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'We are all time poor': is routine nutrition screening of older patients feasible?

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'We are all time poor': is routine nutrition screening of older patients feasible?

Abstract

Background Despite clinical guidelines that recommend routine nutrition screening of older patients, this does not generally occur in the Australian general practice setting. This study aimed to identify perceived barriers and opportunities to implementing nutrition screening of older people in general practice. **Methods** Twenty-five in-depth individual interviews were conducted with general practitioners, general practice registrars and practice nurses. Interviews were audio-recorded, transcribed verbatim and analysed thematically. Observations were performed to identify opportunities to conduct nutrition screening within general practice workflow. **Results** The primary identified barrier to screening related to time constraints, which was further validated by the observational component of the study. The main opportunity for screening was seen to be within the existing Australian Government Medicare Benefits Schedule Primary Care Item, 'Health assessment for people aged 75 years and older'. **Discussion** Incorporation of a validated and short nutrition screening instrument into the existing Health assessment was identified as the most feasible way to encourage the uptake of nutrition screening in general practice.

Disciplines

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Title:

“We are all time poor.” Is routine nutrition screening of older patients feasible?

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Background

Despite clinical guidelines that recommend routine nutritional screening for older patients, this does not occur in Australian General Practice settings. This study aimed to identify perceived barriers and opportunities to implementing nutrition screening in General Practice.

Methods

Twenty five in-depth individual interviews were conducted with General Practitioners (n= 10), General Practice Registrars (n= 5) and practice nurses (n= 10). Interviews were audio-recorded, transcribed verbatim and analysed thematically. Observations were also performed to identify opportunities to conduct nutrition screening within practice workflow.

Results

The primary identified barrier related to time constraints, was further validated by observational component, and the main opportunity was within the existing Health Assessment for people aged ≥ 75 years (75+ HA).

Discussion

Incorporation of a validated short nutritional screening instrument into the existing 75+ HA was identified as the most feasible way to encourage uptake of nutrition screening in General Practice.

Keywords: malnutrition, nutrition screening, barrier, opportunity.

Title:

**“We are all time poor.” Is routine nutrition screening of older patients
feasible?**

Word Count: 2774 including quotations of participants

Introduction

Recent Australian data has demonstrated that malnourished older patients admitted to either acute¹ or rehabilitation hospitals² have a 3.5 fold increased risk of dying within a 12 – 18-month follow-up period, compared to their age-matched non-malnourished peers, even accounting for underlying illness and other confounders. Prolonged length of hospital stay, increased rate of hospital readmissions and referral to higher level of care were other associated outcomes.^{1,2} Importantly, most of these patients were discharged home, in a poorly nourished state, and would be under the care of their General Practitioners.

Malnutrition in community dwelling older adults is often undiagnosed and under recognised despite the existence of clinical guidelines that recommend routine nutrition screening.^{3,4}

Nutrition screening, which is an initial step to identify malnutrition, is defined as ‘The process of identifying clients with characteristics commonly associated with nutrition problems who may require comprehensive nutrition assessment and may benefit from nutrition intervention.’⁴ However, nutrition screening is not routinely conducted in General Practice despite evidence that early intervention improves clinical outcomes and patient quality of life.⁴ Patients indicate that further intervention from health professionals including dietitians is highly regarded to further manage their health issues.⁵

Annual health assessment of persons aged 75 years and older (75+ HA) is an initiative which aims to improve older patients’ health and includes reviewing patients’ nutritional status.⁶ However, uptake of the 75+ HA is low⁷ and a validated nutrition screening tool is not a component in 75+HA.⁶

This study is the first step in identifying practical ways in which nutritional screening could be implemented in General Practice. The aim of this study was to identify perceived barriers

and opportunities to implementing nutrition screening in older adults among health care professionals in primary care settings.

Method

This study was an exploratory qualitative study to better understand this issue. In depth face to face individual interviews were conducted using a semi-structured interview guide in three general practices within the Illawarra and Shoalhaven regions of New South Wales in March and April 2012. The interviews were conducted within a two week period in each practice. The practices were purposively sampled from metropolitan, regional and rural areas and general practitioners (GPs), general practice registrars (GPRs) and practice nurses (PNs) were recruited from each practice. All participants who agreed to participate in the study provided their written consent prior to completion of their in-depth interview.

Interviews were digitally recorded and transcribed verbatim. Data was coded using constant comparison for topics development. Based on content analysis, topics were allocated into themes⁸ and analysis was performed using qualitative analysis software, QSR NVivo version 9. A single researcher conducted the analysis, thereafter the results were discussed between the research team members (three of whom were senior GPs whose practices had participated) and consensus reached. All participants were invited to review their individual transcripts during practice feedback sessions and before finalization of the analyses.⁹ No further commentary was received from the participants.

In addition to individual interviews, triangulation was conducted using observational data collected in the same three general practices by the same single researcher. The purpose of the observational component was to identify opportunities within the practice workflow where best a nutrition screening activity could be incorporated.⁸ Practice managers and receptionists were informed when the observations would be taking place and a notice was

placed at the reception to inform patients of the activity. Time spent in each clinical area was documented for a sample of five older patients who attended the practice on the day of observation at each practice. Observations took approximately five to six hours a day. Reception staff informed the researcher if the patients were aged 65 years and older.

This study was approved by the Health and Medical Human Research Ethics Committee, University of Wollongong (HE11/232).

Results

The three practices have at least four GPs (three FTE), three practice nurses (1.5 FTE), a practice manager (1 FTE) and 2 reception staff (1FTE). The caseload is very broad and the rural general practice has a higher than average older population than the other two practices. The rural and regional general practices are mixed-billing practice, while the metropolitan general practice is a bulk-billing practice. Twenty five participants were recruited from three general practices: general practitioners (n= 10), general practice registrars (n= 5) and practice nurses (n = 10) (*Table 1*). Data saturation was reached by the twenty-second interview (n=25), although all interviews were analysed.

Barriers to implement nutrition screening

Seven major themes were identified from the interviews regarding barriers to implement nutrition screening in older adults in the general practice setting (*Table 2*).

Theme 1: Lack of time.

Time constraints were identified as the major barrier.

“Time, yes. Time factors that general practitioners are very busy people dealing with lots of things at the same time. You’re looking at least to carry something like that you need to put

at least ten to 15 minutes on top of your consultation which you really don't have, so time is a big thing.”-GP2.

Practice nurses tended to have a consistent point of view that time needed to be allocated to perform nutrition screening outside of routine consultations.

“I think it's like everything – it's a time source and it's allowing and making the time available.”-PN3.

Theme 2: Patients' attitude towards nutrition.

There was a view that older patients themselves may be unwilling to undergo screening related to their nutritional status when they have come to the practice for other medical concerns.

“If they come to you for one thing and then you start asking them a million more questions about something that they don't consider to be even indirectly or directly related, they'll just switch off.” –PN5.

There was also a perception that many older patients feel uncomfortable about revealing poor dietary behaviours.

“The diet reported and the diet actually eaten are often completely different because they know they should eat three good meals a day.”-GP10

Theme 3: General practice limitations.

The financial implication for the practice was an important issue that raised concern about the feasibility of introducing nutrition screening. General practitioners, particularly, felt that

additional activities would reduce the number of patient appointments, thereby affecting practice income and efficiency of operating costs, as well as patient care.

“Whilst ten minutes spent by the nurse asking questions about nutrition may be very beneficial, it is costing the practice money both in the nurse’s time and the time spent taking up that room when that can’t be done elsewhere.”-GP6.

Inadequate resources, in terms of both staff and space, were identified as barriers which are closely related to extra cost to the practice.

“Well I guess ideally if you had the room and you could put on a lot more staff to be able to do that but that would then cost and so... everything that you do actually costs you money in paying wages.”-GP4.

Theme 4: Lack of nutrition screening knowledge.

None of the interviewees reported having used any validated nutrition screening instruments to identify nutritional risk in older patients. Currently, nutritional risk is informally assessed using a variety of questioning and measurements, including: dietary intake, food preparation, medical evaluation, social background, anthropometric measurement, financial status, patients’ attitude, mobility status, psychology, family involvement and food access.

Participants mentioned that appropriate training in nutrition screening is needed.

“Oh, the lack of training and lack of emphasis in my training”-GP9.

Theme 5: Low priority for nutrition.

Insufficient awareness of the importance of nutrition among general practice staff and patients resulted in nutrition being a low priority in clinical care within the general practices

involved in the study. Nutrition education was perceived as the dietitian's role rather than the responsibility of practice staff.

"I don't identify it as a major problem although I recognise it is a problem."—GP3.

Theme 6: Lack of resources.

By identifying nutritional risk, participants identified a need for additional relevant resources to allow further nutrition-related intervention. Further, limited access to dietitians was seen as a barrier, particularly in rural areas.

"Well in this region so we have a dietician who visits here once every two months...for half a day but that's purely just for our diabetic patients. There's a community dietician in X but that's really primarily for diabetes and some very, very high risk patients but it's only one dietician for a whole quite large region."—GP5.

Theme 7: Outcomes of nutrition screening.

Concern was expressed about whether nutrition screening would result in beneficial patient outcomes.

"I think you'd have to have some feel for what your pick up rate was going to be and you'd have to have some kind of feel for what is the outcome for having detected malnutrition and what are the resources available for doing something about it and even then, what are the outcomes of trying to do something about it?"—GP5.

Opportunities to implement nutrition screening

Three key themes were identified from interviews regarding opportunities to implement nutrition screening in general practice (*Table 3*).

Theme 1: Current practice.

Wide support to incorporate nutrition screening within current practice was received. Most participants indicated that nutrition screening should be incorporated within the existing Health Assessment for older persons age over 75 (75+ HA).

“It should be incorporated in our health assessment but we just... we just generally ask “Are you eating adequately?” We don’t go into any depth.”-PN8.

Other identified opportunities included the General Practice Management Plan (GPMP), Team Care Arrangement (TCA) and having allocated time to screen the patients.

Theme 2: Patients’ condition.

If patients look unwell and this condition could be related to nutrition, nutrition screening could be conducted to further identify the problem.

“I guess another opportunistic time to do it is when they’re already coming in feeling unwell”-GPR5

Besides these contacts, screening all new patients was seen as another opportunity.

Theme 3: Staff initiative.

Having a dedicated staff member to implement nutrition screening, under the direction of general practitioners, and promotion of this activity to patients were seen as opportunities. “

“If it was a direction that the doctors wanted to take then yes, there would be opportunity.”-

PN2

Observational analysis

Eighty-two observations were performed in the three participating general practices. This component corroborated the interview data and identified time constraints as being a

significant barrier to performing nutrition screening (*Table 4*). No extra time was available in consultation rooms in which to conduct additional activities due to tight time appointment scheduling, lack of time between appointments, high workflow and low staff redundancy. Available time was identified in the waiting area as patients spent up to 21 minutes in this area.

Discussion

A primary objective of the \$3.7 billion aged care reform package of the federal government, announced on 20th April 2012, is to encourage older adults to remain in their homes for as long as possible.¹⁰ Early identification of nutritional risk through routine nutrition screening, together with appropriate management of malnutrition, in older patients attending General Practice will be integral to maintaining independence and functionality.¹¹ This study is the first to report perceived barriers and opportunities to implementing nutrition screening in Australian primary care using participatory research techniques. An abundance of previous studies have targeted barriers to conducting nutrition screening among health professionals in the hospital setting¹²⁻¹⁷ but this data is not transferable to General Practice.

In-depth interviews identified time constraints as being the main barrier to performing nutrition screening in general practice, a findings that was further validated using an observation study component. Mean length of consultation time with a GP in our study of 71 patients was 13.9 minutes which is shorter than previous reports of 15.2 minutes¹⁸ but would be prohibitive to inclusion of additional questions on dietary habits. Along with chronic disease management, patients themselves would like their GPs to provide nutrition care.¹⁹ Practice nurses were identified as being the most appropriate to incorporate nutrition screening into their workflow, with follow up by GPs, thereby enhancing the quality of nutritional care, as has been reported in systematic reviews.²⁰

Our findings are consistent with an Australian hospital-based study^{14,15} as well as Danish^{13,16} and Canadian^{17,21} studies that similarly identified time constraints, a low priority of nutrition, and limited knowledge of the topic as the main barriers to implementing nutrition screening of patients. According to Australian dietitians working in hospitals and aged care facilities, inadequate resources of time and staff prohibit nutrition screening, the practices of which have not changed over a decade.²² Despite clinical guidelines that recommend nutrition screening of all patients aged ≥ 65 years in both hospital and general practice in both Australia^{3,4} and other countries^{23,24}, these are generally not implemented.²⁵ Practitioners perceived that some older patients would be unwilling to undergo nutrition screening for fear of recommendation to a higher level of residential care services if found to be at malnutrition risk. Some GPs identified that a patient's lack of interest in dietitian consultation may prevent them from referring that patient to a dietitian for further management.²⁶

Despite policies for detection and treatment of malnutrition being focused on the hospital setting, it is becoming recognized that the majority of malnutrition is found in the community.²⁷ In the UK, more than 3 million individuals are estimated to be at risk of malnutrition, about 93% of whom live in the community while only 2% of all malnutrition is found in hospitals.^{27,28} The UK National Institute for Health and Clinical Excellence²⁴ guidelines recommend that patients should be screened not only on admission to hospitals but also on admission to care homes, on their first outpatient appointment and on registration with a General Practitioner. In Australia, Visvanathan²⁹ recommends that nutrition screening for older adults should occur not only in acute care, rehabilitation and residential aged care settings, but also be included regularly as part of general practice health assessments and eligibility assessments in community programmes for the elderly.

Despite identification of major barriers, a number of opportunities for nutrition screening were identified in the present study. Overwhelmingly, support was expressed for

incorporation of a validated nutrition screening tool into the 75+ HA.¹¹ The 75+ HA is a Medicare Benefit Schedule item which has been formulated to support collaboration between general practitioners, nurses and allied health professionals to provide preventive care, with the intention of improving health outcomes of older people.³⁰ At present, items that address diet and nutritional status within the 75+ HA proforma are too non-specific to identify nutritional problems. Our study participants identified a need for a validated, practical and quick nutrition screening tool. In 1998, Australian Nutrition Screening Initiative (ANSI) was introduced in Australia as nutrition screening tool for older people³¹ and this tool was used in general practice as part of the 75+ HA.³² However, this tool has poor validity and reliability.³³ The 6-item Mini Nutritional Assessment-Short Form (MNA-SF)³⁴ is the only such instrument that has been validated for use in older people. The MNA-SF includes one anthropometric measurement (either BMI or calf circumference) however the remaining 5 items could be self-completed by patients or their carers, during the time spent in the waiting area.

The main limitation to our study findings relates to an inability to generalize the findings to other practices across New South Wales, or other states. General practices from a metropolitan, regional and rural area were purposively sampled, but large inner city based practices were not included, nor were remote centres represented. Context-specific factors that may have important influences could include less access in rural areas to dietitians, or length of work experience of general practice staff. This study is at the forefront of addressing the global gap on research related to improving nutritional topic in community settings³⁵ particularly in general practice.

Conclusion

Nutrition screening is the first step in the process of improving nutritional and associated clinical outcomes of patients. Those identified to be at nutritional risk need to be followed up with appropriate nutrition intervention using a multidisciplinary approach³⁶. Findings from this novel general practice based study will inform further direction for the implementation of routine nutrition screening of older patients in general practice. The next phases of our research will identify optimal treatment pathways following screening.

Implications for general practice

It is undeniable that general practice is the first point for older patients in seeking advice regarding health issues. Early identification and management of malnutrition in older adults would be facilitated if routine nutrition screening were to be implemented in general practice, however this will require upskilling of practice nurses and better uptake of the 75 +HA item by eligible patients..

Table 1. Participants' Demographics

Participants	Gender		Age					Years of working in General Practice
	Male	Female	20-29	30-39	40-49	50-59	>60	
General Practitioner (n = 10)	8	2	0	0	8	1	1	Between 2.5 to 21 years
Practice Nurse (n = 10)	0	10	1	1	3	5	0	Between 1 to 11 years
General Practice Registrar (n= 5)	1	4	2	3	0	0	0	Between 4 weeks to 1 year

Table 2. Barriers to implement nutrition screening

Key themes and topics
Key theme 1: Lack of time
Time (n= 21) n=8 GPs, n=8 PNs and n=5 GPRs
Key theme 2: Patients' attitude towards nutrition
Patients' unwillingness to be screened (n=9) n=3 GPs, n=3 PNs and n=3 GPRs
Patients come for medical consultation (n=6) n=3 GPs, n=3 GPRs
Patients willingness to change if problem is identified (n=4) n=2 GPs, n=2 GPRs
Patients don't want to reveal correct information (n=2) n=1 GP, n=1 PN
Key theme 3: General Practice limitations
Cost (n=7) n=4 GPs, n=3 PNs
Lack of staff (n=2) n=1GP, n=1 GPR
Compliance (n=2) n=1 GP, n=1 PN
May reduce access to appointments (n= 2) n=2 GPs
Following up the issue if identified (n=1) n=1 PN

Room availability (n=1) n=1 GP
Key theme 4: Lack of nutrition screening knowledge
Lack of knowledge and training (n=3) n=2 GPs, n=1 GPR
Key theme 5: Low priority for nutrition
Nutrition is not a high priority for patients (n=2) n=1 GP, n=1 PN
Nutrition screening is not recognised as important thing to do (n=2) n=1 GP, n=1 PN
Nutrition is not recognised as a major problem (n=1) n=1 GP
Nutrition awareness (n=1) n=1 GP
Nutrition education is dietitian's role (n=1) n=1 GP
Key theme 6: Lack of resources
Limited resources in rural area (n=2) n=1 GP, n=1 PN
Set up resources (n=1) n=1 PN
Access to resources (n=1) n=1 PN
Key theme 7: Outcomes of nutrition screening
Does screening make better outcome (n=1) n=1 GP

Table 3. Opportunities to implement nutrition screening

Key themes and topics
Key theme 1: Current practice
Within 75 + health assessment (n= 24) n=10 GPs, n=9 PNs and n=5 GPRs
Within management plan (n=6) n=3 GPs, n=2 PNs and n=1 GPR
Within consultation (n=4) n=2 GPs, n=1 PN and n=1 GPR
Within Team Care Arrangement (n=3) n=1 GP, n=2 PNs
Have allocated time to screen (n=3) n=1 GP, n=2 PNs
Key theme 2: Patients' condition
Opportunistic screening if patient is unwell (n=2) n=2 GPRs
For every new patient (n=1) n=1 GP
Key theme 3: Staff initiative
Have dedicated staff who implements screening initiatives (n=1) n=1 GP
If directed by GP (n=1) n=1 PN
If promoted to patients (n=1) n=1 GP

Table 4. Time spent by patients in three general practices from arrival till leaving (n=82)

Patient Flow	N	Mean Time spent	Std. Deviation	Range	Min	Max
Reception desk (arrival)	82	0.3	1.1	9.0	0.0	9.0
						
Waiting room	82	21.2	13.9	61.0	1.0	62.0
						
Consulting room	71	13.9	7.2	34.0	2.0	36.0
Nurse room	11	14.7	6.0	20.0	5.0	25.0
						
Reception desk (departure)	82	0.4	1.0	5.0	0.0	5.0
Total time (minute)		37.4	15.8	73.0	7.0	80.0

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