'Fire-fighter dentistry': the impact of the supply of dentists on rural public dental services

Judi Walker, Rosemary Cane, University of Tasmania

Abstract

Access to dental care in the predominantly rural state of Tasmania remains challenged by the shortage of dental professionals. Without a dental school, Tasmania is dependent on dentists who have relocated from interstate or overseas. Within the public sector, which experiences intractable problems with recruitment and retention of dentists, dental visit patterns are characterised by a high proportion of episodic urgent care, lengthy waiting lists for comprehensive care and absence of recall. Coping with the level of demand for urgent care is a crucial element facing rural public dental services and the factors that underpin access to services and patient visit interactions are directly related to this level of demand.

Recently, Tasmanian government-employed dentists argued that they were only ‘fire-fighters’ who attempt to manage patient load/time management in response to patient’s general health, urgent dental needs and perceived levels of interest in oral health care. There were strong indications that expanding the capacity and the flexibility of the workforce would contribute to improved interactions with patients and improve access to a broader range of dental care within public sector clinical services.

A unique agreement between the University of Tasmania and the Tasmanian Government in 2005 considered an innovative method to attract new dental graduates to Tasmania. In partnership with the University of Adelaide, the agreement set in motion an ongoing formal clinical attachment and scholarship scheme for dental students to undertake part of their final year of the Bachelor of Dental Surgery in the Tasmanian public sector. The objectives of this program included a concerted attempt to minimise the ‘firefighter’ perception of public rural dentistry.

In this paper, the overarching problem of improving access to appropriate and affordable health care for rural communities is discussed in the context of government salaried dentists’ perception of themselves as ‘firefighters’. A strategy to address this perception, the clinical placements for final year dental students, is described and the results of a qualitative evaluation of the first cohort are analysed. The evaluation identified host benefits of the program including raising the profile of best practice and increasing staff sense of worth. In addition to high quality experiential learning opportunities, the placement program increased the capacity for autonomous clinical decisions, continuity of care and improved social interaction during dental visits as ways to minimise the perception of public sector dentists as ‘fire-fighters’.

Introduction

Improving access to appropriate and affordable oral health care for low socioeconomic populations is world wide concern.1–4 However, with emerging evidence indicating a strong linkage between oral disease and socioeconomic factors,5–11 in a system orientated to acute care, chronic care treatments, such as those for dental disease are likely to be given low priority.12 In Australia, eligibility for public dental services is defined by criteria administered by the Commonwealth Department of Human Services agency, Centrelink. Unlike general health, the responsibilities and policies, expenditure and allocation of resources for public oral health programs and services lies with each State and Territory.13 With recent estimations predicting a deterioration in the ability of the workforce to meet the demand for dental services both in the private and public sector, the already marked maldistribution of dentists between urban and rural settings, particularly in the rural public sector, will be exacerbated.14 Workforce shortages and maldistribution characteristically generate long waiting lists for care. Growing social and political tensions arise when patients seeking access to care experience reductions
or rationing of services and altered practice patterns, such as less comprehensive care or less choices, with an increased likelihood that patients are less satisfied with the services they receive.\textsuperscript{15}

Access to dental care in the predominantly rural state of Tasmania remains challenged by the shortage of dentists. Without a dental school, recruitment depends on a high proportion of transitory dentists who have relocated from interstate or overseas. In 2003–2004, only 2\% of new graduates from Australian dental schools relocated to Tasmania, with none choosing to work in the public sector.\textsuperscript{16} With 25.3 dentists per 100 000 population, Tasmania has the lowest national ratio of dentists per 100 000 population, which is almost half the national average ratio of 46.9. Within the public sector, salaried dentists who work full or part time at four large regional dental clinics make up 13.3\% (16) of practising dentists in Tasmania, which is below the percentage figure nationally for public sector dentists (16.2\% or 1456).\textsuperscript{16} An additional 100 dentists would be required to reach the national average ratio of practicing dentists per 100 000 population in Tasmania. Although the feasibility of increasing the number of dentists to this level is questionable, the process of developing long term recruitment and retention strategies for an additional 20 dentists has involved extensive collaboration between the Tasmanian government, the University of Tasmania and the private sector.\textsuperscript{17}

In this paper, the overarching problem of improving access to appropriate and affordable health care for rural communities is discussed in the context of government salaried dentists’ perception of themselves as ‘firefighters’. A strategy to address this perception, clinical placements for final year dental students, is described and the results of a qualitative evaluation of the first cohort are analysed.

The problem

A recent National Health and Medical Research Council (NHMRC) strategic research funded study\textsuperscript{18} included a qualitative component seeking the perspectives of government-employed dentists. Three themes emerged:

• dentists wanted autonomy in the organisational aspects of clinical decisions but this was difficult to achieve under the existing conditions;

• social interactions with patients were influenced by the dentists’ perceptions of the patients’ level of interest in oral health; and

• the level of demand for urgent episodic care had significant impact on continuity of care, efficiency and integration with other services.

The dentists argued that they were only ‘fire-fighters’ who attempt to manage patient load in response to the patients’ general health, urgent dental needs and perceived levels of interest in oral health care.

The dentists are really only ‘fire-fighters’. We need more public money, more dentists before we can reduce waiting times and improve access to wide range of treatments for patients—many patients need more work to be done but if we were to do all the work the system would soon clog up.\textsuperscript{18}

There were strong indications that expanding the capacity and the flexibility of the workforce would contribute to improved interactions with patients and improve access to a broader range of dental care within public sector clinical services.

Towards a solution

Undergraduate rural clinical attachments

Richards et al (2002) identified that Australian senior undergraduate students can make a significant contribution to the provision of public dental services in rural communities. In cases where appropriate supervision, program management and funding is available, the expectation is that these services could be provided at a marginal cost that compares very favourably with the cost of similar treatment provided by either public sector staff or private practitioners.\textsuperscript{19} Recent studies identified two benefits
for host services of clinical attachments in dentistry as improved recruitment opportunities and development of existing staff. Potential problems specific to the site have been identified as the need for adequate infrastructure and funding, and appropriate supervision and students with sufficient skills to provide the dental services that are in demand. Defining the nature of the relationship between the placement site and the educational institution and maintaining an exchange of ideas and monitoring progress during the program have also been identified as important issues to address.

A unique agreement between the University of Tasmania and the Tasmanian Government in 2005 considered an innovative method to attract new dental graduates to Tasmania. In partnership with the University of Adelaide, the agreement set in motion an ongoing formal clinical attachment and scholarship scheme for dental students to undertake part of their final year of the Bachelor of Dental Surgery in the Tasmanian public sector. As well as the recruitment of new graduates, the objectives of this program included the enhancement of learning outcomes for students, improved linkages with the private and public sector, improved access to services and a concerted attempt to minimise the ‘firefighter’ perception of rural public dentistry.

The Tasmanian clinical attachment
During the initial six-week block placement the University of Adelaide students provided a range of supervised comprehensive and episodic dental care at three different clinical sites in southern Tasmania. The majority of clinical time was spent diagnosing, treatment planning and providing comprehensive dental care for patients who were waiting for care, with rostered sessions dedicated to assessment and diagnosis of patients presenting in pain. Students provided dental care to paediatric and special needs patients under general anaesthesia at the Royal Hobart Hospital, with supervision provided by the rostered dental officer. Two dentists were from the private sector who volunteered their services for one or two sessions per week. Two senior public sector dentists took a lead role in the supervision, supervising more than 30 clinical sessions over the 6 weeks. All supervisors had attended a supervisor training session.

The evaluation
A well planned and ethically approved evaluation was conducted to provide a broad perspective on the experiences and perceptions of clinical supervisors, dental students, public dental sector staff directly involved in the program, patients and stakeholders (private and public sector; dental school; University of Tasmania).

The analysis of the qualitative findings was guided by questions and a search for patterns. Textual data were analysed under three separate themes representing the most salient issues:

- **the placement as a learning experience**, which included expectations of the type of services delivered in the public sector and practical arrangements, such as availability of materials, equipment and support staff;

- **the role of supervision** involved an understanding of experiential learning and assessment; and

- **the effects on host services** were related to need to travel to the site, with some differences in impact on work patterns being noted between public and private sector.

Communication was viewed as an important strand running through all themes.

Placement as a learning experience
From the dental school’s perspective, the primary objective of the program was educational through exposing the students “to different environments—to expose them to different ideas and different staff, different clinical problems—it’s really a rounding of their education”. The dental school considered the least important aspect to be “closely supervised and direct instruction in specific procedures—the really closely supervised direct didactic teaching …at this stage that’s been done and its not important” and “students come back from longer term placements knowing what a dentist can do, they feel important part of the community, they feel they have helped and done a good work”.

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The students perceived the strength of the course was the mix of general care and urgent care, opportunities to consolidate clinical experience and the organisation of the program, which was above expectations.

The role of supervision
There was general agreement that the supervisors felt well prepared for the students and the placements lived up to expectations. Supervisors identified problems in understanding what was expected of the students—“just how much of a free hand we would let them have- if we had a little more direction there”.

Most supervisors were unfamiliar with the reflective style of learning that was intended as the basis of assessment and there was some confusion regarding the role of formal self assessment while on placement in Tasmania—“why all the impost of doing formal assessment—it doesn’t really matter what they do?”—indicating the need for better communication processes.

From the students’ perspective, as the clinical supervisors became familiar with the student capabilities, the “extra freedom allowed (us) to go and get opinions from the tutors—it was big help to discuss why they do certain things—one thing over another—that was a really good component of it”. The students found the interaction with the clinical supervisors was an integral part of the positive learning experience.

The effects on host services
It was generally agreed that six week placement was the appropriate length of the clinical attachment, taking into account the impact of supervisory requirements and the impost on student relocation from interstate. Private practitioners felt they could not be away from their busy practices longer that one session per week. Public sector dentists were also limited by lost clinical time, although time spent on supervision was counterbalanced by increased patient flow. The senior public sector supervisors noted they were more accessible to other staff members during the supervisory sessions than if they were engaged with their own patients.

From the public sector perspective, management considered staff had done “an excellent job under extremely difficult conditions (staff shortages)”, with clinicians showing strong commitment to the public sector and “external perceptions of it doesn’t do it justice from a quality point of view”. The placement program provided an opportunity to enhance this commitment. The most important aspect of the program was seen to be its impact on staff and raising the profile of best practice in the public sector clinical services—“Recruitment and retention (is) not only ( important) for the students, I also think it is invaluable for our own staff in terms of their feeling of worth within an organisation that provides ongoing training”.

Management also considered it important to allow the students to get to know “what it is actually like working within the public sector as another dimension of dentistry—not just doing emergency care—raising their social conscious to public sector work” and that the students feel at the end of the program that “they are comfortable, confident, competent and safe in doing a lot of the work that already taught before coming here”.

Staff respondents identified several important aspects of the clinical placement program including recruitment and retentions of dentists, a positive and favourable learning experience for the students, while ensuring “that our own clientele are not disadvantaged”. An opportunity to foster mutual respect between the dental team was also identified as a benefit.

The students considered the quality of their clinical experiences and the operational settings were “better than expected”. The clinical placements were viewed as being a “very attractive option for final year students”. Other features of the program which contributed to a positive experience included the quality of the support staff.
Communication

Improved communication between stakeholders and involving staff in planning and designing information dissemination were identified as important aspects of future programs. The private sector requested better communication about the placement program, since they “were not consulted very well in that area at all—we still haven’t got a clear picture of the long term”. They also emphasised the importance of the clinical aspects of the program (quality) and is potential role of attracting more dentists to Tasmania. The involvement of more private practitioners in the course and the importance of explaining the extent of involvement well in advance of the course were also identified as important.

Recruitment outcomes

The students had perceived before the placement that due to the significant manpower shortage in Tasmania, “you can always get a job although the standard of dentistry that you do is not all that challenging (in the public sector) and obviously there needs to be something down here to get more dentists”. Prior to taking up the placement three of the four students had investigated relocating to Tasmania after graduation because of the lifestyle, good opportunities to find employment and good working experience. The fourth student intended to return to his home state (not South Australia) following graduation. Two students had visited over the summer holidays and returned mid year for interviews with employers from the private sector. By the time of placement, these two students had already gained employment in the private sector. The third student had also explored opportunities in Tasmania. This student secured a position by the end of the placement with a private sector clinical supervisor. Three of the four students had partners interested in moving to Tasmania. Coincidentally, two partners were also dentists who also secured jobs in the private sector in 2006. The opportunity to experience more clinical time as undergraduates was the main reason given by the students for participating in the clinical placement. The students felt that Tasmania offered more clinical opportunities and to take more responsibility for their work, than they had experienced at dental school.

Overall the 2005 clinical placement program was seen to be a very positive learning experience, with highly motivated and enthusiastic students responding well to the new environment. In addition to high quality experiential learning opportunities the placement program included an appropriate model of services within the public sector, i.e. increased opportunities to improve interactions with patients and improve access to a broader range of dental care within public sector clinical services. This is now an ongoing program.

Conclusion

In this paper the overarching problem of improving access to appropriate and affordable oral health care for people in rural communities has been discussed in the context of the perspectives of government salaried dentists who identified themselves as ‘firefighters’ in a recent study. A strategy to address this perception through clinical placements for final year dental students was implemented and the evaluation of the first program revealed all clinical supervisors agreed that they had benefited professionally from participating as clinical tutors. Overall, the program also raised the profile of best practice, increased staff sense of worth within the public sector and is now an ongoing initiative. Links with the private sector were strengthened through the participation of several private practitioners as volunteers on the program with potential scope to address flexible working options. As a practical outcome of the program, collaborative graduate employment strategies between the public and private sector are being progressed. Recruitment of dentists to the private sector was also a notable benefit, with five new graduates gaining employment. In addition to high quality experiential learning opportunities, the placement program increased the capacity for autonomous clinical decisions and continuity of care and improved social interaction during dental visits as way to minimise the perception of public sector dentists as ‘fire-fighters’.
References


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**Presenters**

Judi Walker holds the inaugural Chair of Rural Health at the University of Tasmania, which recognises the significant contribution she has made since 1997 to the development of academic rural health in Australia. Professor Walker’s background and achievements exemplify the interdisciplinary and multi-professional nature of academic rural health and her track record strengths are reflected in the innovative nature of her work as a change agent. Professor Walker has overall responsibility for the Faculty of Health Science’s academic rural health portfolio. She is Chief Executive of the University’s Rural Clinical School—a conjoint appointment with the Tasmanian Department of Health and Human Services. Professor Walker is also the Faculty’s Deputy Dean and Associate Dean (Teaching and Learning). Professor Walker is recognised for scholarship in the application of open and distance learning to rural health, primary health care and medical/health professional education, particularly innovation in health service delivery and health care workforce.

Rosemary J Cane, BDS (Hons) FICD, has worked since 2001 at the University Department of Rural Health Tasmania as a dental academic, providing research support for evidence-based public oral health initiatives. Two key areas that have been progressed are strategies to improve the recruitment and retention of dentists to Tasmania and the development of primary oral health care clinical teams. Recent work has included the evaluation of extramural dental student clinical placement and studies related to a NHMRC strategic development grant identifying methods to improve access and equity in rural public dental services. Assistance with the preparation of case reports for publication is a new area being developed as a means of demonstrating the practical significance of integrating oral health into general health, particularly within the rural setting.