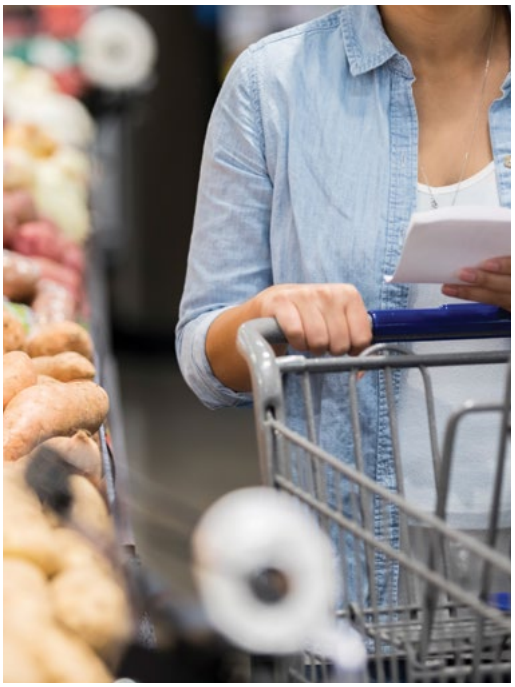

Individuals' perceptions and expectations of nutrition care provided by doctors in Australia: A focus group study

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Background and objective
Doctors are well placed to facilitate nutrition care to support dietary improvements due, in part, to their regular contact with their patients. Limited literature exists which explores the perspective of patients regarding the nutrition care provided by medical professionals across the continuum of care. This article explores the perspective of patients regarding perceptions of nutrition advice and care received from doctors and expectations of this care, including key skills and attributes the patients perceive as important.

Methods
Six online focus groups were conducted with Australian service users (n=32).

Results
Framework analysis identified four key themes: perceptions of doctors' role in nutrition care, expectations and experiences; the importance of individualised care; barriers and enablers to nutrition care; and topics, skills and attributes perceived as important in nutrition care.

Discussion
Patients have a desire for individualised and collaborative nutrition care but experienced systemic barriers in practice.

SUBOPTIMAL DIET is a leading risk factor for mortality and morbidity, responsible for 11 million deaths worldwide each year.[1] Frontline healthcare professionals, including general practitioners (GPs), have been suggested as important contributors to the provision of dietary advice as part of a coordinated interprofessional practice model. Furthermore, GPs have previously been identified as the preferred provider of nutrition care.[2] However, an Australian survey of individuals with type 2 diabetes (n=939) found that only 43% had received nutrition care from their GP as part of diabetes management and an even smaller portion (34%) reported that this care had been effective in improving their personal nutrition behaviour.[3] Internationally, the most frequently cited barrier to the provision of nutrition care in practice is insufficient nutrition-related knowledge and skills, underscored by the dearth of nutrition education in medical training at all levels.[4] Doctors might also refer to other nutrition services, such as dietitians, yet referrals might be sparse. Limited advice and onward referral related to nutrition might be a missed opportunity for improved nutrition and health outcomes.

Person-centred care is linked with significant improvements in patient outcomes.[5] Engaging patients in healthcare research can provide unique insights into the effectiveness of healthcare system operations, including how to improve the patient experience and outcomes.[6] Engaging with service users in the development of competency frameworks is critical to ensure the resulting output encompasses the needs of patients and the community.[7] This article explores the perspective of patients regarding their perceptions of advice provided as part of nutrition care they might have received from doctors, and expectations of this care, including key skills and attributes they perceive as important, to inform a framework for nutrition education in medicine.

Methods

The study aim was best achieved through a qualitative study design grounded in a constructivist research paradigm, where the views of patients were based on their lived experiences.[8] Online, semi-structured focus groups were conducted with patients in Australia to explore the dynamic between participants and their collective opinions, as well as individual experiences.[9] The University of Wollongong Human Research Ethics Committee approved this study (Protocol no. 2020/062). The Standards for Reporting Qualitative Research (SRQR) guideline was used to guide reporting.[10]

Participants were recruited via information flyers, which were disseminated

to public spaces, such as GP clinics (waiting rooms), in addition to relevant social media groups using Facebook (eg rural and remote community groups). After initial recruitment, purposive sampling was undertaken to maximise variation in gender, age and location. Participants were required to have at some time seen a GP or another doctor, be aged over 18 years and able and willing to consent to participate. Inclusion criteria were broad to capture a range of perspectives and experiences of nutrition care across the continuum of medical care (eg individuals living with a chronic disease, individuals who might have been referred to a dietitian, older individuals who are more likely to have received secondary care and healthy individuals). All participants provided written informed consent or recorded verbal consent.

Open and closed questions (Table 1) were based on literature pertaining to nutrition education and published nutrition competencies for medicine.[11,12] Focus group questions were related to perceptions and experiences of nutrition care provided and expectations of care, including attributes perceived as important. Coding of data occurred simultaneously to data collection, and themes were continuously reviewed and refined until no new themes emerged.

Focus group discussions were audio recorded using Zoom Video Communications (Version 5.9.1) videoconferencing software and transcribed verbatim using Otter AI. De-identified transcripts were then imported into NVivo 12 (QSR International) for analysis.

The framework method, a form of thematic analysis,[13,14] was used for data analysis in the present study. Initially, two members of the research team (BL, EB) used open coding to independently code the same three transcripts, developing an initial working codebook of themes. Three researchers (BL, KM, EB) coded the remaining transcripts in duplicate, then met to review and discuss any discrepancies in coding, analysis and interpretations, and to agree on key themes. Analysis involved the systematic comparison of coded segments across focus groups to identify convergent, salient and/or unique themes. An example of the coding framework is provided in Appendix 1 (available online only).

Results

Six online focus groups were conducted with Australian patients (n=32) between January and August 2021. Each focus group had between four and seven participants to facilitate open discussion and engagement. Focus groups lasted between 24 and 62 minutes, with a mean duration of approximately 36 minutes. Most participants were female (n=19; 59%), with ages ranging from 18 to 81 years (median age range across focus groups: 40–44 years). Participants described experiences of nutrition care in the primary (n=17), secondary (n=5) and

Table 1. Focus group questions and inquiry logic

Focus group questions	Inquiry logic
• Have you ever received nutrition advice from your GP or another doctor? • (Probe) • If yes, what was the information for? • Can you comment on the advice? Did you feel that you were given enough information to make required changes to your diet and/or lifestyle? Or to make some initial changes? • Were you confident in the advice provided? • Have you wanted nutrition advice but been uncomfortable asking this of your GP or another doctor?	Explore patient perceptions of the current level of nutrition information provided by doctors
What do you think is a doctor's role in providing nutrition advice?	Identify expectations of the role
• Have you ever been referred by a doctor to see a dietitian? • (Probe) • If yes, what for? • Did you think this was an appropriate referral? • Did the doctor provide you with any nutrition advice prior to you seeing a dietitian? • If yes, what was it? • Did you see a dietitian following the appointment with your doctor?	Explore scope of practice and capacity/ willingness to refer nutrition-related patient encounters on to a dietitian
What do you think doctors need to know about nutrition?	Explore patient expectations of nutrition competencies for doctors
What knowledge, skills and attitudes do you think doctors need to have to provide nutrition advice to patients?	Explore patient expectations of nutrition competencies for doctors
What other attributes do you think are important in this role?	Identify the attributes perceived as important to patient nutrition care
What do you think are the current gaps in the nutrition knowledge, skills and attitudes of doctors?	Identify existing competency gaps from a patient perspective
Is there anything you would like to add?	

GP, general practitioner.

tertiary (n=1) care settings. Four participants reported receiving nutrition advice from more than one sector.

Framework analysis identified four key themes relating to: perceptions of doctors' roles in nutrition care, expectations and experiences; barriers and enablers to nutrition care; the importance of individualised care; and topics, skills and attributes perceived as important in nutrition care. These themes are described below, with illustrative quotes provided to aid interpretation.

Perceptions of doctors' roles in nutrition care, expectations and experiences

Participants acknowledged the importance of nutrition to health and agreed, although to varying degrees, that nutrition should be a component of medical care. There were variations in perceptions of the role of the medical workforce in nutrition care, although participants acknowledged that GPs are likely the first point of contact for patients and that this made GPs well placed to identify nutrition-related problems as part of routine medical care. Participants acknowledged that diet could have a considerable impact on health and can lead to disease, and thus many participants expressed a desire for GPs to be able to provide brief dietary advice. This might be before seeing a dietitian for specialist dietetics care. A few participants disagreed and felt GPs should be the main provider of nutrition care:

> *Nutrition should definitely be a focal point* (of medical care) *... a lot of the general public could possibly make changes to their lifestyle and diet, and I think that doctors should know how to do that*. (Participant [P] 3, female [F], focus group [FG] 2)

> *I think doctors, medical professionals should recognise that they may be the first choice of contact when someone is seeking information ... they should recognise that a patient may have this sort of issue and be ready to accept the request*. (P5, male [M], FG2)

In contrast, some participants did not expect a GP to provide nutrition care, and for this reason they had not broached the subject of nutrition with their GP. Many participants identified dietitians as the experts in nutrition and perceived the role of a GP in this context as the coordinator of care, with the expectation they would enact a referral to a dietitian as required or requested. However, there was still recognition that GPs need some level of working knowledge in nutrition to undertake this role:

> *Look, even if they're not confident enough to actually give advice, maybe a few really meaningful pamphlets, and pointing you in the direction of what to do ... I've received no* (nutrition) *advice, up until the last one* (GP) *who said, 'Go on the XXX diet'. But up until then, I've received no advice, and I've been asking and telling them that I was really in strife ... I'm hovering at about 100* (kilograms) *now, and I just think they* (doctors) *could advise, even refer*. (P1, F, FG5)

> *I think they* (GPs) *should just refer you to a dietitian ... Their place is more, I think, just to diagnose first and refer you on to who you need to go to*. (P3, M, FG6)

Approximately half the participants recalled receiving nutrition advice from a doctor, primarily their GP. Descriptions and perceptions of nutrition care varied considerably, although there was a general desire for improved nutrition care in all settings. In some cases, such as where participants did not receive nutrition advice and felt they should have or were explicitly seeking it and did not perceive their GP as a reliable source of dietary advice, they reported pursuing the information elsewhere, for example media (eg YouTube and television), allied health professionals (eg a physiotherapist) or a naturopath. One participant was satisfied with the nutrition advice they had received from their GP but noted that their GP had undergone additional training in nutrition:

> *I never had a referral from a GP; I was never given advice from a GP*. (P4, F, FG5)

> *For nutritional information, online, I tend to like just fitness YouTubers who might have shared certain meal prep ... I wasn't really guided by a professional but more so just a fitness YouTuber*. (P4, M, FG2)

Participants who reported receiving nutrition care in a secondary care setting had a positive experience. This included nutrition care for weight management, anorexia nervosa and a total colectomy. Participants also had an expectation that medical specialists would be more competent in nutrition care than a GP and were more confident in the dietary advice that was provided by specialists:

> *I've never had* (nutrition) *advice from a GP, and I agree that I do feel more confident getting that advice from a specialist. Perhaps it is because the GPs don't appear to be as knowledgeable ... and obviously, they're a GP, so they have a general knowledge on most ideas, as opposed to a specialised understanding or education*. (P4, F, FG5)

Barriers and enablers to nutrition care

Participants in this study were able to identify several systemic, environmental and personal barriers and enablers to nutrition care. Generally, participants did not feel confident in the nutrition advice they had received from their GP and perceived that low competence and confidence in nutrition hindered a GP's willingness and capacity to provide nutrition care. In many cases, this was a barrier to participants seeking nutrition advice from their GP:

> *I don't think the GPs have the time or the knowledge for them to feel confident to be giving you the right advice, which is why I felt that they referred me, which was probably the right thing to do*. (P6, F, FG5)

> *It would be lovely if they* (GPs) *could recognise that nutrition may be playing a part in the issue or the problem that a person has, but it's generally in my experience not being recognised that way. I feel that, you know, it's* (nutrition care) *a bit dismissive*. (P2, F, FG5)

There was recognition among participants that access to dietetic services can be limited due to cost, geographical location or availability of appointments. Some participants felt that doctors need to fill this gap and, therefore, should be able to provide basic dietary advice. Participants recognised that specialist dietetics care might be required at times, and there was a positive attitude towards referral. Participants who were

actively seeking dietary advice or a referral to a dietitian reported frustration that they did not receive brief advice or a referral from their GP, even when they were a strong advocate for their own health. They expressed exasperation that nutrition was often overlooked or quickly dismissed as irrelevant or unimportant by their GP in the delivery of care. Participants who indicated that they had received a referral more frequently reported receiving this in a secondary care setting or had been to a GP clinic with a dietitian or diabetes educator on site:

> *You go to the GP, you've got an issue, you need to see a dietitian, you might have to wait three to six months … If the doctor could give you interim advice until you can get into see the specialist or the dietitian, you know, you might be a little bit better off when you get there. And you might yourself be a bit more educated when you get there.* (P6, F, FG5)

Participants identified consultation time as a barrier in terms of nutrition care, with recognition that the delivery of nutrition care might require more time than a standard GP consultation. Many participants reported feeling rushed due to limited consultation time and overbooked GP practices and were fearful that they would be 'wasting' their GP's time if they were to ask about nutrition. Generally, participants were understanding that consultation time was a systemic issue and provided insightful recommendations to address this, such as written nutrition resources (eg a pamphlet) available in the waiting room, which was considered an underutilised setting by participants, and the delivery of nutrition education through telehealth:

> *I think when you're coming down to the consultation, one of the big impediments … is the requirement of some practices to move the consultation along and get the patient in and out as quickly as possible because of time constraints. A lot of the time, you get the impression that your doctor is just there to see whatever the issue of the day is and is not interested holistically in your total health.* (P5, M, FG2)

> *I didn't think that they* (GPs) *would be able to offer, you know, enough advice in, like, a timely manner … you know, they have time slots, and I didn't want to feel like I was wasting their time by asking extra questions.* (P3, F, FG3)

The importance of individualised care

There was a clear desire among all participants for nutrition care that is individualised, with acknowledgement that this is more likely to influence behaviour change. They recognised that generic nutrition advice, along the lines of 'eat less, move more', was not sufficient to make changes to their diet and therefore not helpful in eliciting positive behaviour change. In some cases, participants were advised by their GP that they need to lose weight or lower their cholesterol but were not given any information on how to achieve this. One participant was advised to follow a specific popular (evidence-based) diet by their GP but with no further information:

> *I think someone that's able to look at your lifestyle and help you curate a diet that works best for you is really important, rather than a one-size-fits-all approach.* (P3, F, FG4)

> *I've got quite high cholesterol, and so they* (the GP) *just give me the usual generic advice that is to, you know, modify my diet to bring my cholesterol down and that's it. They don't actually tell me how to modify my diet.* (P5, M, FG5)

Person-centred care was perceived by participants as an important element in the delivery of nutrition care. Participants acknowledged that wider socioeconomic determinants of health, such as religion, culture and income, can influence dietary patterns and subsequent nutrition status. Participants felt that awareness of these determinants and their impact on nutrition could be improved in the delivery of person-centred care:

> *They should be prepared to not be 100% prescriptive; I mean, each individual person's going to have their own preference for diet. And there's going to be religious requirements and cultural preferences, so they should be prepared for individual patients to not be able to stick to the perfect diet.* (P4, M, FG3)

> *Could be finances and understanding that sometimes the client might not have the financial capacity to purchase the foods that they're recommending and need to keep an open mind and a positive attitude about real application of their advice into their daily life.* (P2, F, FG3)

Topics, skills and attributes perceived as important in nutrition care

Participants were able to identify knowledge, skills in nutrition and personal attributes they felt were important in the delivery of nutrition care from a patient perspective. They agreed that the medical profession needs a minimum working knowledge and skill set in nutrition. There was particular emphasis on knowledge of the role of nutrition in health and disease, nutrition assessment as part of medical history and the ability to provide or direct the patient to some brief dietary advice, such as what to avoid:

> *I definitely think it'd be important to have a detailed history of diet, considering you have a detailed history of your family's health problems, for your medications … Why wouldn't diet be included in that?* (P4, M, FG1)

Participants emphasised the need for doctors to be able to provide dietary advice to prevent disease, in recognition that diet-related diseases are largely preventable. Descriptions of experiences of nutrition care to date did not include dietary advice for the promotion of health or prevention of disease. Participants noted that medical care appeared to be focused heavily on diagnosis and pharmacology:

> *If you're lucky enough to have a GP who's into a holistic approach, then they might talk about dietetics, but most GPs are primary health. They look for something that they can resolve there and then, give you a script of whatever and off you go.* (P4, M, FG6)

> *I imagine the intersection of nutrition and medical conditions is where they would have their training.* (P4, M, FG2)

Because nutrition requirements shift across the life span, participants identified the need for doctors to individualise nutrition advice for patients based on their life stage, with emphasis on infancy, childhood,

adolescence and the elderly. For example, some participants recognised that they might have a negative relationship with food or their body and expressed concern that this was often not met with awareness. This awareness was perceived as particularly relevant in female and adolescent healthcare. Participants also expressed the importance of tailoring nutrition care to patients based on factors other than life stage, such as income, employment and education:

> *So many people go through colic, and breastfeeding issues, there's not enough understanding on how to support the parents when they do go through that. And also with elderly people, and even middle aged with menopause … that's the sort of thing that GPs could perhaps expand their knowledge on.* (P4, F, FG5)

Communication skills were perceived as particularly crucial in the delivery of nutrition care. Participants reported experiences whereby their health concerns were dismissed or disregarded, so there was particular emphasis on listening skills. Attributes such as empathy and being open minded and willing to investigate patient concerns were perceived as paramount in the delivery of nutrition care and were often mentioned concurrently with communication skills:

> *Sympathy and empathy and … listening, whether that's a skill or an attitude is pretty important, because that's the other thing: I met a lot of patients with similar medical conditions, but their body's response to different foods was quite different. So, one thing fits all doesn't always apply.* (P2, F, FG4)

Finally, team-based care was identified as essential in the delivery of nutrition care, with emphasis on communication between practitioners in both a primary and secondary care context and referral for specialist dietetics care:

> *I think probably one of the most important attitudes that they should have is that a merely medical approach to health problems isn't the be-all and end-all, so that relying on allied health professionals when you've got a complicated medical situation is really important.* (P2, F, FG4)

Discussion

This study provides new insights into patient experiences of medical nutrition care and expectations of care as service users. Participants in this study recognised the significance of nutrition to patient care, but they experienced barriers, such as a lack of consultation time and low perceived competence and confidence to facilitate nutrition care. There was a clear desire for more person-centred, individualised and collaborative nutrition care at all levels.

GPs are the first port of call in the Australian healthcare system, and participants agreed that this makes them well placed to identify patients who might benefit from brief dietary advice and/or a referral for specialist dietetics care. Among other healthcare professionals that have a role to play in conducting initial patient consultations, Australian GPs have similarly acknowledged that they are in a favourable position to coordinate nutrition care for the Australian population.[15] These results indicate a clear agreement between patients and the medical profession regarding the potential role of Australian GPs in nutrition care. However, only 19 of the participants in this study reported receiving any nutrition advice from their GP, and there was clear dissatisfaction from most participants regarding the advice they had received in primary care. This echoes patient experiences of nutrition care previously captured in the literature; for example, in an Australian study, 84% of respondents agreed that nutrition care would be beneficial to the management of their diabetes, but less than half (43%) reported receiving this advice from their GP.[3] To this end, there appears to be a discrepancy between patient preferences for nutrition care and experiences of such care in practice.

The implementation of person-centred healthcare is a central tenet of *Australia's long term national health plan*.[16] Person-centred care enhances the clinician–patient relationship, fosters greater patient engagement in care and, importantly, increases the likelihood that patients will adhere to lifestyle recommendations.[17] Personalisation is an important dimension of person-centred care and is a key element of effective behaviour change, as recognised by participants in the present study.[18,19] Previously, the provision of personalised nutrition advice, which was based on behaviour change taxonomies and included strategies such as goal setting, food swap strategies and cooking tips, has achieved greater reductions in discretionary food intake compared with generalised dietary advice.[18]

In contrast, in the absence of person-centred care, patients have previously described feeling disengaged and perceive care plans as unhelpful and unrealistic.[20] Australian GPs have previously reported that they do not have sufficient knowledge and skills in nutrition to provide culturally, socially and economically sensitive nutrition care.[21] Skills including effective communication and humanistic attributes such as empathy were identified as elements of effective nutrition care by participants, in line with dimensions of person-centred care previously described in the literature.[22]

Participants experienced systemic barriers to nutrition care, including GP workload and limited consultation time, access to dietetic services and low perceived competence and confidence among doctors to provide nutrition care, in accord with perceived barriers previously identified by doctors.[23] Participants provided insightful recommendations in recognition of these barriers, namely utilisation of the GP waiting room for the delivery of written nutrition education resources as a minimum in lieu of advice from their doctor and a multidisciplinary approach to nutrition care to reduce GP workload.

Multidisciplinary care is the cornerstone of person-centred healthcare and has been shown to improve health outcomes, particularly for patients living with chronic disease.[24] Participants had a positive attitude towards a collaborative approach to nutrition care, yet many participants, even those most proactive about nutrition, reported missed opportunities for referral in practice. Having a dietitian embedded in the practice setting provides a means to increase patient exposure to nutrition through avenues independent of the GP, and might reduce GP workload, improve patient care and save costs.[25] Furthermore, from participants who indicated that they had received a referral to a dietitian, most reported receiving it from a GP clinic with

a dietitian on site. It is relevant to consider practice-based approaches given the systemic barriers to the receipt of nutrition care identified in this study. Dietitians are highly qualified practitioners with specific expertise in nutrition, counselling for behaviour change and health promotion.[26] Nutrition is a feature of 16–24% of all GP visits, and patients with conditions that are manageable with dietary interventions consult a GP more than average.[27,28] Thus, increased use of dietetic services can significantly reduce GP workloads, a pervasive barrier to the adequacy of nutrition care delivered by GPs.[26] Yet in 2015–16, GP referrals to dietitians made up only 9% of all allied health referrals in Australia.[29] It has been previously reported that GPs who have received nutrition training refer their patients to a dietitian more often.[30]

This study contributes to the body of knowledge regarding patient perceptions of nutrition care received from medical professionals and the barriers that patients face in the receipt of this care. However, although the eligibility criteria were broad and, therefore, the results from this population are likely generalisable, focus group participants were self-selected, and this might have skewed the perceived importance of nutrition and, thus, expectations of care. Two of the researchers were dietitians, and this might have influenced the interpretation of the data to prioritise nutrition care as a solution in healthcare, although a third (non-practitioner) researcher also provided duplicate data analysis. In addition, time from medical care to data collection was not recorded as part of this study and might have influenced participant recall. Although efforts were made to achieve a heterogeneous sample with regard to gender, age and location, there might be perspectives that were not captured in this study, and it was a relatively small sample (n=32), which might limit the generalisability of the results.

Conclusion

Patients in Australia have a desire for individualised and collaborative nutrition care but experienced systemic barriers to the receipt of such care in practice, such as time constraints and the low perceived nutrition knowledge of doctors.

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