

## **Health visitors' views on promoting oral health and supporting clients with dental health problems: a qualitative study**

Mr J Lewney, Academic Clinical Fellow in Dental Public Health, Institute of Health and Society, Newcastle University, Newcastle upon Tyne, NE1 7RU

Dr Richard D. Holmes, Senior Lecturer in Dental Public Health, Centre for Oral Health Research, School of Dental Sciences, Newcastle University, Newcastle upon Tyne, NE1 7RU

Professor Judith Rankin, Professor of Maternal & Perinatal Epidemiology, Institute of Health and Society, Newcastle University, Newcastle upon Tyne, NE1 7RU

Professor Catherine Exley, Faculty Associate Pro-Vice Chancellor Research and Innovation, Faculty of Health and Life Sciences, Northumbria University, Newcastle upon Tyne, NE1 8ST

Corresponding author J. Lewney

J. Lewney<sup>1</sup>, R. Holmes<sup>2</sup>, J. Rankin<sup>1</sup>, C. Exley<sup>3</sup>

1. Institute of Health and Society, Newcastle University, Newcastle upon Tyne, NE1 7RU

2. School of Dental Sciences, Newcastle University, Newcastle upon Tyne, NE1 7RU

3. Faculty of Health and Life Sciences, Northumbria University, Newcastle upon Tyne, NE1 8ST

Address correspondence to: Jonathan Lewney, Email [jonathan.lewney@ncl.ac.uk](mailto:jonathan.lewney@ncl.ac.uk)

## **Abstract**

### Background

Inequalities in dental decay in young children persist, resulting in high admission rates for general anaesthetics for tooth extractions. Health visitors have the potential to improve dental attendance and oral health in families least likely to engage with dental services. There is little evidence on health visitor views on this.

### Methods

Semi-structured interviews were conducted with a purposive sample of 17 health visitors working in both affluent and deprived areas in a UK city. Interviews were audio recorded, transcribed, anonymised and analysed following a constructivist grounded theory approach.

### Results

Knowledge of oral health was high and health visitors requested oral health education specific to the communities they worked in. Health visitors reported effective, formal referral processes to other health services but not to primary NHS dental services even when dealing with infants in pain. Health visitors interviewed were largely unaware of specific NHS dental services which reduce barriers to dental care including interpreting services and dental services for children with additional needs.

### Conclusions

Health visitors interviewed were knowledgeable and enthusiastic about oral health but not about dental services. Inadequate links with NHS dental services may limit their effectiveness in oral health improvement and this needs to be addressed.

## Background

Extraction of decayed teeth is the most common reason for a 5-9 year old in England to require a general anaesthetic, yet 30% of children in England did not see a dentist between 2012 and 2014.<sup>1</sup> Clinical intervention by a dentist is the first-line treatment for dental pain. GPs see an average of around one patient per week for dental problems (excluding other oral problems) and 57% of UK GPs prescribe antibiotics for dental infections.<sup>2</sup> In 2013, obvious decay in primary ('baby') teeth was found in 31% of 5-year-olds and 46% of all 8-year-olds in the Children's Dental Health Survey 2013.<sup>3</sup> Decay is strongly linked to deprivation with 41% of 5-year-olds receiving free school meals having obvious decay in primary teeth compared to 29% in 5-year-olds not receiving free school meals.

Local governments are increasingly calling for more co-operation between health visitors and dental services in dealing with dental neglect and safeguarding issues.<sup>4</sup> 'Dental neglect' is defined as '...the persistent failure to meet a child's basic oral health needs, likely to result in the serious impairment of a child's oral or general health or development.'<sup>5</sup> Health visitors are nurses who engage with families in community settings.<sup>6</sup> Other terms include child health nurse, public health nurse, and child and family health nurse. Health visitors liaise with dental and other healthcare professionals to provide information for safeguarding board. They are also expected to meet and improve key indicators in the 'Public Health Outcomes Framework' which includes reducing the number of 5-year-olds with any dental decay.<sup>7</sup> The national service specification for health visitors includes oral health advice and ensuring dental attendance for all children at the 9-12 months old and the 2-2½ years visits.<sup>8,9</sup> Local authorities commission health visiting services and also have a statutory duty to provide oral health promotion appropriate to their population.<sup>9,10</sup> There is currently an NHS England initiative to encourage a 'Dental Check by One', as all children should see a dentist as soon as their first tooth erupts.<sup>11</sup> The Children's Oral Health Improvement Board is another national initiative in this area.<sup>12</sup> Working directly at the interface between the patients ('clients'), the NHS and public health, gaining the views of health visitors on how they might help promote oral health is important.

This paper reports a study which aimed to explore how health visitors felt about providing oral health advice and dealing with dental issues during their practice.

## Methods

Ethical approval was obtained from Newcastle University. Research and Development approval was obtained from the relevant NHS Trust. The study was conducted in a city in the North East of England. Health visitors were based in four community bases in a city with areas of high and low deprivation.<sup>13</sup> A topic guide was developed and piloted. This was based on previous research and in collaboration with a health visitor lead (who was not a participant). Purposive sampling was used to ensure the sample included a broad range of community settings and length of experience. Health visitors were asked to describe their caseloads as mainly 'affluent', 'deprived' or 'mixed' and these adjectives are assigned to data presented. Health visitors were recruited via local team meetings.

Individual, face to face semi-structured interviews were conducted by JL, a public health dentist. All interviews were digitally recorded and transcribed verbatim with consent. The study adopted a constructivist grounded approach following Charmaz (2006).<sup>14</sup> 'Grounded theory' refers to an approach in which novel theoretical positions can be generated from the data by developing a coding frame during the research process. The constructivist approach acknowledges that theories developed will reflect the shared experience of both researcher and participant. An initial coding frame was developed by the interviewer after the second interview and reviewed with co-authors. These codes were then discussed iteratively with co-authors during analysis of subsequent interviews using constant comparative methodology.

## Results

Seventeen health visitors were interviewed. All were female with two years to over 37 years of experience. Interviews lasted between 25 and 60 minutes. Six health visitors described their caseload as 'deprived'. Three of these described their caseload as mainly from minority ethnic groups; largely recent migrants from Eastern Europe. Six health visitors described their caseload as 'mixed' and five as 'affluent' (both with a range of ethnicities).

For the purposes of this paper, original codes and categories have been placed into three main headings selected as being relevant to those providing, designing and commissioning oral health promotion involving health visitors.

### **Offering oral health education/dealing with problems**

The data suggest health visitors did not receive any initial formal oral health training. They reported learning about oral health mainly from each other, their own experience (personal and professional) and self-learning. Understanding of key oral health messages among participants was generally very high. It was common for health visitors to report giving advice similar to that used by dental professionals:

*"We just ask about how often they brush their teeth... emphasise that they need to help and, you know, you give them little tips about sticking a timer on or singing a nursery rhyme while they're doing it."  
(HV8, affluent caseload)*

Concerns were frequently raised about the amount of general health information health visitors had to provide.

*"It can become very ticky-boxy...it's a huge amount for the parent to take in and I can imagine if you went and interviewed someone as soon as they've had a visit and they said 'what is it you've just talked about', it would be really interesting to see what they've just retained"  
(HV3, mixed caseload)*

In affluent areas, health visitors often reported needing very detailed oral health advice beyond advice around dental decay as this was not seen to be a major problem:

*“Where I’m working now for the last number of years then, I’ve never seen a child with dental caries” (HV9, affluent caseload)*

In more deprived areas, however, reports of suspected dental pain in children were common. Health visitors generally reported finding this difficult to deal with both practically and emotionally:

*“... the child was in obvious pain, he was even a schoolchild, he wasn’t even on my [caseload], but you know what, I was there seeing the baby and realised there’s a child sitting, oooph, crying and he hadn’t eaten anything for two days, he must have been in so much pain.” (HV2, deprived caseload)*

In discussing this further, several health visitors stated that having no formal way of dealing with issues of dental neglect was an issue:

*“would there ever be an opportunity for us to refer... ..if we saw something very obvious” (HV6, deprived caseload)*

Safeguarding considerations were explored and dental attendance was firmly included in this:

*“if it was a safeguarding issue part of the child protection plan...it’s always considered that they must go to the dentist and you give them a timescale” (HV3, mixed caseload)*

Health visitors in all areas reported that recent migrants were far more likely to have visible dental decay and high sugar diets. Dental neglect occasionally requires a safeguarding referral. Educating recent migrants about this issue was a particular concern:

*“...for somebody to refer them into children’s social care when it’s not really necessarily deliberate neglect or whatever; it’s their understanding coming from another place to an extent as well” (HV1, deprived caseload)*

In discussing how dental issues were identified, respondents disagreed about whether they should examine the mouth or not:

*“not that I go looking for it but the little one just happened to open her mouth and, I mean, I’m not a dentist but could see there was, you know, black teeth at the back,” (HV5, deprived caseload)*

Most felt that looking in the mouth would be useful but all felt that they would need training:

*“If I was trained and I had said to the parents, because it is an invasive procedure...I think you put the mouth with the sexual organs” (HV16, mixed caseload)*

Other health visitors felt that examining the mouth was not within their remit, and one pointed out that this felt more appropriate before teeth appeared:

*“it’s so ordinary to look in a baby’s mouth, explore a baby’s tongue, but as soon as teeth are there, it’s something different.” (HV13, mixed caseload)*

This highlights a frequent suggestion that dealing with, and examining the mouth was somehow separate to the rest of the body.



Limited options for once a child was identified as needing dental care, was universally stated as a concern as explored in the following section.

### **Referring to dental and other health services**

Some reports implied possible safeguarding concerns due to failure to deal with dental pain:

*“the schools sometimes highlight that a child’s been complaining of dental pain as well, and they obviously signpost them to the dentist”  
(HV7, deprived caseload)*

A number of health visitors stated that ‘signposting’ was their response, even when children were in pain. This was generally reported as ineffective. Some phoned local practices to make dental appointments. Others expressed frustration at there being ‘nothing more’. Several health visitors felt this was totally inadequate for children in pain. One described the time it took to arrange a joint visit with a support worker from a refugee family’s own community

*“some dentists didn’t pay for an interpreter so we had to work out who was going to pay for that, because the mother had just given birth, like, three weeks before and so that was quite a big piece of work and eventually we did get her to the dentist and she got the treatment she needed. Because you just go through the process until you’ve achieved the end result that’s needed really.” (HV6, deprived caseload)*

There was a recurrent misconception that NHS dentists had to pay for interpreters but were unwilling to do so. However the organisation who provides dental contracts (NHS England) pay separately for interpreters for dentists.

When asked how it feels to refer to NHS dental services compared to any other healthcare service there were no positive comments and all felt it was ‘different’:

*“It feels like a black hole. If I refer to an orthoptist they’ll write back to me, I can phone up and... find out what’s going on, whatever. You do feel [dentistry] is outwith primary health care” (HV16, mixed caseload)*

It was also apparent that health visitors were unaware of many of the NHS dental services provided locally:

*“Well I know we’ve got a community dental service here...but I’m not aware we’ve got any specialist services in the community for children with additional needs so if we have that would be fantastic to know” (HV11, affluent caseload)*

Of note is that the above quotation is taken from an interview which took place in the participant’s local health centre which also houses a large Community Dental Service providing exactly the type of service being described.

These communication difficulties between dental services and the health visiting service were frequently identified. The following section summarises suggestions made by health visitors for potential solutions to these and other issues identified.

### **Suggested solutions**

The need for a simple, standard way to refer patients into local dental services was the most common suggestion as to how NHS dental services could help health visitors in their requirement to improve the oral health of their clients:

*“I know it adds to our workload...but, is it something we can just say... I’ll just send date of birth, child’s name, if parents consent to it, right, we’ve got another, sort of, link to send it to a dentist, and then they will automatically send an appointment out. But, is it- are they going to turn up”? (HV2, deprived caseload)*

This highlights the issue of dental non-attendance; a particular problem in more deprived areas. One health visitor in a particularly deprived area suggested the following:

*“You know with our families ...sometimes routines are missing in their lives, so to say to them ‘next Wednesday at quarter past ten you’ve got an appointment at the dentist’; straight over their heads. If the dentist, this is a real luxury, could provide like a drop-in clinic, between two and three on a Wednesday afternoon then I think that could work really well.” (HV6, deprived caseload)*

A frequent request was for more culture-specific oral health information and guidance. For example, health visitors learned from experience about the high-sugar fennel tea used to aid digestion in Eastern European communities and that paan chewing (a plant/nut mix, a major risk factor for oral cancer), was common in Bangladeshi but not in Indian or Pakistani communities. Several health visitors suggested it would be helpful to meet with local dental professionals and that these could advise on these issues specifically:

*“It would be nice to get an idea of what the local population...the state of their health in terms of teeth was like and to get the bigger picture of what the issues are so we could better advise...the problems”  
(HV1, deprived caseload)*

Finally, there was a sense of optimism that the problem of non-attendance could be addressed.

*“When I first started health visiting you would walk into a house and everybody would be smoking...the worst you get now is in the kitchen or by the door, and I think because we’re really plugging it...register before the teeth come through... they might start taking it up earlier on rather than when they’re seven or eight” (HV13, mixed caseload)*

## **Discussion**

### **Main findings of this study**

Knowledge of oral health was high among health visitors in this sample. This was gained mainly through 'on the job' experience and partly through formal, post-qualification, training (rather than during initial training). However, there were several requests for culturally-specific oral health information. Health visitors frequently reported a feeling of helplessness in ensuring families attended dental appointments. This was reportedly a particular issue for families from countries where regular dental attendance is not encouraged. There was wide variation in how health visitors responded to clients suffering from dental pain. This ranged from 'signposting' to making a dental appointment and following up on attendance with the family. Health visitors generally felt that primary care dentistry was very difficult to refer into but that they as health visitors should do this.

### **What is already known on this topic**

Oral health education alone, either by dental professionals or health visitors, can improve knowledge. However, there is little evidence that this leads to behaviour change and no evidence that this leads to a reduction in decay rates.<sup>15,16</sup> One qualitative UK study examined the views of health visitors on delivering oral health promotion and included three health visitors (with degrees in public health) in a focus group.<sup>17</sup> The main recommendation was that oral health training for health visitors and school nurses should be tailored to the children most in need. In a recent survey of 9000 health visitors in the UK, almost all agreed that their routine health visiting contacts should include oral health advice/promotion. One-third reported that they had not received oral health training previously.<sup>6</sup> Currently, there is no national arrangement for health visitors to refer directly to general or 'high street' dentists. Two schemes (in 1993 and 2007) which allowed for this showed an increase in dental attendance in deprived areas.<sup>18,19</sup>

## **What this study adds**

There was some support amongst participants for training in examining for dental decay. Lack of communication with dental services was seen to be the major barrier to supporting clients with their oral health. Signposting is seen as ineffective but often the only option, even when children are suffering dental pain. This is exacerbated by the lack of an effective referral system into primary dental care. This is seen to be unique to dental services. Even when health visitors take the time to make dental appointments, they are frequently missed. 'Drop-in' sessions at dentists were suggested as more appropriate for families who find routine appointments difficult. Additionally, health visitors were often unaware of services which are essential to reducing barriers to dental care such as an interpreting service for dental appointments and a specialist service for children with additional needs. Oral health education for health visitors could address this.

## **Limitations of this study**

The study took place in a single city, where availability of primary care dental services is good and there is a large dental hospital.<sup>20</sup> The experience of health visitors is likely to be very different where access to dental services is reduced.

The interviews were conducted by a public health dentist and the interviewer's role was disclosed in advance. Participants with greater knowledge of, or interest in oral health may have been more likely to respond and to have given more idealised responses. Two members of the research team were not dentists and they contributed to data analysis and discussion of the codes that emerged.

Although improvements to current practice and services are suggested, it should be noted that, as seen with tobacco control, much of the required behaviour change to improve oral health will likely require large scale investment in both upstream and downstream approaches.

## **Conclusion**

Health visitors are well placed to increase dental attendance and improve oral health in families most in need of dental care. Oral health education specific to a health visitors' caseload was requested. The lack of a standardised referral process into primary care dental services may be a barrier to attendance even when infants and children are suffering from acute dental pain, including potential dental neglect. The sample of health visitors in this study were knowledgeable and passionate about oral health but without the necessary links with NHS dental services their effectiveness in oral health improvement is likely to be limited.

## **Acknowledgements**

The authors are grateful to the health visitors who took part and to the NHS trust for allowing this study to take place.

## References

1. Royal College of Surgeons. The state of children's oral health in England [Internet]. 2015. Available from: <https://www.rcseng.ac.uk/fds/policy/documents/fds-report-on-the-state-of-childrens-oral-health>
2. Cope AL, Chestnutt IG, Wood F, Francis NA. Dental consultations in UK general practice and antibiotic prescribing rates: a retrospective cohort study. *Br J Gen Pract.* 2016;66(646).
3. Health and Social Care Information Centre (HSCIC). Child Dental Health Survey 2013 Report 2: Dental Disease and Damage in Children [Internet]. 2015. Available from: <http://www.hscic.gov.uk/catalogue/PUB17137/CDHS2013-Report2-Dental-Disease.pdf>
4. Gray M. Joint targeted area inspection of the multi-agency response to abuse and neglect in Stockton-On-Tees. 2018;
5. Harris JC, Balmer RC, Sidebotham PD. British Society of Paediatric Dentistry: a policy document on dental neglect in children. *Int J Paediatr Dent.* 2009;
6. Oge OA, Douglas GVA, Seymour D, Adams C, Csikar J. Knowledge, attitude and practice among Health Visitors in the United Kingdom toward children's oral health. *Public Health Nurs.* 2018 Jan;35(1):70–77.
7. Public Health England. Public Health Outcomes Framework [Internet]. 2016 [cited 2017 May 3]. Available from: <http://www.phoutcomes.info/public-health-outcomes-framework#page/0/gid/1000044/pat/6/par/E12000001/ati/102/are/E08000021>
8. NHS England. Health Visiting Service Specification 2015/16 PDF Version [Internet]. 2015. Available from: <https://www.england.nhs.uk/wp-content/uploads/2014/12/hv-serv-spec-dec14-fin.pdf>
9. Department of Health. Transfer of 0-5 children's public health commissioning to local authorities [Internet]. 2015. Available from: [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/)

- 405540/Overview\_3\_Changes\_to\_how\_0-5\_services\_are\_commissioned.pdf
10. The NHS Bodies and Local Authorities (Partnership Arrangements, Care Trusts, Public Health and Local Healthwatch) Regulations 2012 SI 2012/3094.
  11. British Society of Paediatric Dentistry. Dental Check by One [Internet]. [cited 2017 Oct 20]. Available from: <http://bspd.co.uk/For-Patients/Dental-Check-by-One>
  12. Public Health England. Launch of the Children's Oral Health Improvement Programme Board - GOV.UK [Internet]. [cited 2018 Mar 9]. Available from: <https://www.gov.uk/government/news/launch-of-the-childrens-oral-health-improvement-programme-board>
  13. Department for Communities and Local Government. English indices of deprivation 2015 - GOV.UK [Internet]. [cited 2017 Nov 10]. Available from: <https://www.gov.uk/government/statistics/english-indices-of-deprivation-2015>
  14. Charmaz K. Constructing grounded theory a practical guide through qualitative analysis. London: London : SAGE; 2006.
  15. Kay, E, Locker D. A systematic review of the effectiveness of health promotion aimed at improving oral health. *Community Dent Heal*. 1988;**15**:132–144.
  16. Whittle JG, Whitehead HF, Bishop CM, J.G. W, H.F. W, C.M. B. A randomised control trial of oral health education provided by a health visitor to parents of pre-school children. *Community Dent Health*. FDI World Dental Press Ltd; 2008;**25**(1):28–32.
  17. Coll Filippini, T, Richards, W. AM. Health visitors' and school nurses' perceptions of promoting dental health in children. *J Heal Visit*. 2016;**4**:100–107.
  18. Bentley EM, Holloway PJ. An evaluation of the role of health visitors in encouraging dental attendance of infants. *Community Dent Health*. 1993;**10**(3):243–249.
  19. Yuan S, Kerr G, Salmon K, Speedy P, Freeman R. Evaluating a community-based dental registration program for preschool children living in areas of high social deprivation. *Eur Arch Paediatr Dent*. 2007;**8**(1):55–61.



20. NHS England. GP Patient Survey Dental Statistics [Internet]. 2016. Available from:  
[https://www.england.nhs.uk/statistics/2016/07/07/gpps\\_dent\\_y10w23357969/](https://www.england.nhs.uk/statistics/2016/07/07/gpps_dent_y10w23357969/)