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NUTRITION PROGRAM SURVEY FOR OUTPATIENT ONCOLOGY POPULATION

By

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Research Brief

Objective: To evaluate patient opinions on nutrition's role in cancer treatment and attitudes towards healthy eating before and after working with a Registered Dietitian Nutritionist (RDN).
Methods: A qualitative study was conducted using a convenience sample of patients in an urban safety net hospital cancer center. Patients completed electronic surveys before and after their 3-month nutrition counseling program, which included 3 thirty minutes sessions with an RDN. Data collection occurred from August 2019 to March 2020.
Results: Pre- and post-intervention surveys were completed by 25 patients. The only statistically significant change was in patients' report trying to make healthier food choices after the intervention (P=0.002). However, other changes in attitudes and beliefs were likely clinically significant.
Conclusions and implications: Improving nutrition services for this population may improve the quality of patient-centered care and health outcomes in these patients.

Nutrition Program Survey for Outpatient Oncology Population

Introduction

Cancer is a leading cause of death globally and the second leading cause of death in the United States (US) after heart disease.[1,2] In 2021, scientists estimate that there will be 1.9 million new cancer diagnoses and more than 600,000 deaths in the US.[1] To treat cancer, patients often undergo multimodal treatments, such as some combination of chemotherapy, radiation, and surgery.[2,3] Approximately 90% of cancer treatments can be performed in the outpatient setting.[4,5] These treatments are often rigorous for patients, resulting in side effects that prevent adequate nutrition intake.[3,6] Chemotherapies may cause drug-nutrient interactions.[7] Both chemotherapy and radiotherapy reduce hunger.[8] Additionally, patients can develop radiation-associated mucositis and dysphagia, which make eating difficult.[8–10] Surgery to remove cancer, such as resection to the head, neck, or gastrointestinal region, may create limitations to eating.[8] These patients may require oral or enteral nutrition support, even after being discharged from the hospital.[3] Experiencing these ailments impacts nutritional status and quality of life.[7,8]

In addition to the treatment challenges caused by cancer treatments, cancer itself can cause barriers to adequate nutrition depending on how it presents in the body.[3,7,8] Examples of these issues include malabsorption, dysphagia, nausea, depression, dysgeusia, anorexia, early satiety, and metabolic alterations.[3,5–8,11–14] Metabolic alterations can be related to neurohormonal dysregulation and increased energy expenditure, such as utilizing muscle tissue for energy due to increased inflammation.[3,7,13] Additionally, patients may have psychological challenges such as depression and anxiety, which may be associated with reduced appetite.[8]

Malnutrition often develops in patients that are not meeting their nutritional needs. Malnutrition is diagnosed based on unintentional weight loss, fat or muscle mass loss, fluid accumulation, and declining functional ability.[6,10,15,16] As many as 80% of cancer patients are malnourished at some point during cancer treatment.[17] It is important to note that Body Mass Index (BMI) is not a parameter used to diagnose malnutrition as it does not discern the nuance of body composition, such as the amount of lean body mass.[7,18,19] Patients who are classified as having an obese BMI can experience malnutrition, although it may be difficult to recognize

visually because muscle loss may be masked by fat mass.[20,6] Body composition is important to assess as weight loss and muscle loss are negative factors for prognosis.[7] Malnutrition in cancer patients can cause treatment interruptions, higher rates of hospitalizations and length of stay, delays in treatment, increased postoperative complications, poorer disease outcomes, and increased risk of death.[7,9,10,12,14,21,22]

Cancer cachexia, which is associated with metabolic alterations, is another concern for patients with cancer.[8,9,13,23] Cachexia is associated with inflammation, anorexia, and unintentional weight loss.[8,13,23] The type of weight loss related to cancer cachexia tends to be adipose tissue as well as muscle mass.[23] Cancer cachexia can reduce quality of life, functional status, energy levels, response to chemotherapy, and survival.[8,13,23]

To have a comprehensive approach to their cancer care, people with cancer regularly utilize an interdisciplinary healthcare team during their treatment.[14] This team includes but is not limited to physicians, advanced practice providers, nurses of various specialties, speech-language pathologists, physical therapists, and Registered Dietitian Nutritionists (RDN). An RDN is the ideal healthcare team member to manage a patient's nutrition-related challenges.[6,16,22] Patients were more focused on nutrition and accepting of support once the healthcare team informed them of their upcoming nutritional challenges from treatment.[14]

Screening for nutrition concerns

Nutrition services should be offered to cancer patients with the initiation of medical care.[6,12,22] Cancer patients should be screened for malnutrition risk before, during, and after cancer treatment.[3,5,7,20,21,24] The inpatient setting has nutritional screening requirements from the Joint Commission on Accreditation of Healthcare Organizations.[25] Unfortunately, screening is not as consistently used in the outpatient setting because of the lack of strict guidelines.[5,11,17,24] For example, in a survey with 215 responding cancer centers in the US, only 53% of the centers consistently screened for malnutrition.[5] The survey found that many cancer patients were directed to outpatient nutrition services through referrals from clinic or infusion staff, routine screening by RDNs reviewing screening and assessment forms in charts, or through policy-based referrals.[5]

The Malnutrition Screening Tool (MST) is one of the validated screening tools for identifying people with cancer at risk for malnutrition.[3,6,19,21,22,24] The MST prompts the screener to ask questions about appetite and recent unintentional weight loss.[19] If a patient has an abnormal screening result or is deemed "at-risk" for malnutrition, the nutritional status of the patient should ideally be assessed by an RDN.[3,6,20,21]

Medical Nutrition Therapy

Many organizations support nutrition education in cancer patients. The European Society for Clinical Nutrition and Metabolism (ESPEN) guidelines recommend that healthcare providers emphasize maintaining or increasing weight and muscle mass in cancer patients for better outcomes.[3] The Commission on Cancer from the American College of Surgeons recommends that an RDN provides oncology nutrition services throughout cancer care.[26] The American Society of Clinical Oncology (ASCO) recommends with informal consensus and moderate strength that patients with advanced cancer with anorexia or weight loss be referred to an RDN

for nutrition counseling.[13] Patients with cancer cachexia and their caregivers could benefit from learning about the patient's energy and protein needs.[13] The RDN can assess various nutrition-related concerns such as unintentional weight changes, food intake, body composition changes, inflammation, and malnutrition.[3,17,22]

Based on the patient's nutrition status, the RDN develops a plan of care using medical nutrition therapy (MNT),[11,20–22] which addresses nutrition-related difficulties and optimizes clinical outcomes using evidence-based practices.[5,17] MNT helps maintain quality of life and reduces treatment interruptions, weight loss, unplanned hospitalization frequency, and hospital length of stay.[5,17,21,22,27] Examples of nutrition services offered to oncology patients include counseling, classes, pamphlets, or print-media.[4,5,9,13]

Nutrition counseling is commonly considered the first step in nutrition therapy.[3,4,28] MNT can be provided throughout the cancer treatment process, including the recovery phase. After active treatment, nutrition interventions are adjusted from symptom management to focusing on healthful dietary patterns and weight management.[6] The goal of nutrition counseling is to help patients overcome their nutrition concerns and make dietary changes to meet their nutrition-related goals.[3,6,9,11,13,29] Food may be one of the only aspects of the patient's cancer treatment that the patient can control.[9] As Maschke et al. mentions, food is a personal matter associated with one's culture and socioeconomic factors.[9] The RDN can provide calorie, protein, and fluid recommendations and coach patients on meeting these goals.[6]

Besides those basic nutrition goals, RDNs can provide evidence-based advice on diets, complementary/alternative medicine (CAM) therapies, and healthy eating patterns so patients can safely make their own decisions.[3,9,13,17] Sullivan et al. surveyed over 1,000 cancer survivors about their attitudes toward nutrition and reported that 32% of respondents described eliminating foods or food groups from their diets.[30] ESPEN and ASCO guidelines emphasize that nutritionally restrictive diets are not recommended for patients at risk for malnutrition.[3,13]Also, about 37% of respondents in Sullivan et al.'s survey had tried CAM interventions that are often not evidence-based, such as herbal remedies, juicing, or detoxes.[30] In Maschke et al.'s survey, 25% of participants used dietary supplements.[9] Research commonly reports patients feeling confused or having nutrition-related questions, which can be due to receiving conflicting nutrition advice.[9,28,30]

Despite the positive impact of MNT on patient outcomes and the frequent agreement that nutrition counseling is essential for this population, a survey of 215 cancer centers found that the mean RDN to patient ratio was 1:2,308.[5] Trujillo et al. concluded that there is probably not enough access to RDNs to meet the needs of oncology patients who need MNT.[5] Additional research may justify the expansion of RDN presence in cancer centers.[5,9]

Outcomes from MNT with RDNs and oncology patients

Collecting qualitative information, such as patient attitudes and behavior regarding nutrition, is one approach to study and enhance how RDNs impact this population. However, there is limited qualitative research available on this subject.[14,30] Research on MNT such as nutrition counseling is limited due to the inconsistency of definitions regarding interventions and

high heterogeneity among studies.[13] Research on patient attitude, perceptions, and behavior changes would help RDNs develop better interventions.[14,29,31]

Patients do value nutrition as part of their treatment.[9,28] In Maschke et al.'s survey of 1,335 participants, more than half responded that they had nutrition-related questions or concerns.[9] Sullivan et al. surveyed cancer survivors in Ireland and found that 89% of participants rated nutrition as "very/extremely" important to cancer care.[30] Only 39% of the survey respondents reported having worked with an RDN, but 74% that did found the RDN's advice to be "very/extremely" helpful.[30] In this survey, 57% of the respondents who did not work with an RDN reported wanting more information on the nutrition challenges that they experienced.[30] Researchers in Sweden who completed a qualitative descriptive interview study with men during treatment for prostate cancer stated that their participants believed that dietary advice could improve their well-being.[31]

Patients may have positive attitudes about modifying their diet while being treated for cancer and may be amenable to dietary advice.[31] However, qualitative studies have found that participants were overwhelmed with information delivered before and immediately following treatment initiation.[14,31] Forslund et al. described patients wanting nutrition counseling in the weeks following their treatment initiation instead of the first days of treatment.[31]

Listening to patients' experiences and goals for their treatment process is important. Thus, patient and family engaged care (PFEC), where patients and their families are actively involved in creating and adjusting the health care plan, is becoming a goal in healthcare.[32] PFEC emphasizes the importance of interdisciplinary collaboration in healthcare to improve patient and family experience.[32] Providing PFEC-related research for healthcare professionals is one way to assist this transition to a PFEC approach to practice.[32] Marshall et al. utilized a PFEC-related approach for improving nutrition intake in cancer patients, and reported that participants valued verbal, individualized guidance from the RDN, along with personalized dietary patterns and cultural preferences.[28] This PFEC approach improved outcomes, both nutritionally and from the patient perspective, particularly in the outpatient setting.[28] Marshall et al. reported that participants expanded the variety of foods they ate after the intervention, increased nutrition knowledge, and avoided falling for nutrition and cancer myths.[28] Some participants described feeling comfortable around foods that they had assumed to be "off-limits."[28] Participants also reported valuing passive (e.g., written materials) learning methods for nutrition education.[28]

Learning the risks associated with weight loss helped patients value nutritional care and aim to prevent weight loss.[14,29] Head and neck cancer **(**HNC) patients, whose cancer treatment plans often result in nutritional challenges, described feeling reassured by having an interdisciplinary healthcare team that included a dietitian for nutrition concerns, such as unintentional weight loss.[14] In a separate qualitative study on HNC patients, several patients stated that working with an RDN earlier in the treatment process would have helped them recognize the importance of weight maintenance or weight gain.[29] Cancer survivors expressed more concern about the weight loss if they had visited with an RDN than if they did not work with an RDN.[30]

Study Aim

To further illuminate qualitative outcomes of MNT, this study aimed to evaluate how patient opinions on nutrition's role in cancer treatment and attitudes towards healthy eating evolved after working with an RDN. The goal was to assess whether patients believed they benefitted from nutrition counseling after completing the intervention. This focus emphasizes the importance of patient and family engaged care in healthcare.

Methodology

The RDN designed this qualitative study at the Georgia Cancer Center for Excellence at Grady (GCCE), associated with Grady Health System in Atlanta, Georgia. The RDN also is a Board-Certified Specialist in Oncology Nutrition (CSO), an advanced credential earned by RDNs. The RDN wanted feedback from patients before and after attending 3 nutrition counseling sessions of 15-30 minutes over a 3-month period.

Study Population

The population was a convenience sample at the GCCE clinic. Patients needed to have cancer tumor sites in either lung, gynecological, or breast tissues for inclusion. Most new patients to the cancer center were referred to the RDN by a health care provider or nurse navigator. Demographic criteria such as gender and age were not used as inclusion or exclusion criteria. Patients were asked “yes” or “no” if they wanted to participate; approximately 10-15 patients declined to participate in the survey. Data were collected from 25 patients (see Table 1) from August 2019 to March 2020. As the data was initially collected for a quality improvement project, no goal sample size was established for the patient group. Furthermore, the COVID-19 pandemic abbreviated the data collection period.

Data Collection

The RDN created a 3-question survey as there was no validated tool available that met the research interests. The RDN administered surveys from August 2019 to March 2020. If the patients verbally agreed to participate, they completed the survey using an iPad provided by the clinic. The RDN used REDCap, a secure website, collect data from surveys.[33] Each patient was assigned a random number, which included numbers and letters from an online randomizer tool.

After the initial survey, the RDN provided an individual nutrition counseling plan based on the patient's cancer type and stage with monthly nutrition sessions over 3 months. The individualized nutrition plan consisted of reviewing patient concerns, calorie and protein needs, American Institute for Cancer Research anti-cancer recommendations, and providing medical nutrition therapy based on any co-morbid conditions. After the 3-month intervention, patients completed the same survey.

When the COVID-19 pandemic began, the RDN attempted to transition the survey to text messaging, but that was unsuccessful in generating engagement with patients. Any data collected using the text message survey was not utilized in this study.

Institutional Review Board

The study was approved as an exempt study through the Georgia State University Institutional Review Board (IRB Number: H21456), reference number 364308. This study was not funded.

Risks/Benefits to Subjects

There was a slight risk of breach of confidentiality in this study as patient data was collected and stored electronically. However, all patient information was de-identified, and each person was given a randomized number for identification. Additionally, the short format of the survey and the lack of sensitive information or collection of biological specimens required no written consent from patients. This study presented no more than minimal risk of harm to the subjects. There were no consequences to the patients' care plan if they opted not to participate in the survey.

Statistics

Frequency analysis was used to describe the demographic characteristics of the population and survey responses. The Chi-square tests of independence were used to compare answers to the survey questions. The Fisher's exact test was used to determine statistical significance as the individual values of the square were less than 5. Data analysis was completed using SPSS software (version 27, SPSS Inc., Chicago, IL). Statistical significance was set at $P \leq 0.05$.

Results

Table 1 describes the demographics of the patients. The majority (n=21, 84.0%) of the patients were female, and 24 (96%) identified as Black/African American. The most common cancer type was breast cancer (n= 12, 48%) and almost half (n= 12, 48%) had stage IV A-B cancer. Six (24%) patients did not have health insurance, and 14 (56%) had Medicare or Medicaid.

Table 1: Demographic characteristics of outpatient cancer patients (N= 25)

Demographic Characteristics	Value
Gender	n (%)
Female	21(84.0)
Male	4(16.0)
Race/Hispanic Origin	
Black/African American	24(96.0)
Asian	1(4.0)
Type of Cancer	
Breast	12(48.0)
Lung	6(24.0)
Endometrial	4(16.0)
SCC Cervical	3(12.0)
Cancer Stage	
IA-B	5(20.0)

IIA-B	4(16.0)
IIIA-B	4(16.0)
IVA-B	12(48.0)
Type of Health Insurance	
Medicare	8(32.0)
Medicaid	6(24.0)
no insurance	6(24.0)
other insurance	5(20.0)

The frequency of responses to the three survey questions is reported for both the pre-and post-intervention surveys in Table 2. The first question asked patients about their opinion on whether eating the right foods before, during and after cancer treatment could help them feel better and stay stronger. The second question was about patient behavior regarding making healthier food choices. The third question for patients assessed whether they would recommend that future patients meet with an RDN as part of their care team.

Table 2: Frequency of patient responses to survey questions (N=25)

	Pre-intervention n (%)	Post-intervention n (%)
Question 1: Do you think eating the right foods before, during, and after cancer treatment can help you feel better and stay stronger?		
Yes	10 (40.0)	23(92.0)
I don't know	15 (60.0)	1(4.0)
No	0	1(4.0)
Question 2: Whether you prepare your own meals or eat out, how often do you try to make healthier food choices?		
Always	3(12.0)	6(24.0)
Often	12(48.0)	12(48.0)
Sometimes	7(28.0)	6(24.0)
Seldom	2(8.0)	1(4.0)
I prefer not to answer	1(4.0)	0
Question 3: Would you recommend future patients meet with a Registered Dietitian/Nutritionist as part of their care team?		
Yes, I think so	16(64.0)	6(24.0)
Yes, definitely	2(8.0)	19(76.0)
I am not sure	6(24.0)	0
Prefer not to answer	1(4.0)	0

The results between the pre-and post-intervention responses to question 1 on the survey (Table 3) were not statistically significant (P=1.00).

Table 3: Do you think eating the right foods before, during, and after cancer treatment can help you feel better and stay stronger? (N=25)

		Post-intervention: Do you think eating the right foods before, during, and after cancer treatment can help you feel better and stay stronger?			
Pre-intervention: Do you think eating the right foods before, during, and after cancer treatment can help you feel better and stay stronger?		**Yes**	**No**	**I don't know**	
	Yes	10	0	1	
	I don't know	13	1	1	*P*=1.00*
	Total	23	1	1	

A chi-square test of independence was performed.
**P*-value from Fisher's exact test.

The Fisher's exact test indicated a statistically significant association (*P*=0.002) between the pre-and post-intervention survey responses regarding patient behavior with making healthier food choices (Table 4). The reported frequency of trying to make healthier food choices was significantly different after completing the intervention with the RDN.

Table 4: Whether you prepare your own meals or eat out, how often do you try to make healthier food choices? (n=25)

		Post-intervention: Whether you prepare your own meals or eat out, how often do you try to make healthier food choices?			
Pre-intervention: Whether you prepare your own meals or eat out, how often do you try to make healthier food choices?		Always	Often	Sometimes	
	Always	3	0	0	
	Often	3	6	3	*P*=0.002*
	Sometimes	0	6	1	
	Seldom	0	0	2	

A chi-square test of independence was performed.
**P*-value from Fisher's exact test.

Though the number of patients stating *yes definitely* increased from 2 pre-intervention to 19 post-intervention, there was no statistically significant association between the pre-and post-intervention survey responses to question 3 on the survey.

Table 5: Would you recommend future patients meet with a Registered Dietitian/Nutritionist as part of their care team? (N=24)

		Post-intervention: Would you recommend future patients meet with a Registered Dietitian/Nutritionist as part of their care team?		
Pre-intervention: Would you recommend future patients meet with a Registered Dietitian/Nutritionist as part of their care team?		Yes, I think so	Yes, definitely	
	Yes, I think so	3	13	*P*=0.315*
	Yes, definitely	0	2	
	I am not sure	3	3	

A chi-square test of independence was performed.
**P*-value from Fisher's exact test

Discussion

Grady Health System, associated with the cancer clinic in this study, reports caring for almost 700,000 patients annually, providing more than $300 million in charity and indigent care, [34] and is considered an urban safety-net hospital. The GCCE, which opened in 2003, works to reduce disparities in cancer care for underserved people groups.[34,35] Between 2016-2018, common cancer sites treated at this center included breast, lung, gynecological, prostate, and colon.[36] In that same time, about 80% of patients at this facility identified their race as black.[36] Ninety-six percent (n= 24) of patients in this study identified as black/African American, which is slightly higher but consistent with GCCE as a whole. Forty-eight percent (n=12) of the patients had breast cancer, and 24% (n= 6) of these patients had lung cancer. Almost one in four of the study patients did not have health insurance.

The first survey question focused on patient opinion regarding eating and its influence on cancer treatment. Based on the pre-intervention survey, there was an opportunity for nutrition counseling in the study sample. In the pre-intervention survey, 60% (n= 15) of patients reported not knowing whether eating the right foods before, during, and after cancer treatment could help them feel better and stay stronger, which aligns with reports from Sullivan et al. and Maschke et al. In those studies, patients described feeling confused and uncertain about nutrition and cancer care.[9,30] After the intervention, 92% (n= 23) of patients answered *yes* that, in their opinion, eating the right foods before, during, and after cancer treatment can help with feeling better and staying stronger. While results may not have been statistically significant for this question (*P*= 1.00), they are likely clinically significant.

The second survey question's results were statistically significant (*P*= 0.002). After the intervention, patients were trying to make healthier food choices more often. This outcome is also likely clinically significant. The nutrition counseling provided by the RDN was successful in

changing reported behavior frequency in patients. These results offer further support to the outcomes of MNT intervention through nutrition counseling. This outcome aligns with Forslund et al.'s qualitative study, which suggested that patients had positive attitudes toward changing their food choices when undergoing treatment for cancer.[31]

Though the third survey question results were not statistically significant (P= 0.315), the results may hold some clinical significance regarding RDN staffing at outpatient cancer centers. After the intervention with the RDN, 19 (76%) patients chose *yes, definitely* to recommend meeting with an RDN as part of their care team, an increase from 2 (8.0%) reporting *yes, definitely* in the pre-intervention survey. Trujillo et al. found that there is inadequate RDN access for oncology patients even though several professional organizations acknowledge that nutrition services are essential for cancer treatment.[5,26] The more that research can demonstrate patient outcomes and opinions on the benefits of MNT, the more funding that cancer centers may consider directing toward nutrition services. The GCCE described its reason for adding the RDN position as a way to improve patient-centered care.[36]

Limitations and Strengths

This study had some limitations. A key limitation that likely impacted outcomes was the sample size. The COVID-19 pandemic affected the recruitment of patients as many did not come into the clinic. Additionally, this population had low technology access, making recruitment and survey completion with phones or computers challenging. The RDN had potentially 50 more patients to recruit, but these barriers and the timing of COVID-19 interfered. Due to these factors, the data collection period ended prematurely.

Another limitation to consider is the fact that the survey was not a validated tool. The RDN at this cancer center crafted the survey to capture how opinions on nutrition's role in cancer treatment and attitudes towards healthy eating evolved after working with an RDN in the outpatient setting. While it was not a validated tool, this survey provided a voice for patient opinions on nutrition and working with an RDN. An advantage of this survey was that it was brief, involving only 3 multiple-choice questions for data collection. It could quickly be administered while the patients were at their appointments without building time into the clinic schedule or taking away significant appointment time with the RDN. Another advantage of this survey format is that it is less labor-intensive to analyze the results than recorded interviews would have been, which require transcription and coding.

There are other strengths of this study to consider. In this study, the RDN at GCCE is also a CSO, which is evidence of the RDN's expertise in oncology nutrition. The patients received MNT from an experienced provider. A final strength of this study is the duration of the nutrition intervention. Patient opinion was captured before and after 3 months of working with the RDN, allowing them to consider their beliefs and actions.

Conclusion

This study's purpose was to report how patient opinions on nutrition's role in cancer treatment and attitudes towards healthy eating evolved after working with an outpatient RDN. After completing the intervention, patients reported being significantly more likely to make healthier food choices. Though not statistically significant, opinion shifted on the questions about

eating foods to help feel better and stay stronger and whether future patients should have an RDN on their care teams. Improving nutrition services for this population may improve the quality of patient-centered care and health outcomes in these patients.

Implications for practice and research:

Due to the nutritional difficulties that many cancer patients experience throughout treatment, having an RDN on the treatment team is essential. RDNs are valuable treatment team members who can translate evidence-based nutrition guidelines into practical steps for patients. As with any service, evaluation and assessment of nutrition services should be part of the program to improve outcomes and focus on patient and family engaged care.

Future researchers should consider providing qualitative surveys to oncology patients to understand further the opinions and attitudes toward nutrition and working with RDNs. If researchers can better understand patient opinions, interventions can be further optimized to serve this population. This study could serve as a pilot study for larger-scale projects, providing more evidence about the direct impact of RDNs on patient care. However, further research may require the creation of a validated survey tool.

With additional research, cancer centers may present enough evidence to persuade health insurance companies to reimburse for MNT for the oncology population. If cancer centers could bill insurance for RDN services, that revenue would improve the likelihood that cancer centers could justify hiring RDNs to serve their patient populations.

Conflict of Interest

There is no conflict of interest.

Author Contributions

AN and KW completed the data analysis. AN also contributed to manuscript revision.
EAG and KW collaborated to write and revise the manuscript.
MPF was responsible for designing and conducting the survey with the patients and contributing to manuscript revision.

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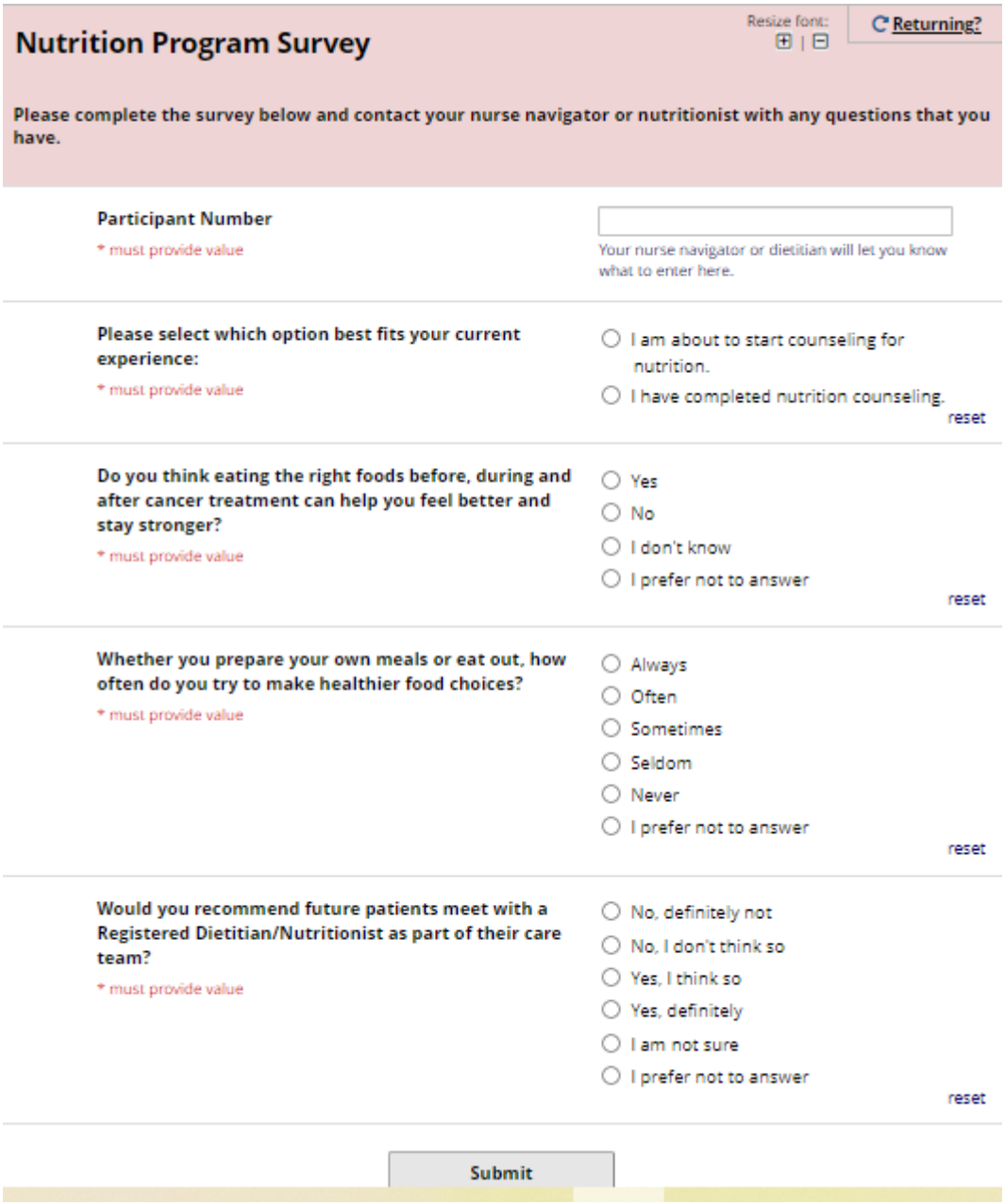
Appendix 1: Survey



Nutrition Program Survey

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Returning?

Please complete the survey below and contact your nurse navigator or nutritionist with any questions that you have.

Participant Number

* must provide value

Your nurse navigator or dietitian will let you know what to enter here.

Please select which option best fits your current experience:

* must provide value

- ○ I am about to start counseling for nutrition.
- ○ I have completed nutrition counseling.

reset

Do you think eating the right foods before, during and after cancer treatment can help you feel better and stay stronger?

* must provide value

- ○ Yes
- ○ No
- ○ I don't know
- ○ I prefer not to answer

reset

Whether you prepare your own meals or eat out, how often do you try to make healthier food choices?

* must provide value

- ○ Always
- ○ Often
- ○ Sometimes
- ○ Seldom
- ○ Never
- ○ I prefer not to answer

reset

Would you recommend future patients meet with a Registered Dietitian/Nutritionist as part of their care team?

* must provide value

- ○ No, definitely not
- ○ No, I don't think so
- ○ Yes, I think so
- ○ Yes, definitely
- ○ I am not sure
- ○ I prefer not to answer

reset

Submit