

Patient Preferences for Discussing and Acting on Health-Related Needs in Primary Care

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Kristen O'Loughlin¹, Hannah M. Shadowen¹, Amber D. Haley², Jennifer Gilbert¹, Paulette Lail Kashiri¹, Ben Webel¹, Amy G. Huebschmann³, and Alex H. Krist¹

Abstract

Background: Addressing social needs, health behaviors, and mental health may help patients more than traditional medical care. However, these root causes of poor health are difficult to address and the role of primary care is unclear. This qualitative study assesses patient's willingness and motivations to discuss and accept assistance for these needs from their primary care team. **Methods:** In July and August of 2020, semi-structured virtual interviews were conducted with family medicine patients (n=6) and residents of low resource neighborhoods (n=11) in Richmond, Virginia. Interviews were conducted over Zoom. We conducted a qualitative analysis of patient and resident interview transcripts. A rapid qualitative analysis approach and immersion-crystallization processes were used to identify themes and categories. **Results:** Interviewees reported varying degrees of comfort discussing topics with their health care team. They were less comfortable discussing needs they considered outside the realm of "traditional primary care" including finances, transportation, and housing, but interviewees expressed willingness to discuss these needs under certain conditions. Important factors were a strong patient-clinician relationship to create a trusted and safe space for discussion, adequate time for discussion during visits, communication of practices' ability to provide resources to help patients, and ensuring appropriate high quality referrals. **Conclusions:** Primary care provides opportunity for identifying and addressing needs that adversely impact health. Some needs are more sensitive for patients to work with their care team on, though, there was willingness to work on *any* need when a strong provider relationship and clinic structure for providing support were in place. This study highlights critical care delivery factors which may be used to enhance patient comfort accepting support for their needs and ultimately improve clinical care and chronic disease management.

Keywords

social determinants of health, chronic disease, primary health care, patient-centered care

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Introduction

Health is largely impacted by social determinants of health, and to a much smaller degree clinical medical care. For instance, insecure housing can lead to respiratory infections, asthma, injuries, and poor mental health.^{1,2} Food insecurity is associated with diabetes, hyperlipidemia, poor mental health, and poor overall health.³⁻⁶ Health behaviors such as unhealthy alcohol use, physical inactivity, unhealthy diet, and tobacco use all contribute to a third of preventable deaths.⁷ Mental illness and psychosocial distress can be detrimental for health behaviors and subsequently increase risk for developing other medical conditions.^{8,9}

Health systems have typically focused on screening for unhealthy behaviors and mental health needs, though screening for social needs is increasingly common. Experts are advocating for routine screening of social needs in

¹Virginia Commonwealth University, Richmond, USA

²University of North Carolina at Chapel Hill Gillings School of Global Public Health, Chapel Hill, NC, USA

³University of Colorado, Aurora, USA

Corresponding Author:

Kristen O'Loughlin, Department of Psychology, Virginia Commonwealth University, 806 West Franklin Street, Richmond, VA 23284-2512, USA.
Email: oloughlink@vcu.edu



primary care and to incorporate them into clinical care.^{10,11} The National Academy of Medicine recommends the 5 A's (Awareness, adjustment, assistance, alignment, and advocacy) to strengthen social care integration. In accordance with this, a variety of tools have been developed and used to screen patients for social needs, yet no standard comprehensive screening protocols exist.¹⁰ Some clinical environments, such as the Veterans Health Administration, focus on a particular type of need, while others screen for multiple areas of risk at once. Research shows that regardless of screening methods, social needs are frequently endorsed by patients. Screening for social needs has generally been acceptable to patients and clinicians.¹² However, less is known about the acceptability of different types of assistance to address those needs.

Interventions linking individuals with mental health, behavioral health, or social needs to community resources are becoming increasingly common.¹³ However, there is a range in the acceptance rates for referrals to community programs for social needs,^{14,15} and many patients do not follow through when offered referrals to community programs.^{14,16-18} Yet, it is not understood why patients are more accepting of assistance for certain needs as compared to others or how healthcare settings can improve acceptability.

This study explores patient preferences and attitudes around addressing health-related needs in primary care. We also examine barriers and facilitators of patient acceptance of assistance.

Methods

Study Design

We completed a qualitative interpretivist analysis of interviews conducted among community residents and adult patients in family medicine using a rapid qualitative approach.¹⁹ Interviews were conducted in July and August 2020. This analysis was a part of a randomized controlled trial to test an enhanced care planning process to better control chronic conditions, which was approved by the university's Institutional Review Board.

Participants

In total, 17 individuals participated in interviews. A convenience sample of primary care patients and community residents was recruited through several methods. We approached community leaders at Engaging Richmond to recruit residents of low resource neighborhoods in Richmond, Virginia via email (n=11). Clinicians at 2 family medicine clinics were also asked to recruit patients from their practices. They identified adult patients from an urban underserved

Table 1. Needs Assessed in MOHR.

Social needs	Financial needs, employment status, food security, access to transportation, housing stability, dental care, home and neighborhood safety, loneliness
Health behaviors	Fruit and vegetable intake, fast food, soda consumption, weekly exercise, sleep, tobacco use, alcohol use, and illegal drug use
Mental health	Depression, anxiety, stress

clinic (n=2) in Richmond, VA and a suburban more affluent clinic in Fairfax, VA (n=4). Recruitment was stopped shortly after thematic saturation had been met. Both methods of recruitment required individuals to opt in, so there were no refusals to participate.

Interview

Consistent with our interpretivist approach, data were collected via virtual interviews. The interviewer and participant joined the video call using their phone or computer. Semi-structured interviews were conducted by one of the first 2 authors (KO, HS), both female doctorate-level graduate students. The development of the interview guide was informed by the NASEM report and went through several iterations incorporating feedback from the research team before being finalized. The final guide consisted of 3 parts. The first included patient queries to assess attitudes about appropriateness of accepting assistance from primary care for health-related needs (eg, health behaviors, mental health, and social needs) and meaningful types of assistance. The second part was a discussion of how patients prioritize needs and factors that influence readiness and ability to accept assistance. Participants were asked to share reasons for not prioritizing certain needs and alternative sources of assistance beyond primary care. Interviews lasted between 30 and 60 min (Mdn=48 min) and were recorded and automatically transcribed using Otter.ai.²⁰

Procedures

Participants were contacted to schedule their interview. Before the interview, participants were asked to complete the MOHR online assessment to identify their needs.²¹ See Table 1 for all needs included in the assessment. Interviews were semi-structured and the interviewer took a flexible approach; questions were asked to guide the interview through the topics and unanticipated topics were pursued if brought up. Following the interview, participants were mailed a \$25 gift card for their participation.

Analysis

Each interviewer reviewed their transcripts to correct typos and remove identifying information. A rapid qualitative analytic approach was utilized for its emphasis on efficiency of data analysis while remaining robust.^{22,23} The analysis was guided by the Patient Centered Care framework²⁴; reviewers (KO, HS) reviewed the initial 12 transcripts to identify key information and themes and organized them by the principles of the Patient Centered Care. After the subset of transcripts were completed, both reviewers performed inductive analysis by reviewing all notes for negative cases and repetition of themes. Reliability was established using a third researcher (AH) who audited the analysis of random transcripts and then all reviewers met to discuss coding and discrepancies until consensus was reached. Reviewers also discussed saturation, determining that consistency of themes had been met and little new information was gained through latter transcripts. To pursue trustworthiness and credibility of findings, themes were discussed with the larger research team and feedback was solicited. Then, 5 additional participants were recruited and interviewed to ensure no new themes emerged. The final transcripts were analyzed and saturation was confirmed. Representative quotes were selected and anonymously presented for each sub-theme. Participants are quoted with anonymous IDs distinguishing whether they are a family medicine patient (PXX) or community resident (CRXX).

Results

Sample Characteristics

Seventeen patients and community residents participated in virtual interviews. Among the participants, 6 were family medicine patients and eleven were residents of low resource communities; most participants were female and Black (Table 2).

Attitudes Toward Addressing Health-Related Needs in Primary Care

Overall, most interviewees indicated that unhealthy behaviors, mental health, and social needs were appropriate to discuss with their primary care clinician. However, they reported having the most comfort and experience discussing health behaviors. Comfort discussing mental health was divided. Many felt that mental health was one of the most important needs, but some felt that it should be handled by a mental health provider and not primary care. Others expressed less comfort discussing social needs, indicating they seemed outside the scope of primary care and felt uncertain the clinician could help. CR6 stated, "I just don't

Table 2. Demographic Information.

	Family medicine patients	Community residents	Total sample
Total, n (%)	6 (35.3)	11 (64.7)	17 (100)
Gender, n (%)			
Female	3	7	10 (58.8)
Male	3	4	7 (41.2)
Race, n (%)			
White	2	2	4 (23.5)
Black or African American	4	9	13 (76.5)

feel like finances and primary care go together. Like I'm trying to get help to get a house, but my doctor can't do nothing *about it*." Most interviewees described a willingness to discuss any need under certain circumstances.

Facilitators and Barriers for Addressing Health-Related Needs

Interviews revealed a number of facilitators and barriers for patient willingness to address health-related needs with their primary care team. Findings are organized by the Patient-Centered Care Framework. See Table 3 for a summary of themes and illustrative quotes.

Respect for patient preferences. Having a strong provider relationship reportedly created a sense of trust and a "safe space," both essential for discussing difficult topics. Interviewees preferred a collaborative approach for prioritizing needs and deciding how to address them. Patients emphasized needing to feel ready for change, suggesting clinicians "plant a seed" before initiating changes. Patients believing a "need" was unimportant and clinicians prematurely pushing for change hindered patient openness. Perceptions of clinician judgment, talking down to them, or racism all discouraged individuals from discussing needs. Historical mistrust of the medical field also added to apprehension about addressing needs.

Coordination of care. Interviewees wanted clinicians to initiate referrals, utilize warm handoffs, avoid duplication of services, avoid referring to programs patients have used in the past or that are unreliable, and to maintain confidentiality. Interviewees felt that primary care was an appropriate place for identifying patient's needs and making referrals because of their holistic knowledge of the person. Maintaining confidentiality was paramount to trust, CR2 stated, "The office is not private. When I say private, meaning the staff generally are discussing other patients, they're not practicing confidentiality."

Table 3. Factors that Influence Patient Openness to Address Needs in Primary Care.

Principles	Themes	
	Promote	Hinder
Respect for patient preferences	Provider trust Collaborative approach Readiness for change	Needs are not important to patient Provider judgment Provider racism Historical mistrust of the healthcare system
<p>Provider trust: I think it's also the trust you have with your primary care (clinician). I have no problems with Doc, discussing anything like that with Dr. (redacted).—P4.</p> <p>Readiness for change: I think it's time to plant. I think people need to have a seed planted on something new. And then maybe revisit the next time they visit the primary care and see how they're doing.—P4</p> <p>Provider racism: She went to a nutritionist. . . It was just like, Okay, well, it was almost an obvious thing. Well, you're black and you probably eat fried chicken and you're like, "No, I don't."—P2</p>		
Coordination of care	Warm hand-offs for new care providers PCP's patient knowledge enhances referral ability	Duplication of services Inappropriate referrals Patient confidentiality
<p>Duplication of services: Duplication in services and more referrals on the patient, especially when they have been in contact or at multiple visits with the same office. . . they get the same referrals the same stuff, and that causes frustration. . . I've already done that and I've tried already you know, which then leads to increased apathy.—CR3</p> <p>Inappropriate referrals: Any other requirements that the resource might have, you know, have a as a stipulation, so beyond having to live in that area? Um, what would I need to take with me? Do I need to take a photo ID and a bill?—CR2</p> <p>Patient confidentiality: The office is not private. When I say private, meaning the staff generally are discussing other patients, they're not practicing confidentiality. Um, so the trust wouldn't be there for that.—CR2</p>		
Information and Education	Clear communication about PC support	Lack of patient understanding about connection to health
<p>Clear communication about PC support: I don't think it would be an overreach I think it just be a matter of making sure the communication is clear and consistent about what this is and what it is not. not an overreach and just, it would just be a little different. Different doesn't mean bad.—CR3</p> <p>Lack of patient understanding about connection to health: It's really important for me to know that there is a reason. If you do these things, you can get your body to a place where it is comfortable to do things that weren't comfortable at first. I think some of time the education is missing but rather than writing the prescription, you can just explain what dietary choices may have led to the high grade in the first place.—P2</p>		
Quality of care and competing demands		Dissatisfied with current care Physical concerns take precedent
<p>Dissatisfied with current care: I think that one you need you need that physician that's also making sure that you're doing things that isn't the target isn't hurting yourself at the same time, because I think sometimes we get into this, like, fitness goal or like things like that, especially when we try and do it on our own without a doctor's help or with our physicians help, where we honestly just end up doing worse than we started out.—CR4</p> <p>Physical concerns take precedent: So if you're not happy with the level of care that you're receiving for these medical things, for which they're an expert, then then why would you trust them with more?—CR2</p>		
Emotional support	Genuine interest and understanding	
<p>Genuine interest: You can kind of walk in and tell whether somebody really cares about you, or if you're just patient number 598 for the week.—P5</p>		
Family and friends	Social support	Family responsibilities
<p>Social support: It's good to have at least 1 family member that would be in the ball game with the person, encouraging them, supporting them, reminding them, you want to get your health improved, just, you know, kind of like a cheerleader so to speak, that would encourage them to get to their appointments and follow through.—P2</p> <p>Family responsibilities: I'm working on me now just working on focusing in on me instead of all the other things, you know. I mean, my kids range from what 19 to 34 so it's been a long time and I had my oldest daughter when I was 16. So it's never been time for me.—P2</p>		
Continuity	Long-term positive relationship with provider Follow-up on progress	No provider follow-up
<p>Long-term relationship: I think, if you have a good rapport with them like our pediatrician that I used to go to. We knew them forever. So you could go to him for your primary care needs but you could also go to him for like any other weird thing that's going on in your life so I think it's all, it's always that like rapport and relationship with your care physician.—CR4</p>		
Adequate time	Provider consistency	Limited time with provider
<p>Provider consistency: Well early on, I didn't have a primary care physician. Just going to patient first with different doctors. It wasn't the same person so then finally I got a primary care physician. They had too many clients so I got another primary care physician in the same office.—CR11</p> <p>Limited time: Time is money, and money is time so you didn't ask the question, I didn't answer.—CR9</p>		

Information and education. Interviewees requested clear up-front communication from clinicians about the range of support they could provide regarding health-related needs. This was particularly important for social needs, which many denied knowing were within the primary care scope. Suggested methods for communicating this was verbal notification when checking in for a visit, displaying pamphlets and posters in the waiting and exam rooms, or discussing it during the visit. Many did not understand how needs influenced health and suggested making these connections clear.

Quality of care and competing demands. Interviewees reported that if they were dissatisfied with other aspects of their medical care that would hinder them from discussing their health-related needs. CR2 reported, "So if you're not happy with the level of care that you're receiving for these medical things, for which they're an expert, then then why would you trust them with more?" Further, interviewees felt that if there was a pressing physical health concern that it would take precedence over these other needs.

Emotional support. Clinicians showing genuine care for patient wellbeing promoted openness to working on needs. P5 reported, "You can kind of walk in and tell whether somebody really cares about you, or if you're just patient number 598 for the week."

Family and friends. Family responsibilities, such as child-care, may serve as a barrier for patients' ability to work on needs. Conversely, interviewees reported that clinicians could leverage social support as a motivator to address needs. P3 reported, "It's good to have at least one family member that would be in the ball game with the person, encouraging them, supporting them."

Continuity. Interviewees reported that provider consistency allowed for building a relationship and trust with their provider, as well as time to begin working on long-term health-related goals. Interviewees also expressed a desire for clinicians or care team members to follow-up on patient progress, but denied preference for who followed up. Interviewees viewed regular follow-up as a way to maintain connection and a sense of support. For instance, P2 stated "If you follow through, there's more of a connection so they [patients] don't have to call you as much." Interviewees reported that past experiences of the care team not following through broke trust and hurt their openness to working on needs.

Adequate time. Having adequate time and continuity with the clinician and care team were critical elements for establishing rapport and for patients to feel they had access to support. Interviewees reported that time-limited medical visits prevented genuine listening and connecting with their

provider. Patients viewed health behavior, mental health and social needs as lower priority to health concerns, resulting in their being overlooked during visits. CR2 stated, "if you feel like you're not spending a lot of time with the doctor to get your immediate health concerns addressed, you wouldn't want to share other concerns with your doctor either."

Discussion

The findings from this study provide insight into patient preferences and attitudes about addressing health-related needs in primary care. Overall, participants had varying levels of comfort with addressing risk factors. People were most comfortable addressing health behaviors followed by mental health and social needs. Although, they felt any need could be appropriate for a primary care setting if a supportive environment was in place. Willingness to act on these needs is enhanced if practices leverage the patient-clinician relationship to create a trusted and safe space, protect adequate time for discussion, convey their ability to provide resources to help patients,²⁵ and ensure appropriate high quality referrals.

Throughout interviews, participants discussed themes relevant to patient-centered care, which is a healthcare approach where care is focused on and guided by the patients' needs and values.²⁴ It was first introduced in the 1980s and has become an aspiration for health care systems due to its positive impact on patient satisfaction and health outcomes.²⁶⁻²⁸ Framing our findings within the framework of patient-centered care allows us to highlight ways healthcare teams may meaningfully improve their patient-centered care to encourage patient willingness to accept assistance for their needs. They may also provide important considerations for how to incorporate social risks into clinical care, a gap in the literature identified by the US Preventive Task Force.¹¹ Patients' differing comfort levels with social needs and health behaviors suggests that the approach taken by healthcare teams to assist with social needs may need to be different than with health behaviors or mental health. First, the healthcare team may need to explain the relevancy of social needs to health and what supports the clinic can provide.²⁵ Our findings reinforced the importance of patients having adequate time to discuss needs with a member of their care team and that this is someone they can build trust with, feel cared for by, and who is knowledgeable in how to assist the patient. Limited staff time has been a commonly reported barrier to successful implementation.^{15,29,30} Practices may consider restructuring the roles of current staff to include protected time for patient follow-up or to add new staff for this purpose. Results also support calls for patient-centered approaches to social needs screening such as empathic inquiry. Empathic inquiry is a conversational approach used by the provider to

promote patient engagement, partnership, and affirmation throughout the screening process.^{31,32}

Another key element to success is creating a robust database of community resources and clear referral processes for staff to match individuals with appropriate referrals.³⁰ Efficient referral processes connecting patients to appropriate and responsive resources enhance the likelihood of patients closing the loop and reducing their social needs.^{33,34} Along with referrals, patients may require navigation and general follow-up support. Our participants indicated that they wanted consistent follow-up from their healthcare team. The critical nature of this support has been highlighted in other studies where individual attention, compassion and navigational assistance have been key facilitators to patients accessing resources.^{12,35} In addition, our findings are aligned with the National Academies of Medicine recommendations for health care systems to consider the types of action that may be provided by the healthcare team and to frame these for patients during screening, including adjusting clinical care to address social needs, to assist patients with obtaining resources in terms of direct care, as well as aligning efforts with current community actions, and advocating for helpful policies.¹⁰

This study addresses a critical gap in the literature examining factors that influence patient willingness to act on known needs and covered a wide scope of need types. Despite its strengths, there are three notable limitations. First, patients were interviewed on their attitudes toward addressing diverse needs in primary care and hypothetical factors that would influence acceptance of assistance. Although, their behavioral follow-through was not evaluated. Future research should investigate differences between patients that do go on to address their needs and those who do not. Additionally, the sample size was fairly small and a subset of the sample was receiving care from a known clinic with clinicians they described as having uniquely long term and high-quality relationships with. Although it is possible that these factors limit generalizability, the overall sample was diverse, including individuals with varied healthcare and provider experiences. Further, recruitment was stopped only after saturation was met. Despite these limitations, the present study contributes to our current understanding of factors that promote or hinder patient acceptability of primary care facilitated assistance to address health-related needs.

Conclusion

Primary care is increasingly working to address social needs as a strategy to improve overall health and wellbeing, as has been done with health behaviors and mental health. While patients are often open to screening for needs, some needs are more sensitive for patients to work with their care team on addressing than others. Our findings describe meaningful changes to care delivery which may enhance patient

willingness to partner with their primary care team to address these root causes of poor health.

Declaration of Conflicting Interests

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ORCID iDs

Kristen O'Loughlin  <https://orcid.org/0000-0003-4194-4238>

Alex H. Krist  <https://orcid.org/0000-0003-4060-9155>

References

1. Kang S. The cumulative relationship between housing instability and mental health: findings from the panel study of income dynamics. *J Soc Distress Homeless*. Published online May 10, 2021. doi:10.1080/10530789.2021.1925038
2. Krieger J, Higgins DL. Housing and health: time again for public health action. *Am J Public Health*. 2002;92(5):758-768.
3. Hanmer J, DeWalt DA, Berkowitz SA. Association between food insecurity and health-related quality of life: a nationally representative survey. *J Gen Intern Med*. 2021;36(6):1638-1647. doi:10.1007/s11606-020-06492-9
4. Heflin CM, Siefert K, Williams DR. Food insufficiency and women's mental health: findings from a 3-year panel of welfare recipients. *Soc Sci Med*. 2005;61(9):1971-1982. doi:10.1016/j.socscimed.2005.04.014
5. Seligman HK, Bindman AB, Vittinghoff E, Kanaya AM, Kushel MB. Food insecurity is associated with diabetes mellitus: results from the National Health Examination and Nutrition Examination Survey (NHANES) 1999-2002. *J Gen Intern Med*. 2007;22(7):1018-1023. doi:10.1007/s11606-007-0192-6
6. Seligman HK, Laraia BA, Kushel MB. Food insecurity is associated with chronic disease among Low-Income NHANES participants. *J Nutr*. 2010;140(2):304-310. doi:10.3945/jn.109.112573
7. Mokdad AH, Marks JS, Stroup DF, Gerberding JL. Actual causes of death in the United States, 2000. *JAMA*. 2004;291(10):1238-1245. doi:10.1001/jama.291.10.1238
8. Prince M, Patel V, Saxena S, et al. No health without mental health. *Lancet*. 2007;370(9590):859-877. doi:10.1016/S0140-6736(07)61238-0

9. Siu AL, Bibbins-Domingo K, Grossman DC, et al. US Preventive Services Task Force (USPSTF). Screening for depression in adults: US preventive services task force recommendation statement. *JAMA*. 2016;315(4):380-387. doi:10.1001/jama.2015.18392
10. National Academies of Sciences, Engineering, and Medicine. *Integrating Social Needs Care into the Delivery of Health Care to Improve the Nations Health*. National Academies of Sciences, Engineering, and Medicine; 2019. Accessed August 18, 2021. <https://doi.org/10.17226/25467>
11. Davidson KW, Krist AH, Tseng CW, et al. Incorporation of social risk in US preventive services task force recommendations and identification of key challenges for primary care. *JAMA*. 2021;326:1410. doi:10.1001/jama.2021.12833
12. Palakshappa D, Douppnik S, Vasani A, et al. Suburban families' experience with food insecurity screening in primary care practices. *Pediatrics*. 2017;140:1. doi:10.1542/peds.2017-0320
13. Alderwick HAJ, Gottlieb LM, Fichtenberg CM, Adler NE. Social prescribing in the U.S. and England: emerging interventions to address patients' social needs. *Am J Prev Med*. 2018;54(5):715-718. doi:10.1016/j.amepre.2018.01.039
14. Hassan A, Scherer EA, Pikilingis A, et al. Improving social determinants of health: effectiveness of a web-based intervention. *Am J Prev Med*. 2015;49(6):822-831. doi:10.1016/j.amepre.2015.04.023
15. Tong ST, Liaw WR, Kashiri PL, et al. Clinician experiences with screening for social needs in primary care. *J Am Board Fam Med*. 2018;31(3):351-363. doi:10.3122/jabfm.2018.03.170419
16. Bottino CJ, Rhodes ET, Kreatsoulas C, Cox JE, Fleegler EW. Food insecurity screening in pediatric primary care: can offering referrals help identify families in need? *Acad Pediatr*. 2017;17(5):497-503. doi:10.1016/j.acap.2016.10.006
17. Gold R, Bunce A, Cowburn S, et al. Adoption of social determinants of health EHR tools by community health centers. *Ann Fam Med*. 2018;16(5):399-407. doi:10.1370/afm.2275
18. Swavely D, Whyte V, Steiner JF, Freeman SL. Complexities of addressing food insecurity in an urban population. *Popul Health Manag*. 2019;22(4):300-307. doi:10.1089/pop.2018.0126
19. Neal JW, Neal ZP, VanDyke E, Kornbluh M. Expediting the analysis of qualitative data in evaluation: a procedure for the rapid identification of themes from audio recordings (RITA). *Am J Eval*. 2015;36(1):118-132. doi:10.1177/1098214014536601
20. Liang S, Fu Y. *Otter.Ai*. otter.ai; 2016.
21. Krist AH, Glenn BA, Glasgow RE, et al. Designing a valid randomized pragmatic primary care implementation trial: the my own health report (MOHR) project. *Implement Sci*. 2013;8:73. doi:10.1186/1748-5908-8-73
22. Gale RC, Wu J, Erhardt T, et al. Comparison of rapid vs in-depth qualitative analytic methods from a process evaluation of academic detailing in the Veterans Health Administration. *Implement Sci*. 2019;14(1):11. doi:10.1186/s13012-019-0853-y
23. Nevedal AL, Reardon CM, Opra Widerquist MA, et al. Rapid versus traditional qualitative analysis using the Consolidated Framework for Implementation Research (CFIR). *Implement Sci*. 2021;16(1):67. doi:10.1186/s13012-021-01111-5
24. Gerteis M, Edgman-Levitan S, Daley J, Delbanco TL. Through the patient's eyes: understanding and promoting patient-centered care. *Health Management Quarterly*. 1997;19(3):43-46.
25. De Marchis EH, Alderwick H, Gottlieb LM. Do patients want help addressing social risks? *J Am Board Fam Med*. 2020;33(2):170-175. doi:10.3122/jabfm.2020.02.190309
26. Robinson JH, Callister LC, Berry JA, Dearing KA. Patient-centered care and adherence: definitions and applications to improve outcomes. *J Am Acad Nurse Pract*. 2008;20(12):600-607. doi:10.1111/j.1745-7599.2008.00360.x
27. Stewart M, Brown JB, Donner A, et al. The impact of patient-centered care on outcomes. *J Fam Pract*. 2000;49:796-804.
28. Sidani S. Effects of patient-centered care on patient outcomes: an evaluation. *Res Theory Nurs Pract*. 2008;22(1):24-37.
29. De Marchis EH, Hessler D, Fichtenberg C, et al. Assessment of social risk factors and interest in receiving health care-based social assistance among adult patients and adult caregivers of pediatric patients. *JAMA Netw Open*. 2020;3(10):e2021201. doi:10.1001/jamanetworkopen.2020.21201
30. Samuels-Kalow ME, Molina MF, Ciccolo GE, et al. Patient and community organization perspectives on accessing social resources from the emergency department: a qualitative study. *West J Emerg Med*. 2020;21(4):964-973. doi:10.5811/westjem.2020.3.45932
31. Byhoff E, De Marchis EH, Hessler D, et al. Part II: a qualitative study of social risk screening acceptability in patients and caregivers. *Am J Prev Med*. 2019;57(6 Suppl 1):S38-S46. doi:10.1016/j.amepre.2019.07.016
32. Gottlieb LM, Adler NE, Wing H, et al. Effects of in-person assistance vs personalized written resources about social services on household social risks and child and caregiver health: a randomized clinical trial. *JAMA Netw Open*. 2020;3(3):e200701. doi:10.1001/jamanetworkopen.2020.0701
33. Garg A, Toy S, Tripodis Y, Silverstein M, Freeman E. Addressing social determinants of health at well child care visits: a cluster RCT. *Pediatrics*. 2015;135(2):e296-e304. doi:10.1542/peds.2014-2888
34. Gottlieb LM, Hessler D, Long D, et al. Effects of social needs screening and in-person service navigation on child health: a randomized clinical trial. *JAMA Pediatr*. 2016;170(11):e162521. doi:10.1001/jamapediatrics.2016.2521
35. Hsu C, Cruz S, Placzek H, et al. Patient perspectives on addressing social needs in primary care using a screening and resource referral intervention. *J Gen Intern Med*. 2020;35(2):481-489. doi:10.1007/s11606-019-05397-6