Direct access: lessons learnt from the Netherlands

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IN BRIEF

- Examines the perceptions of direct access from general dental practitioners, dental hygienists, dental students and dental hygiene students in the Netherlands since its introduction in 2006.
- Suggests examples of direct access within an integrated practice in the Netherlands show promise and could be adopted in the UK.

Objective To use a qualitative approach to examine the perceptions of policy makers, general dental practitioners, dental hygienists, dental students and dental hygiene students in the Netherlands following the introduction of a direct access policy in 2006. **Methods** Semi-structured interviews and focus groups were undertaken with a variety of policy makers and clinicians in the Netherlands. These were recorded and transcribed verbatim into MS Word documents. The transcripts were line numbered and subjected to thematic analysis to develop a coding frame using NVivo. **Results** Four main themes are reported, which represent a subset of a policy analysis of direct access in the Netherlands. These were entitled: 'The narrative of implementation', 'Working models of direct access', 'Relationship between old- and new-style hygienists' and 'Public attitudes'. **Conclusions** Working relationships within integrated practices in the Netherlands are positive, but attitudes towards independent practice are mixed. Good examples of collaborative working across practices were observed, but relationships between the professional bodies remain difficult seven years on since the introduction of the policy.

INTRODUCTION

In March 2013, the General Dental Council (GDC) in the United Kingdom announced that 'patients can book directly with a dental hygienist or dental therapist who offers a direct access service'.1 This came into effect on the 1 May 2013 and marked a significant change in the regulatory environment for primary care dentistry. Since this announcement there has been some confusion among the profession regarding the extent to which dental care professionals (DCPs) can practice independently in the National Health Service (NHS). DCPs cannot hold a Performers List number and so are not able to contract with the NHS under

the Medicines Act they cannot prescribe local analgesia or fluoride supplements and IR(ME)R regulations do not allow them to be 'IRMER prescribers'. In addition, the GDC do not allow DCPs to be the first to initiate tooth-whitening procedures. A similar direct access policy was

general dental service contracts.^{2,3} Under

introduced in the Netherlands in 2006, allowing direct access to dental hygienists (DH).7 This was in response to growing concerns over a future shortage of dental professionals. Up until 1992, Dutch dental hygiene education consisted of a two-year curriculum, which was expanded to three years in 1993. In 2002, it was expanded further to become a four-year Bachelor of Health degree programme to align with the introduction of the direct access policy. Their scope of practice was also increased to include competencies in the diagnosis of dental caries and allowed them to undertake simple permanent restorations. Concomitantly, the curriculum for dentists was expanded to six years to incorporate both a Bachelor of Health and a Masters programme, increasing their proficiency in advanced technical skills for example, implantology and advanced prosthodontics.

The aim of this study was to use a qualitative approach to explore the

attitudes of general dental practitioners (GDPs) and DHs in the Netherlands towards direct access, seven years since its introduction. Qualitative research aims to elicit the unique meaning that people attach to their experiences, allowing narratives to emerge to describe their attitudes and behaviours.^{8–10}

METHODS

The study was considered low risk and was granted ethical approval by the University of Manchester (12230).

Participants

A range of stakeholders in the Dutch dental community were purposively sampled in December 2012: policy makers, insurers, GDPs and undergraduate dentists. DHs were also interviewed and included 'old-style' DHs (trained before 2002), 'new-style' DHs (trained after 2002) and under-graduate DHs. 'Old-style' DHs are analogous to dental hygienists in the UK and 'New-style' DHs are similar to dental hygiene-therapists, with an expanded scope of practice including the simple restoration of permanent teeth.

Procedure

A set of opening questions were developed from the literature in accordance with Carter

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Refereed Paper Accepted 23 October 2013 DOI: 10.1038/sj.bdj.2013.1193 British Dental Journal 2013; 215: 607-610 and Henderson.¹¹ Semi-structured interviews and focus groups were then undertaken. The interviews were recorded on a Sony Digital Recorder, ICD-P110 and the audiofiles transcribed verbatim onto MS Word documents for thematic analysis to develop a coding frame through NVivo.¹² The majority of interviews were conducted in English, but when this was not possible the research team from the Netherlands undertook a *post hoc* translation. Initial codes were generated and interviews continued until saturation.¹³ The coded transcripts were then organised into themes to form a coding frame.^{12,13}

These were then checked against the raw data by the research team, to ensure that they were representative of what the participants were trying to convey. Representative quotes are provided in the results.

Reflexivity

AN, PRB, IM and MT had no prior knowledge about the attitudes of GDPs and DHs towards direct access in the Netherlands, being informed by the literature alone. KJ and JJR had undertaken research in this area before, but were unaware of the experiences in the UK. The research was undertaken before the GDC's announcement.

RESULTS

Twenty-eight practitioners took part in the study: six GDPs, five new-style DHs, two old-style DHs, five dental students, six dental hygiene students and four prophylaxis assistants. In addition, the Chief Dental Officer, the leaders of the Dutch Hygienists Association (NVM), the Dutch Dentists Associations (NMT and ANT) and two representatives from the insurance sector participated. The mean time since qualifying for GDPs, 'new-style' DHs and 'old-style' DHs was 24.5 years (range 14-34), 3.7 years (range 1-6) and 27.0 years (range 21-33 years) respectively. Four main themes were identified. The quotes presented are a subset of the full data set, which is an undergoing extensive policy analysis.

Theme one: the narrative of implementation

A 'light-touch' health-market environment has been deliberately fostered by the Ministry of Health in the Netherlands. This approach from the Government and lack of a clearly articulated policy from the outset has allowed the NVM, the NMT and the

ANT to become engaged in a battle to push their respective agendas forward. During the implementation process for direct access, the NVM worked closely with the Ministry, academia and insurance groups, arguing that it would increase access to care. The ANT were more neutral, while the NMT opposed direct access and based their argument on patient safety:

'...then the dentist is not any longer the central point also who keeps report of the patients, and we think that for patient safety it's not a good thing...' (PO2)

The result was a policy that many felt lacked integration:

"...we had a force against us, a big force, and we ended up with this mal-deformed baby..." (DH1)

Since the introduction of the policy, the working relationships between the NVM and particularly the NMT have remained difficult, while relationships at a practice level have mainly been resolved:

"...all dental hygienists have good working relationship in the field. But it's the Associations that are terrible..." (DH1)

The NVM did feel that mistakes had been made in the process. For example, there was a failure in the provision to legislate for radiographs, local analgesia and conservative treatment:

'...that was one big mistake. That has been a compromise to get direct access and we let our ears hang too much to the dentists.... to the Dentist Association...' (DH1)

"...but the X-rays I can pay for the machine, I can clean it, I can do everything with it, but I can only push on the button if there's a dentist in the house..." (DH1)

This inability to prescribe radiographs has been recognised by the Dutch Government and although it is opposed by the NMT, it is expected to be addressed:

'...the Dutch Dental Association is not happy with the lobby that the dental hygienists have with the Government to have their own X-ray apparatus and to make their own X-rays...' (PO2)

Another product of these tensions has been the introduction of a new type of practitioner known as 'Prophylaxis Assistants' (PAs), designed by GDPs to replace DHs:

"...I know the NMT has grown very hard in the last ten years to try to upgrade their assistants to Prevention Assistants..." (GDP3) '...it was a response of the dentists to the dental hygienists with more competences and direct accessibility...' (PO1)

In the Netherlands, there is no equivalent to the GDC. As such, the responsibility for creating new roles within practice, along with their regulation and training, lies with individual GDPs. Since 2006, 3,000 PAs had 'qualified' on the basis of ten days training to enable them to undertake supra-gingival debridement and oral hygiene instruction. The rate of pay for PAs is substantially inferior to DHs and enabled employing practices to maintain their profitability. This placed further tension in the health-market:

"...a lot of new dentists [would] rather send their patient to their own Prevention Assistant they have trained themselves.... because the money will stay in their pockets...' (DH2)

Theme two: working models of direct access

The most common form of direct access employed was the integrated model, where the GDP remained the gatekeeper, as opposed to the independent model, where the DH practices alone:

'I think two thirds of the dental hygienists work for a dentist...' (DH1)

Many GDPs had re-organised their practice structure after 2006, using DHs to screen patients on a regular basis. This was seen to be the dominant model, transforming the GDPs role into a 'director' of services who provided advanced operative skills, while the DHs role focused on monitoring and long-term prevention:

'...the future vision was you're not a dentist, you're like a doctor... you have like lower schooled personnel, like hygienist and assistants, prophylaxis assistants, and you are just director.' (PO3)

'I think we are having in this practice the ideal system so this is where I would like it to go in the Netherlands in general...' (GDP1)

These models were considered to be efficient, but relied on clearly communicated protocols between both DHs and GDPs:

'We work often together in a way that she proposes some treatment and I always, well make a joke, she puts the ball in front of the goal and I just kick it in.' (GDP1)

However, DHs still relied on the GDP to highlight their importance to patients:

'We need the dentist to tell the patient it's important to see a hygienist, because they see the dentist like he is a doctor, so he knows better and a hygienist is a little bit lower, so they will listen to him.' (DH3)

'...as a dentist you can also steer a lot. I think as a dentist you still have a big vote in where they go...' (PO3)

In integrated practices, DHs did not replace GDPs, but were seen to offer a more efficient method of regularly monitoring patients, enabling the GDP to focus on more complex treatment. The only issue identified during the interviews was that of vicarious liability. Given that there is no equivalent to the GDC, patient complaints are addressed through the legal system. However, there remains some uncertainty about this process for DHs and as a result, some GDPs were more wary of implementing a direct access model in their practice or referring to a fully independent DH practice:

"...but if you do something wrong as a dentist, there's a lawyer you have to know, a judge you have to go to... For dental hygienists we don't have that...' (PO1)

In independent DH practice, the requirement to work to a prescription for any conservative treatment and comply with IR(ME)R meant that some DH practice owners employed GDPs. Again, working relationships between DHs and GDPs were positive where they existed and GDPs did not view this as a change to the way that they practiced:

'...so we'll make a plan for each child that has big problems. It's not a domain fight it's just okay, who can do best with this child...' (DH1)

'I don't see much of a change for me as a dentist...' (GDP1)

The impact of direct access on competition and the financial viability of GDP and DH practices were mentioned by a number of participants:

'...so I have had some trouble with a dentist in communication about the free access and showing them that it's not about eating their bread...' (DH1)

'One of the bad things is they now have their own offices, that they of course earn more money in those own offices... because we have to compete with...' (PO3)

Both the Ministry of Health and DHs argue that care provided by DHs is cheaper than that provided by GDPs. Many integrated practices had profited

from employing DHs, some contributing up to 30% of gross revenue. However, pay escalation was a problem:

'...so salary levels went up in the dental offices to keep your hygienist. But maybe they are also better educated so they expected better salary. There's nothing wrong with that, but it's what happens...' (PO3)

DHs do not view themselves as a cheaper alternative. Instead, DHs argued that they were able to spend more time with patients, due to their lower costs for the practice:

'...because we are cheaper and have a more social focus, we have more time, which for the dentist is very pleasant because they can refer anxiety patients and children to us...' (DHS1)

Many of the referrals to independent DHs were also based on patient groups that GDPs did not wish to treat:

'...so what is happening now is that dentists wouldn't want to see the kids until they're four. They're weaned and don't have their diapers in the practice. Quite something...' (DH1)

'...so they refer for a periodontology and they refer for children. But I also have children come in because of the direct access, from parents or from schools or consultation bureaus... ...but the dentists don't feel threatened.' (DH1)

There was no evidence presented of either GDP or DH practices losing business as a result of direct access.

Theme three: relationships between old-style and new-style hygienists

The change in the curriculum in 2002 and move from 'old-style' DHs to 'new-style' DHs has also created some tensions between these two groups of clinicians:

'There is a kind of a tension between those groups, I'm more qualified than you are, you are more qualified than the oldstyle dental hygienists...' (DH2)

'...we know more about the dental domain compared to the two- and three-year hygienists...' (DHS4)

Of interest, many 'old-style' DHs felt that 'new-style' DHs had betrayed the fundamental tenets of DH practice, moving away from a preventative ethos to one that favoured intervention:

'...they only drill and drill and, well, sometimes they will do something with the gums, but it's a little bit and then the periodontium is all forgotten...' (DH4)

'New style' DHs were more likely to be found working in integrated practice with a GDP, while 'old style' DHs were more likely to work independently. 'Old style' DHs also appeared to have become unpopular with some employing GDPs.

Theme four: public attitudes

A number of participants felt that there was a lack of public awareness about direct access:

'Many people don't know a thing about dental hygiene, dental hygienists, or whatever... No, the public doesn't, it doesn't know, no...' (PO1)

However, the majority of the participants felt that the social acceptability of direct access was high:

'There are no complaints and no problems for the public at large.' (MOH1)

'...so not enough patients know that they can go to a hygienist just by themselves, most of them think they need to go to a dentist before they can go to a hygienist...' (DS4)

As patients became increasingly aware, their attitudes were increasingly positive:

'By the time they know what a dental hygienist is, they prefer the dental hygienist.' (DH1)

None of the stakeholders interviewed reported complaints or examples of patient rejection of direct access. Again, it was accepted that the GDP still played a key role in informing patients of the availability of direct access:

'We need the dentist to tell the patient it's important to see a hygienist...' (DH3)

DISCUSSION

Working relationships within integrated practices in the Netherlands are positive. GDPs appear to enjoy the opportunity of working with DHs in a direct access model to the benefit of their patients. Attitudes towards independent practice were more mixed, with tensions arising due to competition in the health market and within the DH profession itself; the latter being caused by the change in the curriculum and scope of practice for 'new-style' DHs compared to 'old-style' DHs. Where there were 'negative' attitudes towards direct access, GDPs simply took the decision not to refer. However, there were good examples of collaborative working across practices.

The most problematic relationship observed was between the professional

associations, which is to be expected given the increase in competition in the health-market. This has also been seen in the UK. $^{14-16}$

The interviews also highlight common problems for independent practice in the UK: the lack of an ability to prescribe and the impact of IR(ME)R.¹⁷ The lack of a Performers List number and the ability to contract with the NHS are further problems in the UK.^{2,3} This further strengthens the case for an integrated model, where both GDPs and DCPs can work together rather than against each other.

A new NHS dental contract in England based on capitation will be introduced shortly. Different remuneration systems have different incentives. Fee-per-item systems can create incentives to overtreat, while the direction of the incentives in a per-capita remuneration systems is to provide the same service at less cost or to undertreat.18-20 The preliminary evidence from the pilots of the new dental contract suggest that the potential benefit of using DCPs in an integrated model is being recognised.21 Direct access in an integrated model does offer some advantages within a prospective payment system. There is the potential to use DCPs to screen for disease, similar to the way it is used in the Netherlands.22 There are many definitions of screening, but all imply an ongoing, structured healthcare intervention designed to detect disease at an asymptomatic stage.23,24 Screening is analytically distinct from an examination or diagnosis as its purpose is to simply determine the probable presence or absence of disease in asymptomatic individuals.

Given the increasing numbers of healthy patients attending practice on a regular basis, deploying DCPs for this task could reduce the unit costs of service provision for NHS dental services for routine surveillance of low risk patients. DCPs could be provided with a prescription from the GDP to screen patients over an extended time-frame, with the patient returning periodically for a full examination. This could release resources and increase the capacity to care for high need populations.^{22,25} There is evidence for the use of DCPs and clinicians other than GDPs to detect caries and to screen for oral cancer.26-29 Judgement under uncertainty favours safety and the only randomised

controlled trial (RCT) that has examined screening for oral cancer used allied health providers, not GDPs, to undertake the screen.^{28,30}

The interviews from the Netherlands also highlight the need for rigorous evaluation of direct access. This could utilise RCTs to determine the effectiveness and costs of different models.³¹ However, if the profession is to follow medicine's lead, it would be important to move on from a question of 'who does what best' to a more helpful dialogue around the quality and safety of services. The technical efficiency and social acceptability of future service models are further important considerations.³²

CONCLUSION

Evidence from the Netherlands suggests that direct access within an integrated practice shows promise and could be adopted in the UK. Independent direct access models create a number of difficulties in the health market, although some successful models do exist in the Netherlands.

- General Dental Council. Patient safety at the heart of decision over direct access. London: GDC, 2013.
 Online article available at http://www.gdc-uk.org/ newsandpublications/pressreleases/pages/patientsafety-at-the-heart-of-decision-over-direct-access. aspx (accessed October 2013).
- The National Health Service (Performers list) regulations 2004. Online regulations available at http://www.legislation.gov.uk/uksi/2004/585/ contents/made (accessed October 2013).
- The National Health Service (General Dental Services Contracts) regulations 2005. Online regulations available at http://www.legislation.gov.uk/ uksi/2005/3361/schedule/1/made (accessed October 2013).
- Medicines Act 1968. Online Act available at http:// www.legislation.gov.uk/ukpga/1968/67 (accessed October 2013).
- The ionising radiation (medical exposure)
 regulations 2000. Online regulations available at
 http://www.legislation.gov.uk/uksi/2000/1059/
 contents/made (accessed October 2013).
- General Dental Council. Tooth whitening Q & As. London: GDC, 2013. Online information available at http://www.gdc-uk.org/dentalprofessionals/ standards/pages/tooth-whitening.aspx (accessed October 2013).
- Hoogervorst J F. Staatsblad van het Koninkrijk der Nederlanden. Issue 147. Gravenhage: Ministry of Health, Welfare and Sport, 2006.
- Smith J A. Qualitative psychology. A practical guide to research methods. 2nd ed. London: Sage Publications, 2008.
- Willig C. Introducing qualitative research in psychology. Adventures in theory and method. Maidenhead: Open University Press, 2001.
- Cresswell J W, Fetters M D, Ivankova N V. Designing a mixed methods study in primary care. Ann Fam Med 2004; 2: 7–12.
- Carter S, Henderson L. Approaches to qualitative data collection in social science. *In* Bowling A, Ebrahim S (eds) *Handbook of health research methods*. *Investigation, measurement and analysis*. pp

- 215-229. Maidenhead: Open University Press, 2007.
- Braun V, Clarke V. Using thematic analysis in psychology. Qual Res Psychol 2006; 3: 77–101.
- Ryan M, Scott D A, Reeves C et al. Eliciting public preferences for healthcare: a systematic review of techniques. Health Technol Assess 2001; 5: 1–186.
- British Dental Association. Direct access decision misguided says BDA. London: BDA, 2013. Online article available at http://www.bda.org/newscentre/press-releases/41760-direct-accessdecision-misguided-says-bda.aspx (accessed October 2013).
- British Society of Dental Hygiene Therapy. Update to members. London: BSDHT, 2013. Online update available at www.bsdht.org.uk/downloads641.html (accessed October 2013).
- British Association of Dental Therapists. Press release on direct access. Berkshire: BADT, 2013.
 Online press release available at http://www.badt. org.uk/news/badt-press-release-on-direct-access (accessed October 2013).
- General Dental Council. Guidance on direct access. London: GDC, 2013. Online guidance available at http://www.gdc-uk.org/Dentalprofessionals/ Standards/Pages/Direct-Access.aspx (accessed October 2013).
- Chalkley M, Tilley C. Treatment intensity and provider remuneration: dentists in the British National Health Service. *Health Econ* 2006; 15: 933–946.
- Birch S. The identification of supplier-inducement in a fixed price system of health care provision. The case of dentistry in the United Kingdom. J Health Econ 1988; 7: 129–150.
- Grytten J. Models for financing dental services. A review. Community Dent Health 2005; 22: 75–85.
- 21. Department of Health. Extension to dental contract pilot scheme. London: DH, 2012. Online information available at https://www.gov.uk/government/publications/extension-to-dental-contract-pilot-scheme (accessed October 2013).
- Brocklehurst P R, Ashley J, Tickle M. Patient assessment in general dental practice- risk assessment or clinical monitoring. *Br Dent J* 2011; 210: 351–354.
- Wilson J M, Jungner Y G. Principles and practice of screening for disease. Public health paper number 34. Geneva: World Health Organization, 1968.
- 24. UK National Screening Committee. What is screening?
 Online information available at http://www.screening.
 nhs.uk/screening (accessed October 2013).
- Edelstein B L. Examining whether dental therapists constitute a disruptive innovation in US dentistry. Am J Public Health 2011; 10: 1–5.
- Galloway J, Gorham J, Lambert M et al. The professionals complementary to dentistry: systematic review and synthesis. London: Eastman Dental Hospital, Dental Team Studies Unit; 2003.
- Brocklehurst P R, Ashley J, Walsh T, Tickle M. Relative performance of different dental professional groups in screening for occlusal caries. Community Dent Oral Epidemiol 2012; 40: 239–246.
- Sankaranarayanan R, Ramadas K, Thara S et al.
 Long term effect of visual screening on oral cancer incidence and mortality in a randomized trial in Kerala, India. Oral Oncol 2013; 49: 314–321.
- Brocklehurst P, Kujan O, O'Malley L A, Ogden G, Shepherd S, Glenny A M. Screening programmes for the early detection and prevention of oral cancer. Cochrane Database of Systematic Reviews 2013, Issue 11. Art. No: CD004150. DOI: 10.1002/14651858.CD004150.pub4.
- Tversky A, Kahneman D. Judgement under uncertainty: heuristics and biases. Science 1974; 185: 1124–1131.
- Torgeson D J, Torgeson C J. Designing randomised controlled trials in health, education and social sciences. Basingstoke: Palgrave Macmillan; 2008.
- Jacobs R: Alternative methods to examine hospital efficiency: data envelopment analysis and stochastic frontier analysis. Health Care Manag Sci 2001; 4: 103–115.