

Survey of dietetic management of overweight and obesity and comparison with best practice criteria

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Abstract

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Objective: The Dietitians Association of Australia (DAA) is endeavouring to support best practice for dietetic management of overweight and obesity in Australia. The aims of this member survey were to describe current dietetic services and intervention strategies in obesity management and to compare current practice with that reported previously.

Method: All members of DAA were sent a questionnaire, with 287 surveys returned (response rate 14%). The questionnaire was informed by a literature review of evidence-based practice and was pre-tested. Self-reported dietetic management strategies were evaluated against best practice guidelines.

Results: The majority of dietetic treatment consultations were individual (45%). Both dietitian (6%) and multidisciplinary (11%) group programs were offered, with 15% care-planning within general practice. Only 13% of respondents reported the adoption of clinical guidelines for obesity management. Factors that supported or prevented dietetic involvement in obesity management were reported consistently as time, funding, staffing, management support and resources. Gaps in skills and areas identified for continuing professional development included counselling for behaviour change and strategies for implementation of best practice guidelines in a variety of settings. Future research questions included evaluation of models of dietetic care to ensure long-term lifestyle changes and improve clinical outcomes.

Conclusion: This survey indicates that there is a need for the development and dissemination of best practice guidelines for the management of overweight and obesity in Australian adults and children. DAA is well placed to facilitate uptake of current evidence-based treatment recommendations through the ratification and implementation of clinical guidelines that support best practice.

Key words: obesity, weight management, dietetic, clinical guidelines, best practice

Introduction

Overweight and obesity are serious health issues affecting over 50% of Australian adults and up to 25% of Australian children (1–3). Obesity contributes to over four percent of the overall burden of disease in Australia, (4) and direct costs in 1989–90 were estimated as \$A464 million or two percent of total health care costs (5). This estimate increased by a further \$A272 million when the indirect costs associated with lost productivity and income were included (5). The National Health and Medical Research Council (NHMRC) estimated the impact if obesity had been decreased in Australia by 20%, during the years 1992–2000. The potential saving to the health system, related to conditions such as diabetes, coronary heart disease, high blood pressure, breast and colon cancers and gallstones, would have been \$A59 million in 1997 and 2300 years of life (1).

Surprisingly, the cost-effectiveness of dietetic interventions for obesity is relatively unstudied. In a review of interventions to improve health professionals' management of obesity (6) only one study, examining the cost-effectiveness of dietetic interventions, was identified for inclusion (7). Developing effective and cost effective treatments will become increasingly important and have been assisted by the publication of a number of systematic reviews that have identified best practice intervention strategies for overweight and obesity (8–11).

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Campbell and Crawford have reported best practice management scores and attitudes to obesity management for members of the Dietitians Association of Australia (DAA) (12). From a survey of 400 dietitians (66% response rate) conducted in 1997 they found that while dietitians viewed management of overweight and obesity as an important priority, they were not using all the elements of best practice and perceived they had limited efficacy (12). They also highlighted the need for health authorities to advocate for support of dietitians in their efforts in management and prevention of obesity. More recently, dietitians have been shown to provide cost effective weight management services (7) and to provide more effective weight control advice, in combination with other strategies compared to other health care professionals (13).

Since 1997 there has been greater worldwide attention drawn to both the increasing prevalence of obesity and the need for effective treatment and prevention strategies (14). In Australia in 2001, the Strategic Inter-Governmental Nutrition Alliance (SIGNAL) released the report, *Eat Well Australia* (4). This report proposed that scientifically valid guidelines for the treatment and management of overweight and obesity, in both clinical and community settings, be developed. While the NHMRC has recently released first drafts of clinical guidelines for weight control and obesity management for adults (15), and for children and adolescents (16), it could be expected that dietetic practice in this area may have changed since 1997.

The study reported here was commissioned by DAA with the aim of describing current dietetic services and intervention strategies in obesity management. A secondary aim was to compare current practice with that reported previously (12). The study will provide the background for DAA to develop a plan to support enhancement of dietetic expertise and effective dietetic practice in the management of overweight and obesity.

Methods

Subjects

All financial members of DAA in 2002 were invited to complete the survey (n = 2268).

Survey development and distribution

The survey content was guided by the aims outlined by DAA and addressed current dietetic services in the treatment of obesity. A preliminary survey was developed in December 2001. Members of the DAA Obesity Reference Group, the NSW Obesity Interest Group (IG) and dietitians in the Hunter region of NSW were invited to complete or comment on the pilot survey in January 2002. Over 15 responses were received along with comments from the Executive Officer, Australian Society for the Study of Obesity. The questions were predominantly closed-ended. Permission to include a number of questions addressing best practice from a 1997 survey by Campbell and Crawford (12) was obtained from the authors. To give all members the opportunity to contribute to DAA's obesity initiative, the final survey was mailed to all members, enclosed with the February DAA newsletter, and included information on the purpose of the survey. Reminders were included in the DAA weekly emails dur-

ing March. Reply paid envelopes were not enclosed and reminder surveys were not mailed due to financial constraints. A copy of the survey is available from the author on request.

Measures

In order to determine if changes in dietetic management had occurred since 1997, questions related to best practice management strategies of adult obesity were included from a previous publication (12), along with additional questions to examine current practice in the management of paediatric overweight and obesity.

Demographic profile of respondents

Respondents reported on their DAA branch, age, years of dietetic practice, proportion of time spent working in obesity, membership of obesity interest groups, geographic location of work or residence and employment status.

Levels of service

Questions were included on the sector of employment, whether the service had clinical guidelines for obesity management, the categories of obesity service provision, proportion of caseload time spent therein, and whether the service was associated with a specialist medical service.

Demand

Respondents were asked to estimate the number of referrals, waiting time for consultations, number of clients seen and/or referred to other services, and to report the source of referrals.

Models of intervention

Questions were included on the types of obesity consultations provided, the focus of the services, philosophical and dietary approaches, selection of dietary strategies, perceived effectiveness, involvement of other disciplines in therapy, frequency and length of follow-up consultations and outcome measures used to monitor progress.

Evaluation studies and definitions of success

Respondents were asked to report on the results of evaluation studies, dietetic management standards, service audits, features that support effective dietetic management and barriers that prevent dietetic involvement. Using a six-point Likert scale (1 = most important, 6 = least important), respondents were asked, 'In judging success in treatment/management of overweight/obesity, how important do you consider the following outcomes?'. Six statements about treatment outcomes were provided. The mean response for each statement was ranked.

Perceptions of success

Using a five-point Likert scale (1 = strongly disagree, 5 = strongly agree), respondents were asked to rate their success with treatment outcomes for both adults and children in the overweight and obese categories. For analysis purposes the responses were collapsed into three categories (disagree, neutral and agree).

Professional preparedness

Using the same five-point Likert scale as above, respondents were asked to rate how well prepared they felt they were to treat and/or manage both adults and children in the overweight and obese categories.

Approaches to weight management

Using a five-point Likert scale (1 = never, 5 = usually), respondents were asked how frequently they performed each of 19 weight management activities. For analysis purposes the responses were collapsed into three categories (never/seldom, sometimes and often/usually).

Strategies recommended for weight management

Using the same five-point Likert scale as above respondents were asked to rate how frequently they performed each of 14 weight management activities. Respondents were also invited to list other strategies used.

Best practice in weight management

A best practice score was calculated for each respondent for adult obesity only, based on the frequency they reported using the 33 weight management activities above. These scores were derived in the same manner as Campbell and Crawford for the purpose of comparing the responses over time and have been previously published (12). The maximum score that could be achieved was 62. In the survey by Campbell there was an additional question with a maximum score of two, making the maximum best score 64.

Data analysis

From the first 50 questionnaires one of the authors (CEC) developed a broad coding framework for all the open-ended questions to group the responses into common themes. One investigator then coded each open-ended questionnaire. Where responses did not fit easily into the coding framework this same author (CEC) was consulted and where necessary a new category was added.

Statistical analysis was performed using Minitab 12 for Windows (Minitab Inc, State College, PA 1998). Descriptive statistics were reported using the median and range, or interquartile range (Q1–Q3), as indicated for non-normal data. Mean scores (\pm standard deviation (SD)) were reported for 'definitions of success' to allow a rank order of outcomes to be reported. The associations between best practice scores and the continuous variables, years of dietetic experience and the percentage of time spent in obesity management, were examined using Pearson's correlation and analysis of variance (ANOVA), where applicable. Differences between groups were assessed using the Mann-Whitney test.

Results

Demographic profile of survey respondents

By the end of the survey period, 287 (or 14% of the total number) questionnaires were returned. The respondents were representative of DAA members by state of residence in 2001 with 26% from Victoria (26% of all DAA), 39% from New South Wales (36% of all DAA) and 18%

Queensland (15% of all DAA). Fifty-one percent of respondents were aged 20 to 35 years, 38% were 36 to 50 years, 11% were 51 to 65 years and less than 1% were over 65 years. Ninety-one percent were employed as dietitians or nutritionists in Australia. The survey respondents were representative of the DAA membership in terms of the percentage in full-time employment (52% for the survey and all DAA) and part-time employment \leq 16 hours per week (19% versus 16% of all DAA) but were slightly over represented by the percentage in part-time employment >16 hours per week (25% versus 18%) and under-represented by those in the other categories which include contract or consultancy categories (3% versus 14%).

While the median length of time spent as a practising dietitian was 9.3 years, Q1–Q3 (4.0 to 16.8 years), 17% of respondents had \leq three years of dietetic experience, with 13% having three to \leq five years, 20% \leq ten years and 51% $>$ than ten years' experience. The majority of respondents worked in a metropolitan or urban area (75%) and 24% were from rural areas. The proportion of time spent working in the area of overweight and obesity management is reported in Table 1. Fourteen percent ($n = 39$) were members of an obesity interest group with 31 members of the Australian Society for the Study of Obesity, and 13 members of a DAA state obesity interest group.

Levels of service

The main places of employment were public hospitals (33%), private practice (23%) and community health centres (17%). Service clinical guidelines for obesity management were reported uncommonly (12%) and the majority of these had been adopted since 2000. While 63% provided weight management services to adults, comprising a median of 80% of the individual's clinical caseload, 47% offered a service for children comprising only five percent of the caseload. Twenty-six percent of the obesity services were provided within a specialist medical service. In descending order these were diabetes, cardiology, endocrine, specialist obesity and sleep apnea clinics.

Table 1. Proportion of employment hours spent by dietitian survey respondents ($n = 283$) working in the management of overweight and obesity, by four major employment categories

% Total work hours	% Total	Public hospital	Private hospital	Community health	Private practice
n		122	10	47	62
0	0.4				
>0–10	22.3	27.9	20	12.8	6.5
>10–\leq 25	20.5	24.6	30	19.1	12.9
>25–\leq 50	23.0	23.8	20	31.9	21.0
>50–\leq 75	14.8	9.0	10	19.1	25.8
>75–\leq 100	19.1	14.8	20	17.0	33.9

Demand

The major source of referrals was from general practitioners (30%) with 25% self referred, followed by 19% from hospitals, 10% from specialist medical clinics and 9% from community health centres. While 55% reported that there was a waiting list for obesity services, it was generally not long. The median (interquartile range) waiting times at public hospitals was four weeks, (two to six weeks), at community health centres, median four weeks (three to 7.5 weeks) and private practice, median two weeks (two to seven weeks). Few clients were referred to other services for treatment (median 0.5 clients per week).

Models of intervention

Individual consultations accounted for almost half (46%) of the client services followed by family consultations (19%), care-planning with general practitioners (15%), multidisciplinary group programs (11%), dietitian-only groups (6%) and commercial programs (2.5%). The major focus of obesity services was tertiary treatment (61%) followed by secondary prevention (26%) and primary prevention or health promotion (11%). Most services (53%) are provided without charges. The philosophical approach of the majority of services (85%) incorporated diet, exercise and behaviour modification. Table 2 reports the dietary approaches highlighting that the two most commonly used dietary strategies were to give general advice on healthy eating and advice on low fat eating.

Specific dietary strategies or interventions were selected for clients on the basis of dietitian practitioner experience (32%), client preference (25%), client past dieting experience (23%), service philosophy (10%) or as requested by medical referral (5%). Obesity services commonly included other health professionals (63%). Team members included a physiotherapist (23%), psychologist

(21%), social worker (18%), general practitioner (13%), exercise physiologist (7%) or gym instructor (3%).

After an initial consultation, the number of client reviews before discharge ranged from more than five follow-up appointments (23%), one or two reviews (17%), three to five reviews (28%), six to ten reviews (15%) and no reviews (5%). After an initial consultation or session, 67% clients were followed for less than three months, 8% for six to 12 months and 5% for longer than one year. The only client outcome measures reported by more than 75% respondents to monitor follow-up progress appointments (up to six months) were changes in weight, BMI or BMI percentiles (85%). Fifty-four percent of respondents reported using changes in metabolic indicators, 52% reported changes in indicators of dietary intake (diet quality, fruit and vegetable intake, energy intake, energy density), 36% reported using waist measurement and 13% reported achievement of patient-set goals.

Evaluation studies

Forty-six respondents (19%) reported that their service has clear standards for the dietetic management of overweight and obesity and 27 (10%) reported that their department had a policy or strategy for formally reviewing the outcomes of weight management activities over time.

Out of 240 responses, 39 respondents (16%) reported that the effectiveness of different dietary interventions had been assessed by their service. Thirty respondents (13%) had completed an audit, with a number of services completing more than one. Thirteen of these were related to the service structure (resources, personnel and organisation of services), 13 to process (referral, appointment systems, clinical assessment care planning procedures), 20 to service outcome (results of the care provided, either short-term or long-term). Of these, the results of six audits had been published, generating nine publications in total: two reports, three workshop presentations, three conference presentations and one in a peer-reviewed journal.

Management

Respondents were asked to rank six outcomes in judging success in the management of overweight and obesity from most to least important. The median ranking scores placed both the adoption of improved food and exercise habits, irrespective of weight loss and improvement in clinical indicators of health and disease (e.g. lipid profile) as the most important. Modest weight loss, which is likely to be sustained over time and improved body image and self confidence, irrespective of weight loss, were both ranked next, followed by maintenance of present body weight over time and then weight loss to the normal weight range (BMI 20 to 25 kg/m²).

Dietitians were asked to reflect on how professionally well prepared and also how successful they felt in managing clients across the various categories of overweight and obesity. Table 3 highlights that there were significant differences across adult and paediatric services in both professional preparedness and perceptions of success.

Using a Likert scale where one equals the least prepared and five the most, dietitians felt significantly less well prepared to manage children (median 4, IQR 2-4) who were overweight compared to adults (median 4, IQR

Table 2. Frequency of use of dietary approaches by dietitian respondents (n = 241) in management of overweight and/or obesity

Dietary approach	n	%	% all
		respondents n = 241	responses n = 618
General healthy eating advice	135	56.0	21.8
General advice on low fat eating	131	54.4	21.2
Non-diet approach but identifying specific ways to reduce energy intake	99	41.1	16.0
Non-diet approach with eating behaviour goals	85	35	13.8
Specific low fat eating plan (< 30% energy)	40	16.6	6.5
12345+ plan	39	16.2	6.3
Other	37	15.4	6.0
Set energy level plan (e.g. 5000 kJ)	32	13.3	5.2
Very low calorie diet	20	8.3	3.2

Table 3. The percentage of respondents (n = 223) who disagree, are neutral or agree with the following statements reflecting on experiences of treating/managing people who are overweight or obese

	<i>Strongly disagree/ disagree</i>	<i>Neutral</i>	<i>Agree/ strongly agree</i>
I am professionally well prepared to treat/manage clients who are overweight (BMI 25 to 30 kg/m ²)	10.0	12.0	77.7
I am professionally well prepared to treat/manage clients who are obese (BMI > 30 kg/m ²)	14.5	17.5	68.0
I usually achieve successful outcomes with adult clients who are overweight (BMI 25 to 30 kg/m ²)	16.5	27.4	56.0
I usually achieve successful outcomes with clients who are obese (BMI > 30 kg/m ²)	29.4	33.8	36.8
I am professionally well prepared to treat/manage children who are children at risk of overweight (BMI percentile > 85th to < 95th)	25.8	22.0	52.3
I am professionally well prepared to treat/manage overweight children (BMI percentile ≥ 95th)	27.8	23.7	48.5
I usually achieve successful outcomes children at risk of overweight (BMI percentile > 85th to < 95th)	12.0	56.8	31.2
I usually achieve successful outcomes with overweight children (BMI percentile ≥ 95th)	18.5	50.9	30.6

4–4) with 95% CI on the difference (-0.0001, 1.0, $P < 0.001$). The same discrepancy was found for managing obese children (median 3, IQR 2–4) compared to adults (median 4, IQR 3–4) with a 95% CI on the difference (0.0, 1.0, $P < 0.001$).

There was a significant increase in feelings of professional preparedness with the years of dietetic experience for both overweight adults ($r = 0.23$, $P < 0.001$) and children ($r = 0.23$, $P < 0.001$). The correlations were weaker for adult ($r = 0.15$, $P = 0.01$) and paediatric obesity ($r = 0.21$, $P = 0.001$). There was a significant increase in feelings of professional preparedness as the proportion of time spent in obesity management increased, for both overweight adults ($r = 0.27$, $P < 0.001$) and children ($r = 0.20$, $P = 0.001$) and obese adults ($r = 0.25$, $P < 0.001$) but this was weaker for obese children ($r = 0.16$, $P = 0.01$). There was no correlation between perception of achievement of client outcomes with increased years of dietetic experience, ($P > 0.05$), with the exception of paediatric obesity ($r = 0.16$, $P = 0.02$). However, statistically significant correlations existed between perception of achievement of client outcomes and the proportion of time spent in managing adults who were overweight ($r = 0.24$, $P < 0.001$) or obese ($r = 0.33$, $P < 0.001$). These correlations were weaker for paediatric overweight ($r = 0.15$, $P = 0.03$) and paediatric obesity ($r = 0.15$, $P = 0.03$).

Approaches to weight management

Dietitians were asked to report how frequently they would perform a range of weight management activities using a five-point scale from never, seldom, sometimes to often and usually. Table 4 reports the percent of respondents performing each activity, collapsed to the three categories of never/seldom, sometimes and often/usually.

Strategies recommended when advising clients on weight loss/management

Dietitians were asked to report how frequently they advised clients to perform a range of strategies to support weight management using a five-point scale from never, seldom, sometimes, to often and usually. Table 5 reports the percent of respondents who performed each activity collapsed to the three categories of never/seldom, sometimes and often/usually. Other strategies that were often or usually recommended were reported (36%). Of these 29% were for another type of dietary manipulation (reduced energy density, meal spacing, low glycaemic index, very low calorie diet or nutritional adequacy), 20% were related to behavioural therapy or body image, 20% to use of pedometers or another exercise monitoring device, 12% referral to a psychologist, 10% use of adjunctive medication, 5% enlisting support from family members, 5% surgical intervention and 2% using supermarket tours.

Best practice score

The best practice score was calculated by adding together the scores from questions on approaches to and strategies used on weight management. With a maximum possible score of 63, the median (IQR) best practice score was 43 (39–48). There was a positive correlation between best practice score and the proportion of time spent working in the area of obesity management, $r = 0.34$, $P < 0.001$ and the number of years practising as a dietitian, $r = 0.30$, $P < 0.001$. There was no significant difference in best practice scores between those who provided services within a specialist medical clinic and those who did not (median 45 versus 43), $P > 0.05$.

Table 4. The percentage of respondents (n = 254) using specified weight management strategies

<i>Strategies</i>	<i>% Never/ seldom</i>	<i>% Sometimes</i>	<i>% Often/ usually</i>
How often do you assess the client's exercise habits?	0	0	100
How often do you assess weight history?	1	3	97
How often do you assess the client's expectations of weight management/loss?	3	9	88
How often do you see clients on a one-to-one basis?	5	7	88
How often do you assess the client's readiness for change at the time of first contact?	4	12	84
How often do you assess the home environment for structures supportive of weight management/loss?	7	12	81
How often do you assess the client's values and beliefs regarding his/her ability to lose weight?	7	16	78
How often do you assess the client's definitions of successful outcomes in weight management?	9	19	71
How often do you assess the weight history of the client's family?	12	3	62
How often do you assess the client's preferred style of consultation/method of intervention?	21	24	55
When a client does not lose weight using one weight management strategy how often do you offer another weight management strategy?	15	37	47
How often would your clients be accompanied by a significant other?	12	42	46
How often do you review your client's progress for more than six months?	20	34	45
How often do you assess the client's anticipation of regaining weight lost?	24	34	42
How often do you assess the client's expectations of the number of consultations he or she will have with you?	31	30	39
How often do you refer your clients to another member of the health care team?	25	54	21
How often do you see clients in a group format?	58	23	19
How often do you see clients in a combined one-to-one counseling/group format?	73	16	12
How often do you review client progress for more than two years?	63	26	11

Table 5. The percentage of respondents (n = 262) advising clients on the following strategies to assist in weight management

<i>Strategies</i>	<i>% Never/ seldom</i>	<i>% Sometimes</i>	<i>% Often/ usually</i>
General advice to do more exercise	2	2	96
Practical advice regarding shopping and cooking to achieve dietary goals	1	5	94
Specific advice regarding opportunities for increasing incidental daily activity	1	6	93
Specific advice to reduce total fat intake	2	6	92
Specific advice re: incorporating low intensity, long duration exercise such as walking into present lifestyle	2	7	91
Planning for follow up in the short term	4	11	85
Specific advice regarding ways of incorporating other forms of exercise into daily living	4	16	80
Behaviour modification techniques	6	22	73
Specific advice to eat fewer kilojoules	29	24	48
Keeping a food diary	22	38	40
Planning for follow up in the long term	25	40	36
Keeping a hunger awareness diary	48	36	16
Keeping a weight diary	79	11	10
Joining a commercial or community-based 'slimming group'	65	28	7

Discussion

This survey is the first step of an ongoing plan by DAA to develop strategies to support effective dietetic practice for the management of overweight and obesity. Firstly, the limitations to this survey need to be considered when interpreting the results. The low response rate does affect the external validity of the survey results. However, the respondent profile reflected broad DAA membership characteristics, with the exception of the over-representation of part-time employees and private practitioners in the survey. This over-representation is plausibly due to the fact that dietitians in these categories spend over half of their time in obesity management and therefore show greater personal interest in the survey topic. It could be expected that their knowledge and best practice scores may be higher compared to a sample of dietitians who did not spend as much time working in overweight and obesity management. Secondly, respondents who willingly completed a nine-page, 62-question survey may be different to those who did not complete it. Again, they may have had a vested interest in this area of practice and so results could present a better picture of dietetic practice than actually exists. However, the fact that best practice scores were not different to those of previous research (12) suggests that this was not the case. The response rate in future surveys could be improved by a number of strategies including sending reminders, pre-selecting a representative subsample, using reply-paid envelopes and/or using an online survey with reminders sent via email.

The results indicate that five years after Campbell and Crawford reported on obesity management practices of Australian dietitians (12), best practice scores in this sample of DAA members are not greater. This is surprising, given the high level of dietetic experience, and that over half of the respondents spent greater than a quarter of their time working in overweight or obesity management. As with Campbell and Crawford (12), the best practice score was positively correlated with number of years practising as a dietitian and the proportion of time spent working in the management of overweight and obesity. Best practice scores were significantly greater in those who were members of obesity interest groups suggesting that one strategy to increase the proportion of dietitians with the knowledge and skills to implement best practice management would be to encourage membership of an obesity interest group. It is possible that issues related to self-report or to interpretation of questions confound the best practice score methodology. While it was derived from evidence related to effective intervention strategies (12), it has not been independently validated by clinical audit and the result should therefore be interpreted with caution.

There was a mismatch in responses between the ranked list of importance of outcomes by which to judge success in management and the list generated to report outcome indicators used to monitor progress up to six months. Only approximately half reported using improvements in metabolic indicators such as blood lipids or glucose levels, or indicators of diet quality or physical activity. However, improvements in clinical indicators of health and disease and adoption of improved food and exercise habits were ranked as the most important outcome measures that should be used to monitor progress.

These findings suggest there is a gap between knowledge, beliefs and practice.

When considering the approaches often or usually employed by the majority of respondents there were omissions in terms of best practice. Less than half of respondents often or usually monitored a client's progress up to six months and only about ten percent for up to two years. This was despite recent reports that obesity should be treated as a chronic disease and that better treatment outcomes are associated with long-term follow up (8). This limitation in dietetic management of overweight and obesity is likely to be related to time and resource barriers. However, the follow-up issue will need to be addressed if dietitians are to take a lead role in supporting best practice treatment.

Of the top seven management strategies used, four of these related to physical activity and only two specifically to dietary changes. This suggests that dietitians may feel that physical activity changes are of greater importance to achieving successful client outcomes or they are uncertain as to the relative importance of dietary modifications compared to physical activity in the management of overweight and obesity. Alternatively dietitians make feel that clients need to be presented with a greater range of physical activity strategies compared to diet. While this issue requires closer scrutiny, the first explanation appeared reinforced by the reported dietary approaches used.

Over half of the respondents gave general healthy eating or general low fat eating advice and half never, seldom or only sometimes gave specific advice to reduce total energy intake. This does not match with current evidence on effective dietary strategies for weight management. There is a rich body of data from randomised control trials, indicating that energy reduced diets can reduce total body weight by an average of eight percent over three to 12 months and also that greater weight loss is achieved when lower-fat diets are used in addition to total energy reduction (8,15,16). The same omissions, in use of important elements of best practice identified in 1997, were reported again in this survey and indicate that the current dietetic approach to, and the strategies recommended for, weight management have not changed, despite the release of evidence-based treatment strategies by a number of key organisations (8-11,14). Therefore dietetic clinical guidelines would need to be easily accessible to dietitians in Australia, in the first instance. Endorsement of best practice clinical guidelines for dietetic management of overweight and obesity by DAA and the development of a dissemination and implementation strategy may assist this process.

Service-level clinical guidelines for obesity management were not common within the dietetic services in which survey respondents were employed. In addition, the majority indicated that their service did not have clear standards for dietetic management of overweight and obesity. It is therefore not surprising that clinical service audits were uncommon. This is clearly another area where DAA members need support to develop, implement and publish evaluations of dietetic effectiveness. In 2001 the Strategic Inter-Governmental Nutrition Alliance of the National Public Health Partnership, proposed in Eat Well Australia, that scientifically valid guidelines for the treatment and management of overweight and obesity in both

clinical and community settings be developed (4). Recently, the NHMRC released first drafts of clinical guidelines for weight control and obesity management for children, adolescents (16) and adults (15). These documents serve as a valuable starting point for DAA to assert the contribution of dietitians in providing effective long-term management of overweight and obesity.

Conclusion

In conclusion, the results of this survey indicate that in this group of dietitians there are both omissions in the use of specific elements of best practice and gaps in knowledge related to management of overweight and obesity. These could be addressed by the development, dissemination and implementation of best practice dietetic guidelines for the management of overweight and obesity in Australian children, adolescents and adults. The survey results highlight that there is an opportunity for DAA to evaluate whether a continuing professional development program aimed at supporting best practice dietetic management can contribute to improvements in both clinical practice and client outcomes.

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