Dietitian–general practitioner interface: a pilot study on what influences the provision of effective nutrition management[1–3]

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ABSTRACT

Background: Effective patient nutrition management can both improve people's health and reduce the cost of health care. In Australia, general practitioners (GPs) and dietitians are in a position to provide this service. However, there is a lack of information available on what influences the provision of the service.

Objective: The objective was to determine qualitative factors that influence nutrition management by GPs and dietitians.

Design: A convenience sample of GPs and dietitians was surveyed using a qualitative questionnaire. The questionnaire related to issues including influences on the GP's decision to initiate nutrition management, barriers to providing nutrition counseling, influences on the GP's decision to refer to a dietitian, and barriers to referral.

Results: Fourteen of 20 GPs and 15 of 30 dietitians responded with usable data. The primary influence on a GP's decision to initiate nutrition management (GPs' and dietitians' responses) was the presentation of a patient who required nutrition advice. Barriers to providing nutrition counseling were time and knowledge (GP response), whereas dietitians saw time and lack of patient interest as issues. The primary influence on the GP's decision to refer to a dietitian was a patient presenting with complicated nutrition requirements (GP response), whereas dietitians considered a patient seeking nutrition knowledge as the key influencer. GPs identified cost to the patient as the main barrier to referring to a dietitian, whereas dietitians saw lack of knowledge of where to refer as the key issue.

Conclusions: The differing responses suggest that more research is required to understand what influences patient nutrition management by GPs and dietitians in Australia. *Am J Clin Nutr* 2003;77(suppl):1039S–42S.

KEY WORDS Dietitian, general practitioner, nutritional advice, qualitative survey, barriers, primary health care, Australia

INTRODUCTION

The goal of changing risk factors (primary prevention) related to lifestyle remains the cornerstone of public health efforts to minimize the burden of many diseases. Early identification of nutrition-related diseases and conditions could lead to improved health outcomes, increased health economic benefits, and improved quality of life (1). A study of the burden of disease and injury in Australia showed that diet was a significant factor, most notably because of its occurrence as a risk factor, for those diseases that placed a significant burden on society, particularly cardiovascular disease, type 2 diabetes, and colorectal cancer (2). Public education about diet and health, combined with accurate nutrition counseling, provides strategies for reducing the costs and suffering associated with these illnesses (3).

At the forefront of providing nutrition management to Australians are general practitioners (GPs) and dietitians. There were ≈17 100 vocationally registered GPs in private practice in Australia during 1998–99 (4), and the Australian Bureau of Statistics estimated that during 1999–2000 there were ≈2400 dietitians employed within the health workforce (5). Eighty-seven percent of the Australian population consulted a GP during 1998–99 (4), and it is evident that GPs encounter many patients with chronic diseases that have nutrition in their etiology and management (6). In some cases, such as lipid disorder management, the number of patient encounters is increasing (7), providing opportunities for GPs to initiate nutrition management, disseminate nutrition information, or refer patients to other health professionals (2), such as dietitians.

However, studies both within and outside Australia have demonstrated that there are many influences that affect the GP's decision to provide nutrition counseling. These include infrastructural influences such as time and reimbursement, as well as issues relating to the GP's knowledge, skills, and confidence (8–10). Furthermore, overseas studies have identified barriers for referring to dietitians, including limited access to dietitians and concerns that dietitian counseling will be costly (11–13). The most in-depth Australian study addressing patient nutrition management by GPs was completed more than a decade ago (10), and there is no evidence in Australia as to whether barriers affect GP referrals to dietitians.

The research reported here was initiated to fill some of the gaps in the Australian literature, and to understand what influences patient nutrition management by the GP and the dietitian. This article reports the initial qualitative pilot survey, which primarily asked questions about the influences on the GP's decision to initiate nutrition management, barriers to the provision of nutrition counseling, influences on the GP's decision to refer to

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TABLE 1
Characteristics of survey respondents

	Dietitians (n = 15)	General practitioners (n = 14)
	%	
Age		
≤25	27	0
26–35	40	7
36–45	20	50
46–55	13	43
≥56	0	0
Geographic area of practice		
Capital city	0	0
Other metropolitan area	80	79
Large rural center	20	7
Small rural center	0	0
Other rural area	0	14
Do you provide a primary health care service?		
Yes	80	100
Where do you primarily provide this service?		
Hospital (outpatients)	85	0
Community health center (outpatients)	15	0
Private practice	0	93
Other	0	7

a dietitian, and barriers to referral to a dietitian. The null hypotheses were that there are no influences on the GP's decision to initiate nutrition management or refer to a dietitian and that there are no barriers for providing nutrition counseling or referring to a dietitian.

SUBJECTS AND METHODS

Subjects

There are ≈400 GPs and 40 dietitians in the Newcastle region of New South Wales, Australia. The pilot survey was initiated to determine themes that would contribute to a larger survey. To do this, a convenience sample of 20 practicing GPs who were linked to the university and 30 dietitians who were members of the Regional Dietitians Group were asked to respond to a short qualitative questionnaire. Participants were asked to reply within 1 month, and after 2 wk a postal reminder was sent.

Survey instrument

The first part of the questionnaire consisted of demographic questions, including age, sex, and, if applicable, geographic area of practice, whether the respondents provided a primary health care service, and where this service was provided. The second part consisted of a series of open-ended questions that related to specific issues on patient nutrition management obtained from the literature. Participants were asked to provide up to 3 responses to each of these questions. The first 4 questions related to the hypotheses. Two other questions were included to further identify issues that may influence patient nutrition management by GPs and dietitians. These included how respondents would manage a patient who would benefit from nutrition counseling but was a precontemplator in the "stage-of-change" model and diagnoses that the respondent felt required nutrition management.

Ethics

The study received ethics approval from the University of Newcastle Human Research Ethics Committee.

Statistical analysis

Demographic data were analyzed using descriptive statistics. Qualitative data were analyzed using a 4-step process (organizing, shaping, summarizing, explaining) (14). Themes generated from the qualitative data were incorporated into a final survey instrument used in the second phase of the study (to be reported elsewhere). Reported here are the results from the qualitative first-stage pilot survey.

RESULTS

Demographic data

The response rate was 50% (15) for the dietitians (100% female) and 70% (14) from the GPs (71% female). Demographic data for the sample populations are outlined in **Table 1**. In age distribution, most GPs were over 36, whereas most dietitians were under 36. The majority in both groups practiced in an "other metropolitan area" (not a capital city), provided a primary health care service, and provided that primary health care service mainly either through hospital outpatient clinics (dietitians) or private practice (GPs).

Qualitative data

Both groups agreed that the predominant reason for GP's providing nutrition counseling was patient need, but there were divergent views (**Table 2**). Various disease states were also identified as

TABLE 2
Type and frequency of predominant responses to questions on initiating patient nutrition management

In your clinical experience, list 3 determinants that you believe should prompt a general practitioner (GP) (dietitian)/would prompt you (GP) to provide nutrition support.
- Dietitians: presentation of a patient who requires nutrition support (4); patient with a newly diagnosed diet-related disease state (4); patient request for nutrition information (3); identification of clinical factors (3); GPs should not provide nutrition support (3); various disease states, including weight loss (4) and anorexia (2).
- GPs: presentation of a patient who requires nutrition support (5); patient request for nutrition information (3); complicated disease process (2); various disease states, including ischemic heart disease (IHD) or high cholesterol (5), diabetes (4), obesity (3), and iron deficiency (3).

In your clinical experience, list 3 determinants that you believe should prompt a GP (dietitian)/would prompt you (GP) to refer to a dietitian to provide nutrition support.
- Dietitians: patient seeking nutrition knowledge (6); patient presenting with a problem requiring nutrition support (5); new diagnosis of diet-related disease (4); information not in GP's capability (3); poor response to initial advice (2); various disease states, including weight loss (5), IHD or high cholesterol (2).
- GPs: complicated dietary needs (7); patient seeking knowledge (4); patient seeking knowledge not able to be explained in time available (3); poor response to initial advice (3); patient confusion about advice given (2); various disease states, including diabetes (7), obesity (5), and IHD or high cholesterol (3).

TABLE 3
Type and frequency of predominant responses to questions on barriers to initiating patient nutrition management

List 3 barriers to providing nutrition support yourself.
- Dietitians: lack of time (5); lack of patient interest (5); other work priorities[1] (4); lack of resources (2); lack of expertise in specific areas (2).
- General practitioners (GPs): lack of time (11); lack of knowledge (9); lack of resources (2); inadequate experience (2).

List 3 barriers you believe may exist for GPs (dietitians)/you (GP) to refer to a dietitian.
- Dietitians: lack of knowledge of where to refer (7); GP knowledge of the skills of a dietitian (6); lack of belief in dietitian's ability to make a difference (4); long waiting lists (4); GPs may feel they can provide advice (3); lack of time to refer (3); cost to patient (2); lack of perceived access (2).
- GPs: cost to patient (13); patient not interested (5); long waiting lists (5); lack of perceived access (3); availability of subsidized services (2).

[1] Relates to inpatient responsibilities of dietitians surveyed, as most who responded worked in a tertiary environment and provided a primary health care service to outpatients.

determinants for GPs to provide nutrition management, with GPs identifying predominantly chronic diseases (ischemic heart disease, diabetes, and obesity) as triggers, whereas dietitians identified weight loss and anorexia. GPs identified a patient presenting with a complicated dietary need, as well as GPs' lack of time to provide counseling, as key influencers on their decision to refer to a dietitian. Patients' seeking nutrition knowledge was rated highly by both sample populations, and a poor response to initial dietary advice was also noted as an influencer by both groups.

Both GPs and dietitians agreed that time was a crucial barrier in providing nutrition advice (**Table 3**). However, lack of knowledge was also an important barrier for GPs, whereas dietitians felt that lack of patient interest was a barrier. Barriers identified by GPs for referring to dietitians to provide patient nutrition management centered on cost to the patient, lack of patient desire, and long waiting lists. Dietitians felt that uncertainty about where to refer, and perceptions of dietitians' skills and abilities, were stronger barriers for GPs to refer to dietitians.

Both dietitians and GPs thought that if patients presented requiring nutrition counseling but were not motivated to change their dietary behavior (ie, were precontemplators), identifying the risks associated with not changing was an appropriate strategy (**Table 4**). Opinions diverged after that, with GPs suggesting that referral to a dietitian was of lower priority than dietitians considered appropriate. Both GPs and dietitians identified chronic diseases and eating disorders as conditions requiring nutrition management, but malnutrition was given a higher priority by dietitians.

DISCUSSION

The high GP response rate may have been due to the researchers' working in close proximity to those surveyed (because of their link with the university). Dietitians surveyed had less of an association with the researchers and were distributed throughout the Newcastle region, which may have contributed to a lower response rate. Nevertheless, the results support much of the data from the literature.

It is evident from data gathered outside Australia that not all GPs provide nutrition counseling (8, 9, 11, 15–17) and that there is some variation on how often this advice is provided (9, 12). Although the picture of patient nutrition management in Australia is currently unclear, the last major study, performed over a decade ago, concluded that there was a marked discrepancy between how often GPs felt they should be aware of patients' diets and how often they actually were (10). Helman (18) has suggested that one of the reasons opportunities may be missed by GPs is because GPs tend to think of nutrition in terms of the chronic diseases. In this study, whereas both GP and dietitian respondents reported similar statements as to what would prompt GPs to initiate patient nutrition management, there were some differences in opinions when it came to disease states, with GPs opting for predominantly chronic disease states, whereas dietitians considered other conditions such as nutrition in pregnancy and gastrointestinal disorders. Helman (18) has suggested that GPs may require a broader understanding of nutrition opportunities that present to them within the general practice environment so that potential opportunities for patient nutrition management are not missed.

GP respondents identified time as the predominant barrier to providing nutrition counseling, as was identified in many other studies (8–10, 19, 20). The average time a GP spends with a patient in Australia is 14.6 min per consultation (6), whereas a study of 1030 US physicians found that when nutrition counseling was instigated, time spent on discussing dietary change was 5 or fewer minutes (8). If an Australian GP spent a similar amount of time as that spent in the US study (equivalent to one-third of an Australian consultation), there would be less time to spend on other issues (21). Furthermore, the fee-for-service system in Australia makes nutrition counseling unattractive (22), as it rewards many standard consultations more than an extended consultation, even if the time spent is equivalent.

Overseas studies have identified limited access to dietitians and concerns over the cost of counseling as issues for referring to a dietitian (11, 13, 19, 23). In Australia during 2000–2001, there

TABLE 4
Type and frequency of predominant responses to questions on additional areas from the literature that may influence patient nutrition management

If a patient presents to a general practitioner (GP) requiring nutrition support but is not motivated to change his or her dietary behavior, list 3 ways the GP (dietitian) should/you (GP) would motivate the patient to become more "accepting" to change.
- Dietitians: identifying to the patient the risk associated with the behavior (4); the GP should not motivate the patient (4); referring to a dietitian (2); identifying benefits of seeing a dietitian (2); determining with the patient a plan of action (2); providing information on health outcomes and benefits from making changes (2); determining why the patient is not motivated (2).
- GPs: identifying to the patient the risk associated with the behavior (6); spending time explaining the relation between diet and disease (5); providing information on health outcomes and benefits from making changes (4); determining why the patient is not motivated (4); providing continued motivation and encouragement at follow-up appointments (3); referring to a dietitian (3).

List 3 predominant patient conditions that present to you and that you feel require nutrition support.
- Dietitians: malnutrition or unintentional weight loss (12); diabetes (8); obesity (4); high cholesterol or ischemic heart disease (IHD) (2); nutrition in pregnancy (2); gastric disorders (2); eating disorders (1).
- GPs: diabetes (12); obesity (12); high cholesterol or IHD (9); eating disorders (3).

were 2.3 referrals to all allied health professionals for every 100 GP patient encounters (7). Of these, dietitians received ≈1%, or 2.3 referrals per 10000 GP patient encounters (7). This referral rate was less than that to podiatrist/chiropodists, psychologists, dentists, and physiotherapists. There are more dietitians than podiatrists/chiropodists employed in Australia (5), and with diabetes (relevant for referral to both groups) being the fifth highest reason for referral to allied health professionals (7), it does suggest there are other impediments in referring a patient to a dietitian. Financial barriers appear to be a factor according to those GPs surveyed, with GPs rating the cost to the patient for counseling as well as lack of availability and access to subsidized services as barriers for referring to dietitians. In Australia dietitians are not covered under the Medicare bulk-billing scheme and are accessible only through either public health institution waiting lists or through full fee–paying private practitioners. GPs may therefore not feel that they are able to initiate referral to a dietitian if they believe their patients are unable to wait for subsidized support (because limited subsidized services are available) or pay for the support. This presents barriers for GPs to refer to dietitians.

This qualitative survey suggests that patient nutrition management issues are complex and there is a need for further research on the dietitian-GP interface to validate the conclusions. Such research needs to address both infrastructural and attitudinal issues if effective patient nutrition management is to be appropriately implemented in Australia.

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