


Implementing Social Determinants of Health Screening at Community Health Centers: Clinician and Staff Perspectives

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Abstract

Purpose: Screening for social determinants of health (SDOH) during primary care office visits is recommended by pediatric and internal medicine professional guidelines. Less is known about how SDOH screening and service referral can be successfully integrated into clinical practice. **Methods:** Key informant interviews with 11 community health center (CHC) clinicians and staff members (medical assistants and case managers) were analyzed to identify themes related to integrating a SDOH screening and referral process (augmented WE CARE model) into their workflow. **Results:** CHC clinicians and staff believed the augmented WE CARE model benefited their patients and the CHC's mission. Most clinicians found the model was easy to implement. Some staff members had difficulty prioritizing the nonclinical intervention and were confused about their roles and the role of the patient navigator. The eligibility requirements and time needed to access local SDOH resources frustrated clinicians. **Discussion:** SDOH screening and referral care models can help support the mission of CHCs by identifying unmet material needs. However, CHCs have organizational and administrative challenges that successful interventions must address. CHCs need clinical champions for SDOH models because the screening and follow-up processes involve clinical staff. Additional support for SDOH models might include piloting the SDOH screening model workflow and formalizing the workflow before implementation, including the specific roles for clinicians, staff, and patient navigators.

Keywords

social determinants of health, screeners, implementation, community health centers

Background and Significance

Screening for social determinants of health (SDOH) during pediatric office visits is recommended by the American Academy of Pediatrics and the American College of Physicians.¹⁻³ SDOH are the social circumstances in which people are born, work, live, and age and include access to health care, food security, financial security, and the physical environment.¹ Problems with SDOH may manifest in primary care office visits as unmet social needs such as food scarcity, hunger, homelessness, and debt and can lead to detrimental health and developmental outcomes in children.^{4,5} Thus, mitigating children's and families' unmet social needs has the potential to reduce toxic stress and thereby improve health.^{6,7} To date, SDOH screening and referral implemented in pediatric primary care has been found to increase receipt of families' social services.^{5,6}

Even with a validated SDOH screener, however, clinicians may struggle to address their patients' unmet social needs.⁶⁻⁸ Once a social need is identified, clinicians and health systems need to refer patients and families to nonmedical organizations for additional resources and benefits.^{1,9} Primary care clinicians may not have the training or the staff readily available to help patients navigate these external resources.^{5,10}

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Our team had previously implemented the WE CARE model, a SDOH screening and referral intervention, in community health centers (CHCs) and pediatric clinics.^{4,8} For this study, we explored how CHC staff responded to the WE CARE model and how they implemented WE CARE activities into daily practice. Using key informant qualitative interviews, we asked pediatric, CHC staff and clinicians about their experiences with the WE CARE model, the challenges they faced with the model, and how it affected their clinical practice.

Methods and Setting

In September 2015, 6 pediatric clinics within CHCs in Boston, MA participated in a type 1 effectiveness-implementation, cluster randomized control trial of a SDOH model (the augmented WE CARE screener and referral process). Three of the clinics were randomized to implement the WE CARE model, while the remaining three continued with their standard of care (i.e., no WE CARE or SDOH screening).⁸ The study and methods were approved by the Boston University Medical Campus Institutional Review Board.

Briefly, the augmented WE CARE model consisted of three key components: a screener, a referral, and a patient navigator.

WE CARE screeners were distributed to parents who presented with a child (ages 0-5 years) for a well-child visit. The WE CARE screener consists of 12 questions designed to identify 6 social needs and determine whether families wanted assistance with a need. The 6 needs include child-care, food, housing, parent education (high school/GED equivalency), parent employment, and utilities (household heat and/or electricity). It takes less than 2 minutes for parents to complete the screener, which is written at a third grade reading level.⁵ The WE CARE screener was adapted from the original 20-question instrument that had a test-retest reliability of .92.⁵

The referral process involved the primary care provider (PCP) who would give parents information about local social services. Clinicians were trained to review the WE CARE screener with parents and print community resource information for those who reported both having a need and wanting help. At some CHCs, office staff, such as medical assistants (MAs), rather than clinicians printed out the information sheets. Resource information was printed directly from the patient's electronic medical record (EMR) using smart phrases specific for each need. For instance, if a clinician used the smart phrase ".WECAREFood" in the After-Visit Summary (AVS) section of the visit note, food resource information would populate into the AVS along with contact information for food pantries. WE CARE screeners and resource sheets were available in English, Haitian-Creole, Portuguese, Spanish, and Vietnamese.

Parents could self-refer into services identified on the AVS or ask for further help from a patient navigator. The patient navigator was an implementation team member trained to assist parents with the process of accessing resources. The navigator was intended to supplement the staff at the CHC sites and was available from one to three days per week at each site. Patients could call a hotline to reach the patient navigator or the clinician could request assistance through the EMR.

Of note, the augmented WE CARE model deviated from the prior tested WE CARE model by including a patient navigator and embedding community resource sheets into the EMR. Prior versions had the physical resource book located in exam rooms and had no navigator. These changes were made due to the requirements for the grant mechanism that funded this study; in addition, the study team believed they would better benefit patients and families.

Sample and Recruitment

Toward the end of the trial, key informant interviews were solicited from the WE CARE intervention CHC stakeholders in order to identify themes around the integration of the augmented WE CARE model into the workflow of pediatric primary care units. At the start of the clinical trial, three contacts were identified for each site: the pediatric medical director, a clinician, and an MA. The research team contacted the 3 clinical contacts and asked them to identify staff who were involved with the WE CARE implementation. On the recommendation of the contacts, we sent an email blast to all currently employed pediatric clinicians and staff. The research team emailed 17 staff (11 clinicians, 5 MAs, and 1 case manager) of whom 11 agreed to participate.

Data Collection

Study participants were interviewed between September 2018 and February 2019. Semistructured qualitative interview guides were informed by the Promoting Action on Research Implementation in Health Services (PARIHS) framework.^{11,12} The PARIHS framework was designed to help understand how evidence is translated into clinical practice. The framework suggests that successful integration of a new practice into a clinical environment depends on how clinicians and staff respond to the project.¹³ The interview questions asked how CHC staff perceived the augmented WE CARE model (evidence), the challenges they faced when integrating WE CARE into everyday clinical practice (context), and whom within their organization championed the model (facilitation).

The research team conducted interviews via telephone to accommodate participant schedules. Interviews averaged about 16 minutes. Interviewers audio-recorded the sessions and field notes were made postinterview.

Data Analysis

All interviews were transcribed verbatim. Transcription was performed by the research team (MP and AB) following each interview. All data were stored on a secure server.

Interviews were coded deductively in April and May 2019. A codebook was developed by the analysis team (MP, AB, and CH) from the PARIHS model. Each interview was separately coded by AB and CH in March 2019. The analysis team then met and reviewed each coding decision until consensus was achieved. Themes were identified and agreed upon by the research team in June 2019. All coding and analysis were performed in NVivo 12.

Results

We interviewed 11 CHC staff members (7 clinicians, 3 MAs, and 1 case manager) from 3 CHCs involved in the WE CARE trial.⁹ All participants of the study had positive perceptions of the augmented WE CARE model, but they also reported significant problems integrating the model into their practices. We identified 4 main themes representing the range of clinician and staff perceptions of how WE CARE affected their practice: (1) benefits of the WE CARE model, (2) prioritizing WE CARE, (3) reliance on a patient navigator, and (4) resource limitations.

Benefits of the WE CARE model

Clinicians and MAs felt that the design of WE CARE helped them to practice holistic medicine and fulfill the mission of CHCs. Clinicians felt it was “a productive and efficient addition to our services and our environment” (PCP, Site 3). In particular “the resources were patient friendly and used patient friendly language” (PCP, Site 2). Staff reported the screener prompted patients to seek help for needs that the patient may not have known could be met with referrals to local services. “I think it’s helpful because some parents do need actual help. A lot of them at the health center, I know they are looking for housing, looking for daycare” (MA, Site 2).

Similarly, clinicians and staff viewed the presence of the patient navigator as beneficial. Prior to the intervention, the CHCs did not have a patient navigator embedded in the pediatric unit. The navigator provided CHCs with a part-time, additional team member which clinicians appeared to appreciate. “We always have not had enough staff to serve everybody, but with another hand helping out, that was always a plus” (PCP, Site 1).

The CHC staff realized during the intervention that they had little understanding of how to help parents connect to social services. The patient navigator filled a gap in the CHC’s staffing by specifically addressing the needs of parents seeking assistance. “When [the patient navigator] first came, that filled a very big void in our clinic just because we were identifying, you know, if we identified people who

were in need, we just didn’t know how to help them practically” (PCP, Site 2).

Prioritizing WE CARE

Clinicians perceived the WE CARE model as easy to perform and integrate into office visits. Clinicians felt the screening and referral process were easier to implement than other interventions.

. . . there was a little worry that this was a screener that they [the clinic staff] didn’t have a lot of experience in dealing with in terms of the responses from patients, but I think that the actual end to end tool along with the resource list has been well thought-out and well tested. They [the staff] didn’t find it to be particularly challenging compared to all the other stuff we have to screen and deal within the clinic. (PCP, Site 1)

Clinicians also found that the integration of the resource list with the EMR system made practicing the augmented WE CARE model easier. “You could just print the visit summary and if they had identified a need, they had already put it into the computer, so you were just printing it out” (PCP, Site 2). The only drawback that clinicians reported was that the screener formatting led some parents to complete the form incorrectly or not respond.

What hasn’t worked is that the form itself is confusing. Even if this is the language the patient speaks, the patients answer the questions wrong a lot of the time. So, on the left it’s kind of uh, well I don’t know. Sometimes they read the question then they go to the right to say yes or no instead of going to the left . . . that whole way of setting up the form was not simple for a lot of my patients. (PCP, Site 1)

However, MAs disagreed about the ease of integrating WE CARE into their daily activities. Some found it relatively easy to implement, particularly later in the project. “But for me coming in, it was just something that already existed. It wasn’t like I was here before WE CARE so it wasn’t a part of our workflow and then it was introduced. It was already established when I started working.” (MA, Site 1)

Others felt there had not been enough attention paid to training and orienting new staff.

I know a lot of new staff; they don’t know about WE CARE. They don’t know how WE CARE works. And um, they don’t know when you give to patients, a lot of patients, they don’t understand how to fill out, and staff doesn’t know how to explain for them to fill out the form . . . They need to be retrained. (MA, Site 3)

Confusion about the WE CARE process and materials negatively affected MA workflow. MAs noted that some clinicians had the MAs take on the responsibility of consulting with patients and providing resource sheets because of time constraints.

I think that the way that we do it, giving it to the parents before the provider sees them and being able to ask the medical assistant to make sure that the patient actually gets the information, I think is very good. Because sometimes, you know, I think there was a certain point where the provider was doing it and sometimes they would forget because they were seeing complicated patients, but I think as a medical assistant, being able to just go through the form and print resources out for the patient was very helpful. (MA, Site 1)

As a result, the referral protocol was not followed for some parents. “Occasionally, you know, someone would leave without their resources. Some MAs were really good about mailing it to patients, some not really” (PCP, Site 1).

Reliance on Patient Navigator

One of the root causes of clinician and staff workflow confusion may have been the lack of an internal, clinical champion. The project had identified clinical and staff leaders for the implementation. What their actual role in project leadership was is not clear from the interviews. What appears to have happened is that some staff and clinicians considered the part-time, patient navigator to be the internal champion of the project.

Again, I don't know what her [the patient navigator's] exact role was, but I think it would've been helpful if she took more initiative with the program . . . I have a lot of other responsibilities and not a lot of time to handle those responsibilities. So, it would've been nice for her to handle all the WE CARE, um, kind of all the WE CARE, um, kind of oversee while she was here a little bit more. (MA, Site 1)

Clinicians also relied heavily on the patient navigator to help with patient needs. One noted their site could not address SDOH questions without the navigator. “When [the patient navigator] weren't on site, linkages [between the navigator and patient] couldn't happen” (PCP, Site 3).

Resource Limitations

Clinician knowledge of the resources available in their communities appears to have grown during the intervention. Some clinicians and MAs noted that some of the resources were not helpful for parents or were not new to parents, which influenced patient experiences with WE CARE. At least one clinician noted that some patients knew they were ineligible for services, and that knowledge effected how patients responded to the resource list.

The advantage of having a resource list be very broad is that we could use the same intervention for a lot of different patients and don't think about eligibility for this or that program. The downside is that, you know, some patients clearly are gonna be

eligible for some of the resources and not for the others. So, patients as they look at them sometimes say, ‘Oh you know I tried that one, I couldn't do it’ or ‘Is this really related to me.’ (PCP, Site 1)

CHC staff thought that some of the most needed resources were insufficient, particularly for working parents. “A lot of people had issues with childcare, so they could work, and don't remember those resources being particularly robust” (MA, Site 3).

Other clinicians seemed unaware of what the expectations around the referral process should be and how quickly patients could expect assistance. One PCP expressed frustration with the resource delays and how there did not appear to be a way to address them in a timely fashion or in a manner that had clear impact on clinical care. “I think that became more of an administrative thing as opposed to something that definitively helped or made a difference for our parents, to just patient care I guess” (PCP, Site 2). Staff believed that parents became frustrated with repeated WE CARE screenings because needs were not being met.

Somebody who is enrolled in the WE CARE or has identified needs . . . they still have the same housing needs, for example, and you're printing out the housing forms for them, it's kind of, you're at the same state where you give them the phone number, you give them the first step but it's harder to kind of give them the second, third, fourth steps . . . you give the WE CARE survey again, and at the next visit they're at the same step. (PCP, Site 2)

At least one CHC tried to push past the resource limitations. The clinicians choose to connect parents not only with the WE CARE patient navigator, but to put families in contact with other case managers who might be able to assist with more complex needs.

And then you know, for the patients who none of the resources work for, or they're unlikely to fit for, we would have to connect them with what we call our case management resources, which is basically our social services resource. (PCP, Site 1).

Discussion

Using an interview questionnaire informed by the PARIHS framework, we asked clinicians and staff about their perception of the augmented WE CARE model, how they integrated it into the context of a busy, urban, CHC, and who within the CHC pediatric unit led the intervention. We found evidence that clinicians at CHCs that implemented WE CARE believed the model improved their ability to serve their patients and their communities. At the same time, staff and clinicians reported frustration with the repeated screening of patients and barriers to accessing

social services. Prioritization and facilitation of the intervention were complicated by the CHC environment.

Clinicians and MAs both reported that the screener elicited information about unmet social and material needs that would otherwise remain underexplored in office visits. By reviewing the ongoing demands on families, clinicians can become aware of the multiple, non-medical challenges faced by young children, families, and their communities.¹³ While providers reported that the screener formatting caused some confusion, the rest of the model (integration of referral information within EMRs, and addition of a part-time patient navigator) was well received at all sites.

CHC staff perceived repeated screening of patients as frustrating because of the time and difficulties in accessing resources and the inherent challenges in mitigating social needs due to a fragile safety net. Unmet social needs such as housing are difficult to address in a timely manner. For example, receipt of permanent housing may take up to 10 years.¹⁴ Other needs, such as diapers and food, may be easier to meet in a short period of time. The current literature on SDOH screeners does not address the complexity and challenges faced by patients trying to access resources from local service agencies. Understanding how long wait lists are for families, parent eligibility, or at least discussing such issues with families could reduce patient frustration with SDOH screening and improve patient expectations about the outcome of the process. Health care leaders may need to be briefed on the value of repeated SDOH screening. Integrating SDOH screening into the EMR builds an invaluable record of a patient's struggles to have their needs met.^{1,9,15} This information could inform community needs and risk assessments and inform clinicians' expectations about the resources available to the community.

Evidence is mixed as to whether the CHC environment complicates the implementation of new care models.^{10,16,17} Quinonez¹⁴ found that structural barriers within CHCs complicate the implementation process. Kramer¹³ suggested CHC provider rigidity and resistance to new practices could be high. In our study, we found that CHC clinicians faced multiple, competing priorities that impeded practice of WE CARE. Some staff experienced confusion about the WE CARE workflow and roles. CHCs may require additional support to introduce SDOH screeners to new staff and to prioritize their use. Patient navigators could help facilitate this process. Since the study investigators were not CHC employees but rather faculty from a nearby academic center, WE CARE was likely viewed more as a research study than a clinical initiative. Having strong clinical champions at the CHCs would have allowed for better implementation and integration of the augmented WE CARE model into routine care. Pediatric medical directors preparing to implement a SDOH screener should identify who among the clinical staff will champion the process. As has been identified in hospital settings, clinicians are more likely to put

clinical priorities first before nonclinical interventions.⁷ Task shifting to the patient navigator may reflect efforts by clinicians to meet patients' needs as effectively as possible. CHC leaders should be prepared to assign patient navigators or other staff to support the referral process as part of their formal duties. Future research on SDOH screening should investigate how patient navigators and/or case managers address SDOH, interact with clinicians, and how their actions affect patient outcomes.

Limitations

Our study has several limitations that may limit the transferability of findings. We chose to perform post-study, key informant interviews to reduce the risk of biasing the results for the trial. Interviews may have been subject to social desirability bias, as one interviewer (MP) was involved in the daily operations of the WE CARE intervention. However, we sought to interview all pediatric staff at the 3 CHCs. Most participants were unfamiliar with the researchers prior to the interview. The focus of the interviews was the perceptions of CHCs staff and primary care clinicians who were involved with implementing and conducting the WE CARE model. Interviewing patient navigators or other office staff was outside the scope of the project. Finally, the location of the study may have influenced responses, as we interviewed staff and clinicians from 3 pediatric clinics at CHCs in Boston. Massachusetts has universal health care, a strong Medicaid system, and relatively robust social services. As a result, the frustrations with social services reported by clinicians and staff may be greater in rural areas or metro regions with fewer resources.

Conclusions

Three years after the implementation of the augmented WE CARE SDOH screener and referral model in CHCs, we found clinicians perceived the intervention as useful to their organization's mission and their patients. Interviewees, however, also identified organizational and administrative challenges to SDOH screening. Institutions planning to implement an SDOH screener should pilot the new workflow; formalize the workflow before implementation, including defining the roles of MAs, PCPs, and patient navigators; and establish a clinical champion. Setting expectations grounded in local knowledge about resource availability may reduce the reasonable frustration experienced when nonclinical services have long wait lists.

Author Contributions

MD and AG designed the study. MP and AB collected data. CH, MP, and AB coded transcripts. CH, MP, and AB analyzed the data. All authors contributed to the writing of the article.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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