



Community Health Workers and Family Medicine Resident Education:

Addressing the Social Determinants of Health

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BACKGROUND AND OBJECTIVES: Neither the health care system nor the training of medical residents focus sufficiently on social determinants of health. Community health workers (CHWs) are a growing presence in health care settings. Culturally and linguistically competent, typically they are from underserved communities and spend more time addressing social determinants of health than others on the health care team. However, CHWs are an infrequent presence in resident clinical training environments. The University of New Mexico Family Medicine Residency placed family medicine residents at a community clinic in Albuquerque managed by CHWs, recognizing that CHWs' collaboration with residents would enhance resident competency in multiple domains. Residents gained skills from CHWs in inter-professional teamwork, cultural proficiency in patient care, effective communication, provision of cost-conscious care, and advocating for both individual and community health. Our model recognizes the value of CHW skills and knowledge and creates a powerful rationale for greater recognition of CHW expertise and integration of CHWs as members of the care team.

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Social determinants have a greater impact on health than the health care delivery system in the United States.¹ However, addressing social determinants presents a challenge for clinical services and graduate medical education. Neither are effectively designed to cope with patients' nonmedical needs in the prevailing understaffed and busy primary care setting, much less address needs that exist outside of clinic or hospital settings. The Centers for Disease Control and Prevention (CDC) and the American Academy of Family Physicians seek a framework for ensuring that family physicians can provide not only traditional primary care but also

provide services in areas that overlap primary care and public health.² This overlap includes care coordination, social determinants of health, and community involvement. Multiple educational modalities are needed to achieve these competencies.³ But where will residents gain these skills and integrate them into practice?

CHWs: A New and Growing Resource to Address Adverse Social Determinants

According to the American Public Health Association, "A Community Health Worker (CHW) is a front-line public health worker who is a trusted member of and/or has an

unusually close understanding of the community served. This trusted relationship enables the CHW to serve as liaison/intermediary between health/social services and the community to facilitate access to services and improve the quality and cultural competence of service delivery."⁴ CHWs work in multiple contexts of health-related services and have become integral to new models of care delivery in the current health system transition. They often come from the communities they serve and thus are uniquely positioned to make health care more patient centered and responsive to patients needs. Compared to other health providers, they often have detailed knowledge and understanding of the cultural and socioeconomic dimensions of patients' lives. This connection with the community allows CHWs to transcend social, cultural, and economic barriers that often limit patients' access to health care services. As a result, CHWs are typically able to address social determinants of health, including education, income, housing, safe neighborhoods, access to sufficient and healthy food, and social inclusion⁵ more effectively

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than other health workers (eg, doctors, nurses, psychologists, care managers, or even social workers).

CHWs are gaining recognition as an essential component of the health care team as a job category with the Department of Labor and cited as a key health resource in the Affordable Care Act.⁶ However, despite increasing awareness of the role of the CHW among health system architects and planners,⁷ the vital contributions of CHWs have remained largely invisible to academic providers. The most prominent reason is that CHWs' training and service occurs in non-academic settings apart from and often not familiar to other members of the health care team. Further, CHWs generally have a high school diploma rather than a professional degree, bringing skills and knowledge from their community experience rather than from formal education. In the degree-centric world of academic medicine, such skills and knowledge are not typically valued. Thus it is incumbent upon family medicine educators to find means to bring together CHWs and their expertise working with social determinants with family medicine residents who need greater skills in addressing community health needs.

A New Model for Family Medicine Resident Training

At the University of New Mexico, the Family Medicine Residency Program and the Office for Community Health have been working with a community clinic in Albuquerque to integrate CHWs into their graduate medical education (GME) clinical learning experience. Studies suggested that CHWs could play a valuable role in the education of health professionals that would improve the quality of health care services.⁸ Our experience is that residents are able to develop competency in multiple domains through their work with CHWs: (1) inter-professional teamwork, (2) demonstrating humanism and cultural proficiency in patient care, (3) effective communication, (4) cost-conscious care provision, and (5)

advocating for both individual and community health. As a result of our work with family medicine residents and CHWs, we believe that creating a structure that engages CHWs in resident education represents an important learning opportunity that has not previously been discussed in the literature. This engagement with CHWs has a dual benefit. Residents gain awareness and appreciation of the role and expertise of the CHWs, which enhances clinical care. At the same time, residents gain from the CHWs critical skills that they apply in other clinical settings.

CHWs at One Hope: Helping Family Medicine Residents Gain Needed Competencies

The One Hope Centro de Vida Clinic is in Albuquerque's International District and serves a primarily uninsured Hispanic population.⁹ The One Hope Clinic is organized and run by CHWs and staffed by a variety of providers. UNM Family Medicine residents (overseen by faculty) and students from the UNM Schools of Medicine, Pharmacy, and Nursing staff the One Hope Clinic every Wednesday evening from 5 to 9 pm. Sessions focus on general and women's health and mental and chronic illnesses. The clinic does not accept insurance, and patients pay a nominal fee of \$20 for each visit.

At the clinic, under attending supervision, the team shares responsibility for taking a patient's medical history, conducting a physical exam, determining an appropriate care management plan, and writing up the encounter. Following the visit with the care provider, One Hope has developed an innovative component of patient care. A "salida" or exit interview is conducted by a Spanish-first, bilingual CHW at the end of each patient visit.¹⁰ Before patients enter the salida, the family medicine residents communicate with the CHW to clarify the patient's diagnosis and treatment plan. In a separate room, the CHW reviews the visit with the patient, including the provider's charted evaluation and plan, recommended lab

tests, prescriptions, referrals, and follow-up plan. The CHW assesses whether the patient understood the diagnosis, the appropriateness and the affordability of the plan, and explains where to purchase prescriptions or get tests done at lowest cost. The salida provides time and an environment of trust for the patient to bring up any concerns, questions, or areas that are not clearly understood during the encounter with the clinical team. Often patients feel safer discussing communication challenges and social or economic barriers with the CHW than with the provider. Thus, the salida helps ensure appropriate care is received. Between weekly clinic sessions, the CHW follows up with patients that they believe might need further help or encouragement. A family medicine resident is available by phone to discuss lab results, concerns, or challenging cases.

The Impact of CHWs on Resident Education

Inter-Professional Education: Coordinating Team-Based Care

Through One Hope, family medicine residents are exposed to a collaborative model of care. However, the CHWs, as team members, bring an additional element to residents' experience. Unlike in the traditional clinic hierarchy in which physicians are unchallenged at the top, the CHWs at One Hope serve as the managers, coordinators, and collaborators in all activities. CHWs have the capacity to offer suggestions to the physician or resident about what to do in relation to patient care following the salida. This model dismantles the typically medical hierarchy. Residents learn to work in teams that focus on the patient, value the input of individual team members, and operate with mutual respect. This approach integrates core elements of the Core Competencies for Inter-professional Collaborative Practice.¹¹ Residents gain an understanding of the role that a CHW, pharmacist, and nurse can have on the medical team, and they gain skills in collaborating with diverse professionals. Residents who

have learned how to engage and collaborate with other professions carry these skills back to their continuity sites.

Social Determinants of Health: Demonstrating Humanism and Cultural Proficiency

The CHWs at the One Hope Clinic serve as a link to community resources, and they have insight about the social, economic, and cultural factors that impact the health of their community.⁷ Residents would not generally have knowledge about resources available or the more detailed aspects of patients' lives. In essence, CHWs are liaisons to the community. Residents, by working with CHWs, develop increased knowledge of community resources, cultural proficiency, and awareness of everyday challenges faced by patients. Though social workers are present in larger clinical and hospital settings where they are able to connect patients to community resources, One Hope does not have a social worker nor are they available at most small primary care practices or at most Federally Qualified Health Centers. Also, while social workers are usually based at clinics and hospitals, CHWs are mobile, bridging the clinic to community, even going to patients' homes or accompanying patients to the appointments. One faculty member noted:

"Culture is not a barrier to health care. Rather, it is our failure to communicate across culture that creates dilemmas in access, intervention, and follow-up. I see [CHWs] as cultural brokers who facilitate communication, increase trust, and quell fear."

In order to provide appropriate health care to patients at One Hope, residents must understand the situations and contexts in which patients live. The CHWs are essential for bridging the cultural difference and helping residents to explore multiple factors that impact health of patients. A resident who has worked in the One Hope clinic felt that:

"Working with the team at One Hope Clinic has been humbling.

Coming from an immigrant family, with monolingual Spanish-speaking parents, I did not think I would have a problem identifying with my patients who came from the same background as I had. It turned out that I was still missing a lot. The CHWs were able to bring to light additional challenges and barriers that my patients were facing of which I was not aware."

Learning to approach all patient interactions with a humble demeanor and open mind is critical to building skills in cultural sensitivity. The experiences at One Hope prompt residents to explore how culture informs health, and the CHWs help to navigate these interactions. Residents apply lessons learned at One Hope to asking their patients more questions about social determinants of health in their continuity clinic settings. Their patient histories become richer, more complex, and they begin to understand the role of the social factors on health. Residents have gone on to develop a wide range of projects based out of their continuity clinics including increased access to healthy, local foods, creating greater opportunities for neighborhood residents to exercise, and teaching health classes at local public schools.

"Salidas:" Effective Communication

At One Hope, CHWs work to improve patient communication. They see every patient at the end of the visit to perform the *salida* described above, ensuring the patient understands the recommendations of the health care team and has the capacity to comply with the treatment plan. CHWs communicate unidentified problems or issues they uncover back to the resident to clarify instructions and give feedback on miscommunication. This approach is different than in the other residency continuity clinics at UNM in which there is no process to ensure that providers effectively communicate with patients. Through the *salida*, residents at One Hope receive regular and immediate feedback on their communication with patients.

CHWs sometimes suggest different ways of conveying information to patients and serve as mentors to residents. One resident found that "The *salida* ensures patients really understand their medical plan. Rather than performing menial and organization tasks, CHWs actually participate directly in the care of the patient. On numerous occasions, the CHWs have realized that (1) the patient does not understand what we discussed, (2) the instructions I have provided are not at all clear, or (3) my plan does not make sense to the patient."

Important changes to the management plan have been made after the *salida* in order to ensure the patient is treated in the most appropriate, culturally sensitive, and cost-effective way. Residents take this experience and the feedback they receive, particularly around explaining and negotiating the plan of care, back to their clinical sites. At one clinic, residents with experience at One Hope have implemented the teach-back method to ensure discharge instructions and the plan were communicated clearly and understood.

Systems-Based Practice: Cost-Conscious Medical Care

Important to the model developed at One Hope, CHWs are the coordinators of care rather than simply auxiliary or administrative staff. They are empowered to share in decision-making side by side with other providers. This model exemplifies some of the goals of team care coordination in a patient-centered medical home. CHWs ensure that referrals are sent and that patients get to their appointments, that patients understand recommendations made for consulting specialists, and that they receive lab and imaging results. They check on patients and follow-up care plans outside of clinic hours. This modeling of a coordinated care system allows residents to learn how patient care can be coordinated between the community clinic and specialty services in the hospital. Residents have access to the medical

records at the hospital and can facilitate follow-up in the University of New Mexico health system.

The vast majority of patients at One Hope are uninsured immigrants with limited financial resources. CHWs are knowledgeable about costs of lab work, diagnostic tests, and medications, and they review these orders with the patient during the *salida* to ensure that the medical plan is cost-effective, economically feasible, and practically sustainable for the patient. Thus they assist both the provider and the patient in making financially reasonable medical management and treatment decisions. If the patient is unable to afford their medical plan, the CHWs return to the provider to determine an alternate cost-effective diagnostic and treatment plan. Thus CHWs teach residents about how to work with patients with limited resources. This increased awareness of the cost of care and implications for patient wellness translates into the resident's care of all patients, both in the inpatient and outpatient setting.

Health Policy and Advocacy

CHWs at One Hope are also involved in health care transformation beyond the clinic or even the immediate neighborhood. They have become advocates for quality health care for immigrants at the county and state level and have involved residents in projects to improve access to care for patients in the University of New Mexico Health Sciences Center. For example, access to primary care and preventive services are too costly for many immigrant families who may not be eligible for federal entitlements or local safety net programs. As a consequence, many immigrants over-utilize the Emergency Department for primary care services and for illnesses that could have been prevented by earlier access to a primary care clinic.¹² The One Hope CHWs have been leaders in implementing sliding scale charges if the uninsured patient has signs or symptoms of a communicable disease, needs immunizations, or has an

emergency, as these are services able to be provided through an exception in the federal law. The CHWs and residents at One Hope refer patients to specialty care at UNM if necessary, and they navigate the financial services system at UNM to assist patients in getting onto a discount payment plan. The CHWs collaborate with local businesses to negotiate lower prices for laboratory tests and imaging studies. Resident interest in advocacy around access to care has increased through their work at One Hope. One resident noted, "I had an interest in advocacy and policy on entering residency, but my passion grew after experiencing One Hope. The CHWs there are dedicated to providing the best care possible to patients with no health insurance. I became very interested in participating in the county discussions around the creation of an indigent care fund based on financial need."

CHWs at One Hope are leaders in the community and have joined county-level work groups to discuss access to affordable health care. These CHWs serve as role models and mentors for residents interested in health care policy and advocacy.

Broader Impact of Resident-CHW Collaboration and Future Work

The impact of resident-CHW collaboration on the family medicine residency, on the UNM Office for Community Health, and on the University of New Mexico Hospital has been substantial. One Hope clinic has been a social and learning laboratory and model for integrating CHWs into primary practice. The overwhelmingly positive reviews from residents of their experience learning and serving with CHWs led to education and policy changes within the residency and the institution. The Office for Community Health in conjunction with the Family Medicine Residency Program developed a model for integrating CHWs into GME. We made a proposal to the UNM Teaching Hospital to place two CHWs each in three

continuity clinic sites for family medicine residents. The hospital CEO and administrative staff agreed, and the six CHWs have begun work with the residents in April 2015 on this expanded model. The fourth continuity clinic site for family medicine residents is located at First Choice, the local federally qualified health center, and two CHWs were hired by the Office for Community Health and assigned there.

To inform clinic personnel about the rationale for the new model and to introduce changes related to working effectively with CHWs in clinic settings, presentations were conducted at each of the UNM clinics with providers, registered nurses, social workers, medical assistants, and clerks. Each clinic participated in a 90-day pilot to develop the infrastructure for integrating CHWs into the care team.¹³ During the pilot, patients were screened for nonmedical social determinants, and clinic staff provided information about or assisted with access to resources to address patients' identified needs. The screening questions elicited information about adverse social determinants, which the CHW could address either in the clinic or community. Clinic personnel were surprised to discover that half their patients had at least one major adverse social determinant such as inability to pay for utilities, need for a job, need for more education, and help with access to food or transportation. The CHWs provide a structural response to these needs.

Our model for integrating CHWs into clinic-based practice and resident training has also influenced planners of Medicaid Managed Care, which in New Mexico is called Centennial Care. The UNM Office for Community Health and Department of Family and Community Medicine published work about the successful employment of CHWs in addressing the needs of the 5% of Medicaid enrollees.⁷ As a result, Blue Cross Blue Shield of New Mexico and Molina Healthcare of New Mexico agreed to work with UNM to fund a pilot

project in which CHWs have been hired and trained to address the social determinants of the remaining 95% of the enrolled population. CHWs are developing a process to employ group visits for those with chronic disease and develop policy and population-level interventions to benefit their communities. In addition, the advocacy and teamwork at One Hope has also been taken to the county level and state level. A CHW from One Hope was appointed to a task force charged with making recommendations to the Bernalillo County Commission about creating a more inclusive health care system.

Discussion

Fraher and colleagues¹⁴ argue for a “post-Flexnerian revolution” in resident training with Academic Health Centers working collaboratively with a broader group of non-traditional stakeholders to better align education and practice. Only then can GME develop the “continuous learning and competencies required to meet patient needs and improve health outcomes.” Philibert and Miles¹⁵ propose that GME must include both didactic instruction and hands-on, immersive experiences for residents to develop the competence to treat real-world patient problems, but too often residents do not have opportunity for experiential learning experiences to complement hospital and classroom-based education. “Authentic inter-professional team experiences [need to] become part of the clinical learning experience.”¹⁶ Engaging family medicine residents with CHWs is a novel educational approach that can help align residency training with the changing demands of clinical practice.

CHWs are an underutilized resource that can improve the health and well-being of patients and communities. However, CHWs usually serve outside of traditional clinical venues and academic health centers where health professional training occurs. For these reasons, the UNM family medicine residency has engaged residents in a unique, community-based clinic run by CHWs.

Residents and CHWs have learned from each other how to promote egalitarian and collaborative interactions that contrast with dynamics in most clinic and hospital settings. CHW innovations have been demonstrated to have significant impact on health outcomes of underserved and at-risk populations.¹⁷ Collaborative partnerships between family medicine residents and CHWs can positively impact resident training by teaching residents essential skills in teamwork, communication, cultural sensitivity, cost-effective care, and advocacy. This creates a dual impact allowing residents to gain insight into the expertise of CHWs and at the same time providing them with essential skills that they will then take with them in their clinical practice at other sites.

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