



Access to Cancer Care Resources in a Federally Qualified Health Center: a Mixed Methods Study to Increase the Understanding of Met and Unmet Needs of Cancer Survivors

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Abstract

Assessing the met and unmet needs of cancer survivors is critical in optimizing access to cancer services especially in underserved populations. The purpose of this study is to expand our understanding of the priority needs for cancer survivorship within racial/ethnic and underserved populations that speak either English or Spanish and seek health care in a federally qualified health center (FQHC). A convergent mixed methods design integrating survey and focus group data was utilized for this study. A total of 17 participants were enrolled in the study. The meta-inferences were drawn by looking across the top ten matched survey and focus group met and unmet needs including psychological, informational, and health system as well as patient care and support. The preferred languages of participants were Spanish 53% ($n = 9$) and English 47% ($n = 8$), and the survival breakdown was 65% ($n = 11$) within 0–5 years with 17.5% ($n = 3$), 6–10 years and 17.5% ($n = 3$), and 17.5% ($n = 3$) ≥ 11 years. The most frequently met needs included health care providers and hospital staff being attentive to their physical and emotional needs and feeling they were treated with respect. Unmet needs were often related to physical and daily living needs such as pain, fatigue, sadness, depression, and not being able to work. Providing a needs-based approach of cancer health services in a FQHC or similar community-based health center is critical to meet the needs of cancer survivors to improve health outcomes and quality of life.

Keywords Cancer survivor needs · Inequity · Underserved populations · Federally qualified health center · Quality of life

Introduction

Cancer survivors from underserved patient populations, which would include racial/ethnic minorities and patients of lower socioeconomic position, have been described as lacking

sufficient access to information, resources, and social support during and following cancer treatment [1, 2]. Access to health information as well as financial and system barriers exists for these underserved populations contributing to a lack of appropriate, timely, and effective treatment including access to comprehensive cancer centers and critical supportive cancer care services [1, 2]. Assessing the unmet needs of cancer survivors is critical in optimizing access to cancer services and improving quality of life following a diagnosis of cancer [3, 4]. Developing the most appropriate health care plan post-cancer diagnosis is often complex and challenging especially in underserved populations [5]. The Institute of Medicine Report *From Cancer Care to Cancer Survivor: Lost in the Transition* [6] was the motivation for bringing attention to survivorship issues to provide optimal health care delivery and quality of life to cancer survivors, family, and caregivers. While growing literature examines the needs of cancer survivors, notable gaps still exist in addressing the specific needs of racial/ethnic minority populations [7–10].

Race/ethnicity and sociodemographic factors may influence individuals and their families' adherence to recommendations, care/support options and programs, health literacy,

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annual examinations, and screening, in addition to seeking appropriate care with re-occurring symptoms [11]. Most models of survivorship care across practice settings can reflect a “one size fits all” care plan that may not adequately identify the specific needs of underserved populations [11, 12]. Psychosocial adversity, lack of health system access and information, language barriers, physical challenges, difficulties in satisfying daily living needs, adverse changes in sexual health, and lack of patient care and support services often act as barriers and confound poorer health outcomes [9, 11, 13]. Additionally, African American and Hispanic populations are at a greater risk for adverse cancer outcomes in comparison with non-Hispanic Whites [14, 15], and the annual number of new cancer cases is expected to rise for individuals from racial/ethnic minorities compared with the new cancer cases in non-Hispanic Whites [9]. Effective strategies and access to cancer care resources are critical to address the needs of a growing underserved cancer survivor population including awareness and access to health information resources [9, 10]. Given these known structural inequities, it is clear that the survivorship needs of underserved populations require a more tailored approach.

Several studies have reported survivorship needs were prevalent and varied including receiving information that is both specific and language-appropriate regarding treatment support and critical resources [1, 4, 16]. Survivors need information regarding health procedures and treatment, health promotion and disease prevention, and support for interpersonal and emotional concerns given the context of existing racial/socioeconomic inequity in screening practices, diagnosis, treatment, survivorship, and end-of-life care [11, 13]. Improved access to care for cancer survivors increases the potential to reduce health disparities and improve quality of life for racial/ethnic minorities and other underserved populations [17–19].

Federally Qualified Healthcare centers (FQHCs) are legislatively mandated to provide primary care for medically underserved and underrepresented communities [19–21]. The role of FQHCs is to provide patient-centered medical care, facilitate diverse populations in care for both acute and chronic illness expediting diagnosis and treatment, and include prevention and early detection for those at risk for disease including cancer. Populations served by FQHCs are at greater risk to develop cancer, often with a late diagnosis and poorer outcomes [19, 21]. Many barriers to health care are related to social determinants of health, as well as income level and geographic location of resources [21]. Conducting a needs assessment within an FQHC setting is a direct method to identify specific cancer services most needed by this understudied group of survivors. Building an environment that lends itself to accessible health resources including cancer resources is key to addressing the needs of underserved communities. This information can be used to develop meaningful models

of care and health care plans, and potentially improve health outcomes [21].

The rationale for this study is to expand our understanding of the priority needs for cancer survivorship within racial/ethnic and underserved populations that speak either English- or Spanish-seeking health care in a FQHC. It is plausible that unmet needs can be addressed using appropriate tools for measurement to ensure timely identification of specific needs and provide appropriate services and/or interventions that are culturally sensitive. The data generated by this pilot study will lead to identifying needs of cancer survivors and identify barriers and facilitators to resources and supportive care.

Methods

Design

A mixed methods convergent design was used to develop a complementary picture; to compare, validate, and triangulate results; and to examine processes/experiences along with outcomes [22]. The convergent/parallel approach utilizes two parallel threads of data collected close in time to each other, is analyzed independently, and is brought together at the time of interpretation. This provides an opportunity for the researchers to utilize two sets of data to examine the data of the same phenomenon and then synthesize or compare during the discussion [22]. The data analysis consists of merging data, weighing qualitative and quantitative data equally to compare and relate for interpretation. For example, in this study qualitative data from focus group interviews together with survey responses provided a more complete picture of met and unmet needs of cancer survivors. Data were collected from surveys and focus groups in 2014, analyzed separately, and then merged for overall comparison and interpretation.

Setting and Participants

The study was conducted at a FQHC located in an urban area of a northeastern city within USA. A purposive sample of Dana Farber Community Cancer Care Program cancer patients were invited to participate in the study. Eligible participants were individuals who had consented to be part of the Cancer Care Equity Program (CCEP) database and contacted for future research.

Institutional Review Board approval was obtained from the Dana Farber Cancer Institute and the University at Buffalo.

Procedures

The data were collected at focus group meetings, and two meetings were Spanish-language preferred and 2 meetings

were English-language preferred. The Supportive Care Needs Survey-Short Form-34 (SCNS-SF34) was administered first, followed by a focus group session. The SCNS-SF34 [23] is a 34-item Likert scale survey and is a validated instrument for measuring cancer survivors who perceived needs across a range of domains [23]. The instrument consists of five factors (i.e., psychological, health system and information, physical and daily living, patient care and support, and sexuality needs). Respondents rate their level of need in the past month, with item responses that range from 1 (no need/not applicable) to 5 (high need). The survey was available in both English and Spanish. A bilingual research team member conducted the focus groups in both Spanish and English and was available to answer participant questions in either English or Spanish during each session.

The focus group discussion template was adapted from The Vermont Cancer Survivor Community Study [24]. The template was used to guide focus group discussion exploring how cancer survivors understand their experience in relation to barriers or facilitators in accessing needed resources. It was organized in domains that include information and decision-making; treatment; emotional and spiritual support, physical and activities of daily living; health wellness; economics; and service delivery.

Data Analysis

Survey Data

Demographic information, approximate date of diagnosis, stage of disease at diagnosis, and comorbidities were collected from the CCEP database. Data were collected directly from participants through a one-time completion of the SCNS-SF34 survey. Descriptive statistics were examined using SPSS 23.0.

Focus Groups

Interviews were digitally recorded, transcribed verbatim, and uploaded onto NVivo 10 and 11 Plus for organization of the analysis. The initial coding framework was developed in conjunction with three research team members following a deductive approach by which the coding tree parents and child nodes mirrored the focus group question domains. When testing the initial coding framework, we allowed for open coding in an inductive process, which allowed new themes to emerge from the data and the subsequent modification of the initial coding framework. After agreeing on the final coding framework, three researchers, DS, MM, and MK, coded the four focus group transcripts and two interview transcripts separately. Any discrepancies that arose were discussed and then checked for coding consistency [25]. When choosing quotes

for this article, the authors selected quotes which represent the views from a wide range of participants. The focus group sessions were transcribed in English for the English-speaking groups, and Spanish-speaking groups were transcribed to Spanish and then translated to English by a certified translating service.

Connecting Qualitative and Quantitative Analysis

Quantitative and qualitative data collection occurred in a parallel and separate manner, but were designed to answer related aspects of the same study domains and research questions. We used a convergent parallel mixed data analysis, which involved two separate processes: quantitative analysis of the survey data using descriptive and thematic analysis of qualitative data [22]. The two types of analyses were independent, but each contributed to developing a more comprehensive understanding of participants' views about met and unmet supportive care needs of cancer survivors. Triangulation of the survey and interview data were used to compare how participants reported barriers and facilitators to meet their needs. We developed a variation of a joint display in which we present the accounts of the top ten met and unmet need survey responses for each participant together with the focus group comments. This provided a visual means to elicit new insights beyond those obtained through separate analysis of these data sources [26].

Results

Sample

Of the 63 eligible individuals contacted from the CCEPD, 27% ($n = 17$) completed both the survey and attended one language preferred focus group session, 70% ($n = 44$) could not be reached or not available to participate, and 3% ($n = 2$) refused. Table 1 shows preferred language of participants were Spanish 53% ($n = 9$) and English 47% ($n = 8$), and 65% ($n = 11$) were within 0–5 years of survival with 17.5% ($n = 3$) 6–10 years and 17.5% ($n = 3$), and 17.5% ($n = 3$) ≥ 11 years of survival. Stage of disease was stage 1: 17.6% ($n = 3$), stage 2: 58.8% ($n = 10$), stage 3: 11.8% ($n = 2$), and stage 4: 11.8% ($n = 2$). All but one participant had at least 1–4 comorbidities (Table 1).

Ranked Top 10 Met and Unmet Needs by Domain

Table 2 represents the top 10 met and unmet supportive care needs reported in the survey by the study participants immediately prior to the time of the focus group. The met and unmet needs are denoted by the study domains and survey item (e.g., domain = "patient care and support" and

Table 1 Sample characteristics ($n = 17$)

	<i>n</i>	%
Language speaking		
Spanish	9	52.9
English	8	47.1
Age (years)		
45–64	11	64.7
≥ 65	6	35.3
Sex		
Male	12	70.6
Female	5	29.4
Marital status		
Single	8	47.1
Married	6	35.3
Divorced	3	17.6
Employment		
Employed	2	11.8
Unemployed	9	52.9
Retired	5	29.4
Disability	1	5.9
Years of survival		
0–5	11	64.7
6–10	3	17.6
≥ 11	3	17.6
Disease		
Prostate	9	52.9
Breast	1	5.9
Lymphoma	4	23.5
Skin	2	11.8
Renal	1	5.9
Cancer stage		
1	3	17.6
2	10	58.8
3	2	11.8
4+	2	11.8
Comorbidity		
Yes	16	94.1
No	1	5.9
Number of comorbidities		
1	4	23.5
2	7	41.2
3	2	11.8
≥ 4	3	17.6
Not applicable	1	5.9

survey item = “hospital staff attending promptly to your physical needs”). Figure 1 displays the met and unmet need items correlating to Spanish language (SL) or English language (EL).

Patient Care and Support Needs

Patient care and support met needs were more highly associated with hospital staff paying prompt attention to needs related to sensitivity, feelings, reassurance, and emotional needs (SL = 88.8%) and (EL = 100%). Unmet needs were identified as not having more options as to the hospital the patient wishes to attend and choice of provider for their care (SL = 33.3%), and no unmet need was reported for EL. One SL participant did not respond.

Psychological Needs

Both language groups were mostly satisfied with support for feelings on death and dying (SL = 77.7%) and (EL = 100%). There were a great number of psychological unmet needs with feeling down or depressed (SL = 55.5% and EL = 25%), feelings of sadness (SL = 44.4% and EL = 25%), fears about the cancer spreading (SL = 33.3% and EL = 37.5%), and concerns about the worries of those close to you (SL = 33.3% and EL = 37.5%).

Health System and Informational Needs

Health system and informational met needs were related to how they were treated as a person in the clinic (SL = 77.7% and EL = 100%), within a pleasant environment (SL = 77.7% and EL = 100%), and to be adequately informed about benefits and side effects of treatments prior to starting therapy (SL = 66.6% and EL = 100%), and having access to professional counseling if the patient, family, or friends need support (SL = 66.6% and EL = 100%). Met needs were also associated with receiving information on aspects of managing their illness and side effects at home (SL = 77.7% and EL = 87.5%). The health system and informational unmet need was associated with being informed about cancer which is under control or treatment (SL = 33.3% and EL = 25%).

Physical and Daily Living Needs

Physical and daily living unmet needs were identified as having pain (SL = 62.5% and EL = 37.5%), lack of energy or being tired (SL = 55.5% and EL = 37.5%), not being able to do the things you used to do (SL = 55.5% and EL = 37.5%), and feeling unwell (SL = 55.5% and EL = 25%).

Integration of Quantitative and Qualitative Data

The mixed methods research results represents the integration of quantitative and qualitative data and draws interpretations based on the combined strengths of both sets of data. This analysis resulted in the top 10 met and unmet needs of the participants in the study found in Table 2.

Table 2 Top 10 met and unmet needs

Needs	Domain	Item	Survey responses		Focus group discussion			
			Spanish language (SL)		English language (EL)			
			No need n (%)	Some need n (%)	No need n (%)	Some need n (%)		
Met	Patient care and support	Hospital staff attending promptly to your physical needs	8 (88.8)	1 (11.1)	8 (100.0)	0 (0.0)	At the hospital... they operated on me right away and everything turned out very well.	Everybody knows what they are doing... you know, the professional doctors... they diagnosed it. They discuss it and they discuss the results with you.
	Patient care and support	Hospital staff acknowledging, and showing sensitivity to, your feelings and emotional needs	8 (88.8)	1 (11.1)	8 (100.0)	0 (0.0)	He told me...not to work that day, for me to rest that day... Then they informed me that there's an office that takes care of it when you cannot pay, it took care of paying everything that all the money that you cannot pay.	This place has been my home, have been my family. And I have everyone has treated me well. I—mean I would come here and I would feel like more or for here more like my family than my real family.
	Psychological	Feelings about death and dying	7 (77.8)	2 (22.2)	8 (100.0)	0 (0.0)	I go with the flow. I do not have like, "Oh, it hurts here, I'm going to die." And I do not think that... because the only truth we have as human beings is death. And whoever does not want to die, he should not be born. After you are born, you will die.	And it really—I feel good about this. I know how to kill the cancer. It's not going to kill me.
	Patient care and support	Reassurance by medical staff that the way you feel is normal	8 (88.9)	1 (11.1)	7 (87.5)	1 (12.5)	In my case I get good communication. Plus, for me every three months a social worker goes to my house...to check...	And I'm thankful for the support and the love I got from here because it is because of this place I made it through... I was able to keep a same mind, and not cry so much and depend on, okay, if I need anything I can call the nurse
	Health system and information needs	To be treated like a person, not just another case	7 (77.8)	2 (22.2)	8 (100.0)	0 (0.0)	Oh, yes! The doctors from here ... very good, very good. [speaking about the doctor] A tremendous human being. Really special.	And just going to um another hospital and having it done, and— and just being treated, you know, like a human being was you know—it meant a lot to me, you know.
	Health system and information needs	To be treated in a hospital or clinic that is as physically pleasant as possible	7 (77.8)	2 (22.2)	8 (100.0)	0 (0.0)	They check me and they tell me what I need for...they make me another appointment, to be here at the time they think I have to come back.	All the staff there was like, you know, unbelievable uh as far as um their um respectful, and—and being treated like a human being, and pleasantry and I mean it was

Table 2 (continued)

Needs	Domain	Item	Survey responses			Focus group discussion		
			Spanish language (SL)		English language (EL)		Quotes in Spanish	Quotes in English
			No need <i>n</i> (%)	Some need <i>n</i> (%)	No need <i>n</i> (%)	Some need <i>n</i> (%)		
Health system and information needs		To be adequately informed about the benefits and side-effects of treatments before you choose to have them	6 (66.7)	3 (33.3)	8 (100.0)	0 (0.0)	Since I do not know English, they give me an interpreter.	And then I got help here then I started getting information, is here is where I get all the help, the treatment and the information
		To have access to professional counseling (e.g., psychologist, social worker, counselor, nurse specialist) if you/family/friends need it	6 (66.7)	3 (33.3)	8 (100.0)	0 (0.0)	I found it was really good there because they did a lot of groups, there are a lot of groups with Hispanics there too, a lot of activities that they did for survivors.	She say, I am your nurse. Anytime you need, call me, you have any questions. I know. And that made me feel safe. That made me feel secure and that helped. That really, really helped.
Physical and daily living needs		Work around the home	6 (66.7)	3 (33.3)	8 (100.0)	0 (0.0)	Yes, I go...I do all...my medical errands and I do them on foot	I can do that on my own though. Shopping. Cleaning. Cleaning up what you have to do. Cleaning up after yourself. Go places.
Health system and information needs		To be given information (written, diagrams, drawings) about aspects of managing your illness and side-effects at home	7 (77.8)	2 (22.2)	7 (87.5)	1 (12.5)	Well, right now at ... I've been constantly talking with them and...yes, giving me the information.	She made practically all the calls and phone calls that she did, may set up appointments, and call me, and you know and back and forth, and emails and all of that. So I do not know what I would do without her
Unmet Physical and daily living needs		Pain	3 (37.5)	5 (62.5)	5 (62.5)	3 (37.5)	It's really hard for me, I get tired, I'm in pain...I have to gather my strength. I've even fallen down the stairs.	...they say they took everything out and I'm all right. But for coming back and forth it's been tough, but it's been okay. So now that I'm a little better I would walk, or I might still take the bus, you know at times.
Physical and daily living needs		Lack of energy/tiredness	4 (44.4)	5 (55.6)	5 (62.5)	3 (37.5)	A lot of times I do not have any pain but I do not have any strength even to...not even to get up from the chair...a lot of...fatigue. Barely...at times I can barely breathe really.	I'm getting tired of that commute.

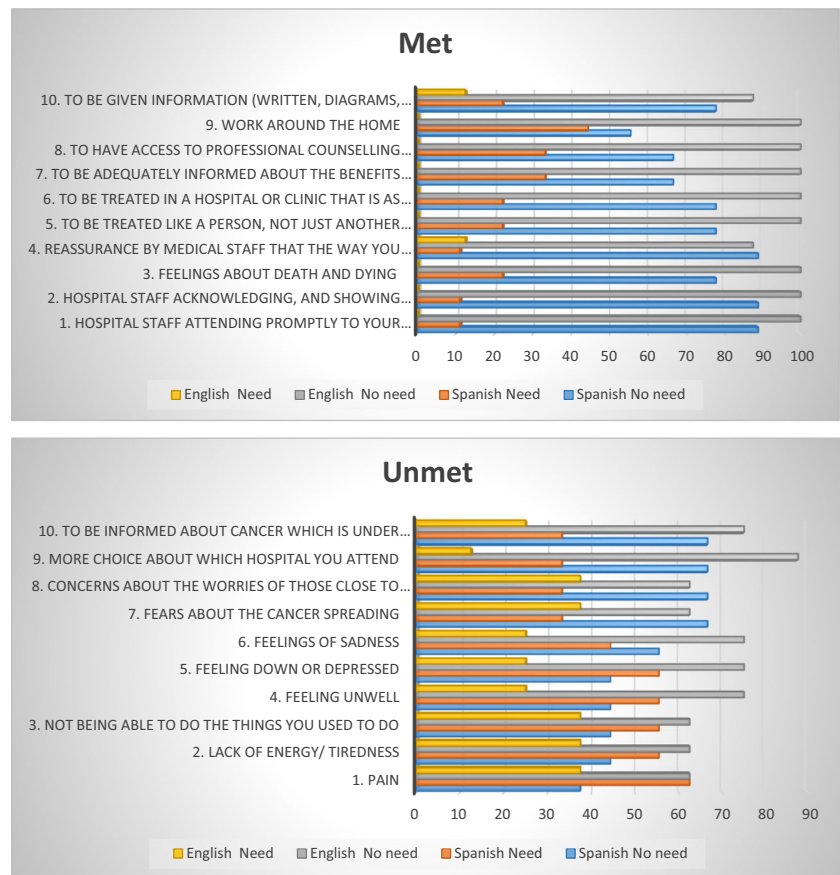
Table 2 (continued)

Needs	Domain	Item	Survey responses		Focus group discussion			
			Spanish language (SL)		English language (EL)			
			No need <i>n</i> (%)	Some need <i>n</i> (%)	No need <i>n</i> (%)	Some need <i>n</i> (%)	Quotes in Spanish	Quotes in English
Physical and daily living needs		Feeling unwell Not being able to do the things you used to do	4 (44.4)	5 (55.6)	6 (62.6)	3 (33.6)	As far as work, I was working and going to the chemo, until, finally I could not go any more because the...side effects For me, yes, since all my hair fell out. Uh...I turned all gray, my nails were all black, um...the cortisone they were injecting in me... Well, I could not walk, I fell down, I would drag myself along by the walls, uh...my eyes were (glassy), I could not see...	The only side effect that I had to deal with is hot flashes and sweat. I wasn't working for a whole year because I had three surgeries in one year. Yeah so it was a bit tough for me with all the challenges in my body
			4 (44.4)	5 (55.6)	6 (75.0)	2 (25.0)		I do not know if it was a depression time or whatever time it was, but it was—I needed family.
Psychological		Feeling down or depressed						
Psychological		Feelings of sadness	5 (55.6)	4 (44.4)	6 (75.0)	2 (25.0)	When...when you have cancer, um...people stay away from you and...you expect...something...and they leave you alone.... They mock you, they laugh, they leave you alone as if you were not worth anything. ...and I never thought that would happen to me at any point in time. The pain, what you go through, and the consequences it brings. And it's so sad. Honestly, it's super sad.	I needed my friends, but they all just kind of go their own way because of fear I would say of this word they call cancer
			6 (66.7)	3 (33.3)	5 (62.5)	3 (37.5)	Because the fear is always there. Just now they gave me, the day before yesterday, an MRI with contrast because they found a lump on my...backbone [sighs]...and it was one hour...[sighs]. I got sick, my blood sugar dropped. There are so many things that...you	I really was scared. I had like an orange growing in my leg, so—could not work. And then when they did that bone marrow. The next thing I could not even walk.

Table 2 (continued)

Needs	Domain	Item	Survey responses				Focus group discussion	
			Spanish language (SL)		English language (EL)		Quotes in Spanish	Quotes in English
			No need n (%)	Some need n (%)	No need n (%)	Some need n (%)		
Psychological	Concerns about the worries of those close to you	6 (66.7)	3 (33.3)	5 (62.5)	3 (37.5)	<p>know, they make you sad...from your health conditions.</p> <p>my wife...she sort of took off somewhere when I...because since she heard that I had...that the doctor saw that it was cancer, she thought it was a cancer that would kill me. So she...like she... came undone, to the point where...and well, we ended up divorcing</p> <p>no, but the doctor is on vacation, the doctor is not here, the one who is here, that's who-knows-who..."</p> <p>And it was very disorganized at the...the visits.</p> <p>The doctors are always attentive, the thing is, what does not help me is English, that it's always through an interpreter and those things.</p>	<p>I told my family about having cancer... They were scared. They said do not mention that name.</p> <p>They do not want to hear about—do not talk about that. You do not have that.</p>	
Patient care and support	More choice about which hospital you attend	4(33.3)	4 (25.0)	8 (0.0)	0 (0.0)	<p>So I need to find another PCP to kind of guide me through the process, but it would be nice to have a single point of contact.</p>		
Health system and information needs	To be informed about cancer which is under control or diminishing (that is, remission)	6 (66.7)	3 (33.3)	6 (75.0)	2 (25.0)	<p>I guess as a cancer survivor, I would like to be provided with more information on any new research that's been done in the cancer.</p> <p>Whether or not there are new protocols or studies that will help you make sure that the cancer is not coming back.</p>		

Fig. 1 Combined met and unmet needs



Discussion

This study explored the met and unmet needs of cancer survivors across domains of patient care and support, psychological, health system and information needs, and sexuality. This study sought to identify and describe the met and unmet needs of cancer survivors receiving care in a FQHC. We found that the CCEP was successful in meeting many of the needs of the patients. Similar to other studies [21, 27], our study demonstrates the key role of available specialized cancer services located within a health center to meet the needs of this underserved population. Roland et al. found community health workers and patient navigators initiatives within a FQHC improved completion and timeliness of breast, cervical, and colorectal screening and diagnosis for underserved populations [21].

The results of this study suggested that having patient care services available allowed participants needs to be met during their survivorship. For example, hospital staff and providers attending promptly and showing sensitivity to the needs of patients was important as well as being treated like a “human being,” and not just another case. Both SL and EL participants discussed feelings of being valued (e.g., “they check me and tell me what I need” and “everyone has treated me well.”).

Consistent with prior research, the highest ranked survey items of unmet supportive care needs were in physical/daily living and psychological domains [4, 11, 28]. Pain was rated the highest unmet need by SL participants, “it’s really hard for me, I get tired, I’m in pain... I have to gather my strength. I’ve even fallen down the stairs.” Important to note that the current climate of cancer pain management and the opioid crisis in USA could contribute to more barriers to meeting the needs for effective pain control in the underserved population [29–31]. Being tired, lack of energy and strength, and side effects of treatment were concerns of both language groups. Feelings of sadness and depression were discussed by the participants in the focus groups validating the survey results. Depression is an issue for cancer survivors and often goes unreported [32]. Fear of cancer spreading is a common feeling expressed by many cancer survivors as it was also an unmet need for our participants [33, 34]. Participants in our study were also concerned about the worries of their significant others.

Improved screening and monitoring for mental health issues for cancer survivors as well as increased communication between health care providers and patients can help to manage depression, anxiety, and fear associated with survivorship [35, 36]. Attention to patient-reported concerns related to health

and mood symptoms at health care visits are critical in monitoring, assessing risk, and effectively treating health issues and cancer related sources of distress [35, 36].

Many of the participants needs were met within the patient care and support, and health system information needs domains; however, some expressed the need for more information about their cancer status. This finding for more information about their clinical status and information from health care providers was consistent with other studies [7, 11]. Symptom management should be an important focus for health care providers as most of the unmet needs in this study were associated with pain, fatigue, and just not feeling well. Participants expressed feeling unsettled, and not being able to manage their physical and daily needs the way they did before getting a cancer diagnosis. The consequences of cancer survivorship introduced new feelings and experiences that they did not expect and were not prepared to manage. Similarly, cancer survivors in other studies were challenged by the experience of survivorship and the adjustment to life after a cancer diagnosis [7, 11].

Cancer survivors often navigate through a myriad of experiences including physical impairment, symptom burden, and psychological unmet needs such as anxiety and depression which impact the survivor's overall quality of life [7]. Survivors also experience a decrease in social support and a lack of critical information to help navigate across their cancer continuum [11]. This study identified numerous unmet needs associated with feeling anxious, sad or depressed, and fear. These findings were in both survey data and qualitative data. Unmet psychological needs continue to be an issue for many cancer survivors [37], especially for Hispanic/Latino survivors [4, 38]. According to Moreno and colleagues, needs such as fear of metastasis and recurrence, depressed mood, distress, and maintaining social support were reported among the highest of unmet supportive care needs [4].

Falling short of addressing the needs of cancer survivors directly impacts health outcomes and overall quality of life (QOL). The diagnoses of the participants in this study were prostate, breast, lymphoma, skin, and renal cancer. There were nine participants with prostate cancer making up more than half of the sample in this study. The SCNS-SF34 survey did include sexuality needs, although the results did not fall within the top ten met/unmet needs of the study outcome. Prostate cancer survivor-specific QOL issues are important as needs vary based on baseline health and treatment quality and access to pre and post cancer care [39, 40]. Similar to the needs of other participants in this study (non-prostate), they had worries about how their cancer would affect family members or significant others. This is especially important in Hispanic cancer survivors as there is a strong emphasis on family-centered decision-making [40]. Many of the study participants were also concerned about changes in their primary

care provider and expressed a need for more information about “next steps” in their cancer survivorship.

Health literacy, low income, and education can impact QOL for cancer survivors [41]. The American Cancer Society (ACS) agencies have reported that disparities still exist among those populations defined by race/ethnicity, residence, and socioeconomic status (SES). Race/ethnicity disparities and educational achievement are greatly influenced by SES [41]. Patient care and support, and health system and information needs were in the top ten met needs addressed by the CCEP. However, there is still work to be done, as study participants noted symptom management (physical & psychological) and information needs including Spanish language specific were not always adequately addressed.

Tailored approaches and models of cancer care that recognize social determinants of disease, income inequity, discrimination, and inequity to access to health care services and health education are critical to improve cancer outcomes [9]. Models investing in more community programs associated with larger health care systems such as the CCEP can improve the overall quality of care for individuals residing in communities impacted by inequities and barriers to appropriate health care.

Federally qualified health centers provide health care and community programs that are essential services to low-income urban and rural populations [21, 42]. Although there is literature to support the critical need of health care services provided by a FQHC [16, 21], there is limited information on cancer specific models of care and research to meet the unique needs of cancer survivors who are receiving health services at a FQHC.

Limitations

The study structure may limit the conclusions able to be drawn from the findings. The study mixed methods design may have quantitative and qualitative results that do not agree. We did not have this issue with the results of this study as noted in (Table 2). The study sample size was small and comprised patients already registered and participating in a FQHC; therefore, results may not be generalizable. This study was limited by examining met and unmet needs of cancer survivors at a single point in time, and may not be reflective of the participant's entire cancer experience. Although we had bilingual research staff fluent in Spanish and English, survey and focus group questions might have been misinterpreted by participants. Sexuality was one of the domains for both survey and focus group questions. However, because the focus group composition was male and female, the focus group questions on sexuality were not discussed.

Conclusion

The present findings contribute to a more nuanced view of the met or unmet needs of cancer survivors receiving cancer-specific care services within a FQHC. Cancer survivor needs can vary among survivors based on diagnosis, symptoms, comorbidities, including available informal and formal support systems. Our findings have implications for a needs-based approach of supportive cancer care in a FQHC or similar community-based health center, taking account of individual needs and specific characteristics, social context, and preferences.

Implementing real-world models of care within underserved communities that speak to the specific issues and concerns of individuals such as providing cancer services within a FQHC may be critical to closing the gaps of unmet needs and ultimately meeting the needs of cancer survivors.

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