Does oral care knowledge amongst UK nurses effectively support people with intellectual disabilities across their lifespan?

Mark Thurston, a former dental care professional who is currently a third year learning disabilities nursing student, summarises the findings of his dissertation - a literature review and proposed service improvement - undertaken as part of his degree in Nursing (Learning Disabilities) at the University of the West of England, Bristol.

Abstract

Purpose Poor oral health can negatively impact on the overall health of an individual. Evidence highlights nurses' misgivings about providing oral care. **Method** Several articles were sourced across three clinical databases and four 'core' papers were critiqued using CASP. **Findings** A literature review identified two areas which require service improvement: 1) Co-presented oral care training should be delivered to staff teams, incorporating material which is developed in collaboration with allied health and social care professionals; 2) Dental teams should be included in the production of care plans for people with a learning disability. **Conclusions** Indications of ritualistic practice remain in UK nurses' approach to oral care. Daily issues faced by staff teams and the voices of people with a learning disability are under-represented. Training and integrated care planning could significantly improve oral health outcomes for people with a learning disability.

Editor's note: 'Nurse' and 'nurses' refers to general (medical) nurses in this article rather than dental nurses.

Aim

A learning disability is a reduced ability to learn and understand new concepts or

apply skills, beginning in childhood.¹ Many people with learning disabilities also have physical or sensory impairments, epilepsy, or increased risk of dementia.² Poor oral care can exacerbate conditions often comorbid with a learning disability such as cardiovascular disease, diabetes, respiratory disease, stroke, and other chronic illnesses. Poor oral health also affects psychological wellbeing and social opportunities for people within this group, as it does for the wider population.³ People with a learning disability experience similar levels of dental ill-health as the wider population, although it is thought that four out of five people with Down syndrome have unhealthy teeth and gums.⁴

The dissertation was a response to the hypothetical question 'Does oral care knowledge amongst UK nurses effectively support people with intellectual disabilities throughout their lifespan?' This was laid out as a critical review of the literature with a service improvement which responded to one of the findings.

Methodology

CINAHL, Medline Plus and APA PsycInfo were searched concurrently using EBSCOhost using searches Dental, Oral, Mouth (care) (health) AND learning disability, learning disabilities, cleft palate, autism, prader-willi,

sjogrens syndrome, mental retardation, intellectual dis*, learning dis*, neuro-dis*, adults with learning dis* AND Home, Community, Nurs*, Undergraduate nurs*, annual health check. A 'United Kingdom' limiter was added when over 100 results were returned. Four hundred and sixteen documents were obtained through this search; not all of these were primary research, and some were opinion pieces. Through discussion with the research supervisor, two qualitative and two quantitative research articles of sufficient rigour were identified and were critiqued using CASP Qualitative⁵ or CASP Cohort Study⁶ as appropriate. There were mixed-methods studies, randomised controlled trials and systematic reviews contained within the broader literature.

The search initially had a ten-year range limiter (2010-2020) but the shortage of papers and snowballing which repeatedly referenced earlier seminal papers called for the date range to be removed, with the definitions of learning disability instead limiting results. The four critiqued papers fell within the ten-year limit. Three of these 'core' papers discussed research undertaken in the UK, one was undertaken in the Republic of Ireland and was included as a nearest-neighbour, and which did not include procedurally sensitive processes.

Results

Theme 1a: Oral Care Education (Training)

The nature of research undertaken necessitated a discussion which focused on people with moderate to severe learning disabilities who would be cared for in a community home, although research papers sought did not exclude people who lived more independently or who were in a mental health inpatient facility.^{7,8} Chadwick, Chapman and Davies⁹ suggested a need for health and care staff who provide daily support to be given oral care training, a view which caregivers echoed for this research. Zander and Boniface,¹⁰ Young, Murray and Thomson¹¹ also identified severe shortages in oral care knowledge across care homes in the two areas of the UK in which their research covered.

Theme 1b: Information Sharing (Training)

Blaziot *et al.*,¹² and Owens, Mistry and Dyer¹³ discussed the difficult burden for the Registered Nurse (Learning Disabilities) (RNLD) in communicating the needs of a patient effectively with dental teams, while incorporating the wishes of the service user. This author identified that resources which support nurses to incorporate oral care knowledge into their daily practice are in circulation.¹⁴ Haslam¹⁵ explained how Mouth Care Matters was raising awareness of oral care amongst nurses in inpatient and outpatient clinical settings. Blaziot *et al.*¹² and Owens, Mistry and Dyer¹³ also highlighted the issues that people with a learning disability face when trying to access modern or complex dental treatments. The authors highlighted findings of referrals to specialist services which were blocked without justification. Clough and Handley¹⁶ identified evidence of diagnostic overshadowing in dental settings. Mac Giolla Phadraig *et al.*,¹⁷ Chadwick, Chapman and Davies⁹ and Rada *et al.*¹⁸ described the importance of individualised clinical evaluation and resulting guidance, with consideration for the abilities of the patient and their carer, rather than pursuing epidemiological approaches.

Theme 2: Care Planning

Owens, Mistry and Dyer¹³ identified a role for the dental team in reviewing the Health Action Plan¹⁹ for a person with a learning disability, where medications which may impact oral health for example, can be identified.²⁰ Shield *et al.*²¹ introduced Dental Passports to accompany Hospital Passports¹ across an NHS Trust area. Bhagat *et al.*²² and Morley and Lotto²³ researched the efficacy

of incorporating oral care education into undergraduate nurse education. This has now been partially realised by specific listing of oral care within an element of the 2018 Nursing and Midwifery Council curriculum for nursing students.²⁴ Limited consensus was reached about how oral care could become part of broader healthcare planning, and Curtis *et al.*²⁵ warned of the difficulty encountered when trying to translate research into practice. Four questions appear to remain unanswered regarding an integration strategy:

1. Is basic oral care training sufficient to empower nurses?
2. Can staff be supported to carry out oral care tasks effectively on top of other daily needs for individuals with a learning disability?
3. How importantly does oral care rank when compared to other healthcare needs such as eye care?
4. Who funds the individualised equipment when it is identified for someone's oral care?

and Dyer¹³ observed that around 50,000 people with a learning disability have been inappropriately provided with an electric toothbrush where sensory issues mean that it is not the appropriate choice for the individual. Meanwhile, modified toothbrushes such as multi-sided or curved-bristle toothbrushes can provide better effectiveness when the toothbrushing is carried out by a carer.¹⁵ Toothbrushing carried out by a carer was found to be more effective than when toothbrushing was carried out by the individual – however consideration of the Mental Capacity Act (2005) must be taken when deciding whether an individual would wish to brush their own teeth. An occupational therapist would be well placed to advise an individual with a learning disability and their carer about the correct choice of toothbrush, any sensory considerations, and the appropriateness for the individual to carry out their own oral care.^{17,32}

‘Multi-sided or curved-bristle toothbrushes can provide better effectiveness when the toothbrushing is carried out by a carer.’

Discussion

Blocking of orthodontic or maxillofacial referrals^{26,27} or inappropriate treatment decisions such as extraction of teeth without properly assessing the ability for the patient to tolerate a removable appliance and plate in their mouth^{9,12,18,180} were found to be disenfranchising people with Down syndrome or Cerebral Palsy, despite identified benefits when all factors are considered during care planning.

The RNLD can advocate for adapted communication,²⁸ behaviour management approaches,^{18,29} how an individual reports pain,²¹ reasonable adjustments, ability for the patient to consent, and realistic care plan expectations³⁰ including perceived need for sedation.^{13,18} Rada *et al.*¹⁸ suggest success in dental case management of the person with a learning disability can be achieved if the nurse liaises between support staff in the residential setting and the dental team.

Chadwick, Chapman and Davies,⁹ Garcia-Camillo *et al.*³¹ and Owens, Mistry

Recommendations

Many of the research papers called for further investigation into why oral care is either overlooked, or why individuals are resistant to the process of daily oral care within community learning disabilities settings.⁹ This author found a paucity of existing research which considered the cross-sectional impact of a learning disability alongside an autistic spectrum condition,^{24,33} sensory processing disorder,^{30,18} behaviour that challenges care services^{29,18} or a mental health condition^{7,14} which may necessitate being in inpatient or offending behaviour settings,^{8,34} and the possibility of resulting homelessness.³⁵ Consideration of these additional challenges in addition to a learning disability should be considered in future collaborative studies, which should include dental, nursing and care staff who work in this diverse range of settings.

It would be reasonable to place some of the burden of oral care for this population of about 1.5 million people on the dental team,

through familiarity with common health conditions associated with this population group, consideration as to making sensory adjustments to the dental setting, and making modifications to how treatments are carried out.¹⁷

A need for education and training for both healthcare professionals and family carers was highlighted across several research papers,⁹ and the voice of service users must be represented more prominently than they have been to date.^{16,36}

Service improvement proposal

The format of the project required that one of the derived themes be selected for a service improvement initiative; the Docherty and Smith³ framework was used to accomplish this. Since Theme 2 (Care Planning) appears to contain several uncertainties about how it should be implemented, the concept appears to be too immature to be couched in an auditable improvement cycle format.

To incorporate all concepts from research

and nurse leading the training, with the key worker and the person with a learning disability, in their usual setting where oral care is undertaken.

Stage 3: A multimedia (short film and printed materials) package can be used for staff meetings to reinforce core messages. It is expected that this package will be used in a staff meeting at the community residential service within three months of the face-to-face interactive training and assessment.

Audit: A cycle of a PDSA³⁸ service improvement should take no longer than three months if the NHS Model for Improvement is used.³⁷ If shortcomings in any of the three stages have been identified, an After Action Review³⁹ should be undertaken, using a structured half-hour meeting format which identifies and proposes changes, to be tested in the next run of the three stages. If the training has fulfilled all of its intended goals, consideration can be given to how the training model may be replicated on a broader scale.

‘A need for education and training for both healthcare professionals and family carers was highlighted across several research papers.’

and current successful training strategies taking place within healthcare settings, a three-stage approach emerged, to be placed within the PDSA (Plan-Do-Study-Act) service improvement cycle.^{37,38}

Stage 1: An interactive training session which incorporates a scene about supporting a person with a learning disability to successfully attend a dental visit, acted out by professional performers with learning disabilities. Following this will be a joint presentation between a dental professional and a nurse, outlining the link between poor oral health and systemic illness, followed by reasonable adjustments to communication and behaviour support, appropriate oral care products and concluding with information about signs and symptoms that should prompt a dental referral.

Stage 2: Following on from the training session, a personalised observation and suggestion session alongside a basic oral health assessment (the auditable component) will be undertaken by the dental professional

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