Patient-centred dietetic care from the perspectives of older malnourished patients

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Abstract
Background: Governing organisations for health services currently recommend a patient-centred (PC) approach to practice for all health professions, including dietetics. For the vulnerable older malnourished patient, this approach needs to be prioritised to improve outcomes. The paucity of patient experience data likely limits evidence-based, patient-centred care (PCC) from being implemented effectively. The present study aimed to identify quality indicators of dietetic services from the perspectives of older malnourished patients to inform evidence-based PC dietetic care. Methods: Surveys were completed by a sample of 28 females and 28 males (mean age 81 years) who had been seen by a dietitian for malnutrition assessment. In-depth, face-to-face, semi-structured interviews were undertaken with a sub-sample of four females and six males (mean age 81 years). Interviews were transcribed verbatim. Thematic analysis of transcripts and open-ended survey responses was conducted to determine patient-identified quality indicators. Results: Three structure indicators (continuity of care through regular contact and post-discharge dietetic follow-up; interdisciplinary coordination and collaboration; and high-quality hospital food services), five process indicators (addressing a patient’s primary medical concern; involving the patient’s family; providing clear and simple dietetic information; providing expert dietary knowledge; utilising interpersonal communication skills) and three outcome indicators (improvement in health status; improvement or maintenance of independence; weight gain) were identified. The experiences of older malnourished patients with dietetic services, as described in the present study, reinforce the importance of ensuring high-quality and tailored dietetic care as a key element of PC dietetic services. Conclusions: The quality indicators of dietetic services identified in the present study may facilitate dietitians to provide evidence-based PCC for older malnourished patients.

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Authorship.
EH conceived the idea for this study, collected and analysed data, undertook a literature review, wrote the first draft and completed this manuscript. LB and MM conceived the idea for larger patient journey research project; supervised the project; assisted data collection; and contributed to the drafting of the manuscript. AM and KL contributed to the study design and data analyses; supervised the project; and contributed to the drafting of the manuscript. EH, LB, MM, AM and KL all critically reviewed the manuscript and approved the final version submitted for publication.
Abstract

Background

Governing organisations for health services currently recommend a patient-centred (PC) approach to practice for all health professions, including dietetics. For the vulnerable older malnourished patient this approach needs to be prioritised to improve outcomes. The paucity of patient experience data likely limits evidence-based patient-centred care (PCC) from being effectively implemented. The present study aimed to identify quality indicators of dietetic services from the perspectives of older malnourished patients to inform evidence–based PC dietetic care.

Methods

Surveys were completed by a sample of 28 females and 28 males (mean age 81 years) who had been seen by a dietitian for malnutrition assessment. In-depth, face-to-face, semi-structured interviews were undertaken with a sub-sample of four females and six males (mean age 81 years). Interviews were transcribed verbatim. Thematic analysis of transcripts and open-ended survey responses was conducted to elucidate patient identified quality indicators.

Results

Three structure indicators (continuity of care through regular contact and post-discharge dietetic follow-up; interdisciplinary coordination and collaboration; and high quality hospital food services), five process indicators (addressing the patients’ primary medical concern; involving the patients’ family; providing clear and simple dietetic information; providing expert dietary knowledge; utilising interpersonal communication skills) and three outcome indicators (improvement in health status; improvement or maintenance of independence; weight gain) were identified. The experiences of older malnourished patients with dietetic services described in this study, reinforce the importance of ensuring high quality and tailored dietetic care as a key element of PC dietetic services.

Conclusions

The quality indicators of dietetic services identified may facilitate dietitians to provide evidence-based PCC for older malnourished patients.
Introduction

A growing number of older Australians are reliant on healthcare due to the increasing population and rise in chronic conditions \(^{1; 2; 3; 4; 5}\). Within this population malnutrition is a serious medical concern, with approximately 40% of hospitalised and 10-30% of community residing older adults are affected \(^{6; 7; 8; 9; 10}\). As a result, older adults frequently interact with both inpatient and community-based dietetic services. With advancing information technology, today’s population are more informed and less likely to be passive recipients of healthcare and advice \(^3\). Therefore, patient collaboration is necessary in order to tailor dietetic services to the complex and holistic needs of today’s older malnourished patient. These ideals are recognised through patient-centred care (PCC) \(^{11}\).

PCC is identified as a key dimension of high quality healthcare \(^{12; 13; 14}\). A range of governing organisations and evidence-based practice guidelines recommend patient-centred (PC) dietetic care for older malnourished patients \(^{10; 14; 15}\). However, there appears to be a lack of agreement or clarity on what variables define best-practice PCC in various settings. Thereby, hindering wide-scale establishment of PCC, particularly in the hospital setting \(^{16; 17; 18; 19}\).

‘Patient-centeredness’ is a measure of healthcare quality \(^{12}\). Therefore, clear quality indicators need to be identified to inform PCC. Lawrence and Kinn \(^{20}\) define a quality indicator as an agreed upon element of practice which can be measured to assess the quality of care. For PCC for the older malnourished patient these indicators must be grounded on the patients’ perspectives of their experiences with healthcare \(^{20}\). However, this data is currently lacking across all healthcare disciplines, including dietetics \(^{13}\). Therefore, the aim of this exploratory study was to identify PC quality indicators of dietetic services from the perspectives of older malnourished patients.

Methods

Study approach and context

This study drew upon phenomenological methodology; as this approach is grounded on determining people’s first-hand emotions, attitudes and perceptions \(^{21; 22}\). The study was undertaken as part of wider local research investigating the patient journey of older adults, which was approved by the Human Research Ethics Committee (HE15/007). ‘Older adult’
was considered someone 70 years or older. This demographic is most reliant on health services (4) and are a priority population for PCC (23).

Population sampling
A purposive sampling technique was employed for recruitment. The inclusion criteria were patients aged ≥70 years who were (i) screened as at risk of malnutrition and (ii) had subsequently been seen by a dietitian for malnutrition assessment using a validated malnutrition assessment tool Mini Nutrition Assessment (MNA) or Subjective Global Assessment (SGA). Patients from palliative care and oncology wards, dementia patients and those with a Mini-Mental State Examination score ≤18 or a Rowland Universal Dementia Assessments Scale score ≤22, were excluded. Additionally, individuals were excluded if upon approach were deemed too unwell to participate. Furthermore, if patients’ consented to the interview but two months or greater had lapsed since seeing a dietitian, they were excluded from the interview.

A sample of eligible patients were recruited from five hospitals within the Illawarra Shoalhaven Local Health District, between March and August 2015. The recruitment sites consisted of one general medical ward, three rehabilitation wards and two aged-care/non-acute wards, one dietetic outpatient service and one multidisciplinary transitional care service. Verbal consent to approach for participation in the study from each patient was obtained by the patients’ treating dietitian, before researchers [EH and MT] obtained informed written consent and administered the survey. If eligible patients were discharged prior to having been approached for participation then study information, consent forms and the survey were mailed to them, including a stamped return envelope.

Data Collection
Data was collected and triangulated through three methods: medical record review, a patient satisfaction survey and semi-structured in depth interviews.

Demographic details for each participant (age, gender, length of hospital stay, malnutrition assessment scores and discharge destination) were obtained from written progress note and electronic medical record review.

The survey consisted of 27 questions (Appendix A) which was pilot tested with a small sample of eligible patients and dietetic health professionals to assess face validity. This study
reports on the responses to the open-ended survey questions relating to the patients’ experience and satisfaction with dietetic care received. Additional data obtained from closed questions will be analysed in future research.

Semi-structured interviews were conducted by a non-treating member of the research team. These interviews lasted between 10-30 minutes and were undertaken at the patients’ home post-discharge or in the hospital in a private room; at a time that was mutually convenient for patient and interviewer. The goal of the interview was to capture patients’ experiences with dietetic service and their perceptions of this care. An interview guide covered five key topic areas (Appendix B) including narrating the nutrition care experience; recollections about referral and treatment delivered by the dietitian; rating the experience of dietetic care; perspectives on compliance to the dietary prescription; and assessment about the value of the care provided by the dietitian. Interviews were recorded using a digital recorder and transcribed verbatim by researchers, including the main author [EH and MT].

Data analysis

The qualitative data analysis frameworks by Green et al. (24) and Fade and Swift (25) were drawn upon to analyse the qualitative data obtained from the survey and interviews. Analysis involved immersion in the data, coding transcripts, creation of categories and identification of themes. Three of the ten interview transcripts were reviewed against the digital recording to enhance transcriptional accuracy. The transcripts were coded separately by EH and MT to develop main themes and ensure rigour (25). Subcategories were then developed to account for variance within these themes. Differences were identified and debated through discussion, until consensus was reached, as recommended by Harris et al. (21). QSR NVivo 10 software (NVivo qualitative data analysis software. 10 ed. Melbourne, Australia: QSR International Pty Ltd; 2012) was utilised to manage this qualitative data. Demographic data was analysed using SPSS (IBM Corp. Released 2013. IBM SPSS Statistics for Windows, Version 22.0. Armonk, NY: IBM Corp) and reported as means and standard deviations. The Shapiro-Wilk test was used to determine normality.

Results

One hundred and seventeen participants were eligible and were approached for participation in the study. Fifty-six (response rate: 47.9%) completed the survey. Reasons for non-
participation in the interviews included death (n=2), drop out (n=2 related to relocation and inconvenience), no longer meeting the eligibility criteria (n=1) and greater than two months having lapsed since their last dietetic consult (n=12). The interview sample size (n=10) was deemed appropriate for the depth of qualitative data collected, as data saturation was reached by interview number eight with no new themes subsequently identified (21).

Sample demographics

Participant demographics are outlined in Table 1. There were 56 survey participants (28 males and 28 females) with a mean age of 80.73 years (0.962). The interview sub-sample comprised of six males and four females, with a mean age of 80.2 years (2.476). Of the survey sample for which an MNA or SGA score was recorded (n=52) 88.5% were assessed as at risk of malnutrition or malnourished. This was the case for 100% of the interview sub-sample.

Patient–centred quality indicators of dietetic care

Eleven quality indicators embedded within three domains: structure (relating to wider healthcare systems and environment), process (relating directly to the dietitian-patient interaction), and outcome (relating to desired measurable or immeasurable outcomes of dietetic care) were identified (Table 2). A selection of these quality indicators are discussed below with exemplar quotes provided to reinforce important findings.

Structure indicators

Continuity of care through regular contact and post-discharge dietetic follow-up. Both open-ended survey and interview responses revealed that continuity of care through regular contact and post-discharge dietetic follow-up was considered to be PC dietetic care. Unfortunately, participants often felt this was limited, particularly in the hospital setting. For example, P82 described the interaction with the inpatient dietitian as "fleeting". Furthermore, P71’s emotive response to being asked if they had contact with a dietitian following a hospital admission supports the value in providing continuity of care through post-discharge dietetic follow-up: “No – you’re the only one who cares about me”. In comparison, P74 reflected positively on regular post-discharge follow-up with the dietitian available through a community-based transitional aged care program: “ITACS very good. They came here all the time (sic)".
Interdisciplinary coordination and collaboration. Participants valued dietitians coordinating and working collaboratively with other healthcare professionals to provide holistic care as a component of PCC, as encapsulated in the following quote: “Dietitians have their role and that is to see if you were eating healthy... as long as you’re not ignoring other issues... if you’re going to ignore that and just concentrate on one well it’s going to fail” (P45). However, several participants recounted experiences whereby poor coordination and collaboration within the team failed this impacted their nutrition: “When they take me to X Hospital for a test, they wipe me off the list, so when I get back there’s no tea, or no lunch” (P4).

High quality hospital food services. Patient perceptions regarding the quality of dietetic services were intimately linked with perceptions regarding the quality of hospital food and interactions with food service staff. Overwhelmingly experiences with the hospital food services were negative and this reflected negatively on perceptions of the dietitian. For example, P74 explains: “(Dietitians) do nothing... No, we all complain... they brought the meals and they go out again. They saw that and they do nothing” (P74).

Process indicators

Addressing the patients’ primary medical concern. The importance of the dietitian tailoring nutritional advice and care to the patients’ primary medical concern is illustrated by P50: “There should be a guide to guide you, what, you know, really need... I have a break in my femur so you need calcium and protein... and other (nutrients) for your bones (sic)”. Several of the respondents believed that nutrition care could not be provided until their underlying medical issue was diagnosed: “First thing I’d ask the doctors what happened to me and then I would maybe ask for the dietitian” (P1); “A dietitian couldn’t tell me about what to eat because she didn’t have the knowledge from the doctors” (P15). These quotes further highlight the importance of interdisciplinary coordination and collaboration.

Providing clear and simple information. Information that was understandable and actionable was considered a key element of a high quality PC dietetic care; and aligns with the theme of providing continuity of care. They valued clear and simple information provided by dietitians: “I got home and understood everything right away” (P15) and disliked the use of jargon: “When the doctors were talking to me... they were saying F, uh, F, FD, F, C, FJ and all like this I don’t even know what they were flipping talking about” (P15). Further
emphasising the importance of providing clear and simple information, several participants had difficulty recalling the information provided in the hospital setting, as evidenced by P50: “What did the dietitian do for me hmmm... I can’t remember anything in particular”. Conversely, both survey and interview participants were more likely to recall written dietetic information and this was viewed positively: P74: “I got a note... She’s very good”.

Utilising interpersonal communication skills. High quality PC dietetic care was recognised when dietitians utilised interpersonal skills such as active listening and empathy: “They listen to you. Whatever you know, you want, they try to help you... they are very kind” (P36), “she was lovely” (P72). When participants felt the dietitian or other members of the health care team did not utilise interpersonal skills, the perception of that health professional was negatively affected. This was repeatedly communicated in response to being asked what inpatient dietitians could do to improve the service: “They could listen... they don’t listen to you” (P72); and “It just seems hard to get through sometimes” (P4). Further supporting the importance of utilising interpersonal communication skills with older malnourished patients, P72 recounted an impersonal interaction with a doctor: “A doctor – who didn’t give me his surname, I much prefer when a doctor says “I’m Dr Smith”, because you can’t identify them otherwise. The nurses come in and say “Hi, I’m Julie, I’m looking after you”.

Outcome indicators

Improvement of and maintenance of independence. Patients valued dietetic care that was tailored to helping them achieve or maintain a level of independence that particularly allowed them to remain in their own home: “You are professionals in here... when I come in this hospital I couldn’t lift myself from the chair... now I can walk... I am independent... believe me I am very happy” (P36); “I need the strength in my legs... I need the strength in me upper body and that and diet... is part of it, along with the physical part yeah, so I’ll do whatever I need to quicken this process up so I can get out (sic)” (P46). As also evident from these quotes, participants recognised the importance of dietitians collaborating with other members of the healthcare team to expedite their transition home; further supporting that theme as a component of PC dietetic care.
Discussion

In this study we identified eleven key themes that can be used to describe high quality PC dietetic care for older malnourished patients. Previous research has largely utilised Likert-scale-style and closed questions to capture patient preferences in dietetic services. These studies have elucidated similar key indicators such as: interdisciplinary collaboration (26); interpersonal communication skills (27; 28; 29), empathy (30) and patient involvement (31). A strength of the present study is the use of more open-ended questions and triangulation through in-depth qualitative interviews. This allowed for more detailed patient experiences to be elucidated, which is key to informing PCC (22; 32; 33; 34; 35). In line with this thinking, Hancock et al. (36) utilised semi-structured interviews to capture patient experiences. Participants identified: communication, rapport, individualised information and non-judgemental regular support as quality indicators of dietetic care (37). Cant and Aroni (27) confirmed the value of good communication through patient interviews. Moreover, Endevelt and Gesser-Edelsburg (38) supported the importance of providing individualised dietetic care through focus groups with patients. However, as these studies have not explored the perceptions of older malnourished patients regarding hospital-based dietetic services, this study helps to address a critical gap in the literature. Therefore, the present findings offer information necessary to help inform evidence-based PC dietetic care for the vulnerable older malnourished patient population.

Participants in this study acknowledged that quality inpatient dietetic care is often hampered by structures unique to the hospital environment. Specifically, they explained that the present hospital setting did not support regular dietetic follow-up and restricted obvious and optimal interdisciplinary coordination and collaboration. Additionally, with the apparent poor delineation between food service staff and dietitians, dissatisfaction with the quality of hospital food services translated to negative perceptions of the dietitian. These findings highlight that dietetic care environments must be conducive to PCC in order to facilitate this practice. This notion is recognised in several key health policy reports and research studies which identify that healthcare services must have systems in place that are conducive to PCC; to allow health professionals to practice in this way (39; 40; 41; 42). Therefore, changes at a hospital system level in relation to: ensuring adequate dietetic staffing; facilitating interdisciplinary collaboration and coordination; and improving the quality of food services, appear to be central to facilitating PC dietetic care in this setting.
As outlined above, working within the hospital environment may present obstacles to the provision of PC dietetic care. This was recognised by the older malnourished patients in this study. Hence, they placed high value on continuity of care through post-discharge dietetic follow-up. A framework describing PCC for older adults by the Victorian Department of Health \(^{(23)}\) supports this, by recommending interdisciplinary discharge planning and follow-up for this vulnerable population \(^{(23)}\). These ideals can be recognised in the relatively novel healthcare model: the PC medical home. This is a community-based model whereby one practitioner coordinates an interdisciplinary care plan that is tailored the patients’ personal needs and values \(^{(43)}\). The benefits of the PC medical home (and similar transition home programs for older adults) include lower rates of hospital readmission and improvements in patient satisfaction with care, as described in a systematic review by Allen et al. \(^{(44)}\). Therefore, the development of more interdisciplinary community-based dietetic services and dietetic positions in transition home services, may promote PC dietetic care for older malnourished patients.

Being listened to was a salient indicator of interpersonal communication and PC dietetic care according to the participants. Due to the time restrained and busy nature of the hospital setting, participants in the present study felt they were not always effectively heard by dietitians. This issue may be further compounded as older patients are more likely to suffer from hearing, vision and cognitive impairments \(^{(45)}\). Whitehead et al. \(^{(46)}\) also recognise that good communication, which encompasses attentive listening, is fundamental to PCC, and key to facilitating dietary behaviour change. Unfortunately, they also found that while recognising the importance of good communication with patients, dietitians noted that it was time consuming \(^{(46)}\). However, a report by the Victorian Department of Health \(^{(23)}\) emphasises that time taken to communicate with older patients is not wasted. They explain that it is safer and more efficient to know what patients need than to assume and this is necessary to provide optimal and tailored PCC \(^{(23)}\). While dietitians are encouraged to take the time to utilise interpersonal communication skills with older malnourished patients to provide PCC, it is appreciated that until hospital-based systems are transformed to facilitate this practice, this may continue to be a challenge. This further highlights the value of community-based dietetic follow-up to help to overcome hospital setting related barriers to interpersonal communication.
To our knowledge this small exploratory study is the first to capture older malnourished patients’ experiences with hospital dietetic services in both the inpatient and community setting. It provides the initial data to inform an ongoing wider study on the older malnourished patients’ dietetic journey. However, limitations should be acknowledged. Firstly, only 16 weeks were available for data collection. This subsequently limited the sample size as the capacity for researchers to recruit inpatients before they were discharged was restricted; and response rate was lowest when participants were recruited via mail (14.3% and 0% for the survey and interview respectively). Due to the small sample and purposive nature of sampling the views of participants included in this study may not represent the views of all older malnourished patients. Moreover, throughout the survey responses and interviews an overwhelming sense of agreeableness evolved. This may be explained by Coulter and Jenkinson (47) who found that older patients have fewer expectations of the care provided in comparison to their younger peers. Similarly, the results may have been exposed to positive bias as older patient responses can be influenced by a desire to please the researcher (48) and a hesitation to critique healthcare (49). While these limitations do make the representativeness of the findings unclear, qualitative research in nutrition sciences aims to enrich our knowledge of certain processes, rather than present definitive relationships and conclusions (21). Hence, the present findings help to address the lack of patient experience research conducted with the older malnourished patient population. This is central to informing evidence-based PC dietetic care.

It would be worth exploring older malnourished patient perceptions of quality dietetic care in larger samples and in other health districts across Australia, as well as in other countries. This will allow the translatability of these findings to be explored. Additionally, such research may further enhance our understanding of PC dietetic care for older malnourished patients across the care continuum. Through expanding this evidence base and also exploring the perceptions of health professionals, the present findings could aid the development of a tool to assess the patient-centeredness of dietetic services for older malnourished patients.

In conclusion the results of this study have identified eleven quality indicators of dietetic services from the perspectives of older malnourished patients. This set of indicators help to describe what older malnourished patients believe constitutes PC dietetic care. This may assist dietitians to provide evidence-based PCC.
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Conflicts of interest, sourcing of funding and authorship:

The authors declare that they have no conflicts of interest and received no financial support for this study. EH conceived the idea for this study, collected and analysed data, undertook a literature review, wrote the first draft and completed this manuscript. LB and MM conceived the idea for larger patient journey research project; supervised the project; assisted data collection; and contributed to the drafting of the manuscript. AM and KL contributed to the study design and data analyses; supervised the project; and contributed to the drafting of the manuscript. EH, LB, MM, AM and KL all critically reviewed the manuscript and approved the final version submitted for publication.

References


Appendix A. Survey

**Patient satisfaction survey**

In the Nutrition Department of Illawarra Shoalhaven Local Health District we aim to provide the best quality dietetic service to our patients and clients.

By completing this survey, you will be providing us with feedback to improve the quality of our care and services. Your responses will remain confidential.

We’d like to thank you in advance for your time.

**Please provide some basic information about yourself: (Please circle)**

- **Gender:** Female   Male

- **Age:** 70-74yrs   75-84yrs   85+yrs

- **Living situation:** Live alone in own home   Live with spouse/partner/family

   Live in low level care   Live in Nursing Home

**Tell us about your experience in hospital**

1- **How long have you been in hospital for? Please tick:**

   - [ ] ≤1 week
   - [ ] 1-2 weeks
   - [ ] 2-4 weeks
   - [ ] 1-3 months
   - [ ] ≥ 3 months

2- **If you have been transferred to different hospitals during your stay please let us know how many, please circle.**

Coledale   Bulli   Wollongong   Port Kembla
3- During your stay in hospital, did you ask to see a Dietitian?

[ ] No
[ ] Yes, tell us why:
________________________________________________________________________

4- During your stay in hospital, did a Dietitian come to see you without you asking? Please tick:

[ ] Yes, please tell us the number of dietitian visits: _________
[ ] No, if no, go to question 10
[ ] Unsure/don’t know

5- Can you recall the information the dietitian discussed with you, please tick:

[ ] Yes, please tell us what the information was mainly about:
________________________________________________________________________
[ ] No
[ ] Unsure

6- Did your dietitian give you advice on ways to improve your nutritional intake?

[ ] Yes, please tell us what key advice was given:
________________________________________________________________________
[ ] No
[ ] Unsure

7- Did you find this information useful?

[ ] Yes, please tell us what advice was most useful:
________________________________________________________________________
61  [    ] No, please tell us what might have been useful:
62  __________________________________________
63
64
65  ____________
66  8- Did the Dietitian explain things in a way you could understand?
67  [    ] Yes
68  [    ] No, please tell us how it could have been explained better:
69
70  __________________________________________
71
72  9- If you have seen a dietitian during THIS stay, how would you rate the
73  dietetic service that you have received?
74
75  Excellent                     Good                     No comment                     Fair
76  Poor
77
78  Please comment on what the dietitian(s) could have done better or what they did
79  well?
80  __________________________________________
81
82
83  10- During your stay, have you received any special/different foods or
84  supplement drinks?
85  [    ] Yes, please let us know what those foods/drinks were:
86  __________________________________________
87  [    ] No
88  [    ] Unsure
89
90
91  11- Have you been weighed while you have been in hospital?
92  [    ] Yes
93  [    ] No
12- Do you have any concerns about your weight?
[ ] Yes, what are they? -

[ ] No
[ ] Unsure

13- Do you have any concerns or worries about how well you have been eating in hospital?
[ ] Yes, what are they?

[ ] No
[ ] Unsure

14- Do you think it would be helpful to see a dietitian after you go home from hospital?
[ ] Yes, please let us know why?

[ ] No, please let us know why not?
[ ] Unsure

15- What language do you mainly speak at home?
[ ] English, go to question 17
[ ] A language other than English, specify language

16- If you saw a dietitian, was an interpreter provided?
[ ] Yes
[ ] No, did not need one
[ ] No, but would have liked to have had one.
17- Did you complete this survey on your own?
[ ] Yes
[ ] No, with help from someone (please specify)

18- Have you seen a dietitian as an outpatient
[ ] Yes, please go on to question 19
[ ] No, this concludes the survey for inpatient dietetic services; thank you for your time, your feedback is greatly appreciated.

Please feel free to write any other comments about inpatient dietetics services you wish to share with us below:

Tell us about your experience as an outpatient

Only answer these next questions if you have seen a dietitian as an outpatient.

19- If you have seen a dietitian as an outpatient please indicate with which service:
[ ] ITACS (Illawarra Transitional Aged Care Service)
[ ] CONECT (Community Outpatient and Extended Care Team)
[ ] Other (Please specify)

20- Do you know why you have seen the dietitian?
[ ] Yes, tell us why:
[ ] No
21- Has your Dietitian given you advice on ways to improve your nutritional intake?
[ ] Yes, please tell us what key advice was given:
__________________________________________________________

[ ] No
[ ] Unsure

22- Have you found this information useful?
[ ] Yes, please tell us what advice was most useful:
__________________________________________________________

[ ] No, please tell us what might have been useful:
__________________________________________________________

23- Did the dietitian explain things in a way you could understand?
[ ] Yes
[ ] No, please tell us what you would have preferred/how it could have been better:
__________________________________________________________

24- How would you rate the outpatient dietetic service that you have received?
Excellent                    Good                     No comment                     Fair  Poor

Please comment on what the dietitian(s) could have done better or what they did well?
25- What language do you mainly speak at home?
[  ] English, go to question 27.
[  ] A language other than English, specify language ____________________________

26- Was an interpreter provided for you?
[  ] Yes
[  ] No, did not need one
[  ] No, but would have liked to have had one.

27- Did you complete this survey on your own?
[  ] Yes
[  ] No, with help from someone (please specify) ____________________________

Please feel free to write any other comments about outpatient dietetic services that you wish to share with us below: _________________________________________________________________

Thank you for your time. Your feedback is greatly appreciated
1. During your hospital admission, a Dietitian was involved in your care. Please describe your nutrition care experience from beginning to end (including your experience with the outpatient service (ITACS/CONECT)).
Prompts: What triggered the need for nutrition care? What did the Dietitian do for you? Were you given a special diet/supplement drinks/ information/reassurance etc.? Were you given any specific advice? How have you been using the advice that you were given?

2. What was positive about seeing the dietitian?
Prompts: Identify type of information provided, how it was delivered and in what setting, what changes if any was enacted with the eating plan, how as the advice used during and proposed for after the hospital stay.

3. Was there anything negative about your interaction with the Dietitian?
What constructive criticism can you offer us so we can improve things?
Prompts: Identify if the Dietitian understood what the patients concerns were; if their preferences and requests were taken into account, and if not why the patient might think they were not; identify if the food requirements were the main concern, or the advice about how to manage the dietary requirements was of main concern; identify what the patient thinks might be done better from their experience.

4. If you were able to talk with someone who might have similar health issues and who had to go to hospital what might you advise them to talk with the Dietitian about?
Prompts: identify any specific areas of concern or areas that were well done that might not be clear to other patients around food and nutrition offerings or advice;
identify if patients are concerned about how they will manage their food and nutrition needs at home.

4. Any other comments that you would like to make about the Dietitian or the service that we have not yet covered
Table 1. Survey and interview participant demographics.

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<tr>
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<th>Survey (n=56)</th>
<th>Interview (n=10)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>28 (50.0%)</td>
<td>6 (60.0%)</td>
</tr>
<tr>
<td>Female</td>
<td>28 (50.0%)</td>
<td>4 (40.0%)</td>
</tr>
<tr>
<td>Recruitment setting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inpatient</td>
<td>46 (82.1%)</td>
<td>10 (100.0%)</td>
</tr>
<tr>
<td>Outpatient</td>
<td>10 (17.9%)</td>
<td>0 (0.0%)</td>
</tr>
<tr>
<td>Malnourished or at risk of malnutrition</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>46 (88.5%)</td>
<td>10 (100.0%)</td>
</tr>
<tr>
<td>No</td>
<td>6 (11.5%)a</td>
<td>0 (0.0%)</td>
</tr>
<tr>
<td>Discharge destination</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Home</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>29 (46.4%)</td>
<td>5 (50.0%)</td>
</tr>
<tr>
<td>Home with dietetic follow-up</td>
<td>12 (41.1%)</td>
<td>2 (20.0%)</td>
</tr>
<tr>
<td>Residential aged care facility</td>
<td>12 (21.4%)</td>
<td>3 (30.0%)</td>
</tr>
<tr>
<td>Deceased</td>
<td>5 (8.9%)</td>
<td>0 (0.0%)</td>
</tr>
<tr>
<td>Hospitalised at conclusion of data collection period</td>
<td>9 (16.1%)</td>
<td>2 (20.0%)</td>
</tr>
</tbody>
</table>

*aThis data was only available for 52 participants*
Table 1. Quality indicators of dietetic services identified from surveys (n=56) and interviews (n=10) with older malnourished patients.

<table>
<thead>
<tr>
<th>Structure</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuity of care through regular contact and post-discharge dietetic</td>
<td></td>
</tr>
<tr>
<td>follow-up</td>
<td></td>
</tr>
<tr>
<td>High quality hospital food services</td>
<td></td>
</tr>
<tr>
<td>Interdisciplinary coordination and collaboration</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Process</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Addressing the patients’ primary medical concern</td>
<td></td>
</tr>
<tr>
<td>Involving the patients’ family</td>
<td></td>
</tr>
<tr>
<td>Providing clear and simple dietetic information</td>
<td></td>
</tr>
<tr>
<td>Providing expert dietary knowledge</td>
<td></td>
</tr>
<tr>
<td>Utilising interpersonal communication skills</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Outcome</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Improvement in health status</td>
<td></td>
</tr>
<tr>
<td>Improvement or maintenance of independence</td>
<td></td>
</tr>
<tr>
<td>Weight gain</td>
<td></td>
</tr>
</tbody>
</table>

N.B. Quality indicators in each category are listed alphabetically