Association of Limited English Proficiency Status and Visit Accompaniment with Quality of Care in the Primary Care Setting

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Compared to patients with English proficiency (EP), those with limited English proficiency (LEP) are less likely to have a primary care physician or receive preventive services, resulting in worse outcomes.[1,2] Prior research suggests that patients with LEP are less satisfied with their patient-clinician relationships, but most of these studies focused on a single ethnic group and included small populations at one or a few clinical sites.[3,4] In addition, prior studies show that older adults who are accompanied to visits have improved understanding of medical information and decision-making, but the role of accompaniment has not been studied among those with LEP.[5,6] We used nationally representative data to study the association of LEP with receipt of preventive services and patient experience among older adults, and the association of accompaniment with receipt of preventive services and patient experience among older adults with LEP.

METHODS

Using 2019 survey and administrative data from the Medicare Current Beneficiary Survey, we performed a cross-sectional analysis of community-dwelling Traditional Medicare and Medicare Advantage beneficiaries ≥ 65-years-old with a usual provider. Our predictors were LEP status and visit accompaniment. Our outcomes were receipt of preventive services (blood pressure and cholesterol checks; influenza, pneumonia, and shingles vaccines) and measures of patient experience. We used multivariable logistic regression to assess the association of LEP status with these outcomes. Then, among patients with LEP, we used multivariable logistic regression to compare these outcomes between those with and without accompaniment. Models were adjusted for sociodemographic and clinical covariates.

To compute nationally-representative estimates, we used cross-sectional survey weights accounting for stratified sampling design, coverage error, survey nonresponse, and repeat observations. We used STATA 16.0 and considered 2-tailed p-values significant at $p < 0.05$. Mass General Brigham's Institutional Review Board waived study review per 45 CFR 46.101(b). This study follows Strengthening the Reporting of Observational Studies in Epidemiology guidelines.

RESULTS

Our study population included 2,534 (22.6%) patients with LEP and 8,690 (77.4%) patients with EP (Table 1). Patients were more likely to have LEP if they were male, ≥ 80-years-old, Asian, or Hispanic or Latino; had lower income, had high school or higher education, lived in urban settings, were dually enrolled in Medicaid, or had poor self-reported health (Table 1). Patients with LEP vs EP had no differences in receipt of preventive services. Patients with LEP had lower odds of reporting that providers asked about their life (Odds Ratio (OR): 0.83, 95% Confidence Interval (CI): 0.74, 0.93), explained things clearly (0.85, CI: 0.76, 0.93), listened (0.88, CI: 0.79, 0.97), spent enough time with them (0.90, CI: 0.81, 0.99), or helped them meet health goals (0.88, CI: 0.78, 0.98) (Table 2).

Among patients with LEP, 871 (34.3%) reported visit accompaniment and 1,662 (65.6%) did not. Compared to those without accompaniment, those with accompaniment had greater odds of reporting a blood pressure check, but no significant differences in receipt of other services. Compared to patients with LEP without accompaniment, those with accompaniment reported higher odds of clinicians asking about their life (1.27, CI: 1.03, 1.57), explaining things clearly (1.57, CI: 1.27, 1.95), listening (1.51, CI: 1.20, 1.90), showing respect 1.85, CI: 1.42, 2.41), spending enough time with them (1.35, CI: 1.08, 1.69), talking about health goals (1.70, CI: 1.37, 2.11), and helping them meet goals (1.62, CI: 1.30, 2.01).

DISCUSSION

Compared to older adults with EP, those with LEP had similar odds of receiving preventive services but poorer experiences with their usual providers. Our results suggest that language barriers may play a limited role in receipt of preventive services for those with usual providers, yet may influence more nuanced aspects of clinical interactions that inform patient understanding, trust, and satisfaction. Our findings are consistent with prior work showing accompaniment may improve patient experience and care quality in

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Table 1 Sociodemographic Characteristics of Patients with LEP and EP

		Beneficiary LEP status				
		LEP ($N=2,534$)		EP ($N=8,690$)		Adjusted Odds Ratio of having LEP status ** (95% CI)
	Total	*N*	%	*N*	%	
Sex						
Male	5099	1299	22.96	3800	77.04	1.87 (1.65 to 2.11)
Female	6199	1256	17.11	4943	82.89	1 [Reference]
Age						
65–69	2118	426	18.71	1692	81.29	1 [Reference]
70–74	2360	436	17.48	1924	82.52	0.95 (0.78 to 1.17)
75–79	2260	477	19.62	1783	80.38	1.02 (0.83 to 1.24)
80–84	2273	594	24.54	1679	75.46	1.44 (1.18 to 1.75)
85 +	2213	601	24.86	1612	75.14	1.44 (1.18 to 1.75)
Race/Ethnicity						
Asian	215	119	58.14	96	41.86	5.44 (3.71 to 7.99)
African American	922	218	22.08	704	77.92	1.05 (0.83 to 1.31)
White	9371	1902	17.18	7469	82.82	1 [Reference]
American Indian or Alaska Native	113	44	35.10	69	64.90	1.24 (0.68 to 2.26)
Other*	305	70	20.10	235	79.90	1.10 (0.78 to 1.56)
Ethnicity						
Hispanic or Latino origin	1121	754	61.87	367	38.13	4.14 (3.30 to 5.20)
Not Hispanic or Latino origin	10,050	1768	16.4	8282	83.6	1 [Reference]
Income						
≤ 100% of FPL	1455	720	46.55	735	53.45	2.12 (1.66 to 2.72)
> 100% and ≤ 120% of FPL	601	220	34.84	381	65.16	1.68 (1.26 to 2.22)
> 120% and ≤ 135% of FPL	419	127	25.66	292	74.34	1.84 (1.37 to 2.47)
> 135% and ≤ 200% of FPL	1891	468	23.3	1423	76.7	1.44 (1.23 to 1.68)
> 200% of FPL	6858	999	13.41	5859	86.59	1 [Reference]
Education level						
High school graduate or above	9398	1633	47.64	7765	52.36	1.93 (1.62 to 2.29)
Not a high school graduate	1792	893	15.93	899	84.07	1 [Reference]
Rural–urban residence						
Rural	2548	550	20.19	1998	79.81	1 [Reference]
Urban	8669	1981	19.86	6688	80.14	1.35 (1.17 to 1.54)
Medicare Type						
Medicare Advantage	4824	1274	23.53	3550	76.47	0.94 (0.83 to 1.06)
Traditional Medicare	6400	1260	17.67	5140	82.33	1 [Reference]
Medicaid Enrollment status						
Dual enrollment in Medicaid	872	514	54.36	358	45.64	1.70 (1.22 to 2.38)
No dual enrollment	10,352	2020	16.8	8332	83.2	1 [Reference]
Self-reported health status						
Poor health	1933	663	30.85	1270	69.15	1.38 (1.19 to 1.61)
Fair, good, or very good health	9244	1858	17.23	7386	82.77	1 [Reference]
Chronic Conditions						
0	851	172	18.04	679	81.96	1 [Reference]
1	1802	346	16.51	1456	83.49	0.92 (0.68 to 1.25)
2 +	8571	2016	20.99	6555	79.01	1.01 (0.79 to 1.28)

*"Other" all beneficiaries whose race was self-reported as "more than one" or "Native Hawaiian and Pacific Islander"

**Odds ratios were adjusted for patient sex, age, race, ethnicity, income, educational level, rural–urban residence, insurance type (TM, MA), Medicaid enrollment status, self-reported health status, and number of chronic conditions

All numbers are unweighted and percentages are weighted

LEP status was defined as self-report of speaking English less than “very well;” all others were “EP”

primary care.[7] Strategies to facilitate accompaniment (e.g., after-hours visits to accommodate care partners’ schedules) may help ensure patients’ needs are met.

Study limitations include cross-sectional study design that precludes causal inference, self-reported data on care quality, and inadequate information on language and cultural

Table 2 Association of LEP Status and Visit Accompaniment with Receipt of Preventive Services and Patient Experience

	Beneficiary LEP status				Adjusted odds ratio for patients with LEP versus EP*** (95% CI)	Adjusted odds ratio for LEP patients with visit accompaniment vs without *** (95% CI)
	LEP			EP		
	Total *N* (%)	Visit accompaniment *N* (%) *N*=871	No visit accompaniment *N* (%) *N*=1,662	Total *N* (%) *N*=8,690		
Receipt of preventive services*						
BP checked in past year	2449 (95.89)	856 (98.28)	1592 (95.79)	8432 (96.45)	0.90 (0.66 to 1.24)	2.31 (1.07 to 4.97)
Cholesterol checked in past 5 years	2333 (92.38)	808 (92.77)	1525 (91.76)	8138 (94.04)	1.36 (0.90 to 2.04)	0.95 (0.41 to 2.21)
Influenza vaccine	1519 (56.98)	667 (76.58)	851 (51.20)	5768 (64.36)	0.88 (0.78 to 1.00)	1.10 (0.86 to 1.40)
Pneumonia vaccine	1611 (59.79)	610 (70.03)	1000 (60.17)	6132 (68.00)	0.89 (0.76 to 1.04)	0.80 (0.59 to 1.09)
Shingles vaccine	833 (32.33)	301 (34.56)	532 (32.01)	3963 (45.20)	0.94 (0.85 to 1.05)	0.90 (0.74 to 1.11)
Patient Experience*,**						
Provider asks about patient's life	613 (23.64)	311 (35.71)	302 (18.17)	2646 (31.18)	0.83 (0.74 to 0.93)	1.27 (1.03 to 1.57)
Provider explains things clearly	1243 (47.74)	624 (71.64)	618 (37.18)	4874 (55.37)	0.85 (0.76 to 0.93)	1.57 (1.27 to 1.95)
Provider listens to patient	1382 (52.71)	684 (78.53)	697 (41.94)	5112 (57.56)	0.88 (0.79 to 0.97)	1.51 (1.20 to 1.90)
Provider respects patient	1484 (56.26)	747 (85.76)	736 (44.28)	5496 (61.66)	0.99 (0.82 to 1.00)	1.85 (1.42 to 2.41)
Provider spends enough time with patient	1335 (50.95)	656 (75.32)	678 (40.79)	4959 (55.56)	0.90 (0.81 to 0.99)	1.35 (1.08 to 1.69)
Provider talks to patient about health goals	616 (24.35)	329 (37.77)	287 (17.27)	2198 (26.34)	0.91 (0.81 to 1.02)	1.70 (1.37 to 2.11)
Provider helps patient meet health goals	639 (24.96)	337 (38.69)	302 (18.17)	2334 (27.5)	0.88 (0.78 to 0.98)	1.62 (1.30 to 2.01)

*Determined from a subset of patients asked about their usual source of care

**For each measure of patient experience, a positive response was defined as a self-report of "always;" a negative response was defined as all other responses

***Odds ratios were adjusted for sex, age, race, ethnicity, income, educational level, rural–urban residence, insurance type, Medicaid enrollment status, self-reported health status, and number of chronic conditions

BP = blood pressure. Influenza vaccine receipt was based on receipt in the winter of 2018 – 2019; pneumonia and shingles receipt was based on ever receiving those vaccine

All numbers are unweighted and percentages are weighted

LEP status was defined as self-report of speaking English less than "very well;" all others were "EP." Visit accompaniment was defined as reporting having someone who regularly accompanied them to their usual provider's office

concordance and use of interpreters. Health care leaders should invest in clinician and patient-facing interventions that improve the experience of patients with LEP, such as standards that expedite interpreter use, AI-assisted translation, posting multilingual health information, and connecting patients to language-concordant clinicians.[7]

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