Exploring health professionals' viewpoint of provision of nutrition advice for women with endometrial cancer

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ABSTRACT

AIMS: The aim of this study was to explore barriers and facilitators to delivery and uptake of nutrition advice to women diagnosed with endometrial cancer from a health professionals' viewpoint.

METHODS: Fifteen semi-structured interviews with health professionals with experience in providing healthcare to women diagnosed with endometrial cancer were audio-recorded and transcribed. Interviews were analysed using reflexive thematic analysis. Topics included high weight as a risk factor for endometrial cancer, nutrition information sources, and barriers and facilitators to delivering nutrition advice in clinical care.

RESULTS: Four themes were identified. The first three exist as barriers to women receiving nutrition advice—how to navigate conversations about high weight, access to limited resourcing and health professionals feeling powerless to overcome system influences. The fourth theme identified a community approach need to facilitate a supportive environment and share knowledge.

CONCLUSIONS: This study, through the lens of health professionals, highlights barriers to the delivery and uptake of nutrition advice at the patient, community and system levels. Enhancing survivorship for women after the diagnosis of endometrial cancer may be enabled by further understanding of how to overcome barriers and promote facilitators. Communication and partnership with women are imperative to achieving this.

Endometrial cancer is the sixth most common cancer among women worldwide.[1] In 2020 there were 723 new cases of endometrial cancer in Aotearoa New Zealand, increased from 455 cases in 2011. It is now the fifth most frequently diagnosed cancer in the country. Age-standardised incidence rates are increasing for all women, with steady increases over the last 10 years. Cases are increasing rapidly in those under 50 years of age.[2] Pacific women carry the burden of disease, accounting for 18% of new cases despite accounting for 8% of the female population.[3]

Of the 20 most common cancers, endometrial cancer has the strongest association with high weight (body mass index >25kg/m^2).[4] The terms "obesity" and "overweight" are associated with stigma and negative connotations of individuals, and therefore the authors chose the term high weight throughout this article.[5,6] The likelihood of a woman with high weight developing endometrial cancer increases significantly as additional excess weight accumulates.[7] Excess weight results in unopposed estrogen excess, insulin resistance and inflammation, all of which promote endometrial cancer growth.[8,9]

Early-stage endometrial cancers are highly treatable with hysterectomy. In the last 20 years, 5-year survival rates in Aotearoa New Zealand have increased from 73–79%.[10] However, there is a significant sequalae with endometrial cancer survivors experiencing morbidity and mortality from cardiovascular disease.[11]

Endometrial cancer survivors have a higher incidence of unrecognised and inadequately treated hyperglycemia and elevated cholesterol, putting them at significantly higher 10-year increased risk of cardiovascular disease compared to women in the general population.[12,13]

Women with early-stage low grade endometrial cancer are more likely to die from cardiovascular disease than their endometrial cancer.[14] While there is currently insufficient high-quality evidence to determine the effect of lifestyle interventions on survival, quality of life, or significant weight loss in women with a history of endometrial cancer, weight-loss interventions have been associated with improvements in breast and colorectal cancer-

specific survival, as well as a reduction in the risk of cardiovascular disease.[15]

Improving survivorship for women with endometrial cancer has been identified as an area of unmet need by women with endometrial cancer, researchers and health professionals.[16]

Nutrition and lifestyle advice as part of survivorship care may have potential to modify comorbidities such as cardiovascular disease and enhance overall quality of life.[17]

A previous study reported a role for health promotion activities after treatment for endometrial cancer survivors, with participants reporting inadequate information and having to search on their own for advice and support.[18] An Aotearoa New Zealand-based qualitative interview study of cancer survivors reported a desire for more dietary information and support as part of a focus on health and wellbeing in the future.[19]

Nutrition advice is not routinely incorporated into the endometrial cancer care pathway. The aim of this study was to explore barriers and facilitators to delivery and uptake of nutrition advice to women diagnosed with endometrial cancer from a health professionals' viewpoint.

Methods

Health professionals with experience in providing healthcare to women diagnosed with endometrial cancer were recruited via snowball sampling. Initial recruitment began from the researchers' local networks. Participants were asked if they knew other suitable participants from their own networks. Contact details were shared, and LW directly emailed potential participants to invite them to take part. A wide range of health professions and specialities, as well as geographical locations across Aotearoa New Zealand, were invited to take part.

Participants took part in a one-on-one semi-structured interview with LW, who is female, an experienced dietitian and PhD candidate. CH is a biomedical scientist and SF is a health-care researcher. CH and SF were involved in the development of the study protocol and analysis. BS is a consultant gynaecological oncologist who assisted with analysis and interpretation.

Interviews commenced by LW explaining her background as well as the goals of the PhD research. Time was taken to build a relationship with participants. Written informed consent was obtained from the participants.

Interviews took place face-to-face in university or hospital buildings, or by video call. No repeat interviews took place. Written interview notes were made. Interviews were audio-recorded, transcribed using Otter.ai™ software and then manually checked for accuracy by LW.

A topic guide was used during the interview. Questions included exploring awareness of high weight as a risk factor for endometrial cancer, sources of nutrition information and barriers and facilitators to incorporating nutrition advice in the clinical care. Transcripts were not returned to participants for checking and participants did not provide feedback on the findings.

Transcripts were independently reviewed and coded by LW, CH and SF using a combination of manual coding and NVivo™ software. Analysis was undertaken using grounded theory. An inductive approach was taken using reflexive thematic analysis. Each researcher independently developed codes, sub-themes and main themes to create a coding tree. Regular meetings, collaboration and discussion were used to construct final themes. Analysis began after ten interviews. After twelve interviews thematic saturation emerged. A further three interviews were completed to confirm thematic exhaustion.

Results

Participant characteristics

Twenty health professionals were contacted via email, of whom 15 volunteered to take part. Interviews lasted between 25 and 58 minutes. Four were in person, and 11 were via video call. Demographics and professions of participants are displayed below (Table 1 and 2). Participants' geographical locations were spread across the Te Whatu Ora regions with three in Northern, nine in Central and three in Te Waipounamu.

Four themes and eight sub-themes were constructed using thematic analysis (Table 3). The first three were barriers to women receiving nutrition advice: how to navigate conversations about high weight, access to limited resourcing and health professionals feeling powerless to overcome system influences. The fourth theme explores a community approach need to facilitate a supportive environment and share knowledge.

Theme 1: how to navigate conversations

Health professionals' skills and confidence in navigating conversations about high weight were identified as barriers to knowledge being shared and nutrition advice being accessible.

Table 1: Profession of participants.

Profession	Number
Consultant Obstetrician and Gynaecologist	1
Consultant Gynae-Oncologist	2
Obstetrics and Gynaecology Registrar	1
Gynaecology Clinical Nurse Specialist	3
Medical Oncology Nurse	1
Medical Oncologist	1
Radiation Oncologist	1
Oncology Dietitian	2
Radiation Therapist	1
Cancer Society Nurse	1
General Practitioner	1

Table 2: Demographics of participants.

Age	
<40 years	5
>40 years	10
Ethnicity	
Māori	2
Asian	2
European	11
Gender	
Female	14
Male	1

Table 3: Thematic structure.

Inductive codes	Preliminary/sub-themes	Final themes
Clinician finds conversations hard	Overcoming taboo	**Theme 1: how to navigate conversations**
Blame/shame		
Cultural considerations	Engagement and timing	
Differences in clinician approach		
Engagement important for cancer treatment	Sense of responsibility to share knowledge	
Responsibility to share knowledge		
Culturally appropriate care		
Lack of access to nutrition care	Need for improved resourcing	**Theme 2: access to limited resourcing**
Format of nutrition care		
Sources of information	Survivorship care	
Survivorship care		
Food poverty	Social determinants of health	**Theme 3: health professionals feel powerless to overcome system influences**
Health geography		
Assumption that nutrition is low priority for low socio-economic group		
Family/whānau approach	Family/whānau and community as enablers	**Theme 4: approach needed to facilitate a supportive environment and share knowledge**
Motivations for change		
Culturally appropriate care		
Primary care	Approach needed	
Public health		

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Table 4: Example quotes for Theme 1.

Quote
"*It is a bit of a taboo subject, I think, because how do you raise it without causing offence or apportioning blame? And I think it's just too hard for a lot of clinicians*." (Interviewee 15)
"*I think health professionals find it hard to talk to women about weight, because of the fat shaming thing people do struggle. We, the health professionals, do, and I think it's something we need to get better at doing. I think the really huge thing is somehow we need to get medical professionals better at tackling these kinds of those conversations with women*." (Interviewee 11)
"*That could then be a barrier for them accessing care and the right treatments that they need later down the line. It's like, I think we are not wanting to alienate them, and we need to educate them appropriately about that. It is quite a difficult space to navigate*." (Interviewee 8)
"*I think the women deserve to know what is causing the issue. We're not saying this because if you lose a couple of kilos your cancer is going to regress. It is what it is. But moving forward, we can reduce the risk of the cancer coming back. Plus, we can reduce all the other comorbidity related conditions*." (Interviewee 9)
"*I think it's difficult. I think the real answer is they don't want to talk to me. Because I'm a bloke and I really try, but I think that there are possibly other people who can do it better than I can. And I'll do my best ... I think women speaking to women will be better*." (Interviewee 2)
"*I think talking to someone from their cultural background would be helpful. Even though their English is very good, some information cannot be filtered through. So, I think having somebody from their own culture*." (Interviewee 13)

Table 5: Example quotes for Theme 2.

Quote
"*My advice is very general. I speak to them about exercise, and I speak to them very generically about diet. I give as much of encouragement as possible. I give them a Green Prescription for exercise, but I don't have any dietitian service I can refer to*." (Interviewee 2)
"*In terms of treatment, endometrial cancer, we are treating a symptom of obesity. Then there's the whole other range of cardiovascular, diabetic, joint problems. We're just not addressing them. We're dealing with a symptom*." (Interviewee 2)
"*Every system has got things that they do well, don't do well, but I honestly don't know. I feel like our healthcare is kind of down there, for these women anyway. I feel awful for them*." (Interviewee 9)

Table 6: Example quotes for Theme 3.

Quote
"*It's cheaper to buy Coke, it's cheaper to buy pies. It's the whole poverty and the whole social settings there as well*." (Interviewee 6)
"*You can imagine in an affluent area you had to go quite a long way to find fast-food, but if you live in a less affluent area there were any number of places. I think that's huge, it's probably the main thing I'd go as far as to say*." (Interviewee 11)
"*I would suggest that a lot of a lot of people I look after, it's not on their radar of concern, because they have too many other things to worry about. Feeding the family, keeping their jobs, they don't believe that their nutrition is important. I might be wrong, but I'm not sure that they know much about that*." (Interviewee 10)

Table 7: Example quotes for Theme 4.

Quote
"*Eating and food is something so heavily integrated into our society—family, whānau, friend gatherings, for reward or comfort. I think it is also important that the information is given is appropriate for the patients and their family and support network*." (Interviewee 3)
"*Women want nutrition information, but they eat what their families eat, how they were brought up eating, as their community does. Generally, women do best when husbands, children and whānau are engaged*." (Interviewee 4)
"*So, this is not me being judgmental. But you know, when you see a patient, you need to look at everything. It's not just the patient, it is the family, it is what sort of support they have. So, I think engaging with family sometimes works a lot better*." (Interviewee 9)
"*In my experience, women are keen and motivated and want to understand, want to do well, particularly that young cohort … They want to have children!*" (Interviewee 10)
"*We had a Pacific Island health support group. It was that sort of service that was really, really, really, really valuable. I just found it helped us to make sure that we were really meeting the patient's needs. Sometimes we thought we were, but we weren't. So, it was the rapport building. It was everything. It was just so important*." (Interviewee 7)
"*Women would want to talk; they often fall outside of western medicine practices due to their cultures, so need culturally appropriate interventions*." (Interviewee 4)
"*I think that a lot of that has to come into primary care, I mean, a lot of the women will be seen in general practices, pregnancy stuff, contraceptives and smears and things. There are opportunities for the practice nurses doing the smears and actually being able to say to patients who are coming regularly 'Do you know that lifestyle can reduce cancer?' And using that kind of little opportunity to actually do some health promotion?*" (Interviewee 11)
"*The GP also has closer rapport than the extended healthcare worker, so, like, the GP can encourage people to see a dietitian if they are overweight*." (Interviewee 13)
"*I actually think that looking at the endometrial cancer population … probably the horse has bolted by that stage. And in terms of preventative medicine, it needs to be with primary care and with schools. And it's then the education around being taught to cook at schools, being taught to garden at schools, that sort of thing is going to change more, than 500 women a year who get endometrial cancer*." (Interviewee 14)

Overcoming taboo

Taboo, apportioning blame and not causing offence were discussed as reasons why participants did not start conversations about high weight. Two participants questioned whether conversations about high weight were taking place at all for some women, as the discomfort felt by the health professionals may mean the subject was avoided entirely. Finding the right language to use was consistently mentioned as a barrier by participants who were cautious to not place blame but were not confident in the correct respectful language to use to navigate a supportive conversation. Only one health professional was confident in initiating conversations. Several participants suggested that health professionals needed to improve their skills and confidence regarding approaching these conversations while being able to continue to build rapport and engagement with their patients.

Engagement and timing

Five participants felt that conversations about high weight should be taking place in primary care and were the responsibility of the oncology team. The time of cancer diagnosis and treatment planning was considered an inappropriate time to discuss high weight due to the perception of causing overload of information. Having a conversation with a woman about high weight was viewed as potentially risky and harmful to the trusting relationship required for cancer treatment.

Sense of responsibility to share knowledge

Despite finding it difficult to have conversations about high weight, several participants felt a responsibility to share knowledge and provide education to women.

How to share knowledge was considered a sensitive area, and some participants did not feel they were the right person. It was suggested that it would be better for women to be talking to women and that receiving advice from professionals from a different cultural background made it harder to raise and continue the conversation in a culturally safe way. Participants were aware that any public health messaging campaigns were too late for women already diagnosed with endometrial cancer but felt a responsibility to raise awareness to the next generation of women.

Theme 2: access to limited resources

Need for improved resourcing

Access to resources was identified as a barrier to providing nutrition advice for women with endometrial cancer. Eleven participants reported that nutrition advice from a professional such as a dietitian was not accessible. Discussion on nutrition and high weight was often lacking due to time pressures. Participants talked about wanting to assist women with nutrition advice post treatment; however, they did not know of appropriate community services.

Participants were unsure where women received nutrition information from. Social media was mentioned by two dietitians as a source of information. The reliability and accuracy of this information was questioned. Some thought GPs and consultants were giving out nutrition and lifestyle information. Different localities had access to different services for their women, with one service having access to a gym programme and others having no access at all.

Survivorship

Five interviewees identified a lack of survivorship care and highlighted this as an opportunity to provide women with nutrition advice to optimise coexisting comorbidities. Interviewee 2 highlighted that treatment of endometrial cancer with hysterectomy cured the cancer but did not address the causative factors of the cancer. Two clinical nurse specialists were planning to set up their own survivorship clinics to provide holistic care to women. Both reported limited access to accurate and reliable resources to assist with this.

Theme 3: provider feels powerless to overcome system influences

Participants expressed feeling powerless to overcome the wider influences within society that contribute to women's nutrition options and choices. Ten participants identified social determinants of health, such as rising food costs and prevalence of fast-food outlets in low socio-economic areas as barriers. The cost of fast-food was often considered the cheaper option than cooking homemade meals for families who have limited resources. The prevalence of fast-food takeaways in areas of high deprivation was also highlighted as a barrier. Two participants expressed their worry about targeting by fast-food companies to low socio-economic areas. Six participants assumed that nutrition was a low priority for some women due to other life stressors such as caring for families, working and providing food.

Theme 4: approach needed to facilitate a supportive environment and share knowledge

Participants discussed that a multilevel approach was needed to raise awareness of high weight as a risk factor for cancer and to provide access to nutrition advice.

Family/whānau and community as enablers

Four participants highlighted the importance of a woman's family/whānau and community, and how it can impact an individual's health, lifestyle choices and decisions. The importance of providing advice that is accessible and suitable for the whole family/whānau was thought to be important. Two participants emphasised this by discussing their experiences working in largely Pacific populations. Intergenerational living and focus on childbearing were significant among these communities and decisions about women's health were often decided at a whānau/family level.

A community approach to overcoming barriers and opening conversations about high weight and gynaecological conditions was considered essential to removing taboos and promoting access to information. It was felt that progress was being made in some of these areas by local community-led campaigns, but this needed to be followed through at all levels such as primary care and public health messaging.

Participants highlighted motivating factors that they felt were important when considering solutions. Conserving fertility for future children and being healthy for current children and grandchildren were considered highly motivating factors.

Approach needed

Partnership with Māori- and Pacific-led services was thought to be important to ensure that the advice given was culturally appropriate. Participants were aware that women may feel more comfortable when speaking with women of their own culture. One nurse discussed how she was planning to set up a survivorship clinic in partnership with Pacific and Māori cancer nurse specialists. Building partnerships with local cultural health services was seen to facilitate the delivery of culturally appropriate nutrition advice.

Tertiary clinicians often assumed conversations about nutrition and lifestyle were taking place in primary care. Primary care was identified as an area to begin conversations about nutrition and lifestyle. This was because women have more regular contact and longer-term relationships with their primary care team.

Participants suggested that public health messaging was needed to educate on the link between high weight and cancer to raise awareness in the community. Several acknowledged that this is a difficult topic to talk about publicly and difficult to get the messaging right; however, they felt that women should have access to the knowledge.

Four participants suggested that public health initiatives needed to be directed at the next generation of women by increasing healthy eating education in schools and teaching young people cooking skills. Interventions targeting women already diagnosed with endometrial cancer were considered too late and young women in the next generation needed to have access to healthy eating and activity education programs so they were empowered.

Discussion

The aim of this study was to explore the barriers and facilitators to the delivery and uptake of nutrition advice for women with a history of endometrial cancer from the perspective of healthcare professionals. Our findings reveal that having open conversations about high weight, limited resourcing and system influences were all perceived barriers. Health professionals had suggestions on how to facilitate a supportive environment for nutrition advice to be accessible.

Not knowing how to initiate a conversation about high weight is common, with both health professionals and people living with high weight reporting hesitation.[20] When weight is discussed, the language used, the tone of the consultation and the nature of the advice are considered critical to create an environment that is safe for both the health professional and women.[21] A qualitative study of women with high weight and a history of endometrial cancer found that most health providers did not discuss high weight, despite women reporting a desire to have been counselled specifically on the association with endometrial cancer.[22] Health professionals' skills and confidence in managing conversations about high weight have been recognised and identified as an area for improvement.[23,24] Our qualitative study identifies this need among health professionals in Aotearoa New Zealand when discussing survivorship after endometrial cancer.

There is an increasing need for survivorship support. International guidelines identify that cancer survivors are at risk of developing other primary cancers and chronic conditions, and recommend health promotion activities for all cancer survivors.[25] Multiple studies have identified the correlation of cardiovascular risk factors in women with a history of endometrial cancer and suggest health promotion activities to modify traditional risk factors.[11,13] Our study has identified that there is a significant lack of resources in the provision of nutrition and other lifestyle advice for endometrial cancer survivors. Due to this, survivorship care is not routine and is being developed at local levels by clinical nurse specialists due to local need being identified.

This study identified that health professionals feel powerless to overcome system barriers such as access to healthy food, prevalence of fast-food outlets in low socio-economic areas and financial burden. Two studies have identified that women living in socially deprived areas are more likely to present with advanced endometrial cancer, thus compounding the impact social determinants can have on the prevalence and presentation of the disease.[26,27]

It is well documented that people living in low socio-economic areas are more likely to be living with high weight and its associated comorbidities. Within Aotearoa New Zealand, research has shown a high growth rate in endometrial cancer cases in under 50-year-old women living in the most socio-economically deprived quintiles of Auckland.[28] In 2009, Richardson stated "overweight and obesity cannot be managed only at the individual level. Community level policy changes and interventions are needed to complement individual efforts."[29] This agrees with our findings that policy changes and community actions are required.

Our study highlights that assumptions can be made by health professionals about whether nutrition is important to individual women and whether women have the means to make decisions and choices about their nutrition. This unconscious bias may disadvantage women and result in different recommendations and inconsistent application of clinical guidelines by health professionals which could disempower women.[30]

Participants highlighted several areas for improvement to facilitate and empower women to have access to nutrition advice. Recommendations include health promotion initiatives that are family-focused and community-led, overcoming the taboo of talking about gynaecology and high weight, as well as harnessing motivating factors such as maintaining fertility. Engaging with local cultural health providers, initiating nutrition and lifestyle conversations in primary care, raising awareness of the links between high weight and cancer through public health messaging, and educating and empowering the next generation were all recommended steps to facilitate a supportive environment where knowledge is shared with women.

A strength of this study is the in-depth interviews conducted by a researcher independent from the clinical departments of the interviewees. A wide range of health professionals were interviewed. Paraphrasing and summarising were used through the interviews by the researcher to clarify meaning and increase rigour to the data collected. Three researchers read and coded all the transcripts independently, allowing for investigator triangulation to achieve themes, increase rigour and thus reduce observer bias. A completed Consolidated Criteria for Reporting Qualitative research (COREQ) checklist is provided for this research (Appendix 1). A limitation of this study is that thirteen of the interviewees were employed by tertiary health services, one by primary care services and one by an independent charity. This may influence the transferability of the results.

Endometrial cancer cases are increasing globally. Due to high rates of successful treatment for early-stage cases, there are increasing numbers of women who require survivorship care. This research builds on evidence of a lack of survivorship care for women with a history of endometrial cancer. Resourcing survivorship care and addressing the barriers identified may have the potential to have a significant impact on all-cause morbidity and mortality for women who have experienced endometrial cancer. This may be enabled through further understanding of how to overcome barriers and promote facilitators. Communication and partnership with women are imperative to achieving this.

COMPETING INTERESTS
Nil.

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Appendix 1: COREQ (COnsolidated criteria for REporting Qualitative research) Checklist.

A checklist of items that should be included in reports of qualitative research. You must report the page number in your manuscript where you consider each of the items listed in this checklist. If you have not included this information, either revise your manuscript accordingly before submitting or note N/A.

Topic	Item no.	Guide questions/description	Reported on page no.
Domain 1: research team and reflexivity			
Personal characteristics			
Interviewer/facilitator	1	Which author/s conducted the interview or focus group?	3
Credentials	2	What were the researcher's credentials? e.g., PhD, MD	3
Occupation	3	What was their occupation at the time of the study?	3
Gender	4	Was the researcher male or female?	3
Experience and training	5	What experience or training did the researcher have?	3
Relationship with participants			
Relationship established	6	Was a relationship established prior to study commencement?	3
Participant knowledge of the interviewer	7	What did the participants know about the researcher? e.g., personal goals, reasons for doing the research	3
Interviewer characteristics	8	What characteristics were reported about the interviewer/facilitator? e.g., bias, assumptions, reasons and interests in the research topic	3
Domain 2: study design			
Theoretical framework			
Methodological orientation and theory	9	What methodological orientation was stated to underpin the study? e.g., grounded theory, discourse analysis, ethnography, phenomenology, content analysis	3
Participant selection			
Sampling	10	How were participants selected? e.g., purposive, convenience, consecutive, snowball	3
Method of approach	11	How were participants approached? e.g., face-to-face, telephone, mail, email	4
Sample size	12	How many participants were in the study?	4
Non-participation	13	How many people refused to participate or dropped out? Reasons?	4

Appendix 1 (continued): COREQ (COnsolidated criteria for REporting Qualitative research) Checklist.

Topic	Item no.	Guide questions/description	Reported on page no.
Domain 2: study design			
Setting			
Setting of data collection	14	Where was the data collected? e.g., home, clinic, workplace	3
Presence of non-participants	15	Was anyone else present besides the participants and researchers?	3
Description of sample	16	What are the important characteristics of the sample? e.g., demographic data, date	4
Data collection			
Interview guide	17	Were questions, prompts, guides provided by the authors? Was it pilot tested?	3
Repeat interviews	18	Were repeat interviews carried out? If yes, how many?	3
Audio/visual recording	19	Did the research use audio or visual recording to collect the data?	3
Field notes	20	Were field notes made during and/or after the interview or focus group?	3
Duration	21	What was the duration of the interviews or focus group?	4
Data saturation	22	Was data saturation discussed?	4
Transcripts returned	23	Were transcripts returned to participants for comment and/or correction?	3
Domain 3: analysis and findings			
Data analysis			
Number of data coders	24	How many data coders coded the data?	3
Description of the coding tree	25	Did authors provide a description of the coding tree?	5–6
Derivation of themes	26	Were themes identified in advance or derived from the data?	4
Software	27	What software, if applicable, was used to manage the data?	3
Participant checking	28	Did participants provide feedback on the findings?	3
Reporting			
Quotations presented	29	Were participant quotations presented to illustrate the themes/findings? Was each quotation identified? e.g., participant number	7–12

Appendix 1 (continued): COREQ (COnsolidated criteria for REporting Qualitative research) Checklist.

Topic	Item no.	Guide questions/description	Reported on page no.
Domain 3: analysis and findings			
Reporting			
Data and findings consistent	30	Was there consistency between the data presented and the findings?	7–12
Clarity of major themes	31	Were major themes clearly presented in the findings?	4
Clarity of minor themes	32	Is there a description of diverse cases or discussion of minor themes?	6–12

Developed from: Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. Int J Qual Health Care. 2007 Dec;19(6):349-357. doi: 10.1093/intqhc/mzm042.

Once you have completed this checklist, please save a copy and upload it as part of your submission. DO NOT include this checklist as part of the main manuscript document. It must be uploaded as a separate file.

Appendix 2: Health professionals' viewpoint—nutrition advice for endometrial cancer.

Appendix 2: Topic guide.

1.	Link between high weight and endometrial cancer • What do you know regarding nutrition, high weight and endometrial cancer? • Thinking about the women you work with, do you think there is knowledge of the link of nutrition, high weight and endometrial cancer?
2.	Nutrition advice in the endometrial cancer care pathway • Do you know where women with endometrial cancer get information about nutrition and lifestyle? • During women's journeys from initial symptoms to diagnosis and treatment, have you heard of women receiving lifestyle and nutrition advice from a registered professional?
3.	What nutrition advice is needed? • In your experience, what information would women want with regards to nutrition and lifestyle? • In what format and from whom do you think women would like to receive nutrition and lifestyle advice?
4.	Approaching women to participate in nutrition research • Do you think women will be willing to talk about nutrition/lifestyle and their endometrial cancer care pathway experience? • Given I am European and I am aiming to consult women of all ethnicities, particularly Māori and Pacific, how would you recommend I go about recruitment and interviews?
5.	Who else should I speak to? In order to get a wide range of information from professionals working with women with endometrial cancer, who else would you recommend I talk to?