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## Disruptions in Care and Support for Homebound Adults in Home-Based Primary Care in New York City during the COVID-19 Pandemic

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### Abstract

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**Conflicts of Interest:** The authors are investigators and an advisor (BL) to the parent study, a randomized trial of home-based primary care for home-bound older adults. Dr. Leff reports stock ownership (Koko, Medzed, Honor, Dispatch Health), personal fees (Health Affairs, Medically Home, Kenes, American Board of Internal Medicine), and past presidency and board membership of the American Academy of Home Care Medicine.

Homebound older adults are a highly vulnerable population, yet little is known about their experiences with healthcare during the COVID-19 pandemic. We interviewed patients in home-based primary care (HBPC) in New York City by telephone in May and June of 2020. Interviews covered social supports, household activities, self-care, and medical care, and asked participants to compare current with pre-pandemic experiences. Among 70 participants, 37% were Black and 32% were Hispanic. Disruptions in the home included greater difficulty accessing paid caregivers (13.9%) and food (35.3%) than before the pandemic, and unaddressed household chores (laundry, 81.4%; food preparation, 11.4%). Black study participants were more likely than white and Hispanic participants to report disruptions in accessing medical care (13 [50.0%] vs. 3 [14.3%] vs. 6 [27.3%], respectively,  $p=0.02$ ), as well as food preparation and medication taking. Black patients in HBPC are at risk of disparities in healthcare and social support during the COVID-19 pandemic.

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Homebound older adults have difficulty accessing traditional ambulatory healthcare because of multiple chronic conditions and functional impairment (Ornstein et al., 2015). These factors may render them vulnerable to disruptions in care during the COVID-19 pandemic. Minority homebound adults, Blacks in particular, are especially vulnerable to reduced access to healthcare (Lieberman-Cribbin et al., 2020) and poorer health outcomes (Millett et al., 2020). In this study, we assessed the experience of homebound individuals to understand their experiences during the COVID-19 pandemic, and compared outcomes by race and ethnicity.

## Methods

Patients were from the intervention arm of a randomized trial of home-based primary care (HBPC) in New York City (Reckrey et al., 2018); adults ages  $\geq 65$  years, met Medicare definition of homebound, and were hospitalized in the prior 12 months. Intervention patients were enrolled in HBPC that provided longitudinal medical care and support through physician-led multidisciplinary care teams (Reckrey et al., 2015).

We contacted participants or their proxies by telephone in May and June of 2020. Structured interviews, using survey questions were developed by the study team, covered social supports, household activities, self-care, and medical care, and asked participants to compare current with pre-pandemic experiences. Response options included a mixture of Likert scales and non-scaled categorical options. Sociodemographic data were collected during baseline interviews for the parent study. Disruptions in care and support were compared between White, Black, and Hispanic study participants using the chi-square test and logistic regression. The institutional review board of the authors' university approved the research.

## Results

Among 147 potential participants, 35 (23.8%) were unreachable; 70 (47.6%) agreed to participate (48 patients [69%], and 22 were proxy respondents [31%]). The mean age was 79.9 (9.4) years, 78.6% were female, 37.1% were Black non-Hispanic, 25.7% White non-Hispanic, and 32.9% Hispanic. Monthly household income was  $< \$1,350$  for 53.5%, 71.4% had a home attendant and 47.0% lived alone during the pandemic.

## Beliefs, Practices, and Experiences with COVID-19

Most considered the COVID-19 pandemic to be a very or extremely serious issue (85.7%), 50% thought their risk of infection was high and 29.1% were concerned about getting infected. Twelve (17.4%) moved out of their primary residence during the pandemic to live with others.

Self-protective behaviors included mask use (68.6%), not allowing visitors (62.9%), social distancing (61.4%), and frequent hand washing (77.1%). Worry about getting COVID-19 was not significantly associated with any self-protective measures. Among those with paid caregivers (n=50), 64.4% said the paid caregivers wore masks always and 22.2% said sometimes.

## Impact of COVID-19 on Care

Disruptions in the home included greater difficulty accessing paid caregivers (13.9%) and food (35.3%) than before the pandemic, and unaddressed household chores (laundry, 81.4%; food preparation, 11.4%) (See Table). Compared to pre-pandemic experiences, 31.9% said accessing medical care was more difficult. Of these, 19 (73.1%) reported appointment cancellations and unavailability of their provider, 4 (5.8%) had difficulty contacting their provider, and 3 (4.4%) avoided contact with providers for fear of contracting COVID-19. Seven participants (10.0%) said obtaining medication was more difficult and 15.7% took fewer medications.

Black study participants were more likely than white and Hispanic participants to report disruptions in accessing medical care (13 [50.0%] vs. 3 [14.3%] vs. 6 [27.3%], respectively,  $p=0.02$ ), as well as food preparation and medication taking. There were no significant differences in these outcomes by other subject characteristics (age, sex, language, education, primary language, income, Internet use, functional impairment, cognitive impairment, general health, or symptom score). In logistic regression, black participants were significantly more likely to report difficulty accessing medical care (odds ratio 6.00, 95% confidence interval 1.42 to 25.4,  $p=0.02$ ), but Hispanics were not (OR 2.25, 95% CI 0.48 to 10.5,  $p=0.30$ ).

## Discussion

These homebound patients experienced moderate disruptions in access to caregiving, food, and healthcare. While disruptions were experienced by a minority of participants, the proportions experiencing problems with medical services and food were substantial. Moreover, we found that Black individuals were more likely to have difficulty accessing medical care. Whether such disruptions have meaningful impacts on health outcomes warrants further investigation.

This study is limited by its small sample size and participants from a single HBPC program in a single geography, although their characteristics were similar to that of homebound patients nationwide (Ornstein et al., 2015). As a group already receiving HBPC, they may represent the “tip of the iceberg” of barriers to care for the homebound, most of whom are not engaged in HBPC (Reckrey et al., 2020) and may be experiencing greater challenges

meeting basic needs than the patients interviewed for this study. Additionally, the poorer access to care reported by Black patients may be one part of the mechanism that has resulted in poorer health outcomes among Black patients during the pandemic, and points to potential strategies for reducing healthcare disparities for this population.

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**Suggested callouts:**

In this study, we assessed the experience of homebound individuals to understand their experiences during the pandemic, and compared outcomes by race and ethnicity.

Most considered the COVID-19 pandemic to be a very or extremely serious issue (85.7%), 50% thought their risk of infection high and 29.1% were concerned about getting infected.

While disruptions were experienced by a minority of participants, the proportions experiencing problems with medical services and food were substantial.

**Table.**

Disruptions in Care During the COVID-19 Pandemic, by Race and Hispanic Ethnicity, N=70

	All Participants N=70	White Participants N=18	Black Participants N=26	Hispanic Participants N=23	
	N (%)	N (%)	N (%)	N (%)	P
Unaddressed household and self-care activities					
Laundry	57 (81.4)	22 (95.7)	18 (69.2)	17 (81.0)	.06
Food preparation	8 (11.4)	0	6 (23.1)	2 (9.5)	.04
House cleaning	2 (2.9)	0	1 (3.9)	1 (4.8)	.59
Bathing	4 (5.7)	0	2 (7.7)	2 (9.5)	.34
Dressing	2 (2.9)	0	1 (3.9)	1 (4.8)	.59
Taking medicines	11 (15.7)	0	7 (26.9)	4 (19.4)	.03
Harder to access help in the home (paid or unpaid caregiver support)	9 (13.9)	0	5 (20.0)	4 (19.1)	.12
Harder to access food	24 (35.3)	8 (40.0)	6 (23.1)	10 (45.5)	.24
Harder to access medical care	22 (31.9)	3 (14.3)	13 (50.0)	6 (27.3)	.03
Harder to access medicines	7 (10.2)	3 (15.0)	2 (7.7)	2 (8.7)	.69
Harder to access medical supplies (n=36)	8 (22.2)	4 (40.0)	0	4 (23.5)	.28

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