Review Article

The role of the general practitioner and the dietitian in patient nutrition management

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There is mounting evidence that nutrition plays an important role in the aetiology and management of many diseases affecting Australians. Nutrition counselling provides a strategy for not only reducing patient suffering, but also for reducing the health care costs associated with these illnesses. At the forefront of providing nutrition counselling to Australians are General Practitioners (GPs) and Dietitians. Australian data shows that GPs encounter many patients with the chronic diseases that have nutrition in their aetiology and management. Although this presents opportunities to provide nutrition counselling, overseas literature suggests that often nutrition counselling opportunities are not taken up. At present, there is little evidence to support whether this problem exists in Australia, or the magnitude of the problem. Whilst evidence suggests there are barriers for GPs in providing nutrition counselling, there is conflicting evidence on how these influence the GP's decision to provide such counselling. Overseas studies have also identified barriers for GPs to refer to dietitians to provide nutrition counselling, however there is no evidence to identify whether these barriers exist in Australia. Whilst various strategies have been implemented to aid in the provision of effective nutrition management to the Australian public, there is little evidence on the efficacy of these. Research is needed in the above areas if effective patient nutrition management is to be implemented in Australia.

Key Words: nutrition counselling, nutrition support, nutrition management, general practitioner (GP) , physician, primary care physician (PCP), dietitian, primary health care.

Introduction

Nutrition rates high in the fight for a healthier nation and there are various government documents highlighting ways to improve Australia's health through nutrition. Despite this, Australians are still gaining weight and chronic diseases affect a large proportion of the population. With the projected increase in the ageing population, the prevalence of these chronic diseases will only increase.[1] Public education about diet, combined with nutrition counselling, provide strategies for reducing both the costs and suffering associated with these illnesses.[2] At the forefront of providing this support to Australians are General Practitioners (GPs) and dietitians.

There is currently a lack of literature in Australia however, that explores the process of patient nutrition management, with a particular emphasis on GPs and dietitians. This paper endeavours to fill this gap, by summarizing the state of play and suggesting strategies for future research. In doing so, several areas need to be addressed (adapted from Gray[3]):

- Does general practice present opportunities to provide patient nutrition counselling?
- Can GPs be expected to provide patient nutrition counselling?
- Do GPs have the ability to provide patient nutrition counselling?
- Strategies to overcome obstacles for patient nutrition management by GPs and dietitians

Does general practice present opportunities to provide patient nutrition counselling?

GPs are at the forefront of primary health care in Australia, and approximately 87%[4] of the population consulted the 17,100 vocationally registered GPs in private practice during 1998-1999.[5] In this time frame, GPs provided 102.6 million patient encounters to the 19 million residents in Australia.[6] Whilst data does not exist on what proportion of these patients would benefit from nutrition counselling in Australia, some overseas data has been obtained. In a Dutch study performed in 1998, 985 GP trainees reported an incidence of

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1-2 patients per day presenting with a nutrition related problem.[7] In a further Dutch study in the late 1990s, which addressed the activity of 4 practices over the last 30 years that were responsible for approximately 12,000 patients, it was estimated that 16.5% of new episodes of disease required nutrition advice or counselling in the management of the disease.[8]

Though Australia lacks such estimates, it is clear that GPs do encounter patients with many of the chronic diseases that have nutrition in their aetiology and management. In 1998-1999, one in five GP patients had hypertension (84% simple hypertension), 17% of adult patients were obese and 29% were overweight.[9] Furthermore, one-third of patients had a cholesterol check in the previous 12 months and 28-36% had high cholesterol levels.[9] Recent data has also demonstrated that lipid disorder management alone has increased from 2.5/100 GP patient encounters (1998-1999) to 2.9/100 encounters (2000-2001), an increase of approximately 230,000 GP patient contacts per annum.[10] These patient encounters provide ample opportunities for nutrition management to be instigated by GPs.

The US Healthy People 2010 report has as a target that 75% of primary care physician visits for cardiovascular disease, diabetes or hyperlipidaemia include nutrition counselling.[11] In US studies, the highest and lowest estimates show nutrition counselling is provided by between 9% and 66% of US physicians.[12-15] In the Netherlands, figures range from 28% to 48% of Dutch GPs providing counselling.[16] There is currently a lack of Australian data on the proportion of GP's that provide nutrition counselling. In the late 1980s, a study of 283 New South Wales GPs self-reported to provide nutrition counselling in 28% of consultations.[17] This figure is more than that reported in a study of 633 Dutch GPs in 1992 who provided counselling in 5 to 10% of consultations,[16] whilst a study of 775 New Zealand GPs in the late 1980s self-reported providing nutrition counselling in 17% of consultations.[18] According to Australian Institute of Health and Welfare (AIHW) data, Australian GPs (n=999) during 2000/2001 provided advice or counselling on nutrition/weight in 5.6 per 100 patient encounters (n = 99,307).[10]

It is evident from overseas data that not all GPs provide nutrition counselling and figures vary on how often this is provided. Research in Australia is required to provide a clearer profile on the proportion of persons presenting to GPs who would benefit from nutrition counselling, the amount of counselling being provided by Australian GPs and the proportion of GPs who provide this service. With this data, it may be possible to determine the extent of nutrition counselling opportunities presenting to Australian GPs and the magnitude of opportunities that are possibly being missed.

Can GPs be expected to provide patient nutrition counselling?

Whilst there is no doubt there are opportunities presenting for patient nutrition counselling to be provided by GPs, any expectation to provide such counselling needs to consider the infrastructural barriers facing GPs, most notably, lack of time and inadequate reimbursement[14,16,17] In Australia, the average consultation time is 14.6 minutes[19] and at present, there is little data available on how long GPs, who provide nutrition counselling, spend discussing nutrition. In 1995, in the US, two-thirds of 1103 primary care physicians indicated they spent 5 minutes or less discussing nutrition with patients.[14] It has been suggested that if the cost of a consultation were more, there would be more time to spend on nutrition,[20] and that reimbursement must be addressed if physicians are expected to provide this service.[21] The Australian fee-for-service system discourages nutrition counselling by GPs,[22] as it rewards multiple standard consultations more than a few longer ones, even if the time spent is equivalent.

A suitable alternative to GPs providing nutrition counselling is for them to refer to dietitians to provide such patient support. In the late 1980s, one-third of 283 New South Wales GPs self-reported they often referred to dietitians, two-thirds occasionally referred and 2% never referred.[17] In 2000-2001, there were 2.3 referrals to all allied health professionals for every 100 GP patient encounters.[10] Of these, dietitians received approximately 1% or 2.3 referrals per 10,000 GP patient encounters.[10]

However, overseas physicians have identified barriers for referring to dietitians such as limited access to dietitians and cost concerns for dietitian counselling.[15,18,23] In Australia, there is limited research on the barriers for GPs to refer to dietitians, however issues identified overseas may be equally apparent. There is 1 dietitian per 6-11 GPs,[24,25] and dietitians are not covered under the Medicare bulk-billing scheme. Patients are therefore referred to either public health institution waiting lists or full fee paying private practitioners.

Infrastructural barriers for GPs to provide nutrition counselling include time and reimbursement issues, therefore any expectation for a GP to provide such counselling requires the process to be non-burdensome and financially viable. Barriers for referring to dietitians for nutrition counselling in Australia need to be clarified. However, any expectation for a GP to refer a patient to a dietitian does assume that the GP has access to a dietitian and that the patient can either wait or pay for that support.

Do GPs have the ability to provide patient nutrition counselling?

Consumers have previously suggested they perceive dietitians to have the highest expertise in nutrition and rank GPs second.[26,27] However, whilst dietitians receive training to provide nutrition counselling, GPs lack this in their training. GPs have identified lack of knowledge, skills and confidence as barriers to providing nutrition counselling.[14,16,17]

There is a significant amount of literature outlining the history of limited medical nutrition education and, in Australia it has been a neglected area in the past.[28] The lowest and highest physician nutrition knowledge scores from studies performed both overseas and Australia range from 44% to 69%,[17,29-31] with acknowledgement GPs have difficulty translating knowledge into practice.[32]

Furthermore, overseas and Australian studies have identified GPs lack confidence that their advice will lead to successful patient behaviour change.[14,16,17, 33, 34]

However, it is not only important to consider what may affect the GP's ability to provide nutrition counselling, but also how these factors influence the GP's decision to provide this support. For example, whilst lack of patient interest was an obstacle in providing weight advice in a survey of 153 Melbourne-based GPs in 1994,[27] a Dutch study of 633 primary care physicians in 1997 on managing overweight showed lack of patient motivation did not play a role in determining treatment by GPs.[35] Further research may need to explore how factors such as knowledge, skills and confidence not only influence the GPs ability to provide nutrition counselling, but also how it influences their decision to provide nutrition counselling. It may also be appropriate to consider how these factors influence the GPs decision to refer to a dietitian to provide nutrition counselling.

Strategies to overcome obstacles for patient nutrition management by GPs and dietitians

Whilst the following is not an exhaustive list of strategies that have been implemented in Australia to overcome obstacles for effective nutrition management by GPs and dietitians, it does highlight some key initiatives that have occurred.

Improved GP knowledge and skills

In the past, several Australian universities have addressed the issue of undergraduate medical nutrition education by identifying key nutrition topics to he included in the curriculum.[36] There are also postgraduate courses and the RACGP is defining a core curriculum with nutrition input for GP registrars.[37] However, undergraduate education alone has been shown to play only a small part in influencing behaviour,[38] and although having taken a nutrition course in medical school has been shown to affect physician attitude, it did not affect the application of that knowledge.[12] For practicing physicians, a multifaceted strategy that uses workshops, seminars, continuing medical education, academic detailing, educational materials, audit and feedback[38,39] may be required to produce GP behaviour change.

Patient nutrition education support for GPs

GPs rate nutrition education leaflets as an acceptable method for delivering information to patients[40-42] and computers are now being used to provide these to GPs. In Australia, Arbor Communication and the Dietitians Association of Australia (DAA), have developed nutrition education leaflets for GPs to refer to and give to patients that are available through the software programme Medical Director.[43] However, there are many factors that determine leaflet usage. Computer based leaflets are limited to those who have computers, who use the appropriate software, and who use computers for clinical purposes. Leaflet quality, perception of when the leaflet should be used, if the GP feels they should provide the leaflet, work routines, organisational and practical constraints[42,44] impact on their use. The patient may feel the doctor is using the leaflet as a substitute for an explanation,[45] or that the doctor is avoiding dealing with nutrition.[37] What appears to improve a leaflets impact is when GPs spend time discussing it.[46] Education materials, combined with physician advice, may therefore be important for their success.[47]

Clinical practice guidelines (CPGs)

CPGs are 'agreed standards of care, that are based on the best available clinical and research evidence'.[48] CPGs are being developed which include nutrition in disease management. For example in Australia, the release of the Lipid Management Guidelines in 2001, backed by both the RACGP and the DAA, encouraged either nutrition counselling by the GP or referral to an Accredited Practicing Dietitian for patients presenting to GPs with either a high or low risk of cardiovascular disease.[49]

However, whilst the results from a Cochrane review concluded that guideline driven care in allied health could change both the process and outcome of care, it found that these results could not be generalised to medicine.[50] One of the reasons for this may be because it is felt that evidence alone will not be sufficient for it to be translated into general practice without implementation support.[51,52] This was evident in a recent assessment of the New South Wales Health Department diabetes guidelines, which showed optimal use in general practice required improved dissemination and a better implementation strategy.[48] The ability for CPGs to change GP behaviour is also influenced by other factors such as professional characteristics, ability and motivation to change, and available resources.[53] Further research is needed to determine whether CPGs, when implemented by GPs, affect patient outcome.[54,55]

Partnerships between GPs and Dietitians

In November 1999, the Commonwealth Government released the Enhanced Primary Care (EPC) package, which encouraged partnerships between GPs and health care professionals such as dietitians, to improve coordinated care.[56] However, encouraging partnerships between GPs and dietitians may require consideration of available resources. In rural areas, for example, there are less GPs and statistics show they work longer hours.[4] Furthermore, lack of access and the cost of counselling have been identified overseas as barriers for referring to dietitians.[15,18,23] If resources are directed towards GPs to foster enhanced primary care partnerships, resources may also need to be directed towards dietitians, to not only dilute any barriers for dealing with dietitians that are identified by GPs, but also to cope with the increased demand created by these partnerships.

Which strategy is the right strategy?

Whilst there are various strategies to provide effective nutrition management by GPs and dietitians, there are limited studies comparing their effectiveness.[57] A Cochrane review, which looked at advice to reduce blood cholesterol levels found dietitians were significantly more effective than doctors, though a combined approach of a doctor (to moti-

vate) and a dietitian (to counsel) may improve patient compliance.[58] The results of a Western Australian randomised control trial in 1999, which addressed weight management and hypertension through nutrition counselling, demonstrated that not only did patients in the doctor/dietitian group achieve better results, but they were more likely to complete the 12 month intervention programme than those in the dietitian group.[59] However, the ever-increasing number of treatment alternatives has led to an increased interest in the economic evaluation of health care, therefore an exploration of cost effective nutrition management strategies is required. Although medical nutrition therapy is considered cost effective,[60,61] strategies such as utilising GPs to improve compliance, does add to the cost of support.[59] Data is needed on the effectiveness, including cost effectiveness, of the various strategies being implemented.[62]

Conclusion

Whilst the picture of patient nutrition management in Australia is unclear, overseas evidence suggests there are opportunities presenting to GPs that may be missed. It needs to be clarified whether this problem exists in Australia and, if so, the magnitude of the problem. There are barriers for GPs to provide nutrition counselling and conflicting evidence on what influences their decision to do so. There is also a lack of evidence in Australia on barriers for GPs to refer to dietitians and what influences their decision to refer. Whilst strategies are being implemented to enhance effective nutrition management, there is limited research on the effectiveness and cost effectiveness of these. Once evidence is obtained, consideration may then need to be given on how to communicate this to GPs, so that they will be convinced of the need to either provide nutrition counselling,[3] or refer to a dietitian. Future research may need to address these issues so that patient nutrition management can be effectively implemented in Australia.

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