

Patterns of care in private general practice by main diagnoses

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INTRODUCTION

In Australia the vast majority of dental practitioners are in the private sector (83 per cent).¹ Previous reports have documented the practice profiles of patients treated in private general practice.² A large percentage of patients presented for recall/maintenance care and caries, consistent with the service profile showing high numbers of diagnostic, preventive and restorative care. Other common main diagnoses or conditions included pulpal/periapical infection, failed restorations, cuspal fractures, periodontal disease and denture problems. This paper describes the pattern of care provided to patients in private general dental practice in 2003–2004 by the most common main diagnoses or conditions.

METHODS

Sample and response

A longitudinal design involving a sample of 10 per cent of male dentists and 40 per cent of female dentists was randomly drawn from the dental registers for each State or Territory in Australia in 1983. The higher sampling rate for female dentists was designed to include sufficient numbers for comparisons by gender of dentist, as females comprise a lower percentage of registered dentists than males. Sample supplementation at each successive five-yearly wave of the study, based on 10 per cent of male and 40 per cent of female dentists who were newly registered since the previous wave, ensured representative cross-sectional estimates. In 2003–2004 this sample was surveyed by mailed questionnaire, providing a response rate of 76 per cent.

The data were weighted using dental board registration statistics from 2000.¹ Therefore, the estimates of practice activity were representative of the age and gender distribution of Australian private practice dentists at that time.

Data collection

Respondents completed questions related to their current practice experience. Practitioners provided estimates of the number of patients treated per day, and the number of hours per day, days per week and weeks per year devoted to work. Practitioners recorded the types of services provided over one self-selected typical day of practice. The number of patients

Table 1. Age distribution of responding private general practitioners

	Male	Female
Age of dentist	%	%
20-29 years	8.3	19.3
30-39 years	23.8	32.4
40-49 years	34.9	34.8
50-59 years	23.4	12.0
60+ years	9.5	1.5
Total (n)	252	259

sampled by each dentist varied according to their typical level of activity. Dentists were free to choose which day to include in their service log. The service log included patient characteristics such as age, gender and dentition status, visit characteristics such as reason for visit and insurance status, as well as services provided. Only sampled dentists within any group practice provided data. Dentists were instructed to record for each patient treated on their selected typical day the services provided regardless of whether or how they were charged to the patient. Services were classified into main areas of service following the Australian Dental Association's *Schedule of Dental Services*.³ Extraction services reported in this paper correspond to the area listed as oral surgery in the Schedule.

RESULTS

Age and gender distribution of respondents

The age and gender distributions of responding private general practitioners from 2003–2004 are presented in Table 1. The highest percentage of dentists occurred in the 40–49 year age group for both male and female dentists. However, male dentists had an older age distribution than female dentists, with higher percentages in the 50–59 and 60+ year age groups. In contrast, female dentists had higher percentages in the 20–29 and 30–39 year age groups. While the sampling rates produced approximately equal numbers of male and female dentists, the over-representation of female dentists was adjusted through the weighting process for the remainder of the results.

Caries

The pattern of care associated with caries is presented in Fig 1. Approximately one-quarter of visits provided by dentists were for the main condition of caries. Patients with caries had an even gender distribution and the age distribution was dominated by adult patients. These patients

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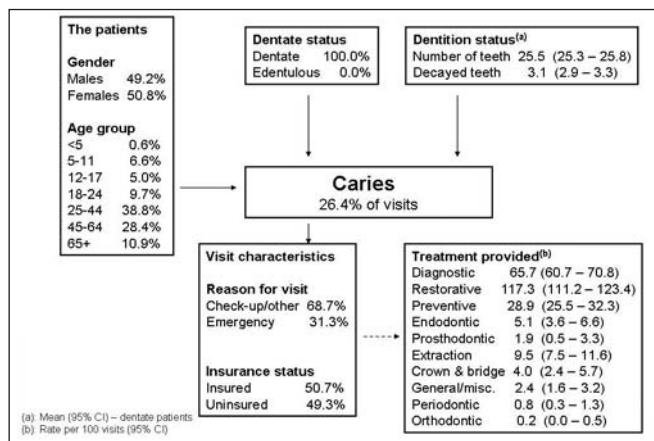


Fig 1. Pattern of care provided to patients attending for caries.

had on average 25.5 teeth, with 3.1 decayed teeth. Approximately half of the patients had insurance and 31.3 per cent were emergency visits for relief of pain. Services provided to these patients comprised high rates of restorative, diagnostic and preventive services.

Recall/maintenance care

Approximately one-quarter of visits were for recall/maintenance care (Fig 2). There were slightly higher percentages of females (56.2 per cent), and the highest percentage of patients were in the 25–44 year age group (30.7 per cent). Most recall/maintenance care patients were dentate (99.4 per cent), with 25.8 teeth on average and 0.7 decayed teeth. The majority of these visits were for check-up/other visits (97.8 per cent) and the majority of patients were insured (65.9 per cent). These patients received high rates of diagnostic and preventive services.

Pulpal/periapical infection

Just under 10 per cent of visits were for pulpal/periapical infection (Fig 3). These patients exhibited an even gender distribution, with the highest percentages of patients in the 25–44 and 45–64 year age groups. These patients had 25.5 teeth on average, with 2.2 decayed teeth. The majority were

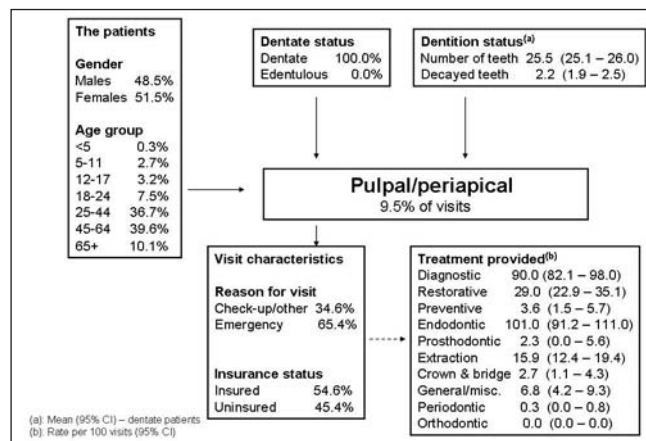


Fig 3. Pattern of care provided to patients attending for failed restorations.

emergency visits (65.4 per cent) and 54.6 per cent had dental insurance. Treatment provided was characterized by high rates of endodontic and diagnostic services, as well as relatively high rates of extraction.

Failed restoration

Approximately 9 per cent of visits were for failed restorations (Fig 4). There was a slightly higher percentage of female patients (58.4 per cent) and the highest percentage of patients were aged 45–64 years (48.5 per cent). Overall, these patients had 25.2 teeth on average, with 1.2 decayed teeth. Over half the patients were insured (59.1 per cent) and 30 per cent were for emergency visits. Treatment was characterized by high rates of restorative and diagnostic services, as well as relatively high rates of crown and bridge services.

Cuspal fracture

Cuspal fractures accounted for 6.7 per cent of visits (Fig 5). There was a slightly higher percentage of females (58.8 per cent) and over half the patients were aged 45–64 years (56.6 per cent). There were 26.3 teeth on average, with 1.4 decayed teeth. The majority of patients were insured (63.9 per cent) and 40.6 per cent visited for an emergency. These patients were provided with high rates of restorative

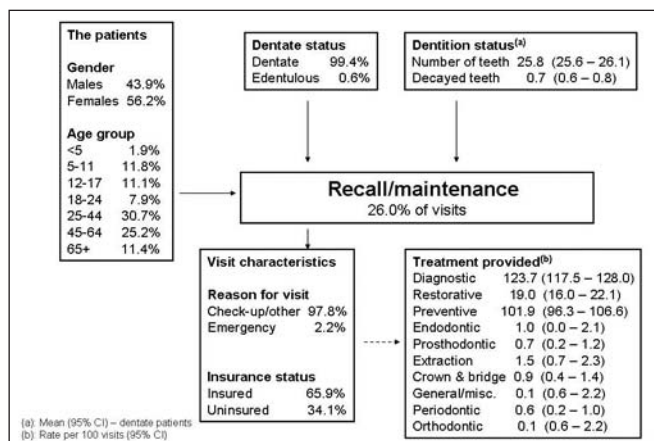


Fig 2. Pattern of care provided to patients attending for recall/maintenance care.

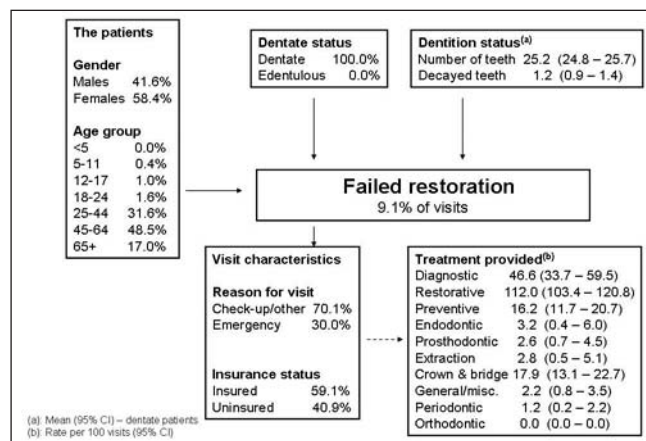


Fig 4. Pattern of care provided to patients attending for pulpal/periapical infection.

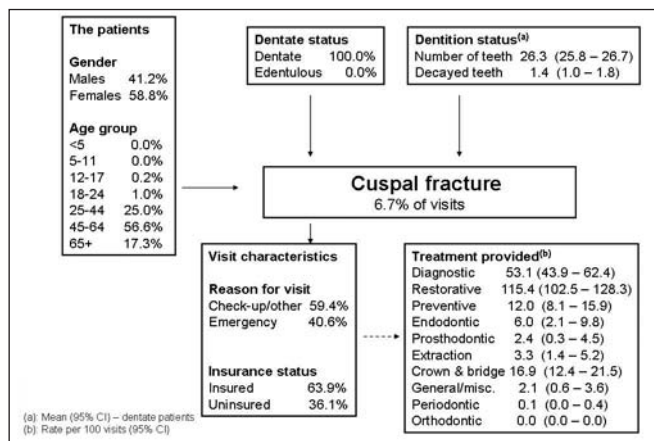


Fig 5. Pattern of care provided to patients attending for cuspal fracture.

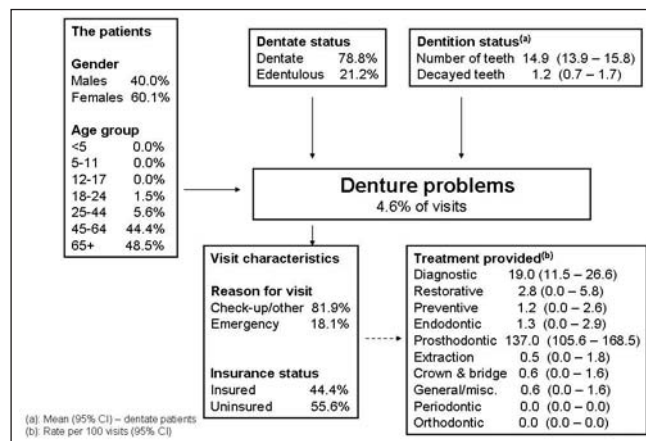


Fig 7. Pattern of care provided to patients attending for denture problems.

and diagnostic services, as well as relatively high rates of crown and bridge services.

Periodontal disease

Just under 5 per cent of visits were for a main condition of periodontal disease (Fig 6). There were more female patients (58.9 per cent) than males, and just under half the patients were aged 45–64 years. On average there were 23.9 teeth, with 1.4 decayed teeth. Approximately half the patients were insured, and 33.3 per cent were for emergency visits. Treatment was characterized by high rates of diagnostic and preventive services, and relatively high rates of periodontic and extraction services.

Denture problems

Denture problems accounted for 4.6 per cent of visits (Fig 7). There were higher percentages of female patients (60.1 per cent), and most patients were aged 45–64 and 65 years or more. The majority of denture patients were dentate (78.8 per cent), had 14.9 teeth on average, with 1.2 decayed teeth. Under half were insured (44.4 per cent) and 18.1 per cent were for an emergency. Treatment provided included high rates of prosthodontic services.

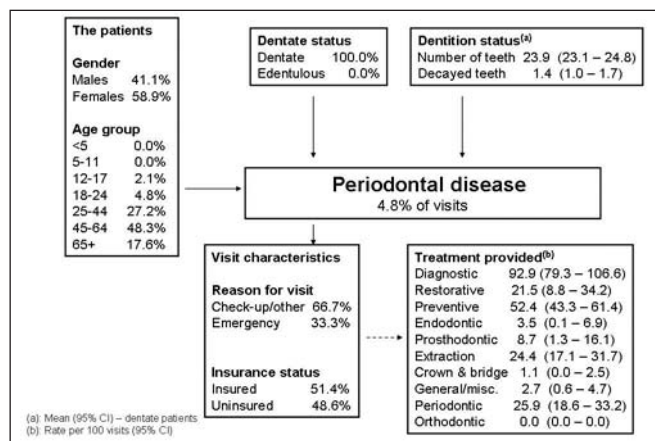


Fig 6. Pattern of care provided to patients attending for periodontal disease.

DISCUSSION

As expected, treatment patterns varied by main diagnosis or condition.^{4,7} Approximately one-quarter of patients presented for recall/maintenance care and coronal caries respectively. The next most prevalent presenting conditions were pulpal infection and failed restoration (comprising just under 10 per cent of patients each), followed by cuspal fracture, periodontal disease and denture problems (comprising approximately 5 per cent of patients each). This was followed by smaller percentages of patients attending with aesthetic problems, occlusal problems, root caries, dentinal sensitivity, and trauma (comprising between 1 and 2 per cent of patients each).

Consistent with population trends towards high growth among the older population,⁸ and decreased levels of tooth loss among adults in Australia,⁹⁻¹¹ conditions such as pulpal/periapical infection, failed restorations, cuspal fractures, periodontal disease and denture problems were associated with high percentages of middle-aged patients, while patients in the older age group were also associated with denture problems. In general, all of the common main conditions were associated with high levels of tooth retention, with the exception of denture problems. However, even among denture patients the majority were dentate.

ACKNOWLEDGEMENTS

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