Management of obesity
Knowledge, attitudes, and practices of general practitioners in the PACA region: results of a telephone survey

Summary

Obesity management
Knowledge, attitudes and practices of general practitioners in southeastern France; results of a telephone survey

Objective To describe the current knowledge, attitudes, and practices of French general practitioners (GPs) in the field of child and adult overweight and obesity management.

Methods A cross-sectional telephone survey interviewed a sample of 600 GPs, representative of the population of private GPs in southeastern France. A three-part questionnaire assessed attitudes and opinions about overweight and obesity, knowledge and training in this field, and practices (diagnostic methods, standard weight loss objectives, types of counseling).

Results Most GPs (90.2%) regarded obesity as a disease requiring long-term management (99.5%), and 79% agreed that managing these problems is part of their role. Nevertheless, 58 and 66% did not feel they perform this role effectively for their adult patients and for children and teenagers, respectively. Approximately 30% had negative attitudes towards overweight and obese patients. Most practices followed the guidelines relatively closely. Nevertheless, 60% often set weight loss objectives more demanding than guidelines call for; neither food diaries nor nutritional education were used systematically; 55% often forbade children and teenagers to eat specific foods.

Discussion These results, which were based on GPs’ declarations, revealed the existence of a gap between theory and practice in the field of obesity management: GPs felt responsible for but ineffective in this management. Their feelings of ineffectiveness may be furthered by the underlying disagreement in the attitudes of practitioner and patient towards weight problems and the ensuing difficulties in their relationship.

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The prevalence of both overweight and obesity is on the rise in many countries. General practitioners (GPs), the healthcare professionals patients consult most often, have an essential role in the prevention and management of these health problems. Studies show that management is inadequate for approximately half of all overweight or obese patients and that physicians share a sense of ineffectiveness in dealing with this problem. Studies in English-speaking countries have examined GPs’ knowledge, attitudes, and practices about the management of overweight and obesity; there has been only one such study in France. Better knowledge of this situation in France would make it possible to verify whether the representations of obesity observed in English-speaking countries are the same among French physicians and would help to define ways to improve the management of weight problems in general practice. A survey of GPs in private practice in the Provence-Alpes-Côte d’Azur (PACA) region sought to ascertain their knowledge, attitudes, and practices in the management of overweight and obesity, among both children and adults.

Methods

Sample
We set up a panel of GPs in March 2002 in the PACA region. GPs with exclusive particular practices (e.g., homeopathy, acupuncture) and those planning to move outside the area or retire were excluded. The sample was constructed by random sampling stratified for sex, age (<43 years, 43-52, >52 years), and size of the municipality of practice (<2000 inhabitants, 2000-200,000, >200,000). We surveyed this panel on the topic of obesity, from May though July 2003.

Questionnaire and procedure
The questionnaire (available from the authors), validated by a group of experts (endocrinologists, nutritionists, clinicians, and sociologists) and conducted by telephone (computer-assisted telephone interview or CATI system), concerned:

• GPs’ attitudes and opinions about overweight, obesity and their management, the risk factors for and conse-
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ORIGINAL ARTICLE

sequences of obesity, and their feelings of effectiveness and professional satisfaction in managing these problems
• GPs’ knowledge and training: about the prevalence of overweight and obesity in France, about relevant practice guidelines, and about their training and their principal sources of information about the management of weight problems
• management practices: diagnostic methods, target weight, diet advice, follow-up procedures - all for adults and children.

ANALYSES
χ² tests were used to compare the characteristics of the sample and of the regional GP population, as well as strategies for management of overweight and obesity. We used SPSS® (software version 11.0) to conduct these analyses.

Results
In March 2002, we randomly selected 1076 physicians who met the inclusion criteria and ended up with a panel of 600 respondents (response rate: 55.8%). The latter did not differ significantly between the strata. In all, 544 (90.7%) participated in the obesity survey (May-July 2003), 39 (6.5%) had left the panel, and 17 (2.8%) could not be contacted. These GPs were replaced by new physicians from the corresponding strata. The sample was representative of the regional population of GPs in private practice, according to the sampling criteria (table 1).

Tableau 1
Characteristics of the sample of responding general practitioners (GPs) compared with all GPs in private practice in PACA (PACA panel, Provence-Alpes-Côte d’Azur, 2003)

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>General population of private practice GPs in PACA</th>
<th>Sample of GP respondents</th>
<th>Test χ²</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(n) (%)</td>
<td>(n) (%)</td>
<td></td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men</td>
<td>4 140 76.2</td>
<td>452 75.3</td>
<td>p = 0.65</td>
</tr>
<tr>
<td>Women</td>
<td>1 295 23.8</td>
<td>148 24.7</td>
<td></td>
</tr>
<tr>
<td>Age (years)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 43</td>
<td>1 398 25.7</td>
<td>158 26.3</td>
<td>p = 0.50</td>
</tr>
<tr>
<td>[43-52]</td>
<td>2 889 53.2</td>
<td>305 50.8</td>
<td></td>
</tr>
<tr>
<td>&gt; 52</td>
<td>1 148 21.1</td>
<td>137 22.8</td>
<td></td>
</tr>
<tr>
<td>Size of the municipality (number of inhabitants)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 2000</td>
<td>357 6.6</td>
<td>52 8.7</td>
<td>p = 0.13</td>
</tr>
<tr>
<td>2000-200000</td>
<td>1 334 24.5</td>
<td>150 25.0</td>
<td></td>
</tr>
<tr>
<td>&gt; 200000</td>
<td>3 744 68.9</td>
<td>398 66.3</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>5 435 100.0</td>
<td>600 100.0</td>
<td></td>
</tr>
</tbody>
</table>

GP s’ ATTITUDES AND OPINIONS
Most GPs (90.2%) considered that obesity is a disease requiring long-term management (99.5%, table 2) and justifying management early on, at the stage of overweight (93.3%).
Moreover, 79% of the GPs felt this management was within their jurisdiction, part of their responsibility. One physician in five thought only obese patients should be treated to encourage weight loss, and 13.7% that children grow out of overweight and obesity. The GPs’ opinion about their role shows a marked contrast between the affirmation of a sense of responsibility and the equally clear feeling of ineffectiveness: 57.5 and 65.5% of GPs felt their management was only slightly or not at all effective for management of weight problems in adults and in children and adolescents, respectively.
Approximately 30% of the GPs questioned had a negative opinion about obese people: “lazier and less willpower than normal-weight people” and 57.2% were pessimistic about these patients’ ability to lose weight and maintain the loss (table 2).
Surveyed with a Likert scale ranging from 1 (unimportant) to 6 (very important), these physicians reported that the principal risk factors for obesity were associated with the patients’ behavior: they eat too much fat (mean score: 5.2), eat too much (5.1), eat too much sugar (4.9) and do not exercise enough (4.7); stress (4.1) and unemployment (3.3) were perceived as clearly less important. The medical consequences of obesity (4.9) were perceived by GPs as the most important, ranked
ahead of psychological (4.3) and social (3.8) problems and, in particular, school problems for children and adolescents (3.6).

**TRAINING AND KNOWLEDGE**

Although 54.2% of GPs had already had some continuing medical education (CME) in this domain, 80% reported they needed additional knowledge and skills, especially in nutritional counseling. Half the GPs (51.2%) underestimated the prevalence of overweight in the adult French population and overestimated that of obesity in adults (50.0%) and in children (52.6%). Only 6.7% of the GPs were aware of practice guidelines for management of obesity; 50% reported that medical journals were their principal source of information, 25.2% CME, and 10.4% experience with patients.

**MANAGEMENT PRACTICES**

### In adults

Most GPs (88.5%) reported that they often calculated body mass index (BMI) to diagnose a weight problem but only 41.1% measured the waist, although this measure should be used to diagnose abdominal obesity (*table 3*).

Nearly two thirds of the GPs (64%) regularly set weight loss objectives higher than those recommended for the management of obesity, and their objectives were more demanding for obesity than for overweight (*figure 1*).

Management of overweight included drug treatment according to 23.2% of physicians, and supportive psychotherapy for 31.6%; 14.8% often recommended behavioral therapy and 48.9% included the spouse or partner in management. Each of these strategies was reported more frequently for obesity (p < 0.001): 40.5% (drug treatment);
48.8% (psychotherapy); 24.2% (behavioral therapy); 60.2% (spouse or partner included). Only 3.5% of GPs often suggested surgical treatment for obesity.

Nearly all GPs (90-99%) provided the standard nutritional advice: eat less fat and sugar, don’t eat between meals, eat more fruit and vegetables, and reduce consumption of caloric drinks. But more than one third (36.2%) provided nutritional education only rarely and only 39.3% frequently advised their patients to use food diaries (table 3).

For children and adolescents

More than 80% of physicians often used age-specific BMI curves to diagnose weight problems and 47% often used the adiposity rebound visible on this curve (table 3). More than 95% of physicians gave mothers nutritional and dietary advice, and 89% recommended more exercise and fewer sedentary activities. Nearly 55% often forbade the consumption of some foods (table 3).

Monitoring patients and referrals to other professionals

At the beginning of treatment for weight problems, 96% of physicians saw their patients at least once a month and 39% often suggested telephone contact between two consultations. Fewer than one third of the GPs often referred patients to other professionals. The most frequent referral was to nutritionists, but only 30.9% of GP made frequent referrals to them.

Discussion

Most GPs feel concerned by and involved in the management of obesity; the practices they reported were, on the whole, similar to the French guidelines. Many of them, however, were very skeptical of the results of this treatment, for adults as for children. This contradiction has been observed in several countries, among GPs as well as among specialists. Comparison of our results with those in the literature suggests several hypotheses that may explain this apparent paradox.

Physicians and patients have different models and representations of obesity. Most physicians place the responsibility for weight problems and their improvement on the patients: they attribute a predominant role in the onset of obesity to factors “controllable” by the patient (food intake, physical activity) and a less important role to the “uncontrollable” factors (such as stress and unemployment). Patients, on the other hand, tend to attribute their weight problems more to uncontrollable factors (hormone problems, for example) and expect a lot from their physician.

This survey confirmed for the first time in a population of French physicians the existence of a negative image of obese persons, who are considered to be “lazy” and to lack willpower.

Similar results have been observed in international studies, among both GPs and specialists. These attitudes are most notable for the highest BMI, but do appear on the whole less common than in other older studies.

There is an essential difficulty in the physician-patient relationship on the topic of obesity: the patient's request for help is confronted by medical skepticism and, in a third of the cases, by the physician's negative opinion of the patient. This situation, added to the antagonistic representations of physicians and patients, is likely to create a vicious circle of treatment failure.

In general, physicians appear more concerned by obesity itself than by overweight, the epidemiologic importance of which they underestimate. This trend does not promote preventive medicine in this domain. Only a small proportion of overweight patients are advised to lose or at least maintain their weight. Lack of time, recognized as an obstacle to prevention activities in general practice, may in part explain this omission.

In this study, treatment objectives, limited to weight loss objectives defined by the physicians, were often, for 60% of the GPs, stricter than those in the various guidelines. This may engender a sense of disappointment, or even failure, in the patient and, consequently, of dissatisfaction in the physician. That is, the discordance between the “ideal” objectives and results that have limits in the various guidelines and physical activity are, on the whole, consistent with those of the French guidelines, although only a minority of GPs reported know-
Nonetheless, 36.2% of GPs only rarely provided nutritional education and 60.7% only rarely suggested the use of a food diary, recommended for satisfactory diet management. For children, 54.8% of GPs often forbade consumption of some foods and 70% only rarely used written information (leaflets, etc). Dietary management by GPs thus seems limited to ad hoc advice; the reasons for this are easily identifiable: lack of knowledge of these texts officially approved by the French agency for health accreditation and evaluation (Anaes).

### Tableau 3

**Practices of private general practitioners in management of overweight and obesity in adults, children and adolescents (PACA panel, 2003)**

<table>
<thead>
<tr>
<th>Practices</th>
<th>% response “fairly often” or “always or almost always”</th>
<th>Adults</th>
<th>Children and adolescents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diagnostic methods</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weight alone (unrelated to height)</td>
<td>15.5</td>
<td>14.6</td>
<td></td>
</tr>
<tr>
<td>Body mass index</td>
<td>88.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Waist/hip ratio</td>
<td>34.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Waist</td>
<td>41.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comparison of weight to ideal weight according to Lorentz’s formula</td>
<td>33.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age-related weight and height curves</td>
<td>-</td>
<td>90.5</td>
<td></td>
</tr>
<tr>
<td>Age-related body mass index curves</td>
<td>-</td>
<td>81.3</td>
<td></td>
</tr>
<tr>
<td>Adiposity rebound (visible on the body mass index curve)</td>
<td>-</td>
<td>47.0</td>
<td></td>
</tr>
<tr>
<td>Appearance</td>
<td>60.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advice provided and tools used</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eat less at meals</td>
<td>75.6</td>
<td>66.1</td>
<td></td>
</tr>
<tr>
<td>Eat less fat</td>
<td>97.7</td>
<td>94.3</td>
<td></td>
</tr>
<tr>
<td>Do not eat between meals</td>
<td>91.0</td>
<td>89.0</td>
<td></td>
</tr>
<tr>
<td>Eat less sugar</td>
<td>94.8</td>
<td>97.2</td>
<td></td>
</tr>
<tr>
<td>Eat more fruit and vegetables</td>
<td>95.5</td>
<td>97.7</td>
<td></td>
</tr>
<tr>
<td>Reduce consumption of calory-containing drinks</td>
<td>99.7</td>
<td>99.9</td>
<td></td>
</tr>
<tr>
<td>Moderate personalized diet (1200-2200 cal/day)</td>
<td>73.9</td>
<td>/</td>
<td></td>
</tr>
<tr>
<td>Low or very-low calory diets (less than 1200 cal/day)</td>
<td>22.4</td>
<td>/</td>
<td></td>
</tr>
<tr>
<td>Commercial diets (Weight Watchers, etc.)</td>
<td>12.4</td>
<td>/</td>
<td></td>
</tr>
<tr>
<td>Permanently forbid some foods</td>
<td>35.4</td>
<td>/</td>
<td></td>
</tr>
<tr>
<td>Forbid some foods</td>
<td>/</td>
<td>54.8</td>
<td></td>
</tr>
<tr>
<td>Exercise</td>
<td>86.8</td>
<td>/</td>
<td></td>
</tr>
<tr>
<td>Get more exercise during daily living activities (marketing, gardening, etc.)</td>
<td>95.3</td>
<td>/</td>
<td></td>
</tr>
<tr>
<td>Reduce sedentary activities such as watching television</td>
<td>/</td>
<td>89.3</td>
<td></td>
</tr>
<tr>
<td>Informational documents for patients</td>
<td>66.0</td>
<td>28.3</td>
<td></td>
</tr>
<tr>
<td>Daily food diary</td>
<td>39.3</td>
<td>29.5</td>
<td></td>
</tr>
<tr>
<td>Education about food rhythms and composition</td>
<td>63.8</td>
<td>/</td>
<td></td>
</tr>
<tr>
<td>Advise the mother about family meal planning</td>
<td>/</td>
<td>95.7</td>
<td></td>
</tr>
<tr>
<td>Family psychotherapy</td>
<td>/</td>
<td>15.8</td>
<td></td>
</tr>
</tbody>
</table>

- : item not mentioned in the questionnaire because the method is applicable to management of adults or children, but not both.
/ : question not asked in the questionnaire.
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WHAT IS ALREADY KNOWN

• The knowledge, attitudes, and practices of general practitioners concerning obesity have been studied in various English-speaking countries, but much less in Mediterranean countries, including France.
• Obesity is strongly under-diagnosed in general practice.
• General practitioners are strongly involved in obesity management but share a feeling of ineffectiveness.
• Patients attribute more importance than physicians to the risk factors for obesity that they cannot control.

WHAT THIS ARTICLE ADDS

• In France, in the PACA region in particular, general practitioners think that management of obesity is part of their bailiwick, but most feel ineffective at it.
• Negative attitudes towards overweight and obese patients persist among approximately 30% of general practitioners.
• Representations of obesity differ between physicians and patients, and this difference is likely to lead to a vicious circle of treatment failure.
• Practices are globally close to French guidelines, but nutritional education remains limited to ad hoc advice and weight loss objectives are often too strict.

Acknowledgments
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References