, we constructed two separate baseline models by regressing telemedicine visit type on patient language (baseline model 1) and patient-provider language concordance (baseline model 2). Second, we simultaneously included patient language and patient-provider language concordance in a model adjusted for potential confounders of sociodemographic characteristics (age, gender, and neighborhood SES) and technology access and familiarity factors (neighborhood internet access, prior mobile portal use, prior video visit experience; model 3).

To explore possible moderators of the patient language-telemedicine choice associations, we added three interaction variables to model 3: patient language × language concordance (model 4), patient language × prior video visit use (model 5), and patient language × patient age (model 6). Statistically significant interactions were followed with a test of simple effects.
To aid interpretation, we report adjusted video visit use percentages generated from model coefficients for comparisons. These percentages represent the difference in video visit use between two language groups controlling for all other variables in the model. All models were also adjusted for patient medical problem (ICD10 code alpha character grouping by the general type of injury or disease of primary diagnosis of the encounter, to account for visit reasons that might affect a patient’s decision to choose a video visit over a phone visit), time trends (indicator variables for week), and KPNC medical center. Statistical significance was determined by 2-sided \( p < .05 \). Because patients could contribute more than one visit to the dataset, standard errors were adjusted for clustering within patients. Analyses were conducted using Stata, version 14.2 (StataCorp LLC).

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RESULTS

A total of 22,427 primary care telemedicine visits were scheduled by 13,764 patients with limited English proficiency during the study period. Among all telemedicine visits, 34.5% (\( n = 7747 \)) were by video and the remaining (65.5%; \( n = 14,680 \)) by telephone. Shown in Table 1, patients most commonly spoke Spanish (42.4%, \( n = 9507 \)), followed by Cantonese (16.9%, \( n = 3786 \)) and Mandarin (10.3%, \( n = 2316 \)). Video visits were most frequent among Mandarin speakers (41%, \( n = 949 \)) and least frequent among Punjabi speakers (26%, \( n = 276 \)). Shown in Supplemental Table 1, 50.5% (\( n = 11,326 \)) of visits were language concordant, 46.8% (\( n = 10,501 \)) were language discordant, and 2.7% (\( n = 600 \)) were missing information necessary to determine patient-provider language concordance. Language-concordant visits were most frequent among Mandarin speakers (\( n = 1532, 66.2\% \)) and least frequent among Russian speakers (\( n = 175, 34.3\% \)).

Associations of Patient Language and Patient-Provider Language Concordance with Telemedicine Visit Type

In baseline model 1, compared to Spanish speakers (31.1% adjusted video visit use frequency), the odds of choosing video visits were higher among patients speaking Cantonese (38.9%, \( p < .001 \)), Mandarin (38.5%, \( p < .001 \)), and Vietnamese (36.9%, \( p = .01 \)), whereas visit type was not associated with speaking Punjabi (26.4%, \( p = .12 \)), Russian (34.3%, \( p = .16 \)), Korean (31.9%, \( p = .49 \)), Hindi (33.6%, \( p = .12 \)), or Farsi (27.2%, \( p = .54 \)). In baseline model 2, language-concordant visits (33.0%) had lower odds of video visits compared to language-discordant visits (36.2%, \( p < .001 \)).

Seen in Table 2, simultaneously including patient language and language concordance and adjusting for potential confounders of patient sociodemographics and technology access and familiarity factors did not change the associations of patient language with telemedicine visit type, although speaking Punjabi (vs. Spanish) became significantly associated with lower odds of choosing video (\( OR = 0.74, 95\% CI: 0.61, 0.90, p = .002 \)).

Seen in Fig. 1, adjusted video visit use frequencies showed that video visit use was highest among patients speaking Mandarin (38.1%), followed by Cantonese (37.9%), Vietnamese (36.8%), Russian (33.6%), Hindi (33.6%), Korean (31.8%), Spanish (31.8%), Farsi (27.0%), and Punjabi (26.0%). Adjusting for patient language and potential confounders did not substantially change the association of language concordance with lower odds of choosing video (33.3% for language concordant vs. 36.3% for language discordant, \( p < .001 \)).

In addition, video visit use was higher among patients younger than 18 or older than 65 (vs. aged 18–64), patients who accessed the patient portal via a mobile phone in the past 12 months, and patients who used video visits in the past 12 months. Patients living in neighborhoods with low SES or low internet access were less likely to use video visits.

Language concordance significantly moderated the association of patient language with telemedicine visit type for Spanish, Cantonese, and Korean speakers. Seen in Fig. 2, simple effects tests and adjusted video visit frequencies showed that language concordance was associated with a 2.8% lower rate of video visits for Spanish speakers (\( p = 0.02 \)), 5.7% lower for Cantonese (\( p = .01 \)), and 11.1% lower for Korean (\( p = .02 \)) compared to patients with discordant providers. In addition, for all language groups, those with prior video visit use were more likely to re-use video visits compared to those with no prior use (Fig. 3, \( p < .05 \) for all languages except Hindi with \( p = 0.06 \)).

DISCUSSION

In this large linguistically diverse sample of patients seeking primary care during the COVID-19 pandemic, a little over one third of LEP patients chose a video visit over a telephone visit. Pronounced differences in video visit use were found across the top nine languages spoken by LEP patients in this study. Contrary to our hypothesis, patients with language-concordant primary care providers were actually less likely to choose video visits compared to those with language-discordant providers.

Compared to patients speaking Spanish, patients speaking Cantonese, Mandarin, or Vietnamese had statistically significantly higher video visit use, whereas patients speaking Punjabi had lower video visit use. Russian, Korean, Hindi, and Farsi were not statistically significantly associated with differences in telemedicine visit type, but analyses may have been
| Language | Spanish | Cantonese | Mandarin | Vietnamese | Punjabi | Russian | Korean | Hindi | Farsi | Another language |
|----------|---------|-----------|----------|------------|---------|---------|--------|-------|-------|------------------|
|          | n (%)   | n (%)     | n (%)    | n (%)      | n (%)   | n (%)   | n (%)  | n (%) | n (%) | n (%)            |
| Video visit use |         |           |          |            |         |         |        |       |       |                  |
| Yes      | 9507 (42.4) | 3786 (16.9) | 2316 (10.3) | 1789 (8) | 1063 (4.7) | 510 (4.7) | 484 (2.2) | 364 (1.6) | 352 (1.6) | 2256 (10.1) |
| No       | 2877 (30.3) | 1475 (39) | 949 (41) | 656 (36.7) | 276 (26) | 183 (35.9) | 170 (35.1) | 131 (3.6) | 104 (29.6) | 926 (41.1) |
| Language-concordant personal primary care provider |         |           |          |            |         |         |        |       |       |                  |
| Yes      | 5092 (53.6) | 2183 (57.7) | 1532 (66.2) | 996 (55.7) | 388 (36.5) | 175 (34.3) | 251 (51.9) | 200 (55.0) | 179 (50.9) | 330 (14.6) |
| No       | 4415 (46.4) | 1603 (42.3) | 784 (33.9) | 793 (44.3) | 675 (65.5) | 335 (65.7) | 233 (48.1) | 164 (45.1) | 173 (49.2) | 1326 (58.8) |
| Age      |         |           |          |            |         |         |        |       |       |                  |
| <18      | 605 (6.4) | 169 (4.5) | 145 (6.3) | 50 (2.8) | 7 (0.7) | 19 (3.7) | 11 (2.3) | 3 (0.8) | 14 (4) | 133 (5.9) |
| 18–64    | 6978 (73.4) | 2064 (54.5) | 1629 (70.3) | 1243 (69.5) | 833 (78.4) | 370 (72.6) | 287 (59.3) | 258 (70.9) | 224 (63.6) | 1571 (69.6) |
| 65+      | 1924 (20.2) | 554 (41) | 52 (23.4) | 496 (27.7) | 223 (21) | 121 (23.7) | 186 (38.4) | 103 (28.3) | 114 (32.4) | 552 (24.5) |
| Gender   |         |           |          |            |         |         |        |       |       |                  |
| Women    | 5598 (58.9) | 2220 (58.6) | 1477 (63.8) | 652 (58.8) | 342 (67.1) | 308 (63.6) | 254 (69.8) | 252 (71.6) | 1480 (65.6) |                  |
| Men      | 3909 (41.1) | 1342 (41.4) | 839 (36.2) | 438 (41.2) | 168 (32.9) | 176 (34.6) | 110 (30.2) | 100 (28.4) | 776 (34.4) |                  |
| Neighborhood SES |         |           |          |            |         |         |        |       |       |                  |
| Not low  | 4440 (46.7) | 2531 (66.9) | 1850 (79.9) | 1037 (58) | 775 (72.9) | 387 (75.9) | 425 (87.8) | 278 (76.4) | 290 (82.4) | 1518 (67.3) |
| Low      | 4827 (50.8) | 1195 (31.6) | 386 (16.7) | 680 (38) | 241 (22.7) | 86 (16.9) | 40 (8.3) | 75 (20.6) | 54 (15.3) | 615 (27.3) |
| Neighborhood Internet |         |           |          |            |         |         |        |       |       |                  |
| Not low  | 3403 (35.8) | 1681 (44.4) | 1592 (68.7) | 845 (47.2) | 642 (60.4) | 260 (51) | 324 (66.9) | 243 (66.8) | 230 (65.3) | 1176 (52.1) |
| Low      | 5920 (62.3) | 2049 (54.1) | 670 (28.9) | 887 (49.6) | 381 (35.8) | 215 (42.2) | 142 (29.3) | 111 (30.5) | 115 (32.7) | 974 (43.2) |
| Mobile portal use |         |           |          |            |         |         |        |       |       |                  |
| No       | 3398 (35.7) | 1814 (47.9) | 1035 (44.7) | 816 (45.6) | 286 (26.9) | 260 (51) | 225 (46.5) | 99 (27.2) | 109 (31) | 879 (39) |
| Yes      | 6109 (64.3) | 1972 (52.1) | 1281 (55.3) | 973 (54.4) | 777 (73.1) | 250 (49) | 259 (53.5) | 265 (72.8) | 243 (69) | 1377 (61) |
| Video visit past year |         |           |          |            |         |         |        |       |       |                  |
| No       | 7287 (76.7) | 2844 (75.1) | 1740 (75.1) | 1434 (80.2) | 760 (71.5) | 381 (74.7) | 365 (75.4) | 244 (67) | 262 (74.4) | 1675 (74.3) |
| Yes      | 2220 (23.4) | 942 (24.9) | 576 (24.9) | 355 (19.8) | 303 (28.5) | 129 (25.3) | 119 (24.6) | 120 (23) | 90 (25.6) | 581 (25.8) |

Neighborhood socioeconomic status (SES) was calculated using 2010 US census measures at the census block group level; low SES was determined if ≥ 20% of residents have household incomes below the federal poverty level or ≥ 25% percent of residents 25 years of age or older have less than a high school education. Low neighborhood internet access level was defined as having < 80% of households with a residential fixed high-speed connection at least 10 Mbps download and at least 1 Mbps upload speeds in the given census tract. Prior video visit experience and prior mobile portal access is past 12 months. "Another language" includes Arabic (n = 291), Tagalog (n = 242), other Chinese dialects (n = 104), and other languages spoken by fewer than 100 patients (e.g., Burmese, Portuguese, Japanese). n = 22,427.
Table 2 Odds Ratios from Multivariable Model of the Association Between Patient Language, Language Concordance, and Video (vs. Telephone) Visit.

| Language (ref: Spanish) | OR    | 95% CI   | p     |
|-------------------------|-------|----------|-------|
| Cantonese               | 1.34  | 1.18–1.51| < .001|
| Mandarin                | 1.35  | 1.18–1.54| < .001|
| Vietnamese              | 1.27  | 1.10–1.48| .002  |
| Punjabi                 | 0.74  | 0.61–0.90| .002  |
| Russian                 | 1.09  | 0.86–1.40| .46   |
| Korean                  | 1.00  | 0.78–1.28| .99   |
| Hindi                   | 1.09  | 0.79–1.51| .58   |
| Farsi                   | 0.78  | 0.54–1.13| .20   |
| Another language        | 1.53  | 1.33–1.76| < .001|
| Language-concordant provider | 0.86 | 0.80–0.93| < .001|
| Age (ref: 18–64)        |       |          |       |
| < 18                    | 1.71  | 1.46–2.00| < .001|
| 65+                     | 1.27  | 1.17–1.38| < .001|
| Gender (ref: women)     | 0.97  | 0.90–1.05| .46   |
| Lower neighborhood SES (ref: high) | 0.88 | 0.80–0.96| .003  |
| Lower neighborhood internet (ref: high) | 0.86 | 0.79–0.93| < .001|
| Prior mobile portal use (ref: no) | 1.18 | 1.09–1.27| < .001|
| Any video visit past year (ref: no) | 2.35 | 2.15–2.56| < .001|

All models adjusted for time, medical service area, ICD10 grouping, and clustering within patients. Neighborhood socioeconomic status (SES) was calculated using 2010 US census measures at the census block group level; low SES was determined if ≥20% of residents have household incomes below the federal poverty level or ≥25% of residents 25 years of age or older have less than a high school education. Low neighborhood internet access level was defined as having < 80% of households with a residential fixed high-speed connection at least 10 Mbps download and at least 1 Mbps upload speeds in the given census tract. Prior video visit experience and prior mobile portal access is past 12 months. “Another language” includes Arabic (n = 291), Tagalog (n = 242), other Chinese dialects (n = 104), and other languages spoken by fewer than 100 patients (e.g., Burmese, Portuguese, Japanese). n = 22,427

SES socioeconomic status

underpowered to detect telemedicine choice differences given the small numbers of speakers of these languages in our study population. The reasons for these language preference differences are unclear, but may be due to unmeasured factors such as availability of language-concordant supports such as language-concordant websites. It is worth noting that the Kaiser Permanente Northern California patient portal is available in both Spanish and Chinese, which may partially explain why, compared to Spanish speakers, speakers of some languages (i.e., Punjabi) are less likely to choose video visits, but this does not explain why Cantonese and Mandarin speakers chose video visits more often. Nevertheless, having a language-concordant website is one of the more simple but high-impact interventions that will help bridge the digital divide between patients who speak different languages. Additionally, although statistically adjusted for, numerically large differences between language groups on study variables such as age (and unmeasured factors associated with age) may also contribute to between-language differences in video visit use. For example, 41% of Cantonese-speaking patients were aged 65 and older, compared to 21% of Punjabi-speaking patients, and older patients with limited English proficiency may be more likely to live in households with younger adults who can help set them up for video visits.

Contrary to our initial hypothesis, patients with language-concordant primary care providers used video visits less often than those with language-discordant providers, with moderation analyses results suggesting that these associations may be driven by Spanish-, Cantonese-, and Korean-speaking patients. Although patient-provider language concordance is often considered a health-promotive factor, 20 our outcome of interest—engagement with a specific health technology—is novel in the patient-provider language concordance literature. It is possible that patients may be more comfortable conducting audio-only visits with providers who they know can speak their language, and patients may prefer visual input during visits with language-discordant providers or interpreters. Further research is needed to explore patient preferences for and experiences with language-concordant providers over telemedicine.

These findings underscore key issues for healthcare systems and policymakers to consider. First, because video visits enable
physicians to visually evaluate patients and surroundings and may promote clinical information retention among LEP patients, strategies to promote video visit engagement are needed for LEP patients. One promising strategy is to promote medical assistant–supported virtual rooming, which is associated with increased video visit connection among LEP patients in observational studies. Supporting LEP patients’ initial use of video visits will likely result in more frequent video visit use in the future, as evidenced by our moderation analyses showing that, across almost all language groups, once patients use video visits, they are far more likely to use video visits again. We also add to the longstanding call to disaggregate racial/ethnic subpopulation and language data, as disaggregation is critical for identifying groups most at risk for being left behind by the digital divide. As an example, prior studies have grouped Asian patients, showing that they had the highest video visit use compared to white, Black, and Hispanic/Latino patients. In the current study, the largest difference in video visit use was between Cantonese and Punjabi speakers (12% difference), underscoring how using a singular Asian category can mask important intragroup disparities. Although our data could not disaggregate among other racial/ethnic groups (e.g., among racial/ethnic groups that share the Spanish language), it is likely that Spanish-speaking subpopulations may also have differences in video visit use. With regard to language concordance, research is needed to understand the somewhat counterintuitive finding that patients with language-concordant providers are less likely to use video visits. Improved EHR capture of factors relevant to the care experience of LEP patients, such as whether an interpreter was actually called into the visit with an LEP patient, is critical to forward this research.

LIMITATIONS

Findings from this integrated healthcare delivery system that was an early adopter of telemedicine services prior to the COVID-19 pandemic (telephone since 2008 and video since 2014) may not generalize to settings that have only recently adopted telemedicine in response to the pandemic. Our focus
on visits scheduled through a patient portal also excludes our ability to generalize to visits scheduled through other modalities that patients with LEP may use, such as scheduling call centers. Because we were specifically interested in patient choice of telemedicine, we did not include visits scheduled by telephone since these may include provider-initiated visits with pre-specified visit type recommendations. While our study data does not include measures of whether interpreters attended language-discordant visits, interpreters were integrated into telemedicine visits well before the study time period and we do not expect that there were differences in the likelihood that a patient received an interpreter based on telemedicine type, as telephone and video visits both draw from the same pool of interpreters. Our study data also does not include indicators of cultural factors that may be associated with telemedicine visit type, such as a cultural preference for face-to-face contact, and future work using qualitative methods would be particularly well suited to examine these questions. We also relied on interpreter need as a proxy for limited English proficiency, and prior studies suggest between 20 and 30% of patients indicate a non–English-language preference despite not having limited English proficiency. Finally, ongoing research on the quality and clinical outcomes associated with telemedicine visit types is imperative for drawing conclusions about the appropriateness of each visit type for addressing the care needs of patients with LEP.

CONCLUSIONS

The increase in telemedicine use associated with the COVID-19 pandemic elevates the importance of addressing patient-care gaps in telemedicine for patients with limited English proficiency. Differences by patient language emerged that may be useful for identifying specific LEP patient groups that would benefit from targeted interventions to support them in video visit engagement.

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Declarations:

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