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A qualitative investigation of specialist orthodontists in New Zealand. Part 1. Orthodontists and orthodontic practice

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Background: Current knowledge of orthodontic practice is largely anecdotal and the lack of systematic knowledge can create barriers to better identifying the factors that make a successful orthodontist. The aim of this study was to investigate the routine practising lives of New Zealand orthodontists in order to generate an understanding of the reality of orthodontic specialist practice and its effects on their professional and personal lives.

Methods: Semi-structured interviews were conducted involving 19 practising orthodontists (four females, 15 males; mean age 50 years) throughout New Zealand.Transcribed interviews were analysed for themes using an applied grounded theory approach.

Results: A core category of 'practising orthodontists' was derived, and related themes were grouped under the sub-categories of: (a) NZ orthodontic specialist practice; (b) NZ specialist orthodontists; and (c) work-life balance. The present paper reports on the first two sub-categories. Themes elucidated under the specialist practice sub-category included modernisation, changing social norms, practice arrangement, branch practice, staffing, competition, legislation, advertising, the future and the provision of orthodontics by non-specialists. Themes in the orthodontic specialist sub-category were prior experience, postgraduate training, recent graduates, reasons for specialising, generational differences, females in orthodontics, NZ and overseas practice, the ageing profession and the prospect of an orthodontist shortage.

Conclusions: This investigation has shed light on orthodontists and the practice of orthodontics in New Zealand and determined aspects rarely discussed in the current or previous literature. It will be valuable to observe how orthodontists and orthodontic practice continue to evolve in response to changes in NZ society.

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Introduction

Understanding how the various professions work and view their role is an essential part of health services research (HSR), the multidisciplinary field which seeks to explain how (and whether) health services function.[1] Orthodontics has been a specialised branch of dentistry since Edward Angle's contributions in the late 19th century. It is curious that, despite the profession's relative longevity, research into orthodontists' personal characteristics, working lives and day-to-day practice has been scarce. Current knowledge of orthodontic practice and the orthodontic profession is largely limited to anecdotal evidence. This lack of systematic knowledge can create barriers to better identifying and understanding the factors that make an orthodontist successful, both personally and professionally. Such insights would be useful for the specialty because information could be used in the selection of new members and assist in the retention and support of existing practitioners.

The orthodontic postgraduate course is widely recognised as difficult and demanding. Knowledge of the factors which attract dentists to orthodontic training – and an assessment of the personal characteristics of successful orthodontists – may be insightful in the appropriate selection of future

postgraduate students. With due acknowledgment of the challenges of training, it would also be useful to examine whether orthodontists (and their families) regret the decision to undertake an orthodontic career. The ageing of the profession will have a substantial impact on orthodontics in New Zealand (NZ) but the nature and extent of this impact and possible concern are, as yet, unknown.

The adoption and use of qualitative research methods in dental HSR has been slower than in other areas but it is fast becoming more widely used and appreciated. Qualitative research can provide answers to questions which cannot be satisfactorily answered using quantitative methods alone.[2] The aim of this research was to investigate the routine practising lives of NZ orthodontists in order to provide an understanding of the reality of orthodontic specialist practice and its effects on their professional and personal lives.

Methods

The University of Otago Human Ethics Committee approved the project. Semi-structured interviews were conducted and involved practising orthodontists throughout New Zealand. An initial indication of the study's aims was published in the newsletter of the NZ Association of Orthodontists (NZAO) in September 2007. Eligible participants were restricted to NZ-registered orthodontic specialist practitioners with a current Annual Practising Certificate.

Purposive maximum-variation sampling was used to select participants for interview.[3] The sample was selected with the assistance of a senior New Zealand Association of Orthodontists (NZAO) executive member with the intention of achieving a diverse sample with regard to age, gender, geographic background and orthodontic experience. Twenty-one participants were invited to take part in the study. A letter with attached consent form was posted to each participant, informing him or her about the aims of the study. Two participants declined involvement (for reasons unknown), and two participants were later added to enrich the data set, leaving a final sample of twenty-one.

Semi-structured interviews were conducted over a three-month period in locations and at times which were convenient for participants. Prior to the interview, the nature of the research was clarified with the study participant and a consent form signed. Owing to the small number of orthodontists in New Zealand, all efforts were made to render the transcripts anonymous and preserve the privacy of participants prior to analysis. Excerpts used for reporting were referenced by identification numbers.

A trial interview was conducted to refine the interview process. A template of questions was developed and used as a basis to initiate dialogue, and the interviewer pursued areas further as required. The initial interview was used to produce a theoretical framework. The semi-structured interview covered the key topics of orthodontic practice, the profession, and work-life balance. As is customary in qualitative research, each subsequent interview aided further refinement of the interview template and of the theoretical framework.

The interview was recorded and later transcribed. Two of the recordings were found to be inaudible despite efforts of enhancement. These were subsequently removed from the sample, leaving a total of nineteen transcripts for analysis.

The validity of the interview data was improved by member-checking, whereby each transcript was emailed to the participating orthodontist for authenticity and accuracy verification. Each participant was given the opportunity to edit or clarify the data, as necessary.

All transcribed interviews were analysed for themes using an applied grounded theory approach.[a] A core category of 'practising orthodontists' was derived and related themes were grouped under the sub-categories of: (a) NZ orthodontic specialist practice; (b) NZ specialist orthodontists; and (c) Work-life balance.

Codes were used to identify data-driven themes.[4] Each theme was placed in a theoretical framework, as depicted in Figure 1. A qualitative data analysis computer software package (NVivo software, Version 8) was used to organise and analyse the unstructured data, allowing the researchers to identify patterns and

[a] Grounded theory is a systematic qualitative research methodology that emphasises the generation of theory from data. It begins by researching and developing a hypothesis, through a variety of methods. From the data collected, the key points are marked with a series of codes, which are extracted from the text. The codes are grouped into similar concepts in order to make them more workable. From these concepts, categories are formed, which are the basis for the creation of a theory, or a reverse-engineered hypothesis (From: Strauss, A. 1987. Qualitative analysis for social scientists. Cambridge, England: Cambridge University Press.)

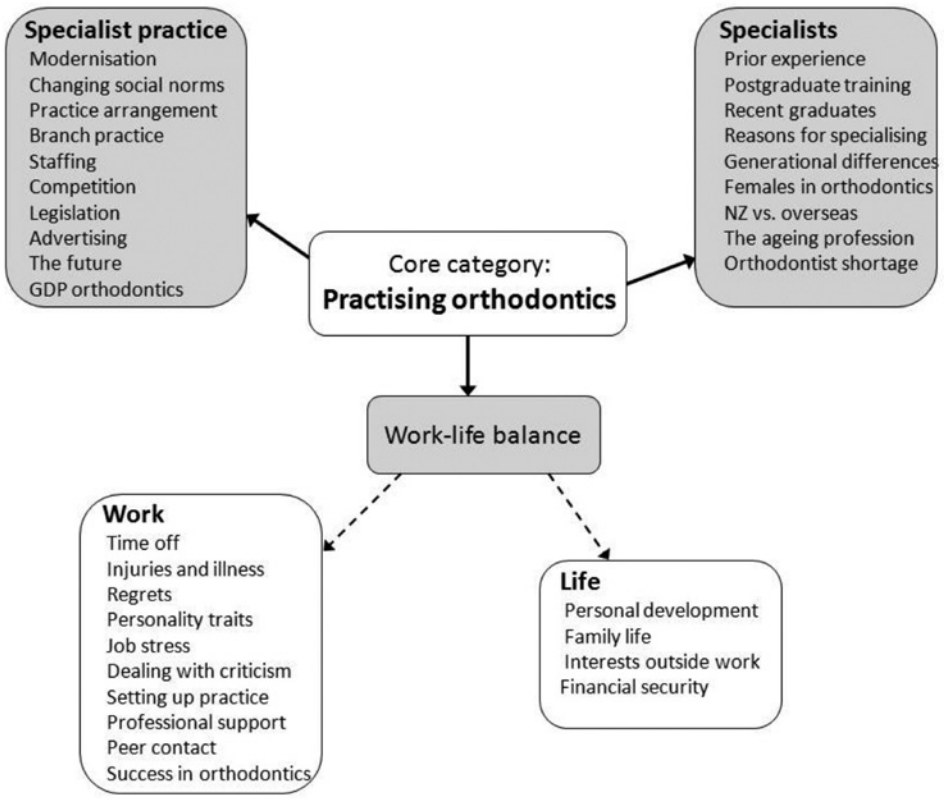

Figure 1. Overview of emergent themes.

cross-examine information in a multitude of ways. Structured data relating to each theme was exported into a Microsoft Word document for further analysis.

Results

Nineteen interviews, from four females and fifteen males, were transcribed and of these, thirteen participants edited their transcripts prior to thematic analysis. Nine interviews were conducted in the South Island and ten in the North Island, five of whom worked in Auckland. The two participants who declined participation were from the North Island and the two interviews which were inaudible due to technical difficulties were from Auckland. The average age of participants was fifty years, with an average orthodontic experience of nineteen years. All, except one, were married or in a de facto relationship and sixteen had children. Twelve participants were NZ graduates, four were trained in the United Kingdom and three were Australian graduates. Eleven worked in association with at least one other orthodontist in practice.

In keeping with the qualitative research approach, the following results are presented in a discursive format. Direct quotes are used to illustrate the findings. The findings relate to the core category of practising orthodontics (Figure 1), which has the three subcategories of: (a) Specialist practice; (b) Specialist orthodontists; and (c) Work-life balance. Each has a number of domains. The findings relating to the first two categories are presented in this paper.

Specialist practice

Practitioners reported working between two and five days per week, with variable work hours. The longest working day lasted twelve hours. Most practitioners allocated time specifically for administration and paperwork, an aspect of the job that many had underestimated before entering the specialty.

> *One thing I think, probably that has the biggest impact that you don't appreciate as a general practitioner, is the amount of paperwork you've got to deal with…I*

spend a huge amount of time writing letters to parents and to practitioners and referrals to specialists and that sort of thing and that takes a big chunk of your day… (Interview 14)

I work five days a week, in that we have no patients on a Wednesday, so Wednesday morning is usually taken up with staff training, staff meetings, correspondence, that sort of thing. Wednesday afternoons…I like to get out of here at 2.30pm…far too often I'm running late to get away from here, having been doing treatment plans or signing letters or talking to staff, and too often I've got to come back…so probably four and a half days a week. But I feel it's like five. And Wednesday, the day with no patients, is the most frustrating day of the week for me. (Interview 17)

The typical New Zealand orthodontic practice was seen to be very different from those overseas, particularly in the UK and USA. The New Zealand practice was identified as more patient-orientated with a strong emphasis on the orthodontist-patient relationship.

In the NHS, we never used study models to treatment plan, it was all done on the spot in about ten minutes… now we sit down and trace everything, study everything, very carefully plan it all out. (Interview 11)

…less of us use that kind of American, sort of Henry Ford production-line type scenario, where you go from chair-to-chair with all the auxiliaries doing most of the work… we tend to be more of the one-man-band personal service kind of brigade. I don't think the New Zealand-trained ones tend to do that – they don't tend to set up, sort of, seven chairs and go along the line… (Interview 14)

However, not all practitioners were operating the 'one-man-band' type of practice. Auxiliary staff were being used in a greater capacity, with benefits and potential drawbacks. The increased delegation had greater efficiency which had to be delicately balanced to limit interference with the orthodontist-patient relationship.

I'm probably doing a bit less clinically, which is good. The things I'm meant to be doing I'm doing. Things like untying and tying up I don't need to be doing that necessarily, I still do, but delegating more to the girls… (Interview 13)

I think probably for the first ten or fifteen years, it was a very individual-type situation where I probably had a much closer relationship with a much smaller number of patients and much smaller team...so I guess it was a lot more personal. Nowadays…we work hard on trying to keep it personal and we talk about having a patient-centred practice, but it's very difficult having a number of staff which may not share that same thing to the same extent. [It's] become…more impersonal I think, the way it's developed. (Interview 17)

Modernisation

Orthodontics has made significant advances during the last one hundred years and many changes had occurred during the participants' practising lives. Technological advances in brackets, wires, adhesives, temporary anchorage devices and software, as well as new standards in sterilisation, cross-infection and legislation have all had an impact. These have, in general, made orthodontic practice more clinically efficient. However, this has likely been negated by the increase in paperwork brought about by the changes to administration. The greatest impact has been from the introduction of the Goods and Services Tax in 1986, and (more recently) the introduction of Kiwisaver and the need for adherence to the new compliance codes set by the Dental Council of New Zealand.

A lot more regulation. When I started nobody wore gloves, there was no sterilisation, no compliance list of everything you had to do, you didn't have to have employment contracts for your staff, you didn't have to have informed consent with your patients. So the biggest changes administratively have been a hundred times more paperwork and compliance with regulation. The two biggest changes that have made the most difference to me would be an improvement in wire technology and an improvement in adhesives. Now you have the luxury of having a lot more thinking time and a lot less actual clinical time. (Interview 1)

The use of digital photographs and x-rays makes things much more instantaneous, so you can make immediate calls on your diagnoses and treatment planning. And the use of auxiliary staff as well…because there are certain aspects of the job which are very well suited to auxiliary staff and they can make your work time much more efficient. (Interview 20)

Advances in orthodontics have made it more enjoyable for many practitioners and, no doubt, contributed to the extension of many careers, as well as altering the way in which many clinicians run their practices. The onus has been on the clinician to keep abreast of changes in the profession. It would be uncommon for practitioners to be still practising orthodontics in the same fashion that they were when they graduated. This could, in some instances, raise concerns with regard to best practice in this new evidence-based era of healthcare.

…it's not a stationary profession, it's not stagnant, and there are lots of little things coming out that are changing and it's up to you to keep abreast of that…you can become complacent in anything that you do if you allow yourself to. (Interview 14)

You have got to be prepared to change…and a lot of people aren't. A lot of people are still doing what they did when they graduated. (Interview 3)

I've enjoyed, probably the introduction of auxiliaries… looking back, I wouldn't be doing orthodontics now if it wasn't for auxiliaries. I'm sure I would have dropped out ages ago. (Interview 21)

From the treatment planning perspective, the clinical practice of orthodontics has also evolved. Clinical experience, modern materials and a greater emphasis on evidence-based principles have contributed to these developments.

…in my day…there was a great emphasis placed on the lower incisor position, at all costs. Some of the cases I extracted in the lower arch that I look at now and I go 'what was I thinking?' (Interview 5)

Changing societal norms

Patient demand for treatment has reportedly increased, particularly among adults. Demand for treatment was assumed to be infinite and further assisted by a greater societal acceptance of 'braces'. This appears to be largely media-driven and follows overseas trends, particularly in the USA. Patients now have greater access to information about orthodontics. The greater demand is supported by a more affluent society with a greater interest in oral health and people retaining and maintaining their teeth for longer. Along with demand, there was a greater expectation of the quality of service. However, patients may also be willing to accept a compromised outcome if this can be met at a reduced cost.

…every second kid at school's got braces on these days. I don't believe malocclusions are getting any more complicated…a lot of people come to me and they're not necessarily seeking perfection…if you straighten the teeth up people are pretty happy. They are none the wiser if you don't quite get everything Class I. (Interview 11)

They are willing to accept a sort of more compromised result if it's going to cost them less. (Interview 2)

It's partially media-driven…we're treating [people] who are confident they'll have all of their teeth [for the rest of their life]…and they want to have them straight and white. And I think that's the same with, you know, facelifts and breast implants and whatever else they're doing to people – they want the whole package. (Interview 14)

Now they are a lot more demanding, not only with the quality of the orthodontics but the service they get. If they wait five or ten minutes they are complaining. (Interview 17)

…there's been a change in people's self-image, people's expectations in life, their own self-image, the fact that they do it in terms of looking good, dressing well, keeping fit, keeping well. Likewise they want their smiles to be better. (Interview 7)

Because the public was now more aware and informed than ever before, practitioners needed also to keep abreast with current best practice and literature. Greater importance was also placed on informed consent, in order to avoid litigation or malpractice suits. There was a perception that the typical orthodontic patient had also changed and showed an increase in poor 'compliance' with respect to appointments and treatment. However, despite the lack of cooperation, patients' demands and expectations of treatment had not lowered accordingly.

Anybody who's dealing with the public generally is finding it a lot tougher…simple things, like not turning up for appointments. Had one the other day I think. There's eleven missed appointments this person had. And then they'll come in and say 'how much longer is this treatment going to take? You said it was only going to take such and such'. I'd say 'look, you've missed eleven times'. And that's new. That's new. That demanding thing is new. Not accepting any blame for themselves… (Interview 21)

…people require greater informed consent and the kids possibly have less tolerance …it's a less authoritarian society and yet you've got to make sure that (how) you treat them, is acceptable. (Interview 3)

Practice arrangement

New Zealand orthodontic practice comprised a mixture of single practitioners, partnerships and group practices. Respondents highlighted the benefits and problems of each arrangement. Most practitioners indicated a preference for a partnership or group practice, if the right individual(s) for associateship could be found. Orthodontic partnerships were believed to be less common in New Zealand than overseas because practitioners were protective of their own reputation and possibly because of direct or vicarious experience with previously failed partnerships. Several respondents expressed their preference for an associateship practice, but highlighted the importance of partner selection.

…only if I could find the right person to be an associate. That's always been the thing that has stopped me. Associateships don't happen much in this country. They happen a lot in the UK... NHS, there's always patients pouring in the door. It's not a problem. Over here people are more protective of their reputation. Because it's a private world. And there's been a few famous bust-ups too. Orthodontists not getting on. And so people are coy about that. And I would be too. I wouldn't just take on anyone. I'd like to see their work. You have to be on the same page with a guy you work with. (Interview 11)

It was not uncommon for partners and those in group practices to practise very different styles of orthodontics, or share nothing other than the facility and receptionist. The business or practice management side was often divided or delegated to suit individuals' strengths.

…an association is a bit like a marriage. It's a marriage that doesn't have sex. But there has to be good communication. Where there's not open, honest and trusted communication, I think it would be a negative, and I think it would be terrible. So it comes to the chemistry. (Interview 7)

Never been in a solo practice. But we're basically as good as… so our orthodontics is completely different. We do ask each other for opinions, but it's almost like being in solo practice apart from the shared receptionist. We will go a whole couple of weeks where we've only really had a chance to say hello to each other. (Interview 15)

Advantages of group practice appeared to be financial, economical, peer support and advice, professional development and the possibility of locum cover. The ability to split costs provided much greater commercial buying power for new equipment. Disadvantages were primarily related to the lack of autonomy as practice decisions were often delayed by consultation with colleagues or a compromise was often required. A larger practice required a larger supporting staff group which further complicated the running of a practice.
Solo practitioners who favoured their existing practice set-up enjoyed the ability to make their own decisions regarding staff, practice décor and day-to-day operations. A strong sense of pride and satisfaction was noted in seeing a practice develop from their own work. Since the introduction of orthodontic auxiliaries, certain aspects of clinical management had also become less taxing for the sole practitioner. On the negative side, there were fewer opportunities for socialisation within the profession and a sense of fatigue from solely managing a practice. Succession planning was also more difficult.

The advantages are from your own pride in your work, it's your work and your practice and your whole satisfaction in what you're building is great. Your decision-making is yours, you don't have to consider any compromise. And it's fun coming to work because it's your practice. It's your baby and you enjoy doing what you're doing...the negatives… there's lack of rapport, lack of clinical opportunity to discuss patients, lack of somebody taking over if you're sick or wanting some leave. Lack of the knowledge that somebody as clinically competent as I am to move on. Lack of opportunity for succession planning. When I do retire there's nobody to take over my part of the practice or continue that on. So it's probably the negatives are a lot to do with the socialisation of my profession and my clinical work. (Interview 4)

…I've been happy enough, especially now that we've got auxiliaries, and so there's plenty of us around the place. It's not like I'm a lone ranger in there…if it hadn't been for auxiliaries I think I would be happier in a group practice. (Interview 21)

What I struggle with is the actual practice management. If I had my time over again and had a choice I would go into a practice with someone else to be able to share the management, the staff, the contracts with the staff, the hiring and firing, the training; all of that sort of thing is hard when you're on your own. (Interview 1)

Branch practices

Branch practices were still a common feature of orthodontic delivery in New Zealand. These were, in some cases, up to two hours away by car. Some branch practices had been inherited from older/retiring practitioners, set up to gain access to a wider treatment population or established for the convenience of patients. Many practitioners believed that branch practices were frustrating and inefficient. Travelling time could reduce the actual clinical time available. Historically, practitioners would be required to transport records and equipment but this has been made easier by using electronic practice management systems. Several worked from dentists' rooms, many of which were out-dated.

I work in a room that they call 'out of Africa' because it's like all the stuff that should be sent to Africa. I lose out by going there, because we lose the time of going there, and have to allow enough time for the nurses to come back and set up all the instruments and things. It's really only just a service to the patients that come from that practice and that area. And the patients love it. But it's a bigger hassle for us. (Interview 19)

Positive aspects of branch practice were associated with patient appreciation, a change of working

environment and the scenic drive. It was not apparent whether a branch practice was always necessary for the financial viability of the orthodontist's main practice.

Staffing

An orthodontic practice employs a mixture of staff, including orthodontic auxiliaries, assistants, reception staff, accounts staff, dental technicians, treatment co-ordinators and practice managers. Problems could arise with any of these.

> *Chairside assistants I've never had any problems with… the problem is the people at the front desk. It is very difficult dealing with the public who over the years have become more and more demanding about what they want for their kids…but dealing with people on the phone and dealing with issues with, you know, cheques that bounce and that sort of thing, dealing with the public is hard and you've got to get good staff and you need more than one and they've got to be able to get on together and that's hard. (Interview 1)*
>
> *Staffing is probably one of the biggest problems or potential problems that we are going to face throughout our career. And also one of the more important issues as well. There's right ways and wrong ways to go about it. (Interview 11)*

Staff teams could range in size from two to twenty. Finding and maintaining staff is an issue faced by most orthodontists at some stage of their career and is still an ongoing problem for some. One respondent resorted to employment agencies in order to avoid the hassle. Training new staff could also be time-consuming and it was delegated to other staff where possible. Recent changes pertaining to the registration of orthodontic auxiliaries had only added stress, cost and confusion.

> *Staff are 90% of your stress…but I mean it's a learning process...you're in a small intense relationship…if you don't look after your staff you're completely in the poo. (Interview 16)*

Assisting staff were predominantly female. This created issues relating to pregnancy, maternity leave, parental responsibility and potential friction among other staff. Dealing with staff was a responsibility with which most practitioners would prefer not to contend.

> *…staff go off and have children and move on and do things and that's one of the things about running a business that I find challenging. I'm not particularly business orientated and, yes, would prefer not to have to deal with that aspect of running the practice. I like to straighten the teeth and go home. (Interview 14)*

Staff selection could be difficult and was sometimes biased by personality, initial presentation or an orthodontically aesthetic smile. Many orthodontic auxiliaries were ex-school dental nurses (dental therapists) or overseas-trained dentists. Good staff were rewarded at above-market pay rates in order to encourage loyalty.

> *The interviewing is so ad hoc, I mean it's really hard to find out from someone what they're really like. As much as anything you go by things like how they've presented. Plus what their teeth are like. All those things that have nothing to do with their manipulative skills. But for that we depend on their qualifications. Ex-school dental nurses or foreign trained dentists. But sometimes we have still got it badly wrong. (Interview 8)*
>
> *I've had no difficulty getting applicants, but I've had difficulty finding suitable applications for the position. And I prefer to take people who have got dental experience because I don't like training them from scratch. And if they have got orthodontic experience even better, but most people don't… (Interview 11)*

Competition

Orthodontic practice is a competitive business. The relative intensity of this competition differed by location and largely based on the number of orthodontists in each area. Competition among orthodontists appeared to be a modern notion, possibly also reflecting generational differences. The Commerce Act 1986 (which stopped professions discussing fees) and an increase in the number of orthodontists had further fostered this competition.

> *In those days there was a lot more camaraderie amongst the profession. There was more work than people could do and it was just seen as another person joining the club and let's get on with it… (Interview 17)*

Practitioners taking over or joining existing practices were generally very happy with the support they received when starting out. Practitioners setting up from scratch were more likely to have been subjected to animosity (which usually subsided after a short period), and this was more likely to be experienced by younger practitioners who chose to set up their own practice rather than join existing practitioners in the area.

The lack of rapport with the fellow orthodontists in [location] when I first arrived. Very aggressive about not having practised with [them] and [their] environment under [their] rules. (Interview 4)

Legislation

Since the introduction of the Health Practitioners Competence Assurance (HPCA) Act in 2004, orthodontic practice was required to comply with several new professional standards. Many practitioners found them to be tedious, time-consuming and expensive.

I just think it's political correctness and bureaucracy going a bit crazy. It's people butt covering so that if there are any problems they want to say 'well it's their fault because we've said they have to be trained to the nth degree to hand an O ring over'. But you've got no choice but just to keep abreast of it and comply. Frustrating, time wasting, expensive and unnecessary as far as I'm concerned. (Interview 14)

The registration of orthodontic auxiliaries continued to be an issue for many practitioners. At the time of data collection, a training pathway did not exist to enable dental surgery assistants to become auxiliaries. Many believed that the Dental Council had not handled this problem well and this had created much frustration.

…with that auxiliary registration that we're stuck, we've got one nurse here who was doing it, they brought in this new thing, she can't get her full registration yet, the Dental Council don't have a path to do it, that sort of stuff really irritates me. (Interview 18)

Advertising

Advertising was a sensitive issue. Most respondents did not perceive a need to advertise because they were busy enough and did not want to generate more work than they would be able to sustain. An 'old school' mentality was also evident among some who felt that a precedent had been established by past practitioners who had never seen a need to advertise. However, greater competition had made it more acceptable. Advertising was primarily used in two circumstances. Many new practitioners felt the need to advertise in the print media to generate and establish a client base. There were also geographic areas in New Zealand where advertising was used to compete with general dental practitioners (GDPs) providing orthodontic care ('ortho-dentists'). A common belief was that the public fails to differentiate between specialist and non-specialist treatment providers. Advertising by the latter could (on occasion) be misleading and this exacerbated the problem. Many indicated a need to raise public awareness through marketing by the NZAO specialist body.

…we have pride in our profession, and we have pride in our knowledge, our knowledge base and our training. It only stands to reason that we should want to separate ourselves and stand tall with that. (Interview 12)

We should be advertising our body as the NZAO…because of the presence in Auckland of the New Zealand Dentists Orthodontic Society…it's an issue for the orthodontists there because in the yellow pages…they've got a very similar marketing or advertising section and I think they're trying to get some sort of clarification of who are the specialists and who aren't so that people aren't misled into seeking treatment from a group that appears to be a specialist body that clearly aren't and I think are really being deliberately a little evasive about that. (Interview 14)

The possibility of marketing by the NZAO (to 'brand' the profession) was proposed to participants in response to these concerns. This was controversial.

We've had various competitions within the membership to create a logo and we came up with NZAO which strikes me as frighteningly unoriginal and really points to the fact that we're all darn good at straightening teeth but probably not particularly good at marketing. And if we want to be serious about marketing or branding we're a wealthy organisation of professionals and we really need to get someone that knows how to market and brand and get them to do it. (Interview 14)

The future of orthodontics in NZ

Most orthodontists were fairly optimistic about the future of orthodontics in New Zealand. Interest will be maintained by continued technological advances, such as the introduction of temporary anchorage devices and cone-beam computed tomography (CBCT). It was predicted that more minor orthodontic treatment will be carried out, with a possible increase in what could be termed 'patient-driven' treatment, whereby patients seek treatment to meet their specific needs, but not necessarily in accordance with generally accepted orthodontic ideals or outcomes.

There's always going to be the demand…there's always going to be malocclusion, there's always going to be parents who want to the best thing for their kids. So as far as that, the future looks pretty good. (Interview 18)

Concerns about the future of NZ orthodontics were related to the profession being under-resourced, along with uncertainty about future orthodontist numbers and an ageing profession. The increase in 'ortho-dentists' was a common cause for concern, particularly with respect to those dentists practising well beyond their knowledge base. There was speculation that this could come to a halt if the Dental Council pursued litigation against such practitioners following malpractice. It was suggested that, if third-party providers (such as insurers) get involved in orthodontics (as is the case in Australia), this might see a lot of orthodontic treatment referred only to specialists in order to meet the requirements of these providers.

> *I think there's consternation out there, and it's probably been there for a long time, about this whole ortho-dentist/orthodontist thing. And it's an ongoing one – it never seems to go away…and there's a group of people that are really concerned that there are people out there doing the stuff they shouldn't be doing, and there's another group that say 'hey look – we're all busy enough'. If people choose to go to Dentist A or Orthodontist B, why is it our concern? (Interview 14)*

> *I think it's going to depend, well, part of it will depend on the Dental Council getting the Act right, about non-orthodontists doing rubbishy work and at the moment they are too busy. They are too scared, and they don't have the money to really have a crack at somebody. And they've had the opportunities pushed in front of them and they've kept away from them. (Interview 8)*

There was speculation about greater ethnic diversity within the profession in the future, reflecting the increasingly multi-cultural nature of New Zealand. Increases in the number of females and in immigrant orthodontists were also predicted, accompanied by partnership or group practice structures.

> *I think there's a real exciting new group of young orthodontists coming through…I think it's really refreshing that the exciting young group of…females and males and people from, that mirror, you know, New Zealand's diverse background as well. I think that's going to be an exciting future for the profession as a whole. (Interview 5)*

GDP orthodontics

General dental practitioners (GDPs) who carry out fixed (full upper and lower appliances) or functional orthodontics were usually referred to as 'ortho-dentists'. Many of those perform orthodontics to an appropriate standard, but there are also those who could be seen to be mistreating patients. This second group were of particular concern to the profession. In many cases, those were practitioners who were believed to be misleading the public about their experience and qualifications. A clear lack of public awareness of the differences was perceived.

> *The difference of three letters, orthodontist versus orthodontics, you know, and you've got a generalist and a specialist. Especially with the New Zealand Association of Orthodontics for Dentists. And in the phone book in Auckland they've done an advert which mirrors the NZAO advert almost perfectly. So, you know, that's a bit rich. But do the orthodontists want to do anything about it? No. They don't. They don't want to ruffle any feathers, and they are busy enough. (Interview 11)*

> *It doesn't concern my numbers at all, and I can't say anything, like I said, I've a big waiting list in [Branch practice location], and I'm just concerned about the quality of the work. That's what concerns me the most. I feel for the patients. Often they don't know these guys aren't orthodontists. They don't use orthodontist in their name but they use orthodontics and it's basically the same, you know, everybody thinks that. And after having to mop up after the last guy…and you saw the kind of results they were doing. It was pretty heartbreaking for the patients. Especially a lot of them, they do four to five years worth of treatment with these plates and things and then you have got to turn around and say sorry, we need another two or three years of braces. Numbers don't concern me, and if they were doing work within their scope, they were doing good quality work, fine, but often we find the results are not too good. (Interview 15)*

The effect of GDP-provided orthodontics was felt more by orthodontists in particular geographic areas. Certain interviewees were particularly forthcoming on this issue. Most felt aggrieved by the presence of certain practitioners, but preferred not to confront the issue individually or go into competition. Such issues were left to the NZAO or Dental Council to pursue.

> *I wouldn't say I feel that it's under threat. But I feel that it's kind of, there's a bit of an undercurrent there, bit of a, don't know quite how to describe it. I've got no hard fixed feelings about how I feel about that. It's more the fact that I didn't want to go into competition… (Interview 12)*

Of greatest concern were practitioners attempting or carrying out comprehensive treatment which would normally be considered to be outside the GDP scope of practice. To assist general practitioners, some orthodontists felt that formal training seminars could

be used to further educate general practitioners in orthodontics, along with a closer look at regulation by the Dental Council and the 'branding' of specialist orthodontists.

> *I hope to God that, you know, that surgical cases go to the orthodontists for example. The latest blurb that I saw of a general dentist doing it, I saw that surgical orthodontics as part of the training. That made me very concerned. Basically because it is…it's irreversible… and I've seen some horrible, you know, things done by people. (Interview 12)*
>
> *I personally don't have any issue with dentists doing orthodontics. When I first got here I set up a course for GPs… the concern is I've had a few transfers from general dentists doing it and some of it is just shocking. (Interview 18)*

NZ specialist orthodontists

Experience (and perceptions) prior to orthodontics

Prior to entering orthodontics, the interviewees viewed orthodontists as well-respected and approachable individuals in a career that was financially rewarding and low in stress. They were considered to be equivalent to medical doctors in social status and above general dental practitioners.

> *…you do move up on another level within the dental profession on a whole, you know, because you're a specialist, you know there is sort of a hierarchical standing just like in a hospital where the specialists are above… (Interview 14)*

Interviewees had varied backgrounds in hospital dentistry and private dental practice, with the number of years' experience ranging from one to thirteen years. Many had previously worked overseas. Of those who had worked in New Zealand, many referred to particular orthodontists who had influenced their choice of specialty. Most had limited orthodontic experience prior to postgraduate training and there was a perception that admissions committees preferred applicants to have limited orthodontic experience. There was also a belief that 'they didn't take too kindly to people turning down places' (Interview 2) on the course. However, some practitioners admitted trying 'weekend' courses aimed at general practitioners. This in fact, only confirmed their desire to undertake specialist education and training.

> *I had an interest in it and I wanted to see, you know, how a specialist works. Once I saw the generalist way I thought 'hmmm'. So I observed more than treated and I had to see a few emergencies and really just confirmed the idea that doing orthodontics after a few weekend courses or even after [a] six months training programme or whatever you could do wouldn't be the ideal for me. And intellectually didn't seem to be the right way to go about it. (Interview 4)*

Postgraduate training

Interviewees had undertaken postgraduate orthodontic education in New Zealand, Australia or in the UK. All agreed that the course was challenging and demanding.

> *I struggled with the course. I'm not very good I guess with institutions. I'm a little bit left-field I guess. But I struggled with that course and I think it was really, really full-on. (Interview 13)*

Several had selected Otago for the benefits of familiarity, family, proximity, lower cost and the reputation of the institution and its staff. There also were periods when that particular Department was viewed as being under-strength, meaning that prospective students sought overseas alternatives. Many referred to the encouragement of influential staff members prior to their application for entry.

The age at graduation from the orthodontics course ranged from twenty-six to thirty-nine years. The appropriate age for entry was seen as being unique to the individual. General dental experience was seen as a necessity prior to beginning the course. Several participants wanted to travel prior to training, and family or partner pressures limited others. A few participants regretted, in retrospect, not having started the course sooner.

> *Some people are great, they go through undergrad and they're ready to jump straight in there and do some more, but I kind of needed a break. I'd spent enough years studying and I wasn't anxious to get out and in and do a whole heap more exams, but I was certainly ready to do it when I got there, and I think I was a much better student the second time round. (Interview 14)*
>
> *I think, I do think that to get experience in general dentistry is important. I don't think it's in the interest of the specialty to not have worked in a number of fields of dentistry before you do it, before you specialise. (Interview 7)*

The move was challenging but was not often looked back on with regret. The stress largely related to workload and financial hardship. Dunedin was seen

as a small city with limited opportunities for their partners. Most were in a stable relationship prior to entering the course. Many lived off the single income of their partner or off savings and loans. The move also provided an opportunity for partners to undertake further education.

> *For various reasons it wasn't easy to start earlier, and yet from a financial point of view, it would have been better to have done it early. The reason – I mean, being married, having a family, is not an easy thing to do on a post-graduate course and it does put a lot of pressure on your marriage and your relationship, just doing the post-graduate courses. Quite, I'd say, selfish in some ways, because you need so much time. (Interview 9)*

Recent graduates

It was accepted that many recent orthodontic graduates moved overseas, as with all professional groups in New Zealand. It was noted that several had returned, but the exodus was of concern. Many believed that overseas experience would create orthodontists who come back richer in knowledge and experience. To encourage the return of graduates, it was suggested that the University of Otago should be selecting only New Zealand residents. Other ideas for increasing retention rates included bonding students, or erasing their student loans.

> *I believe that if a person is from New Zealand, the majority will come back. Doesn't always work out of course. But people go away, and most people come back eventually. Kids change things. Family? (Interview 11)*

> *I mean it's a shame that we're training people that don't stay but if things are more attractive overseas we hope they'll go and learn and then come back and come back richer…in a knowledge sense I mean, than when they left. (Interview 17)*

> *You look at those who go overseas and you think yeah, but how many come back? I went overseas. We came back. I know a lot of friends who have all cleared out overseas. Part of it could be, maybe not quite as much now, but you know, you walk out with a big loan and you can earn bigger money overseas, it's a very big incentive to go. (Interview 18)*

Reasons for specialising

The reasons for specialising were diverse. Many had been frustrated by general dentistry and the associated injections, drills and pain. Orthodontics was viewed as a relatively 'clean' profession with a patient base that was willing and cooperative.

> *There are a variety of reasons really. I was sort of a bit restless for general practice…a lot of the stress I feel in general practice is involved with people perceiving [it] as being painful, putting in local anaesthetics, high speed drills in the mouth, people coming to you that have to be there because they're in pain and they're there for relief of pain...and a lot of compromise in your treatments because people can't afford plan A or B so you're doing C and you're doing patch-ups and that sort of thing. Whereas my perception of orthodontists at that stage was that I was going to be dealing with people that had healthy mouths…people that come and see you because they want to be there rather than because they have to be there because they're in pain or discomfort. And most of the work we do is optional so you can put a plan to them and if they don't like it they can walk away from it. It's not as though they're in pain and they're obliged to go through with some treatment. So I figured that, you know, you end up with more compliant patients or a better relationship because they're there because they want to be there. And generally they don't have a perception of orthodontics as being painful in the same way that they do as having local anaesthetic and then having holes drilled in them and that sort of thing. And I also figured that people that come to orthodontists tend to be reasonably well heeled. I had a perception that it was a relatively lucrative aspect of the profession. So I kind of figured I was getting a system that would weed out all of the nice patients, I wasn't dealing with the dirty mouths, broken down mouths, the people that needed treatment but couldn't afford it. I was dealing with people that were motivated because they wanted to be there. They had clean mouths and they could afford to pay for the treatment. And if they didn't want to do it then you can walk away and everyone is still happy and smiling at the end of the day. So I guess it's an income thing and a lifestyle thing. I thought it was going to be less stress and less unpleasant for patients therefore less unpleasant for me having to deal with it, you know. (Interview 14)*

Other factors (such as a perceived lower stress level and improved lifestyle) were also listed as reasons for specialising. It was suggested that some people had the right 'psyche' for it (Interview 17). The field was also considered to be a more well-defined specialty, very different from that of general practice.

> *…in New Zealand we really don't have any real specialties that are sort of the sole domain of a specialty. And I felt orthodontics was well defined in that area, and it was in the cosmetic area. (Interview 9)*

> *I was upset that I couldn't do it...I realised that you had to have more knowledge to do it, effectively. (Interview 3)*

Most had expressed a desire to specialise, but many were unsure of the appropriate discipline. However, one participant was clear on his desire since high

school. Oral surgery (or maxillo-facial surgery) was the other most common specialty considered but it was often overlooked because of its lengthy training pathway and high associated stress.

Generational differences

A distinct generational difference was apparent.

> *…I talked to [an older orthodontist] about this and it's something I do see a little differently to him. He's strongly of the view that we are health professionals, not cosmetic specialists. And I think that as much as we might like to think that, it's not the way that we're seen now. And I think to a certain extent you have to face reality and accept that's what people really are seeing us as, and why they're coming to see us. (Interview 2)*

Older practitioners felt that there was previously 'a lot more camaraderie' (Interview 17) than there was currently. There was also the perception that life had become a lot more business-orientated.

> *…I think there is a bit more competition and the nature of professions have changed. I think the older generation, there's a generational difference between the attitude of professionals in my opinion from fifty years ago to the present and life has become a lot more business-orientated. I may be quite wrong but it's just my perception of it. The pressure for higher fees doesn't come from the older practitioners. It tends to come from the younger practitioners that want to work shorter hours and are more black and white. (Interview 17)*

Younger practitioners felt that current fees were sometimes too low and did not reflect overheads and the costs of professional time. It was often difficult to raise fees, particularly when older practitioners were operating nearby.

> *…[older orthodontist] was one of the cheapest orthodontists in New Zealand, and my ortho's not cheap. I spend money on everything. I want everything primo, I want the best Hawley's, I want the best brackets, I spend probably double the time I should on all my patients. And when you are charging the cheapest fees in New Zealand you basically go to the wall. So that was real tough financially. But turned that around. Just bought in a fee structure that stepped its way up until it was more reasonable. And that would probably be the hardest point in terms of orthodontics. (Interview 15)*

Females in orthodontics

Certain male participants were very open in their desire to have a greater female presence in an otherwise male-dominated profession. Barriers to this were time off for childbirth, balancing children with work, dealing with staff, and professional respect. The most difficult aspect of being a female orthodontist was time off. This applied during both illness and childbirth. Owing to the limited availability of locums, female orthodontists were sometimes required to return to work quickly after giving birth. Male colleagues shared their concern over time off for female orthodontists.

> *I had to go to hospital to have an operation so I had the afternoon off. Then I lost one of the babies, but I had to come back to work the next day because the patients were booked in. (Anonymous)*

> *…I went to visit all the [general] practitioners, I had some of the older males refusing to see me, like heard them giving comments to their nurses like 'she's only going to get pregnant and why send patients there'. That was really a big surprise. I hadn't anticipated that. The converse of that I suppose, the nice thing was when they realised that I was sticking at it and I was going to be there, then gaining the respect of their patients, that was nice. But that was a bit of a surprise. (Anonymous)*

Finally, staff management was also perceived to be difficult when working in an environment surrounded by other females.

> *I don't think managing staff as a female is an easy thing, because the staff tend to be female. All mine are and that's always hard. I think that is the case in any female boss/worker situation. (Anonymous)*

A major benefit of a career in orthodontics for females was in the flexibility of the work. Managing patients and their own children could become overwhelming for full-time practitioners. Female orthodontists who worked part-time or were not involved in practice management were, in general, a lot happier with their work-life balance. Another benefit was also the perception by patients that they are more gentle and caring.

> *I think it's quite a good career, because you don't have to be there five days a week. If you want to earn all that money so be it, but if you want to be comfortable, you can work two or three days. (Anonymous)*

NZ orthodontists versus overseas orthodontists

A typical New Zealand orthodontic practice was perceived to be different from those overseas. New Zealand practice was considered to be a very private-sector-based system, in particular contrast with the National Health Service (NHS) in the UK and the third-party involvement (whether insurance or Government) in Australia. A New Zealand practice was also more likely to have a single orthodontist, fewer staff and less clinical utilisation of orthodontic auxiliaries. This was particularly so in comparison with practices in the United States and Australia. Corporate ownership was also more prevalent overseas and (at the time of data collection) unheard of locally. Orthodontists in New Zealand were generally satisfied with their workload and felt less competitive than their overseas counterparts.

> *I think there's a greater prevalence of more of a cottage industry type approach to practice here. Without the huge staff and the big, big numbers of patients. (Interview 2)*

Orthodontists working in New Zealand were considered to be well trained and to take a critical approach to the literature and therefore less vulnerable to passing fads. They were perceived to be well-grounded individuals, with honesty, integrity and practicality.

> *…I think generally we are very, very well trained. I think we're dealing with a slightly different population than Americans or English who would be the opposite ends of the extreme. I think in America they are all 'Doctor So and So'…we're a very egalitarian society here in New Zealand and I don't think anybody stands up and thinks they're better than anybody else. In Australia I think they probably have a slightly more inflated opinion of themselves… that's 'cos they've tried to follow everything American really. (Interview 1)*

Many believed that several of the overseas orthodontists were of a similar ilk, but underlying cultural stereotypes were also noted. American orthodontists in particular were perceived to have an inflated view of themselves, be very business-orientated and to work in group practices with large teams of staff.

> *…the overseas orthodontists are a lot more cocky. They'll tell you how fantastic they are, how good their practice is doing, how many numbers they're doing, how great their results are. I think it's just a personality thing. Same with sport, and the New Zealanders are a lot more humble. I don't know any orthodontists who talk about their income or anything like that. We talk about results and we often talk about the bad ones. So yeah, we're quite a humble lot…that's probably the biggest difference. We are quite humble compared to Australian people. (Interview 15)*

The ageing profession

The issue of an ageing population was of mixed concern to respondents. Many believed this was an issue with all professions and merely a reflection of the baby boom generation. Certain practitioners believed that they might still be working up to or beyond seventy years of age. Orthodontics was a career that was seen to be enjoyable and therefore not limited by age. Eyesight and dexterity requirements were also believed to be less demanding for orthodontics than with general dentistry, meaning that practitioners were capable of working longer. The ability to use auxiliaries has also contributed significantly.

> *I don't think you can use the normal retirement rates. Orthodontists just keep on going because they love it, not because they have to. So I don't think that there's going to be a disastrous shortage all of a sudden, even though everybody is a bit old. You will find some orthodontists out there close to seventy and still enjoying themselves and still working and still loving going to work and still doing good work, unlike general dentistry where eyesight and manual skills are more important than in orthodontics. I think orthodontists, most of them keep working much longer simply because they love it so much. (Interview 1)*
>
> *…I think of myself as an old orthodontist, [but] when I see all the ones that I'm meeting, I'm thinking I'm not the oldest one here. (Interview 19)*

The most significant concern was that many interviewees did not believe that they could sell their practice upon retirement. Many did not seem to have a succession plan in place, and they were considering winding down their practices with eventual closure.

> *…I have seen a lot of this, I think that is an issue in that the younger generation are not likely to come into someone else's practice. For some reason. They're not into being mentored. Not into being into partnerships and associateships…but you know, it is an issue getting someone to come and replace you. By the same token you can cut down and just slowly work out. A lot of orthodontists have done that. The older ones have stopped taking new patients and finished their own patients and walked away. I think in some ways that's what you have got to do to a degree, but it would be nice if there was*

someone in the building taking on new patients, so that the odd SOS and the odd retainer breaks and that sort of stuff. Because when you're gone, you know, who's going to look after retainer breakages and things like that, you know. There are issues with the profession for that. And I don't know how you'd get over that. No great ideas for you. (Interview 3)

I've always seen it as worth nothing, so I'm not going to be disappointed about that. I've told my accountant that for twenty-five years, you know, that the practice has got no value. 'Come on, can't generate that income and not be worth something'. Sure it's worth something to somebody, but only if you've got somebody there who's willing to pay it or willing to pick it up. Otherwise, you just do the sole way out. And I think it takes eighteen months to get out, no matter how you do it. You can do it with somebody there and not somebody there. (Interview 21)

Several of the younger practitioners saw the issue as a welcome problem, equating it to greater future business and opportunities. However, it was noted that, if the orthodontic profession experienced an increase in retirement, preparation should be made for the resultant practitioner shortage.

Orthodontist shortage

Whether a shortage (existing or imminent) of orthodontists was perceived was unclear. It was suggested that, if a shortage did eventuate, it would most likely be reflected in longer waiting lists or a greater number of general dentists practising orthodontics.

You've got a shortage now…I think in the past I would have expected several guys knocking on my door to say come on, move over, let me in. And that certainly is not the case. The ones I see, I speak to quite a few, and you probably know this as well, that they are closing the doors. Just walking out. I know three in [Practice Location] have done that. Maybe more…I know several others around the country have done exactly the same thing. (Interview 21)

Increases in graduate training and the attraction of overseas specialists were seen as the preferred options for countering any shortages. However, an increase in the number of postgraduate students is only attainable if there is university teaching capacity, which currently does not seem likely. Others believed that present postgraduate numbers were sufficient if retention of these graduates was possible.

…I can't understand why the Dental School don't take at least four or five every year, and make them Kiwis for God's sake. (Interview 21)

…I think probably the obvious strategy would be to train more orthodontists. That's really limited by having somewhere to train them, and the ability of that training place to have sufficient staff to train numbers. But I guess that could well become a problem. (Interview 20)

Lower graduate retention rates were attributed to financial debts and the possibility of opportunities overseas. It was anticipated that shortages would affect certain geographic areas more than others, notably rural townships.

I mean, they can put through grads, but in essence you make more money if you go overseas. So if that's the driving goal, and if that's what people have to do to pay off their fees, you can't stop people from doing that unless you bind them into some sort of pay-back system where they have to work in the public hospitals and that frees up the orthodontists to not work in the public hospital. I think there's going to be a huge shortage. But it's going to end up in some areas. It's not going to end up in [location]. (Interview 19)

Conclusions

This report is the first of two which describe the experiences and working lives of New Zealand orthodontists using the qualitative research approach. The findings are rich in detail and more complex than what would have been obtained using a conventional quantitative survey. The study provides a detailed picture of contemporary orthodontic practice in NZ. Modernisation is bringing technological advances which are providing more efficiency but an increase in regulations and paperwork is an annoying consequence. Orthodontic practices remain a mix of solo and group practices. At the time of data collection, corporate orthodontic practices were not a feature of the New Zealand dentistry but change is occurring. Competition among orthodontists for patients is less of an issue than that between orthodontists and GDP providers, particularly in several geographic areas. Respondents identified a need to take steps to 'brand' the specialty of orthodontics so that the public was aware of the differences and could make informed choices. The orthodontic route into postgraduate study and specialisation was influenced by the desire to leave the relative tedium of general dental practice for a more intellectually challenging and varied specialist

career, together with key members of the specialty.

Changing times and norms were a strong theme. Patients (more and more of whom are adults) are demanding more, yet are less willing to undertake the cooperation and self-care which are essential to good orthodontic treatment outcomes. There was concern about the overseas loss of newly graduated orthodontists and that newer members of the specialty were more focused upon the business aspect of practice. Orthodontic practices are competitive small businesses and rivalry exists, particularly when new entrants to the 'market' appear.[5] Despite this, orthodontists were generally very supportive of one another. This was attributed to their small number and the perception that there was enough work available to support all. The concept of an orthodontic practice as a small business directly opposes those principles commonly associated within the healthcare profession.[6] The notion of entrepreneurship has an emphasis on profit at its core. The number of patients commencing treatment and the maintenance of quality are critical for financial success.

There was also concern about the ageing of the profession and the prospect of difficulties in selling practices once the decision had been made to retire. Despite these concerns, the future of orthodontics in New Zealand appeared to be positive. There was uncertainty on workforce issues and the presence and impact of GDP-provided orthodontic treatment. An Australian Society of Orthodontists (ASO) member survey in 2004 found that 81% thought that the general public did not have a good understanding of the distinction between a general dentist and an orthodontist (*ASO Newsletter* 2004; Dec: 12-13). Competition between general practitioners and specialists had also been investigated in Norway,[7] where it was found that operators in specialties such as orthodontics and oral surgery have skills that give them exclusive opportunities to practise their profession, and that competition from GDPs was less prevalent. Those authors believed that this exclusivity created market power which they then used to raise their fees. It could therefore be argued that the role of the general practitioner practising orthodontics is to keep the specialist profession honest. However evidence from the current study contradicts this claim, because several orthodontists reported that some general practitioners charged more than specialists.

In summary, this investigation has shed light on orthodontists and the practice of orthodontics in New Zealand and highlighted aspects rarely discussed in the current or previous literature. It will be valuable and informative to observe how orthodontists and orthodontic practice in NZ continue to evolve in response to changes in NZ society.

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