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Meeting the Needs of Vulnerable Primary Care Patients Without COVID-19 Infections During the Pandemic: Observations From a Community Health Worker Lens

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Abstract

Background: During the height of the COVID-19 pandemic, healthcare systems were forced to focus their efforts on the rapidly rising numbers of patients contracting COVID-19. Although a myriad of publications focused on COVID-19 care have rapidly emerged, few have studied the impact of the pandemic on care received by patients without COVID-19. **Objectives:** To identify the experiences of Medicaid patients without COVID-19 related illness during the pandemic through the lens of community health worker outreach. **Methods:** From July 15, 2020 through February 1, 2021 patients previously enrolled in the C-CAT initiative were contacted by telephone for patient check-ins by CHW staff. **Results:** A total of 24 patients were contacted telephonically. Six patients had no active needs. Of the remaining patients, 70% of participants indicated that they had been unable to communicate with PCP or physician specialist care teams since the beginning of the pandemic and requested assistance from our CHW. Resulting unmet needs included the inability to obtain prescriptions drugs, necessary medical equipment, or supplies. **Conclusion:** The shift to COVID-19 focused care during the pandemic limited access to primary care for patients without COVID-19. The identified unmet patient needs included obtaining prescription medications, acute on chronic clinical condition management, healthcare services at home, and connection to social services. CHWs are uniquely positioned to assist patients as they connect to necessary clinical care, whether it be virtual or in-person, as they recover from the pandemic experience.

Keywords

community health worker, primary care, social determinants of health, COVID, vulnerable populations, Medicaid

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Introduction

At the onset of the COVID-19 pandemic, US healthcare systems were forced to focus their efforts on the rapidly rising numbers of patients contracting COVID-19. With a national emergency declared in March 2020 and nearly 2 million patients infected over a few short months after the first case was reported in the US in January 2020,[1] stay-at-home orders swept the country and those without jobs as first responders were encouraged to isolate in their homes.[2] Primary care and health care institutions found themselves in need of ways to rapidly redesign care delivery. Care quickly became optimized for testing, treatment, and administrative support to keep pace with new information emerging daily.[3] While the effort to focus on those being directly affected by the novel virus was evident, the care of patients without COVID-19 was paused. These patients were less of a priority in what quickly became an unprecedented health care crisis requiring the re-design of clinical and operational processes and policies.[4]

On March 19, 2020, the U.S. Department of Homeland Security's Cybersecurity and Infrastructure Security Agency

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(CISA) identified Community Health Workers (CHWs) as part of the *National Essential Critical Infrastructure Workforce during COVID-19*.[5] It was clear that CHWs would serve an important role in the nationwide COVID-19 response. However, their role during the pandemic in promoting patient education, advocacy, and resource allocation while improving care experiences and outcomes of patients with serious chronic illnesses was not well-defined.[6,7]

The Community CAre Transitions (C-CAT) Initiative pairs patients with a community health worker for 30 days following hospital discharge with the goal of reducing readmissions.[8] The initiative prioritizes best practice by focusing on patient-centered care and incorporating patient perspectives while addressing unmet needs related to healthcare and social determinants of health (SDoH). Through home visits and telephone calls, C-CAT seeks to create space for patients to voice their concerns about their clinical care and what they perceive to be the biggest barriers to staying well outside the hospital. In doing so, C-CAT CHW staff bring greater awareness of unmet patient needs to all members of the interdisciplinary care team. In addition, CHW staff foster patient connections to primary care teams, work actively to connect patients to low or no cost services, and work to close gaps in knowledge and resources that contribute to sub-optimal care. Recognizing the amplified needs of patients without COVID-19 during the pandemic, the C-CAT team slowed new patient enrollment, and instead focused its efforts on reconnecting with previously enrolled Medicaid patients to offer COVID-related safety information and assistance in addressing outstanding clinical and social needs.[9]

Here, we capture the needs and experiences of Medicaid patients without COVID-19 related illness during the pandemic and their connections to primary care through the lens of CHW interactions. The data presented explores how even temporary disconnections to primary care teams accentuated by the economic and psychosocial weight of the pandemic can exacerbate unmet clinical and social needs of this population. An example case exemplifying the types of clinical and social challenges patients faced during the pandemic is also included.

Methods

From July 15, 2020 through February 1, 2021 patients previously enrolled in the C-CAT initiative were contacted for patient check-ins by CHW staff. All contacts were made by phone by 1 community health worker. Patients were identified using a REDCap database used for all C-CAT initiative participants. Participants were contacted in reverse chronological order with the most recently enrolled patients contacted first. Patients with initial C-CAT enrollment periods ending January 1, 2021 through March 13, 2021 were contacted.

Setting and Participants

All patients contacted were previously enrolled in the 30-day C-CAT initiative during the 2 months prior to the pandemic onset, in March 2020. Initial C-CAT patient enrollment occurred during inpatient hospitalization to 1 of 6 internal medicine units at the Massachusetts General Hospital, a 999-bed hospital in Boston Massachusetts. At the time of enrollment, all patients contacted agreed to be contacted after the 30-day pairing for future studies or outreach. While paired with C-CAT CHW staff, no patients had expressed concerns related to inability or significant difficulty in contacting their PCP clinic staff prior to the pandemic. Eligibility criteria for C-CAT enrollment is described elsewhere.[9]

CHW staff reconnected with identified participants and established any current goals identified by patients. CHWs used multiple communication strategies including telephone calls, text messages, and emails for patient contact. CHW staff also provided reassurance, health coaching, and any assistance with obtaining needed clinical access or social resources. CHWs staff was trained in core competencies consisting of motivational interviewing, goal setting, behavior change, and psychosocial support. One CHW made all contacts and had experience working with and/or living in communities similar to those of participants. CHW staff documented all encounters in the electronic medical record and all patients care team interactions were recorded in the REDCap database. Patient clinical team members were copied on all CHW electronic medical record notes and contacted directly by CHW staff as needed. CHW staff also communicated directly with any other outpatient primary care-based support such as care management or nursing.

Results

Medicaid patients were contacted for CHW check-ins July 15, 2020 to February 1, 2021. A total of 24 patients were reached out to telephonically (Table 1). The mean (SD) age was 52 (3.9) and 54% percent were women. All patients were Medicaid insured. On average, patients had 2.1 hospitalizations in the 12 months prior to C-CAT initiative enrollment and a majority of patients had pre-existing services (eg, outpatient case management or nursing support).

Of the 24 patients contacted, 6 patients had no active needs. The remaining 18 patients had unmet clinical or social needs identified, documented, and addressed via subsequent CHW contacts (Table 1). CHW staff contacted patients primarily via phone but also via mobile phone text and email. Specifically, 70% of participants indicated that they had been unable to communicate with a primary care or sub-specialist care team since the beginning of the pandemic and requested assistance from our CHW to address

Table 1. Patient Characteristics.

Patient Characteristics	Total # patients (n = 24)
Demographics	
Female gender, N (%)	13 (54)
Age, years, mean (SD)	52 (3.9)
Race/ethnicity, N (%)	
Hispanic/Latino	2 (8)
White	20 (83)
Black	2 (8)
Asian	1 (4)
Other	1 (4)
Education high school or less, N (%)	16 (67)
Primary insurance, N (%)	
Medicaid/MassHealth	24 (100)
Pre-existing services	
Comprehensive case management, N (%)	9 (38)
Clinical nursing/home services, N (%)	11 (46)
Living situation	
Lives alone, N (%)	15 (63)
Healthcare utilization	
Number of hospitalizations within 12 months, mean (SD)	2.6 (0.6)
Co-morbidities, N (%)	
Coronary artery disease	10 (42)
COPD condition	7 (33)
Hypertension	6 (25)
Gastroenterology condition	3 (22)
Diabetes mellitus	3 (13)
Outreach to clinical care teams	
Unanswered calls to primary care	12 (50)
Unanswered calls to specialty care	5 (21)
Reason for call to clinical care teams	
Prescription drugs	13 (54)
Acute on chronic clinical condition	5 (20)
Medical equipment or supplies	3 (13)
Healthcare services at home	3 (13)
Connection to social services	2 (8)

an unmet need or inquiry. Of those who were unable connect with their clinical care team, 71% were unable to connect with their primary care provider team and 29% were unable to connect with a sub-specialty care team after multiple attempts. Reasons for calls to clinical teams included the inability to obtain prescriptions drugs, medical equipment, social services, or clinical inquiries related to acute on chronic disease (Table 1).

CHW interactions with patients spanned a series of domains including medical needs, SDoH or basic needs, as well as psychosocial support (Table 2). CHW staff most commonly provided patients with reinforcement of general adherence to care plans and medication, assistance with re-connection to primary care teams, psychosocial support, and addressing an unmet basic or SDoH needs. Specifically, CHW activities included case management outreach (63%), elder services coordination (46%), assistance with securing basic needs like food or housing (38%), creating plans for reliable transportation (29%), and assistance with completing insurance forms or obtaining benefits (29%). The nature of common CHW-patient interactions is well demonstrated by the case narrative that our CHW encountered (see Supplemental Material).

Discussion

Here, we examined the experiences of patients with Medicaid insurance without COVID-19 related illness during the pandemic. We also studied how connections to primary care were affected by reviewing CHW care interactions. A case highlighting how those that are chronically ill and under-resourced are at risk for potentially long term clinical and social consequences was also described.

Contacts with previously enrolled C-CAT participants with Medicaid insurance demonstrated significant gaps in clinical and social support. Increased attention during the pandemic for those that were presenting with acute clinical illness led to broken connections with primary care and sub-specialty clinical teams for those who were not experiencing COVID-19 illness. The case description represents just one of many examples of patients without COVID-19 who were affected by a pause in their healthcare and healthcare-connected services during the ongoing pandemic.[10] Multiple barriers were uncovered through the relatively small number of patients contacted in our outreach. We discovered patient barriers to medications, gaps in insurance support, and inadequate fulfillment of basic needs during the pandemic. Our findings demonstrate how primary care is a fundamental resource that provides access to both clinical and social care for Medicaid insured patients regardless of whether or not they are acutely facing COVID-19 illness.[10]

Of the 24 patients we contacted, over 70% were unable to connect with their primary or specialty clinical care teams after multiple attempts during the initial months of the pandemic. This was a common occurrence for non-COVID routine care and follow-up treatment for months in the spring of 2020.[11] Reasons for patient outreach to their clinical teams included for medication refills and a variety of clinical inquiries accentuated by the pandemic (Table 1). CHWs were able to assist patients in re-establishing clinical connections. In addition, CHWs were able to assist in reassuring patients, listening to concerns about the pandemic, discussing ways to best to protect themselves given their existing co-morbidities and engaging care teams when needed. This type of psychosocial support was particularly beneficial for patients that felt isolated and uninformed during the early months of the pandemic.[4] While it would be difficult to quantify the effect of these unmet patient clinical needs or inquiries if no intervention had occurred, it is

Table 2. Patient Contacts and CHW Activities.

Patient contacts	N (%)
Phone visit with patient	24 (100)
Phone text	6 (25)
Email	4 (17)
CHW activities	
Medical needs	
Reinforcement of general adherence to care plans	18 (75)
Questions related to the pandemic with respect to chronic illness	13 (54)
Medication refills	13 (54)
Re-establishing contact with Clinical Care	17 (71)
Primary care	12 (50)
Sub-specialty care	5 (21)
Engaging case management support	15 (63)
Making/confirming clinical appointments	8 (33)
Completion of forms associated with unmet insurance needs	7 (29)
Arranging for access to medications (delivery or transportation)	5 (21)
Social/basic needs	
Referral to elder services	11(46)
Referral to a social work or social agency (eg, housing, rental assistance, utilities)	9 (38)
Creating a reliable transportation plan	7 (29)
Coaching/teaching	
Providing psychosocial support	18 (75)
Organization and reconciliation (calendar events, mail, bills, other)	2 (8)

reasonable to extrapolate that outcomes associated with not being able to obtain medications or have clinical questions answered would have been substantial.

CHW interactions also commonly focused on engaging with case management, making referrals to elder services, securing SDoH or basic needs, and making referrals for social work. Case management, elder, and social service referrals have been well-established as important resources that CHWs can align for patients.[11] As exemplified in the example case, the complexity of social services with respect to housing needs as well as food security was a mainstay of the pandemic. This is another important area where CHWs can provide additional assistance. For instance, they can clarify program eligibility requirements, assist with the application process, and offer emotional support to patients.[12,13] During the pandemic, many community health worker staff adapted to the weekly, if not daily, updates on local, state, or federal resources for food, housing, rental assistance, or employment options.[14] In partnership with primary care teams and, moreover, social workers, CHWs have a long history of assisting patients in completing lengthy applications for housing and basic needs. This support was magnified during the pandemic. We look toward a future where processes for filing housing or insurance-related applications will be streamlined and more patient-friendly. In the meantime, CHWs can facilitate access to vital basic resources and, in doing so, help patients meet their health goals and avoid hospitalization.[15] As exemplified in the case, CHW work is collaborative work. CHWs are unable to successfully do their job without the strong support that continued connections to clinical care can provide.[16,17] While challenging to calculate the impact of these unmet SDoH and supportive needs without CHW assistance, their association with long term clinical outcome disparities is well established.[18]

Accessing clinical care team members and services related to the SDoH is a daunting and complicated process for patients under normal circumstances, let alone during a pandemic.[19] In fact, early research in these areas has identified that while patients without COVID-19 illness reported fear and anxiety during the pandemic, many also reported reluctance to access health care and social services in the ways they were accustomed to, due to the emerging threat of the virus.[20,21] This was especially true as the rapidly changing landscape of assistance under the Coronavirus Aid, Relief, and Economic Security (CARES) Act increased worry and created confusion for many of our patients who were unsure if they met eligibility requirements for pandemic assistance or if their pre-existing benefits would be altered.[22] It is important to recognize that while patients facing barriers to care and social hardships may not feel comfortable actively voicing concerns during a pandemic, these patients may also have needs that are time-sensitive and could result in negative health outcomes if not addressed. During crisis, patients with chronic clinical and social needs can be easily overlooked although their needs may be no less significant.

Limitations/Future Directions

This study has limitations. Given the size and scope of the CHW outreach team as well as the changes driven by the pandemic itself, the total number of patients contacted during the time interval described was small. However, the fact that all participants were insured by Medicaid and were within the hospital accountable care network adds to the richness and integrity of the findings. Also, healthy user bias due to severe illness could have precluded initial enrollment in C-CAT resulting in under-representation of patients with an even higher level of social and clinical complexity. Furthermore, we were unable to connect with non-English speaking participants because of limited funding for bilingual study materials and staff. CHW outreach was conducted among patients who were previously admitted to a single urban hospital. All participants had a working telephone and lived within a 20-mile hospital radius. Therefore, study findings may not be generalizable to patients who are uninsured, do not speak English, do not have a working telephone, or live in rural settings.

Conclusion

Maintaining strong connections to primary care and clinical care teams, sharing knowledge of critical resources and services, and promoting the uptake of economic benefits to sustain households through times of heightened uncertainty during a pandemic is critical. As vulnerabilities for underserved populations have intensified in recent months, CHWs have demonstrated their ability to strengthen connections to primary care clinics, fulfilling a fundamental role that our health system has a limited capacity to provide.[23] As exemplified in the case, CHWs are an untapped resource that can help patients as they move into a peri-COVID world in a number of ways[24]: (1) by emphasizing public health truths, (2) reducing patient fear and anxiety about accessing necessary health care and social services, (3) and encouraging patients to safely engage in activities outside their homes and in communities.[6,25] With the right clinical integration, supervision, and investment,[26-29] CHWs are uniquely positioned to assist patients as they connect to necessary clinical care and recover from the pandemic experience.[27] However, without continued connections to their clinical teams and federal, state, and local policy to prevent interruption of social services and support, vulnerable patients will disproportionately pay the price when future pandemics/crises occur.

Authors' Note

De-identified data may be obtained upon request by contacting the corresponding author with a descriptive proposal stating the purpose of the data request.

Author Contributions

All authors contributed to the manuscript conception and design. Material preparation and data review was performed by Susan Hassan and Anne Walton. The first draft of the manuscript was written by Susan Hassan and Jocelyn Carter. Anne Walton edited the manuscript and added references. All authors commented on previous versions of the manuscript. All authors read and approved the final manuscript.

Declaration of Conflicting Interests

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Ethics Approval

This work met criteria for IRB waiver and consent from patients was obtained.

Consent to Participate

Consent obtained.

Consent for Publication

Obtained.

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Availability of Data and Material (Data Transparency)

Any data requests will be reviewed and carefully considered after publication.

Supplemental Material

Supplemental material for this article is available online.

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