GPs' views on active nutrition management for their patients

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Patient nutrition management has the potential to reduce patient suffering and health care costs. At the forefront of providing nutrition management in Australia are general practitioners and dieticians. Consumers have stated that while they perceive dieticians to have the highest expertise in nutrition, they rank GPs second.[1,2] General practitioner nutrition confidence is therefore an important point to consider if patients present to their GPs with the expectation of nutrition counselling being provided.

However, GP nutrition confidence is a complex issue. It involves confidence in their ability to counsel,[3-5] confidence that counselling provided will induce patient behaviour change,[3-7] and confidence that the dietary change will then induce better patient health.[5,8] In Australia, there is limited evidence on how GP nutrition confidence influences the provision of patient nutrition management,[9] in particular, how it affects their counselling and referral practices. We aimed to address this by exploring the relationship between GP nutrition confidence and factors influencing the nutrition counselling and dietician referral practices of GPs.

Methods

A self administered questionnaire was sent to GPs in the Hunter Urban Division (HUD) in October 2001. Reminders were provided 6 weeks postimplementation. The survey was readministered after 5 months, with no reminders. Questions addressed were demographics (*Table 1*), whether the GP was currently practising, if they provided nutrition counselling or referred to a dietician, nutrition confidence, and the factors influencing their decision to counsel or to refer.

We designed the instrument, informed by the literature[2,4,5,11-15] (*Table 2*) and pilot survey. We treated data from Likert scales as ordinal. A correlation analysis was undertaken between nutrition confidence responses and responses to each of the factors influencing counselling or referral practices. Kendall's Tau was used in the analyses and results were considered significant when $p<0.05$.

Results

Of the 419 questionnaires distributed, 19 were returned (GP no longer practised at the address), while 159 were completed (40% response rate). Respondents were predominantly aged 36–55 years, male and practised in an area of population >100 000 but not a capital city (*Table 1*). Geographic area of practice reflected HUD members who predominantly practise in the Newcastle area of New South Wales. Six GPs were retired and, of the remainder, 82% provided nutrition counselling and 99% referred to a dietician (1% missing data).

The strongest correlations in each of the four areas relating to counselling and referral were identified. A negative correlation existed between, 'I have the experience to provide nutrition counselling' and 'education material available' as a factor that would influence the GPs' decision to counsel ($p<0.01$). A positive correlation existed between, 'I am confident that nutrition counselling will lead to changes in patient dietary behaviour' and 'adequate reimbursement', as a factor that would increase their likelihood to counsel ($p<0.01$). There were also positive correlations between, 'I am confident that nutrition counselling will lead to changes in patient dietary

Table 1. Demographic characteristics of the sample population

Characteristic	GPs n (%)
Age	
25 or under	0 (0)
26–35	22 (13.8)
36–45	55 (34.6)
46–55	53 (33.4)
56–65	22 (13.8)
66 or over	6 (3.8)
Missing data	1 (0.6)
Total	159 (100)
Gender	
Male	82 (51.6)
Missing data	0 (0)
Total	159 (100)
Geographic area of practice	
Capital city	1 (0.6)
Other metropolitan (population >100 000)	128 (80.5)
Rural areas (population <99 999)	30 (18.9)
Missing data	0 (0)
Total	159 (100)

Table 2. Nutrition confidence Likert statements and Likert statements used to determine how a series of factors influence GPs to counsel or to refer to a dietician

Nutrition confidence statements*	How important are the following in influencing your decision to counsel?**	How would the following increase your likelihood to counsel?***	How important are the following in influencing your decision to refer***	How would the following increase your likelihood to refer**
I have the:	Patient request	Patient education material	Cost to the patient	GP feedback from dietician on patient
• confidence that nutrition counselling will lead to changes in patient dietary behaviour	Ability to counsel	Nutrition evidence	Dietician availability	Partnerships in community projects
• confidence that diet changes influence patient health outcomes	Time	Practice guidelines	Knowledge of dietician's skills	EPC partnerships
• ability to detect nutrition problems	Education material available	Assessment tools	Waiting list to see a dietician	Reimbursement (government)
• knowledge to provide counselling	Patient interest	Education/support	Finding a dietician	Reimbursement (health insurance)
• skills to provide counselling	Expected patient adherence	Journals/texts/ newsletters	GP ability to counsel	Positive patient results
• confidence to provide counselling	Reimbursement to counsel	Adequate reimbursement	Complexity of counselling	Positive patient feedback
• experience to provide nutrition counselling	Complexity of counselling	Time	Patient interest	Increase knowledge of dietician skills
	Dietician availability		Belief in a dietician	Increase knowledge of dietician access
				Dieticians in general practice
				Increase dietician numbers

* Likert scale: strongly disagree, disagree, neutral, agree, strongly agree
** Likert scale: not important, very low importance, low importance, neutral, high importance, very high importance, extremely important
*** Likert scale: no increase, very low increase, low increase, neutral, high increase, very high increase, extremely high increase

behaviour' and 'belief in a dietician', as a factor that would influence the GPs decision to refer ($p<0.01$); and also to Enhanced Primary Care (EPC) partnerships as a factor that would increase their likelihood to refer ($p<0.01$).

Discussion

There were several limitations to the study. There was an over representation of female respondents compared to national figures,[16] a low response rate, possible response bias, and the potential for a type 1 error to occur. Since respondents were provided with a list of predetermined factors, there is the possibility that other factors influence patient nutrition management. Actual GP nutrition knowledge was not assessed and this may influence their confidence in delivering nutrition management.

The results suggest that key factors influencing the GPs' counselling and referral practices were strongly associated with several areas of GP nutrition confidence. Further research is needed to confirm the trends. A longitudinal study to determine the 'cause and effect' of the associations may provide evidence to improve the provision of patient nutrition management.

Implications of this study for general practice

- GP nutrition confidence was associated with the need for nutrition leaflets and reimbursement for counselling in influencing GPs to counsel.
- GP nutrition confidence was also associated with access to dieticians via EPC partnerships and belief in a dietician in influencing GPs to refer to dieticians.
- If these associations are causal, programs to improve factors identified or GP nutrition confidence could be targeted to improve the provision of patient nutrition management.

Conflict of interest: none.

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