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Developing a national implementation strategy to accelerate uptake of evidence-based family caregiver support in U.S. cancer centers

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Abstract

Objective: Characterize key factors and training needs of U.S. cancer centers in implementing family caregiver support services.

Methods: Sequential explanatory mixed methods design consisting of: 1) a national survey of clinicians and administrators from Commission-on-Cancer-accredited cancer centers (N=238) on factors and training needed for establishing new caregiver programs and 2) qualitative interviews with a subsample of survey respondents (N=30) to elicit feedback on survey findings and the outline of an implementation strategy to facilitate implementation of evidence-based family caregiver support (the Caregiver Support Accelerator). Survey data was tabulated using descriptive statistics and transcribed interviews were analyzed using thematic analysis.

Results: Top factors for developing new caregiver programs were that the program be: consistent with the cancer center's mission and strategic plan (87%), supported by clinic leadership (86.5%) and providers and staff (85.7%), and low cost or cost effective (84.9%). Top training needs were how to: train staff to implement programs (72.3%), obtain program materials (63.0%), and evaluate program outcomes (62.6%). Only 3.8% reported that no training was needed. Qualitative interviews yielded four main themes: 1) gaining leadership, clinician, and staff buy-in and support is essential; 2) cost and clinician burden are major factors to program implementation; 3) training should help with adapting and marketing programs to local context and culture; and 4) the Accelerator strategy is comprehensive and would benefit from key organizational partnerships and policy standards.

Conclusion: Findings will be used to inform and refine the Accelerator implementation strategy to facilitate the adoption and growth of evidence-based cancer caregiver support in U.S. cancer centers.

Keywords

Background

Over the past three decades, there have been over 100 published clinical trials of cancer family caregiver interventions.[1-3] These interventions have varied in numerous ways to accommodate different contexts and needs including delivery format, intervention content, cancer-type and cancer-stage focus, and interventionist type.[2] Furthermore, numerous systematic reviews and meta-analyses have found these interventions, most of them delivered by psycho-oncology professionals, to be effective in yielding positive outcomes for both caregivers and patients.[4,5] The National Cancer Institute,[6] the National Academy of Medicine,[7] and others have called for increased translation of these research-tested, behavioral interventions to "real world" practice. However, in no area has this been arguably more challenging than in this domain of evidence-based interventions for cancer family caregivers.

While there has been progressive success in developing research-tested caregiver support, it is unclear whether these interventions are being adopted into psychosocial clinical

care. A survey of 204 NCI-funded Community Oncology Research Program (NCORP) community oncology practice groups found that 64% had supportive care services available to caregivers, however the authors noted that it was not clear if and how caregivers were being connected to these services.[8] Further, it was unclear from this study how many of these services were based on evidence-based interventions. Data previously reported from our study team of 238 Commission-on-Cancer (CoC) accredited cancer centers found that while approximately three-quarters had at least one family caregiver program, only 8% were developed based on findings published in a scientific journal and only 12% reported that services were chosen because there was scientific evidence to support its effectiveness.[9] All together, these data suggest that few evidence-based cancer caregiver interventions are being adopted into clinical practice and that implementation strategies may be needed to help accelerate this translation.

To begin to address this issue, we raised the question of why so proportionally few U.S. cancer centers have adopted and implemented evidence-based caregiver support and what support and resources they need in order to do so. To address these research-to-practice questions and gaps, the purpose of this study was to determine and explore the key factors and training needs of U.S. cancer centers when implementing family caregiver support. Specifically, we aimed to examine what factors need to be considered when establishing new caregiver programs and what training might be needed to implement support. In addition, we wanted to elicit feedback on the outline of a potential implementation strategy that would function to assist cancer centers with implementing evidence-based caregiver support. Such feedback is critical to informing modifications to this strategy in order for it to be tested at a national level.

Methods

This was a sequential explanatory mixed methods study (QUAN->QUAL)[10] to characterize key factors and training needs of U.S. cancer centers in implementing family caregiver programs, including gathering feedback on the outline of a potential implementation strategy (the National Cancer Caregiver Accelerator) (Figure 1). The quantitative study component, or strand, consisted of a national survey of Commission-on-Cancer (CoC)-accredited U.S. cancer centers on important factors for establishing new caregiver programs and training needed to implement support. U.S. cancer centers were identified through the CoC's publicly-available online database. The qualitative strand consisted of one-on-one, qualitative interviews with a purposive subsample of cancer center survey respondents to elicit feedback on a summary of the survey findings and a 1-page outline of a potential implementation strategy to promote adoption and implementation of evidence-based family caregiver support (Figure 1). The rationale for this mixed methods design was to complement quantitative findings with insight gained from themes of qualitative interviews. This study was approved by the University of Alabama at Birmingham Institutional Review Board, including an information sheet and a waiver of signed informed consent (IRB-300006181).

Quantitative Strand: Survey

The quantitative strand of this study was a mail and web-based survey of staff from CoC-accredited cancer centers, conducted between September 2021 and March 2023. Details of the survey development and administration are described elsewhere.[9] In brief, the survey was originally conceptualized using the Donabedian Model of Healthcare Systems, characterized by three components of quality care including structure, process, and outcomes.[11,12] To create the survey items, an extensive review of relevant literature was conducted. Initial items were refined through feedback and discussion among a national expert advisory panel consisting of 13 members (included here as co-authors) with expertise in cancer family caregiving research and policy and survey and qualitative research. The panel included 6 nurses, 2 physicians, 2 clinical psychologists, and 3 health services researchers. The final version of the survey (Appendix) consisted of 19 items that inquired about cancer center and family caregiver program details. "Family caregiver program" was specifically defined in the survey as "a structured, planned, coordinated group of activities" aimed at specifically supporting family caregivers (not just patients) as part of usual care and could not simply entail having social workers or navigators at one's institution. Item topics, including wording derived from similar prior surveys in the literature,[13-15] included types of programs offered, factors important to their development, and training needed for caregiver program implementation.

Several strategies were used to identify cancer center clinicians and administrators who had a general knowledge of support programs and services for family caregivers and could respond to the survey. The strategies included: 1) a review of cancer center websites to identify listed personnel who had email or mailing address information; 2) contacting cancer center clinicians using a list provided by a healthcare data analytics company (IQVIA) that provides clinical research services; and 3) garnering potential respondents from the professional contact networks of our 13-member national expert advisory panel. Using a modified Dillman survey approach,[16] potential respondents were either mailed or emailed a series of correspondences with the survey, including reminders, that could be completed by mail or online through a REDCap survey link. Individuals completing the survey were offered a $20 incentive.

Qualitative Strand: Interviews with Cancer Center Clinicians

Survey respondents in the quantitative strand were given the option at the end of the survey to be contacted about participating in one-on-one qualitative interviews to discuss their experiences and perspectives on programs and support for cancer caregivers. A subsample of willing survey respondents was approached for participation in the qualitative interviews using a purposive approach to elicit perspectives representing a diverse range of cancer centers. All interviews were conducted by telephone between June 2022 and March 2023. Preliminary results of the survey were shared with participants (by email) in bar graph format prior to the interview. The semi-structured interview guide included questions seeking feedback about preliminary results of the survey including factors important to the development of caregiver programs and training needed for cancer centers to be able to successfully implement programs.

During the second half of the interview, participants were oriented to a one-page outline (Figure 1) of an implementation strategy aimed at assisting cancer centers with the implementation of evidence-based cancer caregiver support (also emailed to participants prior to the interview). As depicted in the outline, the implementation strategy, called the Caregiver Support Accelerator, was conceptualized by our team as a type of business incubator,[17] similar to existing organizations focused on best practice implementation,[18,19] that works in partnership with cancer centers to accelerate the adoption and implementation of evidence-based caregiver programs and services. The outline listed proposed core services of the Accelerator (e.g., help with conducting needs assessments, clinician training, metrics and measurement) and types of support (e.g., one-on-one coaching, virtual learning collaboratives) that were based upon the services and supports provided by similar organizations focused on best practice implementation, such as the Center to Advance Palliative Care[18] and the Cancer Prevention and Control Research Network.[19] Participants were asked open-ended questions about the core services, types of support and how to best provide the training and consultation, and how to best attract cancer centers to the Accelerator program. Participants were informed before this set of questions that any aspect of the implementation strategy could be modified and were encouraged to provide critical feedback. Individuals completing the interview were offered a $100 incentive.

Analysis—SPSS version 29.0 (IBM Corporation, Armonk, NY) was used for all quantitative analyses. Response rates were determined using the metrics of the American Association for Public Opinion Research.[20] The formula for calculation was response rate=(complete responses+partial responses)/(complete responses+partial responses+nonresponse+explicit refusals+implicit refusals). For this study, a complete response was defined as 80% questions answered and a partial response <80% of questions answered. Cancer centers were not included in the analysis (n=340) if we were unable to identify or reach a potential respondent who could have completed the survey. Survey data was tabulated using descriptive statistics.

For the qualitative strand, a thematic analysis approach[21] was undertaken after semi-structured interviews were professionally transcribed and uploaded into NVivo 12 Plus software. The principal investigator (J.N.O.), a family caregiving expert and experienced qualitative researcher, solely and independently open-coded all transcripts using a line-by-line approach.[22] After discussion with members of the study team, open codes were grouped into overarching themes, aided by within and across case matrices to facilitate comparison.[23] Preliminary themes and corresponding raw text support were presented again to the study team for final refinement by assessing "fit" of the themes to the raw data and the degree to which the themes represented a complete picture of the entire data corpus. Guided by the criteria defined by Lincoln and Guba (i.e., credibility, transferability, dependability, and confirmability),[24] strategies used to uphold trustworthiness and qualitative rigor included having a diverse study team with a broad range of experience and expertise to evaluate the raw data and themes and an exhaustive audit trail of all codes, themes, and participant data.

Results

Quantitative Strand

Surveys were sent to contacts at 971 unique CoC-accredited cancer centers and responses were received from 238 (response rate: 24.5%). Table 1 shows the characteristics of survey respondents and the cancer centers they represented. Responses were received from cancer centers in 43 U.S. states and did not differ from nonparticipating centers by U.S. region (p>.05). However, they did differ by rural-urban status (defined by U.S. Census Rural-Urban Commuting Area Codes) with a slight over-representation by rural cancer centers (p<0.05, Cramer's V=0.08).

Figure 2 shows the proportion of respondents in descending order that endorsed 19 different factors to developing a new caregiver program as "very" or "extremely" important. All but three factors were endorsed by 50% or more respondents in this range. Top factors included "Consistent with our cancer center's mission and strategic plan" (87.0%), "Clinic leadership actively supports and promotes the program" (86.5%), "Providers and staff actively support and promote the program" (85.7%), "Low cost and/or cost effective" (84.9%), and "Has been shown to work" (81.5%). Factors with the lowest proportion of respondent endorsement included "Innovative" (43.7%), "Able to be used on a trial basis" (42.1%), and "Other cancer centers are using it" (35.2%).

Figure 3 lists 14 types of training needed (including "no training needed") to help cancer centers adopt and implement family caregiver programs. Only 3.8% of respondents reported that no training was needed. The most endorsed training needs included "How to train clinicians and staff to implement the program" (72.3%), "How to obtain program materials" (63.0%), "How to evaluate program outcomes" (62.6%), and "How to assess and utilize available personnel and resources" (60.1%).

Qualitative Strand

In addition to the characteristics of survey participants, Table 1 also shows the characteristics of qualitative strand participants. Analysis of qualitative interviews yielded 4 main themes, described below, contributing to the further refinement of the Accelerator program implementation strategy. Table 2 illustrates the main qualitative themes, illustrative quotes, and Accelerator program modifications based on themes.

Theme 1: Gaining leadership, clinician, and staff buy-in and support is essential—Most qualitative participants emphasized the importance, and oftentimes the necessity, of having leadership, clinician, and staff "buy-in" and support if and when implementing a new caregiver program or service. Sometimes described as "champions," these individuals were seen as having the required resources and social influence to drive a program's success and to make it a priority in the cancer center. Several talked about needing multiple constituencies and interdisciplinary buy-in: "When the value is recognized by multiple disciplines, it's more likely to be accepted or valued by everyone else…it's gotta be a team effort" (Participant 18). Several discussed that any new program seeking leadership and clinician support needed an evidence-base that showed value and that it

be set-up to collect outcomes: "They really love to see the evidence to support this type of work…in order to justify the resources being allocated for caregiver support, you have to demonstrate the efficiency, effectiveness, visibility, and acceptability" (Participant 245). Desirable outcomes seen to be important to "buy-in" included feasibility, cost savings, lower healthcare utilization, and high-quality indicators.

Theme 2: Cost and clinician burden are major factors to implementing a caregiver program—Most participants talked about a key driver of whether or not a caregiver program was going to be successful was the cost of the program and the effect it had on clinician workload. Many talked about staffing shortages, a lack of certain clinician workforces (e.g., social workers), and the limited amount of time to support caregivers in addition to providing care to patients. Several described having to "wear many different hats" and "being pulled in a million different directions." Many grounded their concern within the larger context of health system and cancer center budget constraints, particularly in the wake of COVID-19 that further exacerbated the strain on healthcare system resources: "bringing it back to the pandemic…we're down this astronomical figure of healthcare workers and it's really hard to replace" (Participant 76). Participants expressed the need for low-cost or free programs that do not further strain limited resources. Financial benefits and cost reduction associated with the programs were seen as crucial for gaining support and justifying their implementation.

Theme 3: Training should help with adapting and marketing caregiver programs to local context and culture—Many participants elaborated on the importance and necessity for new caregiver programs and services to be adapted and tailored to the specific needs of diverse communities and populations. Many expressed the importance of starting with a thorough needs assessment to identify the biggest gaps in caregiver support and then to tailor, customize, and align programs accordingly. Several talked about accessibility and ensuring that programs were easy to engage with by different types of caregivers, such as those living in a rural area or individuals not speaking English. Several participants shared difficulties getting caregivers to attend support groups and others underscored the importance of identifying marketing strategies to engage and encourage caregivers to participate in new programs: "I see enrollment and that's one of our big challenges, 'cause even when we…have staff who do it, some people don't show up" (Participant 175). Marketing and advertising were identified as crucial for program growth, both within the hospital and the broader community.

Theme 4: The Caregiver Support Accelerator is comprehensive and would benefit from key organizational partnerships and policy standards—Overall, participants responded enthusiastically to the proposed Accelerator concept, with many describing it as "comprehensive" and believing it would positively benefit patients, caregivers, healthcare workers and the overall healthcare system. A number of participants expressed positive views about "learning collaboratives" for sharing best practices and highlighted the importance of coaching in facilitating program implementation. Some discussed that comprehensive assistance and packaging of evidence-based caregiver services would consolidate efforts and eliminate the need for extensive groundwork. Leveraging

existing or possible future standards and policies from accrediting bodies, such as the Commission on Cancer and National Cancer Center Network, was seen as potentially invaluable for widespread adoption, providing incentives for implementing and justifying new caregiver support initiatives: "If you're really looking to have maximum impact, I would align with those different [organizations] because people will jump right on" (Participant 44). Many participants suggested forming collaborations with influential organizations like the American Cancer Society to "validate" and enhance the Accelerator's legitimacy and "credibility."

Discussion

The objective of this sequential explanatory mixed methods study was to identify key factors and training priorities necessary when implementing evidence-based programs and services for family caregivers in U.S. cancer centers. Additionally, we aimed to elicit feedback on the outline of a potential implementation strategy, the National Cancer Caregiver Accelerator, that would be designed to assist cancer centers with implementing new evidence-based caregiver services. Findings from survey responses from 238 CoC-accredited cancer centers and qualitative interviews with 30 clinicians and administrators demonstrated overall enthusiasm and desire for efforts to promote caregiver support program development and highlighted areas where the Accelerator strategy needs refinement and emphasis.

Among the top concerns identified in both the surveys and interviews concerned the need to gain leadership, clinician, and staff buy-in and support. Over 85% of survey respondents felt that it was important for clinic leadership, clinicians, and staff to actively support and promote new caregiver programs and services. Indeed, having robust leadership support is a key feature of many implementation frameworks, such as the Consolidated Framework for Implementation Research[25] and the Dynamic Sustainability Framework.[26] Furthermore, empirical findings in implementation literature provides strong support for the influence of leader activities and behaviors on the success of implementation.[27,28] Qualitative interviews validated and further elaborated on the survey findings by highlighting the role that demonstrating outcomes like cost-savings and better patient outcomes can have on compelling these various constituencies to extend support and resources.

A second identified priority from our results was concerns about cost and the impact of new programs on clinical staff who were already stretched with existing demands. Complementing the qualitative data, nearly 85% of survey respondents believed that a new caregiver program being low cost was important and just over 60% felt training was needed in how to assess and utilize available personnel and resources. The increasing costs of cancer care[29] and high clinician work demands and burnout has garnered heightened attention over the past decade, especially since the COVID-19 pandemic, and has been the subject of numerous National Academy of Medicine reports.[30-32] Compounding this issue is that caregivers are not well integrated into existing payment models, billing codes, and insurance coverages[33] and research demonstrating the economic value of cancer caregiving, particularly on patient care costs, is still lacking.[6,7,34] While workforce and cost constraints are likely to be limiting factors, the Accelerator will need to provide a robust business case

and value proposition and financial planning guidance in addition to operational technical assistance.

A third priority was the need for training and guidance adapting evidence-based caregiving programs and services to local contexts and culture and relatedly, how to market them in a way that attracts and engages family caregivers. Over half of survey participants endorsed needing training in enrolling caregivers into a program and adapting a program and its materials for cultural appropriateness. Cancer caregivers have been shown to under-utilize support services,[35,36] and the challenge of attracting them into support programs has also been observed in intervention trials. A recent systematic review of 55 psychosocial behavioral intervention trials for cancer caregivers and their care recipients reported an average enrollment rate of 33% and average retention rate of 69%.[3] This and other reviews[2] have also noted the lack of racial and ethnic diversity in tested caregiver interventions, further stressing the need for program adaptation. Hence, the Accelerator will focus on identification and marketing strategies for caregivers, especially among under-resourced and minority populations.

Overall, the Caregiver Support Accelerator was seen by participants as a needed, comprehensive, and promising implementation strategy. Only 4% of survey respondents thought training was *not* needed to help their cancer center with implementing family caregiver support, underscoring the overall desirability of the Accelerator and the willingness to support effort in such a program. Based on qualitative data, partnership with recognized national and local cancer organizations will be pursued to increase the Accelerator's credibility and resources. Many qualitative responses from participants also stressed the potential benefit of aligning caregiver program outcomes with accreditation standards and quality metrics. However, caregiver-specific accreditation and quality standards are mostly non-existent in the U.S. healthcare system.[33] As an exception, the Caregiver Advise, Record, and Enable (CARE) Act (passed in 45 states as of this writing)[37] does require hospitals to provide training in medical and nursing tasks to family caregivers in the in-patient setting when transitioning from hospital to home. This may provide some regulatory incentive for cancer centers who are transitioning cancer treatments, such as hematopoietic cell transplantation, CAR T-cell therapy, and infusion chemotherapy, into the home.[30,38]

The study's findings yield insights that inform key refinements to the Caregiver Support Accelerator concept (detailed in Table 2). One refinement encompasses the incorporation of an additional core service, aimed at garnering and winning over cancer center leadership and clinician support. The core service of "Identifying evidence-based caregiving programs" will need to emphasize the alignment of caregiving programs with the mission and strategic plan of each cancer center. The "Metric and measurement" core service has been refined and extended to encompass comprehensive program evaluation that includes quantifying outcomes of interest that are valued by various cancer center constituents, encompassing leadership, staff, and the community at large. A core service to be added will focus on the development of a robust business model, value proposition, and financial plan tailored to caregiving services. The core service addressing "Operations and workflow" has been augmented to explicitly address staff burdens and provide insights into designing

caregiving services that prioritize feasibility within the constraints of available staff time and resources. The "Cultural tailoring" core service will need to specifically attend to historically under-resourced populations, emphasizing the need to tailor program content, format, and structure to address these populations' unique needs. Additionally, the "Developing community partnerships" core service now extends to fostering collaborations with esteemed local and national organizations such as the American Cancer Society and the Cancer Support Community, facilitating a broader network of support. Lastly, insights regarding accreditation, national standards, and pertinent caregiving-related policies have been integrated, enriching the strategy's alignment with overarching programmatic outcomes of caregiving services. In sum, the qualitative findings have intricately guided these refinements, culminating in an enriched and more nuanced Caregiver Support Accelerator framework.

Study Limitations

This study has several limitations. First, our 25% survey response rate may raise concern about generalizability, however our non-responder analyses revealed no differences between responding and nonresponding cancer centers by U.S. region and only very small differences by rural-urban status. Second, this study was the first step in developing the Caregiver Support Accelerator concept and did not include any actual testing of the implementation strategy. However, we believe our rigorous development approach will enhance the ultimate feasibility and effectiveness of the strategy once tested. Finally, our qualitative sample, while large and surpassing the standard for saturation in qualitative studies,[39] may not have captured all relevant perspectives and viewpoints. Given this, we aim to personalize support offered by the Accelerator to benefit cancer centers regardless of size, location, personnel, and resources. We will also implement a thorough program evaluation plan to continually refine the Accelerator's services and support.

Clinical Implications

The findings of this study have important implications for psycho-oncology clinicians who play a central role in provide support to cancer family caregivers. First, clinicians can advocate for the integration of evidence-based caregiver interventions into clinical care and stay informed about the latest research and best practices. Second, caregiver assessment and adapting support to be culturally appropriate are sets of skills that may already be generally familiar to many psycho-oncology clinicians; hence these individuals are primed to take the lead on developing and delivering this type of training to colleagues. Third, clinicians can collaborate with healthcare administrators and leaders to devise cost-effective and feasible caregiver support programs. By understanding the financial constraints and resource limitations faced by their institutions, clinicians can contribute to the development of sustainable and impactful interventions. Finally, the proposed Caregiver Support Accelerator offers a promising approach to facilitate the adoption of evidence-based caregiver support programs. Clinicians and staff can engage with this initiative once launched and become active partners in its implementation.

Conclusions

This study provides insights into the key factors and training needs of U.S. cancer centers in implementing evidence-based family caregiver support services. These findings highlight the importance of garnering support from clinical and administrative leaders, weighing cost concerns and clinician bandwidth, and adapting programs to local context and culture. These findings will inform the refinement of the Caregiver Support Accelerator, with the aim of facilitating the adoption and growth of evidence-based cancer caregiver support in U.S. cancer centers. By addressing these key factors and training needs, the Accelerator has the potential to bridge the gap between research and practice and improve the support provided to cancer family caregivers. After incorporating refinements to the Accelerator based on this study's findings, the next step will be to test the program on a national level.

## Acknowledgments

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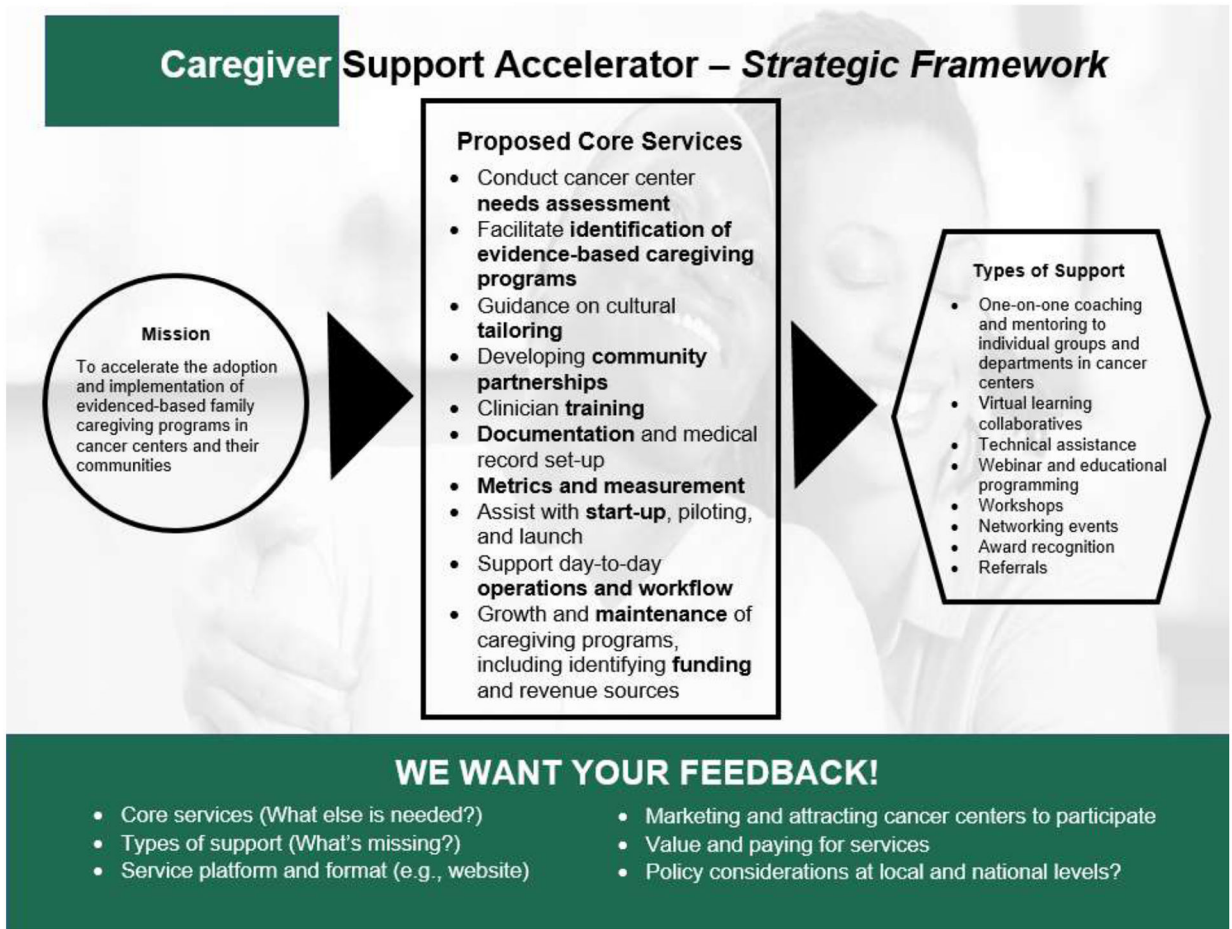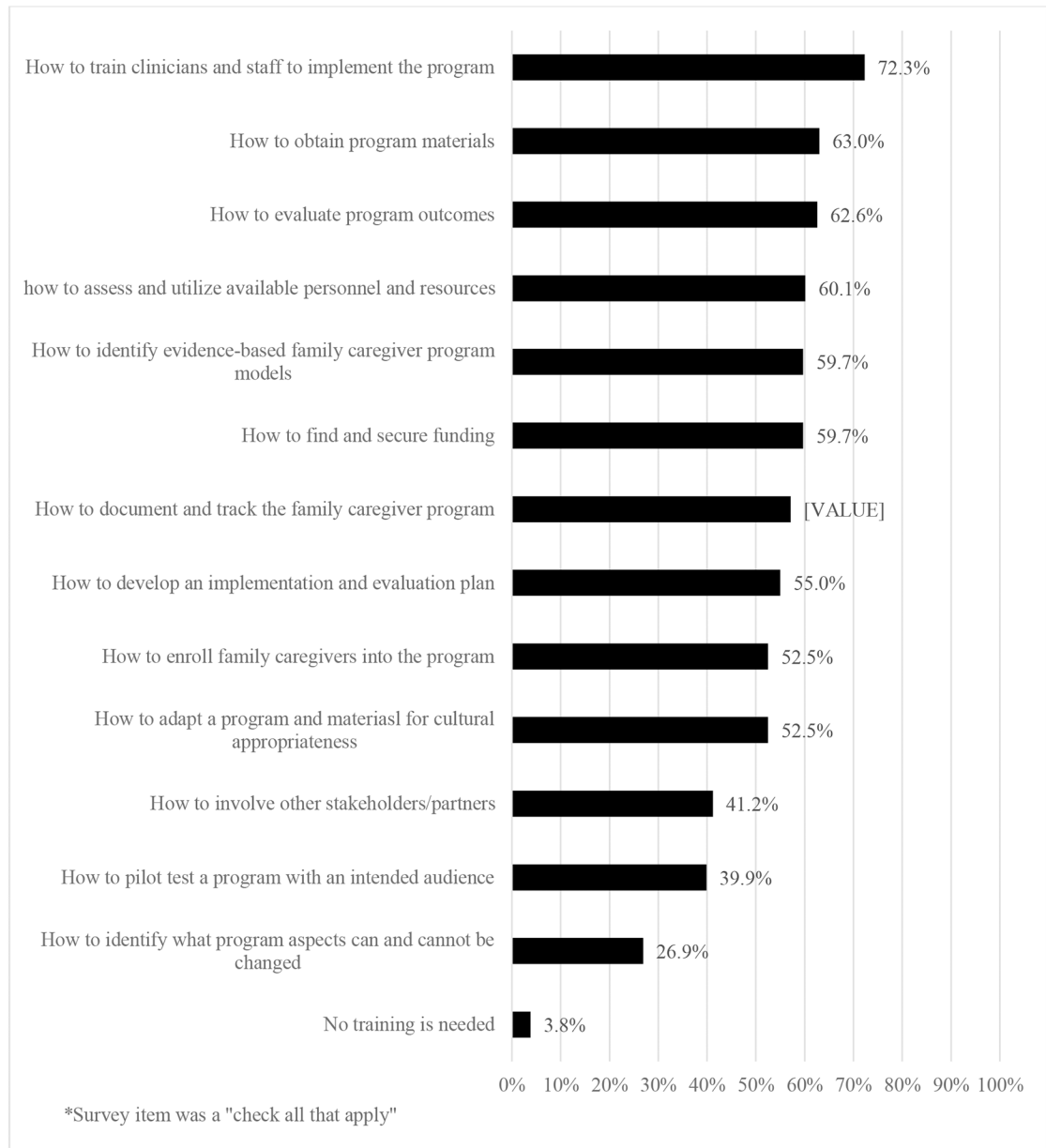
Figure 1.
Outline of cancer caregiver program accelerator
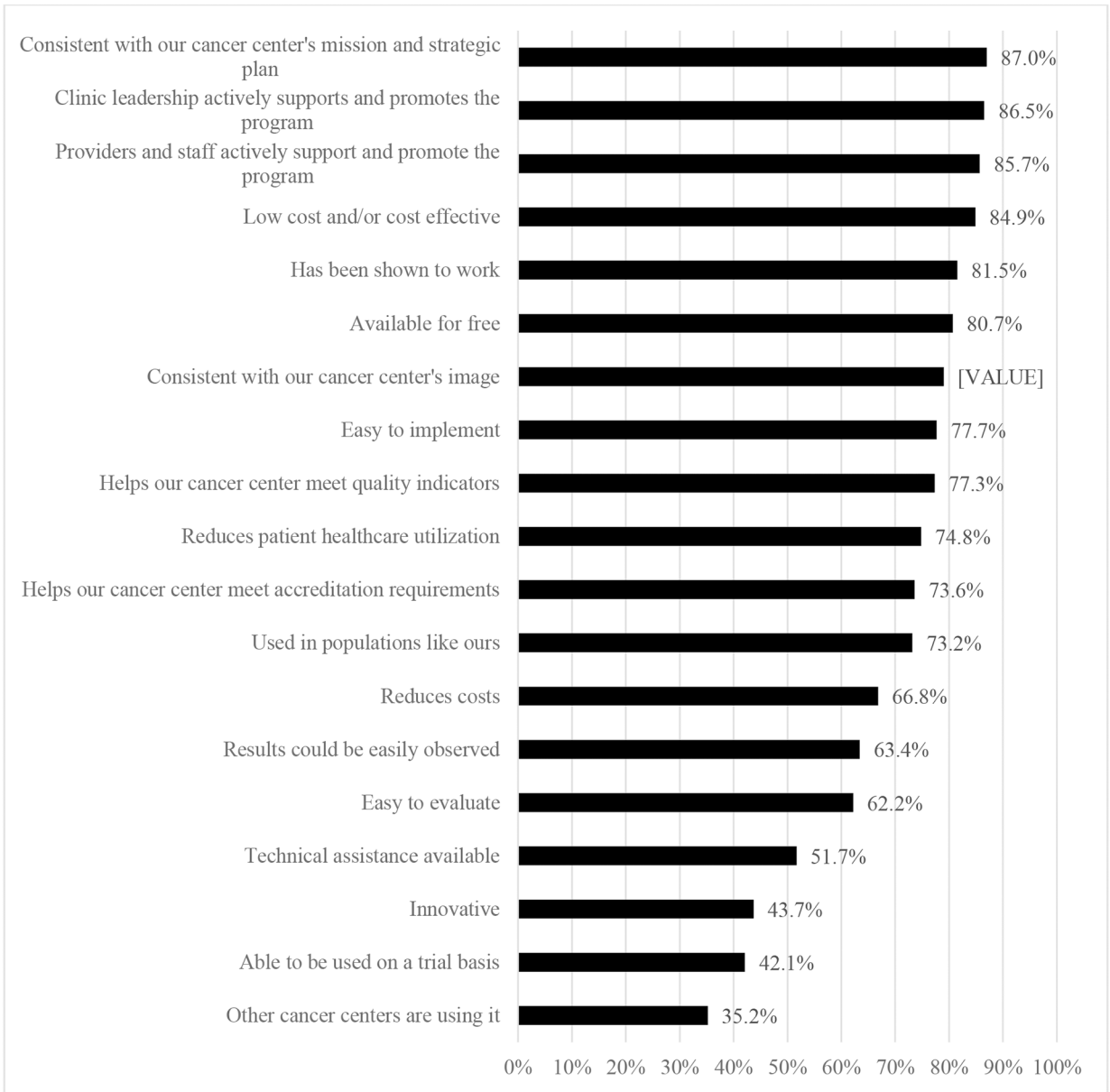
Figure 2.
Most important factors to developing a new caregiver program (% endorsing "Very" or "Extremely" Important)

Figure 3.
Training needed to help cancer center select, adapt, and implement family caregiver programs*

Table 1.

Characteristics of survey responders and qualitative participants and cancer centers

Characteristic	Survey Respondents/Cancer Centers (N=238), No. (%)	Qualitative Participants/Cancer Centers (N=30), No (%)
Respondent role		
Nurse	78 (32.8)	12 (40.0)
Social worker	58 (24.4)	9 (30.0)
Nurse practitioner	38 (16.0)	3 (10.0)
Physician	33 (13.9)	3 (10.0)
Healthcare administrator, coordinator, or director	17 (7.1)	1(3.3)
Other (e.g., behavioral health counselor, health educator, physician assistant, psychologist)	13 (2.5)	2(6.7)
Missing	1 (.4)	
Years employed at cancer center		
1 year or less	11 (4.6)	0
2-5 years	82 (34.5)	12 (40.0)
6-10 years	64 (26.9)	9 (30.0)
11-15 years	31 (13.0)	6 (20.0)
16-20 years	16 (6.7)	0
21 years or more	32 (13.4)	3 (10.0)
Missing	2 (0.8)	
Annual cancer center outpatients		
1,000 or less outpatients/year	44 (18.5)	5 (16.7)
1,000 to 5,000 outpatients/year	80 (33.6)	12 (40.0)
5,000 to 10,000 outpatients/year	39 (16.4)	3 (10.0)
10,000 to 15,000 outpatients/year	12 (5.0)	2 (6.6)
15,000 to 20,000 outpatients/year	15 (6.3)	4 (13.3)
20,000 or higher	18 (7.6)	3 (10.0)
Missing	29 (12.2)	1 (3.3)
Total # of oncologists		
5 or less	82 (34.5)	12 (40.0)
6-10	72 (30.3)	10 (33.33)
11-15	35 (14.7)	0
16-20	12 (5.0)	3 (10.0)
21-25	10 (4.2)	1 (3.3)
26 or more	25 (10.5)	4 (13.3)
Cancer center ownership		
Independently owned (i.e., single hospital or small regional network [up to 3 hospitals] or an independent clinic/physician practice)	65 (27.3)	13 (43.3)
Hospital, clinic, or physician practice owned by a large regional/multi-state health system that DOES include a health plan	96 (40.3)	7 (23.3)

Characteristic	Survey Respondents/Cancer Centers (N=238), No. (%)	Qualitative Participants/Cancer Centers (N=30), No (%)
Hospital, clinic, or physician practice owned by a large regional/multi-state health system that DOES NOT include a health plan	32 (13.4)	6 (20.0)
Publicly owned (e.g., state, county, city)	15 (6.3)	0
Academic medical center	25 (10.5)	2 (6.6)
Other	3 (1.3)	0
Missing	2 (0.8)	2 (6.6)
U.S. Region		
West	47 (19.7)	6 (20.0)
Midwest	70 (29.4)	4 (13.3)
Northeast	50 (21.0)	5 (16.7)
South	71 (29.8)	15 (50.0)

Table 2.

Qualitative Themes

Main themes	Sample quotes	Refinements to be made to the proposed accelerator concept
Gaining leadership, clinician, and staff buy-in and support is essential	"The leadership support is really the first thing. In order to build an infrastructure to support a program or programs that may not be well funded, or it has not existed before. This is the start." -Participant 245 "That's something that administrators always wanna see. You know, how are we measuring it? How are we determining it's valuable?" -Participant 142 "Having the support from leadership, from staff and that it's consistent with the mission of the cancer center, certainly are all very important factors. It would be really difficult to implement something that wasn't and that you didn't have support from leadership and staff and most importantly that it's effective that its evidence based that it's been shown to work." -Participant 140	• Include an additional core service focused on assisting with building and rallying cancer center leadership and clinician support • Strongly encourage a site's implementation efforts to be composed of interdisciplinary teams that includes leadership personnel • Expand the core service of "Identifying evidence-based caregiving programs" to address the importance of aligning identified programs with a cancer center's mission and strategic plan • Refine and expand the core service of "Metric and measurement" to address program evaluation, highlighting the relationship between measuring and demonstrating outcomes of interest to various constituencies and increasing leadership, staff, and community "buy-in"
Cost and clinician burden are major factors to implementing a caregiver program	"It seems like hospitals, cancer centers, everything across the nation is really struggling financially these days and trying to find innovative ways to keep the doors open."-Participant 85 "We wear a lot of hats, many of us do, because of the size of our cancer center and the amount of need that we have. We have to just kinda pick and choose what we can and can't do or what we wanna focus our efforts on." -Participant 18 "I think most people would support it. I don't know if they'll always pay for it though." -Participant 31 "Every year we have to justify what programs we're utilizing, what we're gonna continue next year, and we have to justify the woman hours for what are we gonna spend our time on. And if we can do that, then it's a no-brainer." -Participant 49	• Include an additional core service focused on developing a business model, value proposition, and financial plan for caregiving services • Expand the core service of "Operations and workflow" to address staff burden and how to design caregiving services that prioritize feasibility within the constraints of staff time and resources • Including with funding guidance, a review of potential reimbursement mechanisms for caregiver support
Training should help with adapting and marketing caregiver programs to local context and culture	"You have to market the program. …to grow the program there has to be a certain amount of marketing within the hospital, within the health system, within the community." -Participant 14 "Thinking about the dynamics and the unique population that you serve, I think that's really important that you tailor the training for those that're going to be rolling this out to fit the needs of your patient population. What might work in a larger metropolitan hospital may not be the best…caregivers are caregivers across the board, but there are some specific needs based upon region and the culture that you work in." -Participant 85 "The programs that you would be looking at for caregivers here…where I'm located, that programming might look different than if you're in inner-city or out west or down south." -Participant 78 "How do we reach out to people? How do we let people know about this? How do we get people enrolled? How do we get people engaged in this and get people utilizing the service?" -Participant 140	• Refine the core service of "Cultural tailoring" to specifically address historically under-resourced populations and how programs need to adapt their content, format, and structure to meet their needs • Include training and guidance on how to identify and enroll family caregivers • Expand the core service of "Growth and maintenance of caregiver programs" to include marketing services both internally in the cancer center and externally to the community
The Caregiver Support Accelerator is comprehensive and would benefit from key organizational	"I think it's [the accelerator] an amazing idea. I think it really would support caregivers to provide the best care possible to their loved ones…Those type of supports are just win-win.… because if you've got healthier patients because you have healthier caregivers, you're going to have healthier healthcare workers." -Participant 76	• Expand the core service of "Developing community partnerships" to include partnerships with local and national organizations (e.g., American Cancer Society, Cancer Support Community)

Main themes	Sample quotes	Refinements to be made to the proposed accelerator concept
partnerships and policy standards	"Getting some validation from national groups, some support, some guidance would be great, getting involved with the local cancer-society groups." -Participant 85 "If it were part of accreditation, it would become part of the standard, which means it would be on everyone's plate, and it would happen. When it becomes part of accreditation, it becomes part of the requirements. Then, inevitably, it will happen." -Participant 18	• Include information on accreditation, other national standards, and relevant caregiving-related local and national policies that may align with programmatic outcomes of caregiving services