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Clinical Care Providers' Perspectives on Body Size and Weight Management Among Long-Term Cancer Survivors

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Abstract

Objective—To examine clinical care providers' perspectives on cancer survivors' body size and weight management

Study Design—In-depth, semi-structured, qualitative interviews

Methods—Interviews were conducted with 33 providers (e.g., oncologists, surgeons, primary care providers, nurses, dietitians) across academic and community clinical settings. They were transcribed, coded, and analyzed thematically using constant comparative analysis.

Results—Providers conceptualized weight in relation to acute treatment, cancer outcomes, or overall health/comorbidities. These patterns were reflected in their reported framing of weight discussions, although providers indicated that they counsel patients on weight to varying extents. Perspectives differed based on professional roles and patient populations. Providers reported that survivors are motivated to lose weight, particularly due to comorbidity concerns, but face numerous barriers to doing so.

Conclusion—Providers described survivor-level and capacity-level factors influencing survivors' weight management. Differences by provider type highlighted the role of provider knowledge, attitudes, and beliefs in clinical encounters. Opportunities for research and intervention include developing and disseminating evidence-based clinical resources for weight management among cancer survivors, addressing capacity barriers, and exploring communication strategies at interpersonal and population levels.

Keywords

Body Size; Weight Management; Cancer Survivors; Clinicians; Health Communication

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INTRODUCTION

In January 2014, Americans living with a personal history of cancer numbered around 14.5 million.[1] This figure is expected to reach 19 million within 10 years because of better detection, treatment, and long-term care, plus an aging and expanding population.[1, 2] Two-thirds of those diagnosed will survive at least five years, meaning that most patients experience cancer as a chronic disease.[2] Survivors face further malignancies, and comorbidities including diabetes and cardiovascular disease.[3] Tertiary prevention efforts focused on recurrence, comorbidities, quality of life, and overall wellbeing are essential for healthful survivorship trajectories.[4]

One key strategy is addressing diet and physical activity to maintain healthful weight. Increasing obesity among the general population, and the association between overweight and various cancers, mean that many cancer patients enter treatment overweight.[5] Earlier detection has reduced the prevalence of advanced cancers presenting through unintended weight loss, and management of treatment-related nausea has reduced cachexia during treatment.[5] Weight gain is now a common concern during treatment and later survivorship.[4,5]

Achieving healthy weight can be beneficial for numerous health outcomes and quality of life among survivors.[5] Overweight may increase survivors' recurrence risk, and some evidence suggests that losing weight decreases this risk.[5] Further, many comorbid conditions can be prevented or managed by achieving a healthful weight.[4] Yet many survivors complete treatment without long-term weight-management strategies, including guidance on diet and physical activity.[6]

Cancer diagnosis and treatment can be a life-changing event, offering potential for a "teachable moment." Risk-reducing lifestyle modifications may be especially salient to survivors, offering strategies for mitigating recurrence concerns, managing symptoms, and improving overall health and wellbeing.[2] Given the substantial clinical contact during diagnosis, treatment, and transition to longer-term survival, clinically delivered interventions are important options for promoting weight control. Patients routinely ask oncology providers about diet and physical activity,[5] and physicians are influential in encouraging behavior change.[4] However, clinicians do not typically provide such counseling, citing other pressing issues and a lack of time and strategies.[3]

Research is needed to identify effective weight management interventions within survivorship care.[7] Toward this goal, we conducted an exploratory study investigating the perspectives of oncology care providers and long-term cancer survivors on a range of health promotion topics. This paper focuses on provider views about weight management for cancer survivors, complementing our work examining patient perspectives.

METHODS

Setting and Participants

Our sample includes clinicians in diverse professional roles (nurses, physicians, social workers, etc.) who routinely care for cancer survivors in academic and community inpatient and outpatient settings in Baltimore, Maryland. We focused on caregivers treating prostate, breast, or non-Hodgkin lymphoma cancers. These cancers provide insight on both male and female survivors and vary by evidence of dietary influence on risk and recurrence, treatment regimens and side effects, and perceived relevance of lifestyle factors during survivorship.[5] Using a modified snowball sampling strategy, we began by approaching clinicians within our institution's clinical settings and used participant recommendations to build and diversify the sample, until the sample contained a range of clinicians from both an academic and community hospital, as well as those involved at both the early and later stages of survivorship, including primary care physicians (PCPs).

Data Collection and Analysis

The interview guide focused on: care for cancer survivors as part of one's work role, the importance of behavior change and healthy diet for survivors, barriers and facilitators to behavior change for survivors, and barriers and facilitators to behavior change interventions within the clinical setting. Interviews were conducted by the study PI and a research assistant over ten months (12/11–9/12). The study was deemed "not human subjects research" by the (XX) Institutional Review Board, with verbal consent obtained from participants.

Interviews were recorded, transcribed, and analyzed using ATLAS.ti 7 (ATLAS.ti Scientific Software Development GmbH, 2012), with coding informed by both existing literature and essential concepts emerging from the data. Research team members reviewed interview transcripts and created memos on noteworthy themes, which were discussed by the team. Constant comparative analysis was used to cluster related codes into conceptual categories that were further refined in an iterative process. Core themes were identified that emerged from the linked categories, and illustrative interview quotes were selected by searching relevant codes and keywords. Specific codes targeted for the theme of body size and weight management included *Obesity*, *Reason Diet Change*, *Recommend Weight*, *Weight Loss*, and *Barriers Weight*.

RESULTS

Key informants from academic (n=22) and community (n=11) settings included 7 medical oncologists, 3 radiation oncologists, 5 surgeons (surgical oncologists and urologists), 6 PCPs, 7 nurses, and 5 other providers (dietitians, social workers, and patient navigators). An initial review of all weight-related data suggested three distinct topic areas exploring how providers *think*, *talk*, and *feel* about survivors' weight management:

1. How do healthcare providers conceptualize body size and weight management in relation to cancer survivors' health?
2. How do healthcare providers discuss weight management with cancer survivors?

3. Do healthcare providers believe that cancer survivors can achieve a healthy weight?

Conceptualization of Body Size and Weight Management

Weight and Acute Treatment—Many providers discussed weight in the context of acute cancer treatment, typically as a complicating factor or a common side effect. One surgeon noted, “People have more risks of complications if they’re obese because surgery’s going to be longer, especially if they’re going with the big reconstructive procedure,” and a radiation oncologist said, “the most severe skin reactions happen in the obese patients.”

Though providers occasionally mentioned patients’ unintended weight loss, most focused on weight gain. “It’s complete opposite thing that you say cancer patients lose weight… Everybody puts on weight” (surgical oncologist). Some providers identified treatment as a direct cause of weight gain: “With hormonal therapy or androgen suppression, (these men) gain a lot of weight” (nurse practitioner). Others described how treatment causes weight gain indirectly. “They all eat more, they all are nervous …chemotherapy and radiation make them tired, they don’t want to exercise, and then stress also” (surgical oncologist).

Cancer Outcomes Risk—Some providers discussed weight in relation to cancer outcomes risk. Prostate cancer providers were somewhat ambivalent as to whether they saw weight as related to risk for disease progression or for recurrence. Breast cancer providers focused on weight and recurrence, with some disagreement regarding the strength of the evidence. One medical oncologist affirmed, “lifestyle and behavior change in the areas of diet, exercise, maintaining healthy weight, minimizing alcohol does have a strong scientific basis for reducing the risk of recurrence.” However, a surgical oncologist opined more conservatively, “I wouldn’t say that they’re extremely strong studies, but there are some studies that show that maintenance of your weight or, if they’re overweight, loss of weight…reduces the risk.”

Overall Health—It was relatively common for survivors’ weight to be discussed in relation to overall health and wellbeing, especially concerning comorbidities. Many focused explicitly on extreme obesity. A nurse navigator described, “they’re morbidly obese, they have heart disease and diabetes, they all have orthopedic issues…breast cancer’s just one thing.” One PCP prioritized two nutrition concerns, saying, “[Vitamin D] is one aspect of how I deal with nutrition. The other aspect is in terms of morbid obesity.” A survivorship coordinator remarked, “I’ll say things like, ‘You’re 300 pounds. Has anybody talked to you about a weight loss intervention?’”

Discussion of Weight Management with Survivors

Frequency, Timing, and Initiation of Discussions—Overall, many providers reported talking to survivors about weight management. “Most of us, doctors included, are spending a little bit more time talking about that. We used to not really bug people about their weights… But I pretty much do at every visit” (nurse practitioner).

Providers not having regular weight management discussions cited lack of relevance to their clinical roles or inappropriate timing. “I never really care about [obesity] when I’m giving

the cancer treatment. As long as they're not gaining a lot of weight" (medical oncologist). A nurse practitioner explained, "People will say, 'Oh gosh, I'm gaining weight,' and I'm like, 'You're nauseous, you're eating because it helps…let's just go with it for now.'"

Other providers saw weight loss discussions as appropriate during treatment. "I tell them during radiation, 'Do yourself a favor. Begin to include some kind of fitness program, because when you get to the tamoxifen, we don't know how you are going to react'" (radiation oncologist). Some providers presented weight management discussions as empowering patients during treatment: "You hear providers say, 'They've got so much on their plate, we can't introduce a new concept.' And I'll say, 'Patients want to know what they can do. Give them something to feel control over" (survivorship coordinator).

Framing of Discussions—Providers reported framing discussions in ways that align with their clinical roles and reflect the distinctions discussed above (treatment, recurrence, and overall health). A urologist said, "So somebody's clearly very much overweight…I let them know that I think they need to be at least a little bit more prepared for a surgery" (treatment focus). A nurse practitioner explained, "Now we can actually say, 'It will reduce your risk of breast cancer recurrence if you can maintain a healthy weight'" (recurrence focus). One PCP described using cancer for motivation beyond treatment (overall health focus):

> Like, 'You made it through this, you did well, let's focus on the rest of you.'…A woman …had a hellacious cancer course…meanwhile she was pre-diabetic and hypertensive. And I said, 'We fixed this. We got you through this. We can't ignore the rest.'

Providers also discussed patient perspectives in the framing of weight discussions. Several said that they felt that their patients are focused on unintentional weight loss. "If they lost weight…one of my goals is to have them acknowledge what a healthy weight is. Because there's this context…'I've got to get healthy and gain the weight back,' and I sort of say, 'Ah, no… Let's take you out of the cancer, let's put you in what's healthy for you'" (PCP). Providers also described survivors routinely asking about unwanted weight gain. "Everybody asks about it because they've all gained weight during their treatment and they all feel miserable and they're uncomfortable with how they look…they want to do something about it" (nurse practitioner).

Some providers reported that most survivors are unaware of links between weight and cancer risk. "They understand that it's not great that they've gained 35 pounds since chemo… but when I say things like…'If you [lose weight] that's probably better from the standpoint of your cancer,' I don't think that computes…that's the education piece that we need to continue to emphasize" (medical oncologist).

Diet and Physical Activity Recommendations—We asked providers to describe the recommendations that they make for diet, physical activity, and healthy lifestyle changes. In addition to discussions unrelated to weight (e.g., nutritional supplements), most providers described making weight loss recommendations.

Often, recommendations were described as very general, with lack of time and training given as the reason for not going into greater detail. "…Usually just …'You should lose weight. You should exercise…' we don't have the time or expertise to go into it any further than that" (surgical oncologist). Additionally, some believed detailed information is not needed. "We don't get into anything very specific…most people understand increased activity and decreased input or some combination of that to lose or maintain weight" (radiation oncologist).

Providers frequently described recommendations of small, achievable changes, noting "if you completely make huge lifestyle changes, that's setting yourself up for failure in a lot of patients" (survivorship coordinator). Tailored recommendations require assessment of the patient's current behaviors and stage of change. "Find out what they're doing, and if they're trying to eat right and exercise…if not, see where they are on the pre-contemplative/ contemplative cycle, and try to work with them where they're at…try to get started in a way that would be acceptable in their lives" (PCP).

There was considerable variation in providers' reported exercise recommendations, with some questioning the utility of exercise for weight loss, and others perceiving substantial benefits. While one PCP counseled, "if you want to lose more than a pound a month, you just have to increase the exercise," another told exercising patients, "this is a great adjunct, but it's just not possible to lose weight without diet control."

Some practitioners reported a hands-on approach in the office, using educational handouts, such as recipe books and portion guides, and graphs that help patients visualize information. A nurse practitioner explained, "Some of them like to see the BMI tables…and how hard it would be to get from obese to overweight."

However, many providers reported referring patients to outside resources, including media and professional services. One urologist used multiple strategies, depending on the patient:

> The overview I give them is…they need to learn what a healthy diet is…a normal portion size…about exercise…If they look like they really need help, I'll suggest that they seek out a nutritionist…and then I ask them to do some reading either on the Internet or in print media…If I sense that it's somebody who has the means to work with a trainer, I'll recommend they do that.

Beliefs About Survivors' Ability to Achieve Healthy Weight

Futility Versus Success Stories—Many providers conveyed a feeling of futility and hopelessness around patients' weight loss. "I bring it up year after year and very, very few make any real changes…Most slowly are gaining weight" (radiation oncologist). Some focused on the patient's role. "Some patients, they just like to eat at McDonald's…There's only so many times I say you should do a low-fat diet" (medical oncologist).

Other providers focused on their own roles and the overwhelming difficulty of helping patients lose weight. A PCP explained, "I feel much more powerless to fix people's obesity than I do helping them quit smoking." In contrast, providers occasionally expressed a belief that survivors can achieve healthy weight. A medical oncologist, describing her practice's

health promotion program for breast cancer survivors, explained, “Not everybody’s successful, but some have had amazing turn-around. One of our patients lost I think like 40 to 80 pounds.”

Survivor-Level Barriers and Facilitators—Providers identified a range of factors that they believe influence survivors’ success in managing their weight (summarized in Table 1). Age was mentioned as important. “Changing your diet when you’re 80 or 90 years old is difficult” (nurse practitioner). Treatment side effects identified as causing weight gain (joint symptoms, neuropathy, fatigue) were also seen as barriers to weight loss, with physiological and psychological issues interwoven. “A lot of people tend to go through a little depression after chemotherapy…they’re fat, bald, and they’ve lost a breast, and so there’s a lot of emotional issues” (nurse practitioner).

Motivation was discussed, but clinicians’ ability to motivate patients was contested. One PCP described successful patients as having “some unmeasurable readiness factor,” while a medical oncologist believed “sometimes…you treat the underlying issue, whether it’s arthritis, whether it’s depression, whatever it is to kind of motivate the person to lose weight.”

Many providers spoke about environmental and socioeconomic barriers to weight management. “A lot of my patients…don’t have the means to join Weight Watchers or a gym, and financially it’s difficult for them to buy fruits and vegetables” (nurse practitioner). Other barriers included time constraints from working multiple jobs or long hours. Sociocultural barriers to healthy weight for African American survivors included, for one nurse practitioner, “a culture that being overweight is good.”

Family and friends were viewed as both facilitators and barriers. Spouses were seen as positive influences in prostate cancer. “Wives play a huge role in helping men adopt healthy lifestyles…they’re usually the food preparers…” (urologist). For breast cancer survivors, family and friends can also be facilitators. “Those with a spouse or partner do better…they run together, they go to the gym together” (medical oncologist). However, not all family influences were positive, according to this PCP:

> I was like, ‘You cannot gain your weight back.’…She said, ‘My family is…so worried. They keep telling me I have to gain weight.’…I think families are much more harmful than …helpful. And the idea of making them exercise. [Families] are all like, ‘They’re so tired. They’ve been through so much. How can I make them do more?’

Providers recognized difficulties that women face making healthy lifestyle changes while managing family roles. As one survivorship coordinator noted, “You can’t tell a woman who has breast cancer to eat healthy if the family doesn’t eat healthy.”

Capacity-Level Barriers and Facilitators—In addition to individual-level challenges, numerous clinical capacity-level influences on weight management emerged from providers’ comments (see Table 1), including patient-provider communication:

> …patients come back and say, 'I didn't want to come back 'cause I knew you'd scold me about I hadn't lost any weight.' They say it sort of jokingly, but there's a little bit of that 'I want to please you' component of things.

This PCP added, "hearing the message from more than one place is important," a view endorsed by other providers.

Discussions of the challenges of effecting weight loss in the clinical setting raised both resource availability and payer issues. "I don't know anyone here who does [nutrition counseling]…that's up to them" (urologist). "Often we have to wait 'til our patients have diabetes before their insurance will cover nutritional counseling" (PCP).

Providers described lacking weight loss strategies to implement without referrals. A surgical oncologist said, "There's a lot of myth, but something that is scientifically proven or evidence-based, we just don't have it." One PCP remarked, "in terms of behavioral modification, I have more of a game plan when it comes to smoking cessation…because I've probably had more education in terms of things to do."

DISCUSSION

Our discussions with clinical care providers offer insight into how cancer survivors' body size and weight management are conceptualized and addressed by healthcare professionals. There were common themes but also substantial variation, particularly between providers working in different capacities and stages of survivorship. Knowledge gaps, barriers, and facilitators were presented, highlighting opportunities for research, intervention design, and improved provision of care.

Our first topic area focused on how providers conceptualize body size and weight management in relation to survivors' health—we wanted to describe how providers *think* about these issues. Almost all providers viewed weight as important to survivors' health, but specific health impacts discussed varied substantially. Providers working early in the survivorship trajectory focused on the relationship between weight and acute treatment. Overweight was seen as both a complicating factor and typical treatment side effect, although unhealthy, unintentional weight loss was occasionally mentioned. Discussing weight gain more than weight loss is consistent with the shifting prevalence of these experiences in modern cancer survivorship, especially for the specific cancer types treated by providers in this study.[5]

We identified some providers as focusing on the impact of overweight on cancer outcomes, with a particular emphasis on recurrence risk. Consistent with the robustness of evidence on weight and outcomes for various cancer types,[5,8] this was discussed most for breast cancer, but also for prostate cancer. Providers did not mention associations between overweight and second primary cancers, although overweight and obesity are risk factors for many types of cancer,[7] and survivors are at increased risk for developing new malignancies.[3]

Other providers, particularly nurses and PCPs, placed discussions of weight within a more holistic view of survivors' health, particularly in relation to obesity and comorbidities. This

emphasis aligns with the shift in survivorship care toward a long-term health orientation[6] and recognizes survivors' high rates of overweight[9] and increased risk for disorders that comprise metabolic syndrome, such as cardiovascular disease and diabetes.[4]

Our second topic area examined how providers *talk* about weight management with their survivor patients. Opinions and practices differed regarding timing of weight management discussions; some waited until completion of acute treatment and others introduced it earlier. As others have found,[10] some providers reported minimizing weight discussions due to time constraints or because they do not feel it is appropriate for their clinical role or training. However, PCPs consistently reported frequent weight-related discussions, and even cancer specialists reported a growing focus on survivors' weight management.

While oncologists and surgeons reported framing weight loss as a way of preparing for surgery, reducing the risk of unwanted cancer outcomes, or managing treatment side effects or comorbid conditions, PCPs reported discussing weight with cancer survivors similarly to how they would with other patients. PCPs may be unprepared to link weight discussions to cancer-specific concerns[11] and might not deem the cancer connection particularly critical in the face of more pressing comorbidities. It might also be that they feel that this message is better delivered by the oncology team.

In terms of patients' perspectives, providers reported feeling that survivors are generally worried about treatment-related weight changes, focused on how they look and feel, and motivated to reduce comorbidity risks. Providers did not perceive recurrence risk to drive survivors' interest in weight loss, and noted that many survivors came to treatment unaware of this connection. This aligns with the Health Information National Trends Survey that found just over 1% of respondents identified weight reduction or healthy weight maintenance as strategies for preventing cancer.[12] In another study, 83% of early-stage breast cancer survivors surveyed knew that having a healthy weight reduces risk for cancer, but the majority were not engaging in weight management.[13] Thus, while awareness of overweight and cancer risk might increase during survivorship, this does not necessarily produce behavior change.

In regard to the weight management strategies providers used, most reported making general, vague recommendations for diet and exercise. Even among patients with chronic disease, others report that PCPs more often provide general counseling than specific guidance on weight control.[14] Offering general recommendations for lifestyle change is supported by evidence showing that effective long-term weight loss occurs not when clinicians recommend that patients go on a specific diet, but instead focus on reducing energy intake overall.[15] However, it should be emphasized that the use of generalities reported by providers in this study oftentimes was presented as resulting from a lack of time and expertise, or a sense that patients do not need more detail—markedly different reasons from an understanding that specific diets have limited utility.

It seems that some providers aim to strike a balance between general and specific recommendations. There was some indication that when providers do make specific recommendations, these are tailored to the patient's behaviors, stage of change, and other

characteristics (e.g., culture). Providers frequently reported encouraging small and gradual changes, which they viewed as more achievable. There was also discussion of the use of educational tools for weight loss and referring patients to other materials, interventions, and nutrition professionals.

Many of the reported strategies align with characteristics of successful weight loss interventions among survivors.[7] For instance, effective interventions have supported the importance of a basis in behavioral theory, including setting goals, addressing barriers, and establishing social support.[7] There was no clear consensus among providers, however, as to the utility of exercise for weight management, reflecting ambiguity in the research literature[16,7] and a growing recognition that exercise may offer survivors other health benefits regardless of weight loss.[7]

In our final topic area, we investigated whether providers believe that survivors can achieve a healthy weight—how they *feel* about the issue. Some providers conveyed a sense of futility around encouraging weight loss, consistent with other studies of physician attitudes toward weight management in general patient populations.[17,18] Providers in our study expressed a personal feeling of powerlessness and a lack of confidence in patients' capacity to perform recommended weight-loss behaviors. Our respondents' sense of futility may also have been related to their focus on extreme obesity, suggesting that among some providers, opportunities for prevention among overweight (but not yet obese) survivors are being overlooked.

Other providers shared stories of success. Many agreed that cancer survivorship offers teachable moments when patients are particularly motivated to lose weight. Demark-Wahnefried et al.[10] note that the optimism of oncologists and researchers on this point has been tempered by recent findings that over time, survivors are similar to the general population in terms of lifestyle and overweight. Nonetheless, a variety of weight management studies among cancer survivors have succeeded, suggesting that there is both motivation and capacity to make lifestyle changes and lose weight.[7,10]

Providers also suggested numerous barriers and facilitators to survivors' weight loss (see Table 1). On the individual level, providers identified age, physiological and psychological issues, environment, socioeconomic status, sociocultural factors, and family and friends as influential in survivors' ability to manage their weight, similar to what is seen in general patient populations.[e.g., 19–22] From the survivorship literature specifically, it is interesting to note that although African American and Hispanic survivors report more interest in lifestyle behavior change interventions than white survivors,[23] these groups are underrepresented in intervention research.[7] It is also striking that while the influence of families on individuals' weight emerged as a strong theme, and has been discussed in regard to other health areas,[22] little about this topic is found in the survivorship literature.

Providers identified issues with training, referrals, and insurance coverage as negatively impacting clinical capacity for intervention strategies. Similar challenges are well established in general patient populations[24,25] and have also been discussed in the survivorship literature.[26] In terms of training, part of the challenge may be that established

guidelines may not seem actionable to clinicians with limited familiarity with behavioral modification. For instance, both the American Cancer Society (ACS)[5] and The World Cancer Research Fund/American Institute for Cancer Research[27] recommend that survivors control weight by increasing physical activity and limiting intake of energy-dense foods and drinks. Without specific suggestions for implementing these guidelines in the clinical setting, some providers may feel inadequately prepared to do so. Moreover, the translation of efficacious interventions into realistic and cost-effective formats for diverse provider types, care settings, and survivor populations has been identified as an evidence gap in the field.[3,7,10] ACS[5] also encourages referral to exercise trainers and dietitians for more in-depth counseling but does not acknowledge the possible barriers to referral, offering providers little guidance in navigating these challenges.

Message reinforcement was also identified as a capacity-level factor influencing survivors' weight management. While weight message reinforcement has not been addressed thoroughly within the survivorship literature, this seems to fit into broader concerns about the structure of survivorship care and communication between various providers. A fundamental challenge of survivorship care is coordinating providers' roles and responsibilities, including communication of prevention messages.[28] Weight management recommendations are also a recommended element of survivorship care plans,[6] suggesting the importance of continuity of messages.

In 2014, after this research was conducted, the American Society of Clinical Oncology (ASCO) released a toolkit[29] to help oncology care providers address obesity in the context of cancer survivorship. In the same year, ASCO also published its "Position Statement on Obesity and Cancer."[26] These materials cover a commendable breadth of information including the relationship between obesity and cancer, basic strategies for addressing weight management in clinical oncology settings, the importance of the cancer care team in reinforcing weight messages, and policy and advocacy priorities to reduce barriers to survivors' weight management. It seems likely that as these works are disseminated, oncology care providers may begin to feel more willing and able to incorporate basic weight management into their practice. However, the ASCO materials also highlight continuing challenges identified by providers in this study. For instance, after suggesting that oncology specialists refer patients to other professionals for long-term weight management, they point out the difficulties obtaining insurance reimbursement for these services. Medicare, for example, began covering weight counseling in 2012, but only for obese patients (with a body mass index of 30 or greater), only in primary care settings, and only when offered by a primary care provider.[26,30] Medical nutrition therapy provided by nutritionists and dietitians is covered only for diabetes or kidney disease patients, and exercise classes or sessions with a trainer are not covered at all.[29] Thus, while oncology practice shifts toward greater awareness of survivors' weight management needs, the responsibility for providing the bulk of this care is left to other health professionals constrained by limited training, time, and reimbursement policies.

CONCLUSION

The long-term health of cancer survivors is shaped not just by the knowledge, attitudes, and behaviors of survivors themselves, but also by those of their clinicians. As such, any effort to strategize weight management in survivorship care is well served by incorporating—and at times, reshaping—the viewpoints that providers bring to each clinical encounter. In this analysis, these perspectives were as varied as they were valuable.

Our research drew on key informants from contrasting clinical systems, offering perspectives on diverse patient populations, cancer types, practice settings, and professional roles. This allowed exploration of the many clinical influences on patients throughout survivorship. However, as all were drawn from a single metropolitan area and may not represent the experiences of providers elsewhere, more research would be useful with providers in non-urban settings, or in locations with different patient populations.

The in-depth and semi-structured nature of the interviews captured comprehensive information and allowed flexibility to discuss issues most relevant to each informant, while still maintaining enough consistency to draw comparisons. However, because the study was designed to gather data on diet and physical activity promotion, more questions explicitly focused on weight could expand these findings. Notably, though this analysis began with the intention of capturing all weight management issues relevant to the providers we interviewed, overweight and obesity emerged as the dominant themes. It is possible that because of the framing of this study (diet and physical activity promotion), providers were primed to focus more on issues of overweight and obesity than is reflective of their actual experience.

Most importantly, as this analysis incorporates the expertise of only one side of the patient-provider relationship, these results should be compared to information gathered from survivors themselves. Providers were asked to speculate about their patients' opinions, circumstances, and experiences, but this cannot be assumed to accurately or adequately represent actual patient perspectives. Nonetheless, this analysis of providers' perspectives, including their understanding of their patients' viewpoints, offers unique and valuable information in its own right.

In examining how providers conceptualize and address survivors' weight management, a number of suggestions for future directions emerge. First, work should be continued to translate evidence-based recommendations and successful interventions into formats that are affordable, adaptable, and able to be disseminated in a variety of settings, and providers should be made aware of these strategies for specific and effective guidance. Increased attention should be paid to the role of sociocultural and family factors, as well as the influence of patient gender and cancer site. Second, efforts to raise awareness of the relevance of weight to cancer prevention and survivorship should be continued among the general public, patients, and providers. Because our findings suggest that providers may be more focused on risks for obese patients, it is especially important to communicate the benefits of achieving and maintaining a healthy weight for all patients, not just those who are already obese.

Third, research should examine the effectiveness of various message frames. The opportunity to mitigate recurrence risk may motivate some survivors to adopt healthy behaviors, but communication of this risk should be done carefully to avoid undue worry.[31] Alternatively, it may be that some survivors are better motivated by messages framed around comorbidities and overall wellbeing.

Fourth, future efforts should seek agreement on weight messaging throughout the survivorship trajectory. A basic level of message reinforcement could be offered by all providers, with key providers, such as PCPs, giving survivors more detailed guidance. This approach would draw upon the unique positions (e.g., influence, timing, and training) of various provider types, and it may be the most realistic option within the capacity constraints of the current healthcare environment. Fifth, policy changes should be pursued to improve insurance coverage of weight management in clinical settings. Coverage of referrals to nutritionists and dietitians, as indicated by providers in this study, may be a particularly helpful complement to the counseling offered by other providers. Seeking coverage of weight management services for patients who are overweight (but not yet obese or diabetic) is also an important step toward prevention goals for cancer survivors.

Overall, this analysis makes clear that providers throughout the oncology care spectrum, given proper resources, training, and support, can play unique roles in counseling survivors about weight. Understanding these perspectives of cancer care providers is critical to improve weight management for cancer survivors as they grow in numbers, age, and thrive.

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References

1. DeSantis CE, Lin CC, Mariotto AB, et al. Cancer Treatment and Survivorship Statistics, 2014. CA Cancer J Clin. 2014; 64:252–271. [PubMed: 24890451]
2. Rowland JH. What are cancer survivors telling us? Cancer J. 2008; 14(6):361–368. [PubMed: 19060600]
3. Stull VB, Snyder DC, Demark-Wahnefried W. Lifestyle interventions in cancer survivors: Designing programs that meet the needs of this vulnerable and growing population. J Nutr. 2007; 137(1):243S–248S. [PubMed: 17182834]
4. Demark-Wahnefried W, Aziz NM, Rowland JH, Pinto BM. Riding the crest of the teachable moment: Promoting long-term health after the diagnosis of cancer. J Clin Oncol. 2005; 23(24): 5814–5830. [PubMed: 16043830]
5. Rock CL, Doyle C, Demark-Wahnefried W, et al. Nutrition and physical activity guidelines for cancer survivors. CA Cancer J Clin. 2012; 62(4):242–274.
6. Hewitt, M.; Greenfield, S.; Stovall, E., editors. From cancer patient to cancer survivor: Lost in transition. Washington, DC: The National Academies Press; 2006.
7. Demark-Wahnefried W, Platz EA, Ligibel JA, et al. The role of obesity in cancer survival and recurrence. Cancer Epidemiol Biomark Prev. 2012; 21(8):1244–1259.

8. Cao Y, Ma J. Body mass index, prostate cancer-specific mortality, and biochemical recurrence: A systematic review and meta-analysis. Cancer Prev Res. 2011; 4:486–501.
9. Coups EJ, Ostroff JS. A population-based estimate of the prevalence of behavioral risk factors among adult cancer survivors and noncancer controls. Prev Med. 2005; 40(6):702–711. [PubMed: 15850868]
10. Demark-Wahnefried W, Pinto BM, Gritz ER. Promoting health and physical function among cancer survivors: Potential for prevention and questions that remain. J Clin Oncol. 2006; 24(32): 5125–5131. [PubMed: 17093274]
11. Bober SL, Recklitis CJ, Campbell EG, et al. Caring for cancer survivors: A survey of primary care physicians. Cancer. 2009; 115(18 Suppl):4409–4418. [PubMed: 19731354]
12. Hawkins N, Berkowitz Z, Peipins L. What does the public know about preventing cancer? Results from the Health Information National Trends Survey (HINTS). Health Educ Behav. 2010; 37(4): 490–503. [PubMed: 17478600]
13. O'Neill SC, DeFrank JT, Vegella P, et al. Engaging in health behaviors to lower risk for breast cancer recurrence. PLoS ONE. 2013; 8(1):e53607. [PubMed: 23326466]
14. Wilder Smith A, Borowski LA, Liu B, et al. U.S. primary care physicians' diet-, physical activity-, and weight-related care of adult patients. Am J Prev Med. 2011; 41(1):33–42. [PubMed: 21665061]
15. Casazza K, Fontaine KR, Astrup A, et al. Myths, presumptions, and facts about obesity. N Engl J Med. 2013; 368(5):446–454. [PubMed: 23363498]
16. Caudwell P, Hopkins M, King NA, Stubbs RJ, Blundell JE. Exercise alone is not enough: Weight loss also needs a healthy (Mediterranean) diet? Public Health Nutr. 2009; 12(9A):1663–1666. [PubMed: 19689837]
17. Foster GD, Wadden TA, Makris AP, et al. Primary care physicians' attitudes about obesity and its treatment. Obes Res. 2003; 11(10):1168–1177. [PubMed: 14569041]
18. Ruelaz AR, Diefenbach P, Simon B, Lanto A, Arterburn D, Shekelle PG. Perceived barriers to weight management in primary care—perspectives of patients and providers. J Gen Intern Med. 2007; 22:518–522. [PubMed: 17372803]
19. Bennett GG, Wolin KY. Satisfied or unaware? Racial differences in perceived weight status. Int J Behav Nutr Phys Act. 2006; 3:40–44. [PubMed: 17096859]
20. Befort CA, Stewart EE, Smith BK, Gibson CA, Sullivan DK, Donnelly JE. Weight maintenance, behaviors and barriers among previous participants of a university-based weight control program. Int J Obes. 2008; 32:519–526.
21. Elfhag K, Rössner S. Who succeeds in maintaining weight loss? A conceptual review of factors associated with weight maintenance and weight regain. Obes Rev. 2005; 6:67–85. [PubMed: 15655039]
22. Chang MW, Nitzke S, Guilford E, Adair CH, Hazard DL. Motivators and barriers to healthful eating and physical activity among low-income overweight and obese mothers. J Am Diet Assoc. 2008; 108:1023–1028. [PubMed: 18502238]
23. Basen-Engquist K, Carmack C, Blalock J, Baum G, Rahming W, Demark-Wahnefried W. Predictors of cancer survivors' receptivity to lifestyle behavior change. Cancer Epidemiol Biomark Prev. 2012; 21:559–560.
24. Dolor RJ, Østbye T, Lyna P, et al. What are physicians' and patients' beliefs about diet, weight, exercise, and smoking cessation counseling? Prev Med. 2010; 51(5):440–442. [PubMed: 20692283]
25. Forman-Hoffman V, Little A, Wahls T. Barriers to obesity management: A pilot study of primary care clinicians. BMC Fam Pract. 2006; 7:35–45. [PubMed: 16756673]
26. Ligibel JA, Alfano CM, Courneya KS, et al. American Society of Clinical Oncology position statement on obesity and cancer. J Clin Oncol. 2014; 32(31):3568–3574. [PubMed: 25273035]
27. World Cancer Research Fund/American Institute for Cancer Research. Food, Nutrition, Physical Activity, and the Prevention of Cancer: A Global Perspective. Washington, DC: AICR; 2007.
28. Grunfeld E, Earle CC. The interface between primary and oncology specialty care: Treatment through survivorship. J Natl Cancer Inst Monogr. 2010; 40:25–30. [PubMed: 20386051]

29. American Society of Clinical Oncology. [Accessed December 17, 2014] Obesity and cancer: A guide for oncology providers. http://www.asco.org/sites/www.asco.org/files/obesity_provider_guide_final.pdf. Published 2014

30. Hager MH. The Centers for Medicare & Medicare Services expands obesity coverage to include "intensive behavioral therapy". Nutr Today. 2012; 47(2):72–74.

31. Hawkins NA, Smith T, Zhao L, Rodriguez J, Berkowitz Z, Stein KD. Health-related behavior change after cancer: Results of the American Cancer Society's studies of cancer survivors (SCS). J Cancer Surviv. 2010; 4:20–32. [PubMed: 19902360]

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Table 1

Survivor-level and Capacity-level Barriers and Facilitators to Survivors' Weight Management Identified by Providers.

		Barriers	Facilitators
Survivor-Level	*Age Factors*	Older age (habits, metabolism changes, post-menopause)	Younger age (healthier lifestyles pre-diagnosis)
	Physiological Factors	Side effects of treatment (fatigue, neuropathy, joint pain)	
		Arthritis	
	Psychological Factors	Depression	Self-motivation
		Emotional eating	Readiness
		Coping with physical changes	
		Frustration	
		Lack of motivation	
	Environmental/Socioeconomic Factors	Unsafe neighborhoods	Adequate resources for exercise facilities, weight loss services, and healthy foods
		Lack of access to exercise facilities	
		Cost of exercise facilities, weight loss services, and healthy foods	
		Time constraints of multiple jobs or long hours	
		Lack of nutrition education	
	Sociocultural Factors	Culturally-bound beliefs about weight	
		Underutilization of interventions by some demographics	
	Family/Friend Factors	Family concerns about weight loss, rest	Supportive spouses
		Family responsibilities	Community support
		Family resistance/lack of buy-in	
		Poor food environment at home	
Capacity-Level	*Message Reinforcement*	Discontinuity of weight messages	Positive patient-provider relationships
			Hearing messages from multiple providers
	Referral, Insurance, and Intervention Issues	Lack of referral options	Ability to refer to nutritionists/dietitians
		Referral options not tailored to weight loss	
		Inadequate insurance coverage of referral services	
		Lack of efficacious weight loss strategies for clinical use	